

THE CARE OF THE ELDERLY.

(with special reference to Foresthall Institution, Glasgow)

by

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Facts canam; sed erunt qui me finxisse loquantur.

Ovid.

Facts do not cease to exist because they are ignored.

Aldous Huxley.

Facts are sacred. Discussion is free.

C.P. Scott.

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CONTENTS

	<u>Page</u>
I. <u>Introduction</u> General remarks.	1
a) The Rising Proportion of Elderly in the Population.	6
b) The Causes of Ageing.	10
c) The Results of Ageing.	14
d) The History of the Care of the Elderly.	17
e) Difficulties in Caring for the Elderly.	25
f) The "Aged" opposed to the "Chronic" Sick.	40
g) Other surveys of elderly people.	42
II. <u>Survey of Foresthall.</u> General remarks.	53
a) Part III accommodation.	56
b) The Casuals.	71
c) The Hospital (i) in general.	80
(ii) survey of hospital patients	103
Method of investigation	105
General findings.	106
A. Medical assessment	117
Diagnosis and causes of bedfastness.	122
Central Nervous System. General findings.	126
Hemiplegia	132
Muscle power	137
Weakness	139
Involuntary movements	141
Speech	143
Mental state	144
Diseases of joints and muscles	162
Cardio-vascular System. In General.	171
Blood pressure.	175
Pulse	181
Cardiac insufficiency	185
Cardiac murmurs.	190
Respiratory System.	193
Gastro-intestinal System.	200
Urinary Tract.	208
Incontinence.	210
Fractures.	224
Malignant conditions.	226
Blood Disorders.	228
Hearing.	234
Sight.	237
Skin Disorders.	239
B. Social assessment.	245

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Introduction.

I. The aim of this thesis is to discuss the problem of the care of the elderly, with special reference to the Glasgow ex-Poor-Law institution known as Foresthall. The subject of the helpless aged has come into great prominence in our time: in the last decade many investigations have been made in different parts of the country, and strong views have been expressed in published surveys and in the medical journals. All investigators are agreed that those former workhouse institutions, where so many decent citizens have to find asylum in their old age, have long been in need of reform, both in their hospital sections and in their Part III accommodation. Many improvements have been carried out, and elderly people, formerly destined to spend their remaining years in bed, have been restored to activity and enjoyment of life in a number of progressive geriatric units throughout the country, notably that of Dr. Warren in the West Middlesex Hospital at Isleworth.

The problem of the elderly patient doomed to life imprisonment in bed was first brought to the notice of the present investigator in the acute medical wards of Professor Alstead's unit at Stobhill Hospital. In spite of Professor Alstead's deep concern at their plight, the aged were regretfully regarded by the staff generally as "old chronics" who would unprofitably fill up beds urgently needed for acute cases. There was little knowledge of /

of geriatric technique, and no time to carry it out. And so such patients tended to be left to moulder in bed, and were eventually dumped in Foresthall, to lie there until they died. To have to break the news to one of these old people that removal to Foresthall was imminent was a sad and difficult task.

As a result of the concern felt for such cases, I took an appointment as medical resident to Dr. Warren's wards at Isleworth, to learn at first hand what geriatrics could do for the bedridden. There it was at once observed that elderly patients - such depressing intruders in wards of younger people in process of being cured - bear a very different aspect in wards specially devoted to the elderly, to which they have been admitted as welcome and - if humanly possible - remediable cases. Dr. Warren's routine was carefully studied, the method of admission, examination, diagnosis and treatment, the return home or transfer to Home or Hostel, the careful follow-up, the close contact maintained with the relatives, the help obtained from almoner, physiotherapists, occupational therapists and chiropodist. The metamorphosis of an utterly hopeless helpless patient into an active energetic and everlastingly grateful one was observed again and again; and when demonstrations of this modern alchemy were given to visiting doctors, matrons and nursing sisters, it was not surprising that the spectators could never refrain from spontaneous outbursts of applause.

After six months experience at Isleworth, I took up the post of resident doctor at Foresthall Institution, in order to gain /

gain inside information of the conditions prevailing there, to make a detailed survey of the patients in the hospital section, and to attempt to introduce modern geriatric practice. The moribund appearance of the wards (e.g. 95 per cent. of the female patients were bedfast), would have been daunting to anyone who had not known Isleworth, but no pupil of Dr. Warren's could easily give way to pessimism. The buildings were no worse than in many another ex-poor-house hospital; there was obviously as high a percentage of devoted nurses as would be found anywhere; all that seemed to be needed was some knowledge of geriatric procedure and helpful co-operation from all concerned. The nurses have more than fulfilled the expectation of their ready help in any work for the good of the patients and their quick intelligence in assimilating new ideas of treatment; but other co-operation has - to understate the case - been lacking. A studied attempt has been made in this thesis to describe obstruction in terms of dispassionate moderation: to omit all reference to it would be to falsify the report of geriatric progress at Foresthall Hospital in the past two years.

The survey of the Institution in general was made during my first six months at Foresthall (September 1949 to February 1950) as sole qualified doctor for 640 Hospital patients and 500 inmates of Part III. In order to have time for the detailed survey of the patients, the next six months were spent working in the Hospital without obligatory hospital duties, (and without acknowledged right to prescribe treatment) on a Christina Hansen research fellowship.

I continued to hold the research fellowship from September 1950 to September 1951 with, in addition, the honorary position of Junior Hospital Medical Officer for the female wards, which carried with it sufficient authority to institute the very important geriatric advances described in chapter III.

In the section on the medical assessment of the Foresthall Hospital patients, my aim is to describe the medical conditions encountered, with special emphasis on such disabilities as occur chiefly in the elderly, and particularly in the bedridden elderly; in the section on social assessment, the purpose is to find out why the patients were in hospital and not at home. In the chapter on treatment, prognosis, reasons for confinement to bed, and difficulties encountered during treatment are discussed; and again most emphasis is laid on conditions frequently occurring in the elderly, particularly the elderly in "chronic" hospitals. The investigation is concerned chiefly with conditions in which treatment differs in some important respect from that carried out in younger patients, there is no intention to describe diseases which occur more frequently in younger patients and for which the treatment is the same at all ages; there is no attempt to encroach on the province of the text book of medicine, but only to contribute some further facts to the literature of geriatrics.

As a necessary preliminary to the detailed description of Foresthall Institution (chapter II), and the report on the treatment carried out on the Hospital patients there (chapter III), some introductory sections have been composed, in order to put Foresthall /

Foresthall Hospital in its proper setting, in relation to the history of the problem of the elderly, and to the difficulties of coping with that problem which confront the world today.

According to Census (1948), in Great Britain

there were 1,000,000 people aged 65 and over.

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Year	Male	Female	Total
1931	1,071,314	1,316,377	2,387,691
1946	2,821,000	2,757,000	5,578,000

According to Census (1946), in Scotland there

was a 17% increase in the total population, but the number of people aged 65 and over increased by 100 per cent.

According to Census (1946), in the U.S.A.

there was a 7% increase in the total population, but the number of people aged 65 and over increased by 100 per cent.

The average life expectancy of life has increased

from 47 years in 1870 to 70 years in 1946.

Great Britain	England and Wales
68 yrs.	68 yrs.

THE RISING PROPORTION OF ELDERLY IN THE POPULATION.

a). Many figures can be quoted to show the increasing number of elderly people in the countries of Western civilisation. It has been definitely established that the number of the elderly has increased not merely in a normal proportion to the increased population but to a much greater extent.

According to Warren (1948)²¹⁷, in Great Britain:

	Those aged 60 and over			Total population
	<u>Men.</u>	<u>Women.</u>	<u>Total.</u>	
1901	1,071,519	1,336,907	2,408,426	37,000,000
1944				47,628,000
1946	2,828,000	3,759,000	6,587,000	

According to Crew (1946), in Scotland between 1861 and 1939, the total population increased by 63%, but those aged 65 and over increased by 186 per cent.

According to McGraw (1949), in the U.S.A. between 1900 and 1940, the total population increased by 73%, but those aged 65 and over increased by 192 per cent.

The average length of life has increased from ancient to modern times:-

Early Iron and Bronze Age.	1838-1854.	1945
Greece 18yrs.	England and Wales. 40.9yrs.	U.S.A. 65.8yrs.

The expectation of life at birth (Warren 1948)²¹⁷:-

	Men.	Women.
1891-1900	44.1	47.8
1942	61.7	67.4

The/

The expectation of life at 60 (Stocks 1950):-

	Men.	Women.
1900	12.9	14.1
1945	15.4	18.1

It is expected that $\frac{1}{2}$ the girls now being born will live to 75 and $\frac{1}{2}$ the boys to 70. Stocks also notes that in 1901 persons over 65 per 1000 of the population = 47; in 1947 " " " " =105.

Rowntree (1947) states that there are $5\frac{1}{2}$ million of people of pensionable age = 12.5% of the population and that in 50 years it will be 19% of the population.

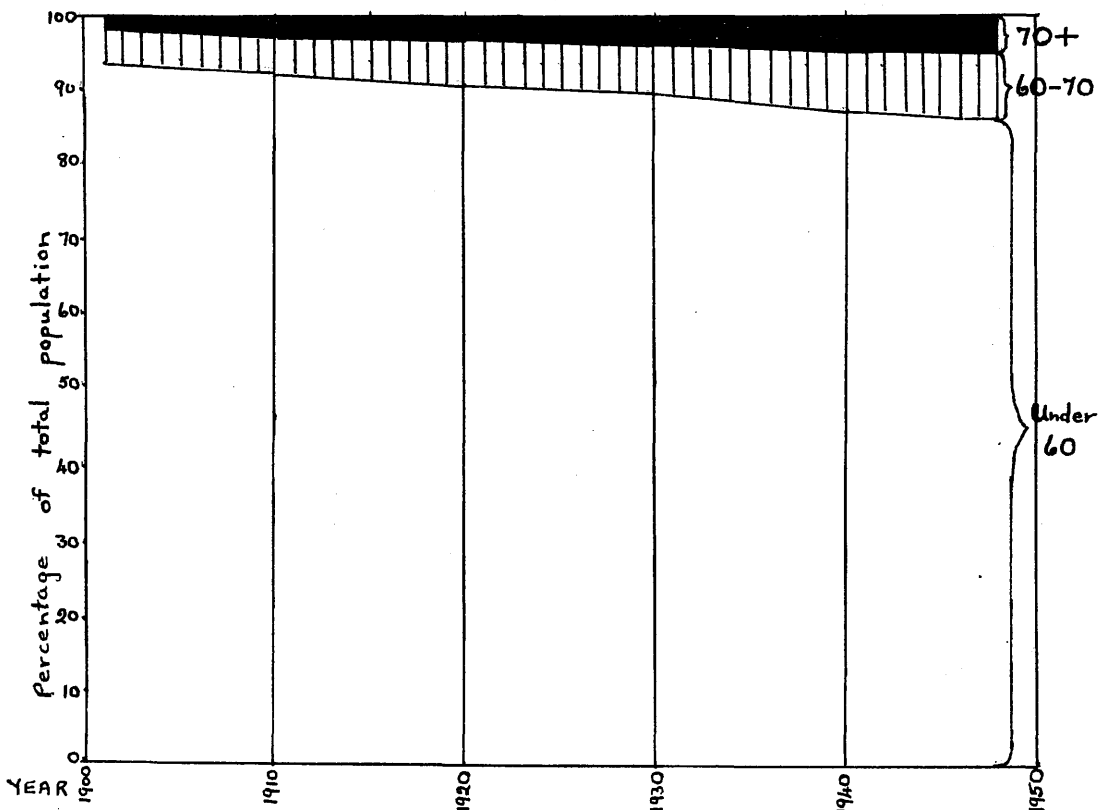
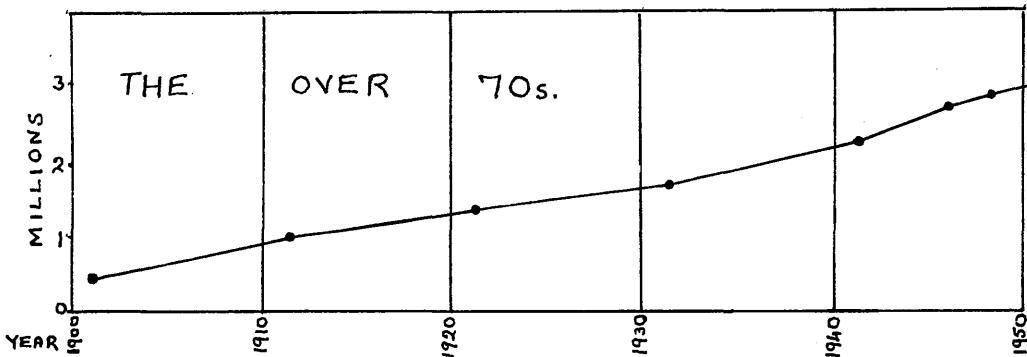
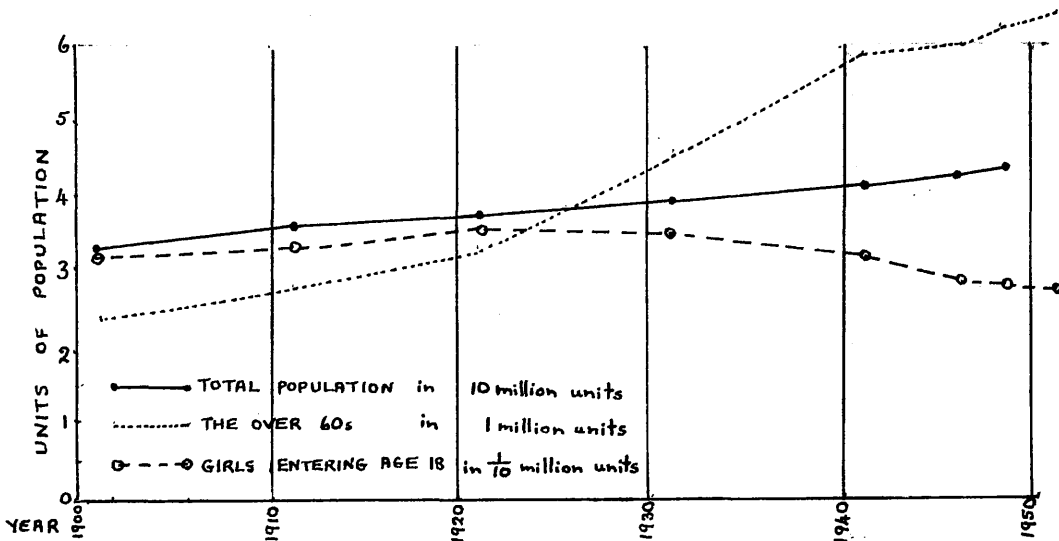
The sex difference in longevity is interesting, but is merely a repetition of the higher stillbirth and infant mortality rates among males. It was thought (B.M.J. 1949)³³ that working conditions increased male mortality, but as working conditions improved, both male and female mortality fell.

The report of a Royal Commission³⁴ stated that the increase in the population is due to the steady fall in the death-rate associated with advances in medical knowledge, in sanitation and in standards of living. According to Cosin (1948), Public Health and State Medicine, having concerned themselves with the prevention of many of the epidemic causes of death during the last 100 years, must now turn to the situation produced by the success of such a policy. Warren (1943) states that the increase in the number of the aged is due to the steady practice of preventive and industrial medicine, and is therefore a problem brought about in part at least by the medical profession and which can no longer/

longer be ignored by them.

The present generation of elderly people must, to a great extent, owe their longevity to improvements in the prevention of disease in an indirect fashion, because extremely few can give any history of having had a disease from which they would have died but for the intervention of medical science. The effects of the recent advances in curing disease will not be seen until the present generation of infants who have not died of their gastro-enteritis, and adults who have been cured of their pneumonias, have had time to grow old.

The Increasing Elderly Population. (England and Wales.)



The Causes of Ageing.

I.B).

"The mechanism of ageing is a field where even the ground-work has yet to be done. The Geriatrician has plenty to do in applying existing medicine to old people and in remedying by exposure the disgraceful conditions under which some of them live." This paragraph (from The Lancet 1951)¹⁴² must evoke the whole-hearted approval of all practising geriatricians who have seen the miseries of neglected old age. But no doctor can be indifferent to the investigations of those who concern themselves with the causes of the diseases and disabilities which he treats; and therefore it is interesting to note the observations of the learned journals on recent discoveries or theories on the causes of ageing.

Korenchevsky (1949) considers that many theories of senescence are built on insecure foundations. Physiological senescence is often complicated by pathological features and diseases which are not necessarily associated with normal old age. He suggests auto-intoxication with metabolic waste products and nutritional experiments as lines of research into the causes of ageing. He notes that hypoplasia or atrophy is one of the most important and typical changes and features of ageing. No feature of senescence can be regarded as specific for old age only e.g. grey hair, arteriosclerosis.

Thomson (1949)²⁰² expressed his views to this effect: "Man has aged considerably before he is born, continues to age rapidly in youth and more slowly as life advances. Very little is known about the process of ageing though we are beginning to know a little about the disorders of age. Is senescence inevitable?

The/

The time of onset varies in different people, families and races. It is by no means universal. Saxton showed that growing rats fed on a properly balanced but reduced diet lived much longer and had signs of ageing further postponed than a similar group on an unrestricted diet. Even in the human body, ageing is not a uniform process. It may have something to do with humoral changes, perhaps a suprarenal cortical deficiency. Progeria and the sudden appearance of senescence after mental or physical shock are interesting phenomena."

Bergman (1948) noticed that premature pathological ageing in Japanese concentration camps had all the features of ageing, both physical and mental.

Korenchevsky (1948) notes that ovariectomy accelerates ageing in rats but Hans Bab (1948) states that the effects of ovariectomy and castration are not the same as ageing, though they have some features in common.

Vernon and McKinley (1946) tried the effects of vitamin and hormone treatment on senile patients because of the similarity between senile symptoms and those resulting from vitamin deficiency and from deficiencies in thyroid, adrenal and sex glands. Small groups of elderly male patients (already on an adequate diet) were treated with small doses of vitamins B and C; with increased doses; with androgenous hormones. No evidence was obtained of any general improvement in intellectual efficiency or psychomotor capabilities.

Mason (1950), writing of biochemistry in the old, states that the 17 ketosteroid urinary excretion decreases; low sodium values/

values are found, which might be expected to be accompanied by a diminished extracellular fluid volume; such a state of affairs would prejudice the chances of the elderly in such conditions as diarrhoea, diabetic coma and heat exhaustion.

Albright's (1951)¹⁴² concept is of a human adrenopause, a steadily diminishing production of adrenocortical hormones starting at various ages between 60 and 90.

Stewart (1947)¹⁹⁴ points out that although there is a belief that the life of an organism is limited and that senescence with ultimate death is its necessary fate, yet certain single-celled organisms are potentially immortal. The actual duration of life is the resultant of the effects of inheritance and environment. He notes a fall in B.M.R. with age (or not with age but because of some pathological process?), and that among the elderly there is an increased number with achlorhydria and blood sugar curves like diabetics without the symptoms of diabetes; yet, he observes, the cells have not lost their capacity for new growth, since wounds in the elderly heal.

Olbrich (1947) contributes his observations on the problems of senescence as follows:- Ageing is a physiological process in which involution is the predominant feature. Senescence is not in itself a disease though it leads to an increased susceptibility to disease. Tissue dehydration, loss of elasticity of connective tissue, cellular atrophy, increased cell pigmentation and fatty infiltration are generally considered to be structural changes inherent in the ageing person, e.g. emphysema in the aged is caused by capillary bed reduction.

And/

And so on. The investigations of the scientist have proved themselves again and again to be of infinite value to the clinician. The geriatrician cannot practise in a void, any more than any other doctor: he could so easily become either a kindly, soothing, ignorant medical nanny, or a pernicious medical Sairey Gamp, according to his disposition. But the geriatrician, though he regards geriatrics as a specialty just as much as paediatrics, soon comes to realise that he is less a specialist or a scientist than a general practitioner. Old people are liable to most of the ills that flesh is heir to; and though senescence is not in itself a disease, the problem of the care of the aged has at the present time all the urgency of an epidemic, which the geriatrician must treat with all the means at his disposal, without diverting his energies to discovering why people age.

I.c).

The Results of Ageing.

Though most people can readily give a list of what they consider to be the general signs of ageing, it is remarkable that each sign by itself is in no way diagnostic of advanced age. The signs of ageing in the various systems rarely proceed at the same rate, and some people exhibit many superficial signs of ageing while their mental and physical vigour remains unimpaired. In others, one vital part appears to degenerate more quickly and causes incapacity or even death, while the rest of the individual appears unaffected by age. Crockett and Exton-Smith (1949) quoting Nascher (1919) point out how often the manifestations of old age simulate the symptoms of a disease.

The hair of the elderly person tends to become scanty and to lose its pigment, turning grey or white. The nails become thickened and show longitudinal ridges. The skin is thin, wrinkled, dry, and pigmentation and ecchymoses are frequent. There is an increased sensitivity to both cold and heat. There is diminished power of accommodation in the eyes, and cataract is common. The teeth (if not already removed) appear longer because of atrophy of the gums, and tend to become loose and fall out. The senses of **smell** and taste may be diminished. Auditory acuity is lessened and dizziness is frequent. Arteriosclerosis and hypertension are common and there is a reduced tolerance for exercise. With reduced muscle power go tremor and uncertainty in movement. There is a reduced memory for recent events and a tendency to live in the remoter past. Depression and lack of interest are common; and/

and the individual's previous personality becomes exaggerated. Sleep is short but drowsiness frequent. The elderly person appears to become smaller in stature and kyphosis may develop.

Sheldon (1950) considers that natural old age makes itself felt in most people at 70. In an anonymous article in the Lancet (1950)⁴¹ - "Old Age as a Disability" - there is an excellent account of the feelings of an elderly person. There are noted among other things, that no one should feel really aged before 75; that the elderly person suddenly feels a wave of intimate sympathy with the frail. Intelligence, imagination, enthusiasm and capacity for work - all are there, but control is waning. There is sudden vertigo especially if turning or stooping. The question of balance, especially on slippery surfaces, frequently arises. He becomes easily tired on physical exertion and short of breath. But, he asks, when physical work is beyond him, where can he turn for mental relaxation? Companionship is lacking - environment is changed and contemporaries drop by the way. Age is often spent in comparative seclusion. Lapses of memory or absent-mindedness occur. But, he concludes sadly, he cannot tell whether or not he gives the impression of senility.

Is senility indeed the mot juste for the state just described? What does the term connote? Simply the feebleness of old age, the normal results of ageing, with no implication of condescending pity or disparagement? Many doctors seem to think so, to judge from the number of times one receives with a completely sane elderly patient a case sheet inscribed "Diagnosis: senility". Yet to the layman senility implies weakmindedness, dotage, "second/

"second childishness, mere oblivion,
 Sans teeth, sans eyes, sans taste, sans everything."

It is surely incumbent upon geriatricians to define with some exactness the word senility. Is the medical term for the condition of the wise humorous old man of the above article to be "senile"? Geriatricians will surely refuse to apply such a hurtful word to their patients in general, and will reserve it for those whose mental faculties have weakened with age. Cicero, in his De Senectute, says: *Ista senilis stultitia quae deliratio appellari solet, senum levium est, non omnium.*

I.d).

The History of the Care of the Elderly.

The problem of the care of the elderly is no new one, but in the past it was inextricably bound up with the care of the poor in general, and it is only in modern times that the aged have been considered as a class by themselves.

Before the Reformation the poor received "broken meats" and a dole of money at the monastery gates, and the elderly long term sick were admitted to the monastic infirmaries. This Christian duty was an ancient tradition of the monasteries and must have been of great value to the prestige of the Church; but in practice, being unorganised and indiscriminate, the kindly charity of the monks tended to increase the numbers of applicants for their alms, and to discourage independence.

After the dissolution of the monasteries (1536), there is no evidence that the problem of mendicancy became worse, for their sense of responsibility and haphazard charity continued to exist among the better sort of landed proprietors, and right up to modern times the best lords and ladies of the manor considered that it was a matter of noblesse oblige, or Christian virtue, to help the poor and care for the aged.

The bands of beggars who alarmed society in the early Tudor reigns were recruited from many sources - the unemployed, the unemployable, veterans of the wars, and tramps. The nursery rhyme about the "beggars coming to town" commemorates the existence of a dangerous problem which exercised the minds of magistrates, Privy Councillors and Parliaments. To meet the exigencies/

exigencies of unemployment in Elizabethan times, the Poor Law took shape in a long series of enactments, which were enforced locally by Justices of the Peace (1601). Beggars were no longer allowed to roam the countryside in menacing bands; from the compulsory poor-rate tax, poor relief was given and accommodation for the helpless -including the aged, and the Overseers of the Poor were instructed to buy material to provide work for the able-bodied unemployed, either in Houses of Correction or in the parishes. Thus it came about that in England the worst horrors of unemployment and helpless age were not suffered to the same extent as on the continent, and there was nothing to compare with the French Revolution. Of course the personal liberty of the poor was not a thing of which much account was taken. By 1688 it is alleged that one fifth of the whole nation was in receipt of alms, which were accepted in general without shame; and in fact rate-payers often complained of the unconsidered generosity of parish relief, which caused the anomaly that a man on the parish dole often lived better than a self-supporting workman. By the Act of Settlement in Charles II's reign, a man might be "deported" from any Parish in which he tried to settle to improve his fortunes, and returned to his own Parish, lest he become at some time a burden on the rates of a Parish to which he did not belong. This restriction on liberty and enterprise did not help unemployment. The abuses of the Poor Law in 18th Century England were due to lack of central organisation and control: the problem of the poor was dealt with by every petty parish separately.

In Scotland the Poor Law system was different and according/

according to historians there was much greater reluctance to accept alms. There was no compulsory levy, and Poor Relief was an obligation not on the State but on the Church. The deacons distributed alms to the necessitous, and licences to beg from door to door were granted by the Kirk Session. In spite of the alleged rugged independence of the Scottish character, many of these licensed beggars were respected figures, such as Edie Ochiltree in Scott's "Antiquary". But as in England at an earlier date, there were still rough bands of unlicensed beggars terrorising the countryside.

At the end of the 18th century, low wages and the high price of food brought the poorer classes into danger of starvation; and so further steps had to be taken. In 1782 Gilbert's Act aimed at establishing reformed workhouses, and separating the able-bodied from the helpless. In 1795 the Speenhamland Act, instead of fixing a minimum wage, directed that wages should be supplemented by a dole from the Parish, according to the price of bread, thus pauperising even the honest labourer, and relieving his employer of responsibility. The new Poor Law of 1834 abolished outdoor relief and provided that applicants for public alms should receive relief only if they came into the workhouse. A certain Edwin Chadwick, a reformer in advance of his time, held that the destitute should be divided into distinct classes, - the children, the aged, the insane and the sick, - and housed separately; but his recommendations were left out of the Act. "The need to make life in the workhouse less attractive than employment in field and factory was the principle on which the Commissioners worked; and as they could not raise/

raise the attractiveness of employment by enforcing a minimum wage, they felt obliged to lower the standard of comfort in the workhouse. Moreover, in their preoccupation with the problems of the adult workman, the Commissioners overlooked the justice and expediency of treating old people, children and invalids with suitable tenderness."²⁰⁶ The national and centralised character of the Act made it easier to carry out improvements, but its harshness and tyranny were very distasteful to the poor, for it interfered with their liberty and broke up family life. The name "Workhouse" acquired a hated significance: it was a bogey threatening the future of all humble people, and by none was it more feared than by the respectable aged.

In 1867 provision for the sick was established in the workhouses of the London Metropolitan area, and infirmary blocks were subsequently built in many of the larger provincial institutions. Admissions to these infirmaries was by order of the Relieving Officer, and the administration remained in the hands of the Master of the Workhouse. In time a trained nurse was installed as Matron, and it became the usual practice to appoint a married couple as Master and Matron. Such persons were not infrequently of a hard-hearted, mercenary, and cheese-paring disposition, - the prototypes of Dickens's Bumbles, who, by a sort of poetic justice which is obviously wishful thinking, "became paupers in that very same workhouse in which they had once lorded it over others, ... and Mr. Bumble had not even the spirit left to be thankful for being separated from his wife."

The/

The policy of offering adequate outdoor relief instead of only workhouse accommodation was reverted to following a Royal Commission in 1895; and on the findings of another Royal Commission in 1905 the Old Age Pensions Act was passed in 1908. A pension (subject to a means test) of 5/- a week was granted to those of 70 and over, with the immediate result of a great reduction in the extreme need for outdoor relief. Further Acts were passed during the following years to increase this pension and to modify restrictions; and in 1925 came the Old Age Contributory Pensions Act. Though the pensions remained inadequate and poverty in many cases was acute, these were all steps in the right direction. Throughout this time, patients, most of them old, requiring continuous care were housed in the infirmaries of the Poor-house institutions. As the Poor Law authorities were responsible for both the social and the medical needs of these patients, they could accept with composure the vicarious burden on their hospitals which was compensated by relief for other parts of their administration. Indeed, having regard to the limited staff and equipment used in these hospitals, it was even possible that an elderly person not requiring medical attention or skilled nursing could be provided for as economically in a hospital bed as elsewhere.

In 1929 the functions of the Board of Guardians, i.e. administering the Poor Law, were taken over by the Public Assistance Committees of the local authorities, who thus inherited the poor-house buildings and the accumulated detestation of the Poor Law. Moreover, the local authorities could now, if they chose, transfer/

transfer the infirmary of a Public Assistance Institution to the Public Health Committee; and in this way some of the best equipped hospitals for the poor were turned into Municipal Hospitals. With the raising of the standard of these hospitals went a degree of exclusiveness in the choice of patients. The Relieving Officer could not admit a patient to a Public Health hospital and the statutory right of admission of the destitute - the best feature of the Poor Law - began to be lost. In 1939 conditions for the destitute became worse because of the upgrading of many of the still existing Public Assistance Infirmaries into Emergency Medical Service Hospitals, and the overcrowding of the remaining Infirmaries by evacuated patients from danger zones. War damage and the shortage of nurses subsequently made conditions even worse. To try to redress the balance, there were continued efforts to relieve poverty outside; and in 1940 supplementary pensions and other welfare measures were organised by the Assistance Board. (But many were still reluctant to accept what they regarded as charity).

In July 1948 the remaining Poor Law infirmaries, still housing deprived children, the aged and infirm and the destitute of all ages, as well as the chronic sick, were transferred to the Regional Hospital Boards. The responsibility of the new authorities is limited sharply by an Act of Parliament to "hospital care"; and faced with the unpleasant facts of long waiting lists and too few beds, they naturally view with concern the possibility that their hospitals may contain patients who could be cared for more economically elsewhere, and who are in any case not their problem.

The/

The apparent intention is ~~to~~ leave ^{to} the local authorities the domiciliary and institutional care of such persons as have no urgent need of "hospital care"; but much hangs on the interpretation of the medical requirements which normally necessitate hospital admission. The best feature of the Poor Law was the statutory duty of the relieving officer to find a place in hospital or institution for anyone who needed it. Now no one has such a duty. A person may be too weak for a welfare institution, yet not ill enough for hospital. By the Act of 1948 it is the duty of the local authority to provide residential accommodation for those persons who by reason of age, infirmity or any other circumstances, are in need of care and attention which is not otherwise available to them; but it ~~is~~ permitted to make provision only for residents suffering from minor ailments or illnesses ordinarily nursed at home. On the other hand it is the business of the Minister of Health, through the Regional Hospital Boards, to provide hospital accommodation to such an extent as he considers necessary to meet all reasonable requirements. The definitions given by the Ministry of Health of Sick and Infirm are as follows:-

Sick: (responsibility of R.H.B.). Patients requiring continued medical treatment, also supervision and nursing care, including very old people who though not suffering from any particular disease are confined to bed on account of extreme weakness.

Infirm: (responsibility of L.A.). People who are normally able to get up and who could attend meals in the dining room or nearby dayroom, including those who need a certain amount of help in dressing, /

dressing, toilet or moving from room to room, and who, from time to time , may need to spend a few days in bed.

The class of frail ambulant forms one of the biggest difficulties. According to the preceding definitions they should be included with the Infirm, but help as described above, is seldom available in local authority institutions; and as the frail ambulant frequently revert to the Sick class, more supervision than that of an Institution official is required.

That is the position at present, and the extreme difficulty of adequately coping with the elderly population, when two separate authorities are involved, is glaringly obvious. The original reason for the existence of Poor Law institutions (i.e. to provide employment for the unemployed and those who did not wish to work) explains to some extent the lack of comfort and the administrative attitude. Once such institutions were created, it is easy to see how all the "problems" of the surrounding community - the aged, the infirm and the imbeciles - requiring accommodation of some kind, came to be dumped in them, giving rise to the present heterogeneous state of both the hospital and the "Part III" accommodation of these ex-poor-houses.

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Difficulties in Caring for the Elderly.

I.e).

The path of those pioneers who seek to work out a systematic plan for the care of the elderly, whether medically or socially, is beset with difficulties. There are the increasing numbers of the elderly themselves, who now constitute an unprecedented proportion of our population; the inveterate neglect of their diseases and lack of skill in managing their disabilities; and the hopelessly inadequate supply of hostels and eventide homes for those who cannot fend for themselves, have no relations who can care for them, and yet do not require hospital treatment.

Formerly the family was a biological unit composed of parents and their children, and the mature and able-bodied carried a load of dependants, - the immature and the aged. But then the birth-rate was high, and though the infant mortality rate was also high, families tended to be large; the expectation of life was low (in 1845, 40 years); there was little employment of women outside the home; travel was difficult; and, in a mainly agricultural community, few ever retired completely from work. Therefore there were few elderly people who were completely dependent, and the burden of those few was distributed among the proportionately larger number of the young and strong. Nowadays the smaller families, the increased expectation of life (1935, 60 years), the employment of women even when married, the scattering of families to different parts of the country and overseas (63% of emigrants are 15 to 44 years old), the compulsory retirement of many at 65 or the inability to continue in heavy industry when strength/

strength begins to wane, -all these factors contribute to the difficulties of present-day life, when diminished numbers of the young and middle-aged find themselves responsible for relatively large numbers of the elderly. (1 person over 65 : 6 of working age. B.M.J. 1949.)³¹

(i). Social Conditions:- Since 95 per cent. of the elderly are to be found in their own homes,¹⁶⁷ most of the problems of their care are domestic ones. Bad social conditions cause great hardship, especially in the cities. The cessation of building during the war, with the additional loss of houses through bombing, has created an acute housing shortage, with consequent overcrowding. Higher standards of living have made many people intolerant of such conditions as in former days they would have endured with equanimity. Then there are those who have been left with houses too large for them, (because of the dispersal of their families, due in some measure to war-time evacuation, conscription, and direction of labour), and with no one to look after them in their old age; there are many elderly people, especially in the cities, living alone. (Sheldon 1950 found that six times as many lived alone in London as in South Wales.) Until recently there was no provision in building programmes for small houses or flats to suit the elderly, and many existing houses are highly unsuitable. The problem affects all social classes. There are those who could afford good lodgings as long as they were working, but have to have recourse to common or "model" lodging-houses when they /

they retire. The shortage of domestic help, even when sufficient money is available to compete with the attraction of wages in industry, produces even among the well-to-do difficulties which formerly did not exist. The home-help service, which was instituted in an attempt to relieve people of all classes of some of their domestic burdens, finds difficulty in recruiting a sufficient number of suitable women.

(ii) Relatives:- Some people consider that the old family sense of responsibility towards young and old is diminishing because the State now provides for all, and not merely for those in dire necessity: many who would formerly have shouldered their burdens in a spirit of independence now feel that it would be foolish not to accept social services which are the inalienable right of every citizen, especially when the alternative involves real personal hardship. Sheldon (1950), however, considers that, from the domestic point of view, the community is already bearing about as big a burden of old age as it can manage. Old people at home are probably no less than 97 per cent. of the total, and in Wolverhampton he found that 90 per cent. of the normal domestic care and 75 per cent. of the nursing care of the elderly was done within the family, although 7.7 per cent. of these old people were causing an excessive strain on those looking after them (57 per cent. on daughters, usually one alone), and robbing them of any chance of leading a normal life. "Their shoulders held the sky suspended", and not "for pay." Sheldon comments that, in spite of all that is said about the decline in the strength of family ties and in a general sense of family responsibility, there seems to be "plenty left." Certainly one needs only to have had the experience of/

of interviewing a few relatives of recent admissions to an acute geriatric unit to realise, from their pale faces and their postures of utter weariness, how much some devoted families will do rather than leave the care of their beloved ones to strangers. Admittedly there are Gonerils and Regans and tactless Cordelias; and sometimes, to the doctor anxiously seeking to make room for a more necessitous case, it seems unreasonable and callous of a daughter or daughter-in-law to refuse to take home an elderly woman who requires nothing but a little care and attention. But before condemning the relative as completely lacking in humane feelings, one must examine the whole domestic background. Consider the case of nice old Mrs. Z. whose daughter-in-law is shrinking with such strange dismay from taking her home; but young Mrs. Z. already has her frail but domineering mother at home, and two young children. Consider the case of sweet little Miss X. aged 80, who might be one of your three unmarried great-aunts; she with her now deceased spinster sisters undertook the entire care of your great grand-parents and saved your grand-parents from all geriatric problems; but your grand-mother cannot look after her now, for she herself has long been a geriatric problem in the home of your mother, who has your father and you to look after in too big a house with too little help, and, being no longer so very young herself, could not possibly cope with two old people, even although Miss X. merely requires her breakfast in bed and some help with dressing; and if you acquired a home of your own that would be of no use either, for it would be a service-flat and you and your wife (or your husband) would/

would both be out all day, or you (or your wife) would need all your energy to look after your own young family. At the present time, such old ladies may well find themselves in an Institution Hospital or Part III, and on investigation one realises that there is no relative whom one can reasonably accuse of neglect and indifference.

(iii). The Elderly at home:- It is easy for those who have had no experience of living with and caring for their elderly relatives to voice their opinion of filial ingratitude and the declining sense of family responsibility. Some elderly people may be an asset in the home, fitting harmoniously into the domestic circle, tactful and kind rather than self-assertive, doing little things to help, keeping house when mother is shopping, or looking after the children so that the parents can have an occasional evening out together. Sheldon (1950) emphasises the positive contribution which old people both can and do make to society, for which they rarely receive the credit they deserve. That is not to say, however, that all the elderly are an asset to society, and it is those others who unnecessarily increase the difficulty of the problem of caring for the elderly. Certainly they are often to be pitied: they have cause to feel depressed when forced to retire before they feel old (Sheldon 1950 points out the considerable gap that exists between the official and natural onset of old age), or when their physical powers begin to fail and they feel that they are a useless burden. Mental and physical disabilities in the elderly unavoidably do cause considerable domestic upset; but even those who appear normal mentally and physically can be a great trial to an already harassed housewife. Constant grumpiness, variations in/

in mood, domineering ways, fussing over trifles, fickleness of appetite, unpunctuality for meals, frequent demands for assistance, boring garrulity, untidiness in habits, -these things, though trifling in themselves, can be extremely trying, when encountered every day in an overworked middle-aged woman's life. Lund (1949) remarks that if the majority of those who have grown old had grown wiser and kinder and less selfish, one would not mind the increase in their numbers so much; but so many apparently live only for themselves. On the other hand Parry (1949) comments that "though there are selfish old people, they are the exceptions; there are plenty of examples of selfish young and middle-aged; so many of the old have worked hard and done so much good that they deserve some consideration at the end of life." Yet not, one feels, to the extent of robbing some female of the next generation of all liberty and ease, and that at a fairly advanced period in her own life, for in the nature of things the daughter who takes care of the aged is herself no longer young. Mrs. B. aged 60, who looks after her husband aged 70 and her mother of 85, runs the risk of breaking down and becoming a geriatric problem herself.

But many old people are themselves only too well aware of the difficulties of their care, and do their best to fend for themselves as long as they can. Sheldon (1950) notes how old people generally treasure their independence, and that 62 per cent. of their normal domestic care is done by themselves. Yet their needs are not for that reason to be neglected by the social planners, for very often this independent type of old person suffers great hardship and causes/

causes considerable trouble to his relations. Familiar to everybody are cases of elderly persons who, even when no longer able to care for themselves entirely, insist on living alone, and refuse to make their home with their families, no matter how affectionate their dispositions and suitable their circumstances. And so the anxious relatives have to visit them daily, sometimes from considerable distances and at great inconvenience, in order to shop for them and make sure that they have not come to any harm. Sometimes such independent old people have to rely on neighbours, - and there are many good neighbours: Sheldon (1950) found that 25 per cent. of the nursing of old people at home was done by neighbours. But as he points out, "good neighbouring depends in part on contiguity of housing and length of acquaintance; it is a difficult social art which has to combine a readiness to help with an absence of undue curiosity about what is going on next door." An ultra-independent elderly person tends to become extremely suspicious and may refuse admittance even to the most kindly and tactful of neighbours; or go to such lengths as an eccentric recluse that there are constant fears of accident or fire. The suggestion of removal to a Welfare Institution meets with frantic resistance: such places not only savour of the Poor Law, but are the end of all privacy and self-respect; and many quiet retiring old people would rather die in utter wretchedness than enter one of them. Even this poor boon may be denied them, for if there is evidence of "queer habits" or uncleanness they can be forcibly removed - even although they are by no means certifiable - and admitted, raging at Fate, to a "chronic" hospital./

hospital. Such extreme misery could be averted, the victims could be rescued and sustained long before they became so derelict, many anxious relatives could be relieved of a beloved but insupportable burden, if only there were Part III accommodation of a tolerable type, with some privacy and decent amenities, no heterogeneous collection of the dregs of the population, and of course no disgrace attached. Self-respecting elderly people ought to be able to secure decent accommodation in such a place (like a room in a sort of old people's hotel, - necessarily non-profit-making - but the £1. 1/-a week which they pay even now would not be a negligible contribution to its up-keep); or in suitable Homes or Hostels or converted mansion houses, where they could retain their independence, have their own goods and chattels around them, and feel secure from eviction should they happen to need to go to hospital.

(iv). The elderly in hospital:- If the elderly hate the word Institution, they equally shrink from the word Hospital, and for this attitude the hospitals themselves have been greatly to blame; for through the indifference of many doctors a tradition has been allowed to grow up that the old go to hospital not to be cured of their maladies, but to die. In former days a household would take such illness in its stride: the family would rally round, or neighbours would help, or a trained nurse would be installed; the household might be upset and the maid might give notice, but there would be plenty of helping hands. And so in the past, as a general rule, none but the very poor and/or friendless aged found their way into hospitals. Perhaps that is why doctors evolved no skilled treatment of/

of the elderly; their old patients were the least valuable members of the community as well as the least interesting clinically. Many hospitals refused to accept any elderly patients at all on the ground that they were not suitable objects for their highly skilled treatment, - that is, they were ill of nothing serious enough to profit^{by} such treatment; and, for the benefit of their medical and nursing students, they reserved all their beds for "good teaching cases," - patients with rare, interesting and often irremediable diseases. Even such hospitals as formerly had a statutory obligation to turn no one away, seldom provided for the aged anything more than nursing care, - (which was of surprisingly good quality, considering the inadequate staffs and the unrewarding labour). The treatment of the elderly was regarded almost as an unskilled occupation for doctors, and therefore it tended to be left in the hands of the less skilled and enthusiastic. And so nothing was learned. The medical staff in charge of such patients had seldom the opportunity (there were too few of them), the knowledge (as Sturdee 1947 points out, many doctors have found that the patients who caused them most trouble were those about whom they were taught nothing in their student days), or the desire (as people who took such despised work were usually in search of an easy life), to do anything for them except prescribe "Rest in Bed". And they took the first opportunity of dumping those unwanted patients into a still more "chronic" hospital, with even fewer facilities; and attempted to salve their consciences by reporting that "this patient does not require any further medical (or surgical) treatment". How could they have more treatment, when they had not had any, as Alice said to the March Hare /

Hare when he offered her more tea?

Warren (1946)²¹⁴ points out that it is surprising that the medical profession has been so long in awakening to its responsibilities for the elderly patient; and in another article (1946)²¹³ she remarks that little research has been done and little advance made in the treatment of the elderly, which has never captured popular interest or developed into a speciality, and that this is reflected in the scanty literature on the subject, there being no British Journal of Geriatrics, though the first medical work appeared as long ago as 1724. Some of the reasons for this lack of interest may be, Dr. Warren suggests, that the patients are not very remunerative; the time spent in getting their history and the patience required in examining them are immeasurably greater than in dealing with younger patients; many of the conditions from which they suffer take much longer to ameliorate, and cures are often unobtainable; they have ceased to be engaged in active work of an essential nature and therefore their return to health is less advertised and less spectacular; the death-rate is much higher and the pathology often multiple. But, although treatment may prove unprofitable to the individual practitioner, hospital or institution, lack of treatment is proving most unprofitable to the community. As noted in the Lancet (1949)¹³⁵, to care for 50,000 sick old people in hospitals, and a further 55,000 in homes and institutions, costs from £20,000,000 to £25,000,000 a year, and this represents only one in sixty of those of pensionable age.

In view of all the difficulties of the present era, the task of caring for the elderly at home becomes in most cases an intolerable/

intolerable burden when illness supervenes. No hospital is now compelled to grant a patient immediate admission as the old Poor Law hospitals were, on instructions from the Relieving Officer. By acute hospital standards, the patient may not be ill enough to require hospital treatment, and an urgent request for admission by a general practitioner may mean no more than that his care has become too heavy for human endurance at home, and that a local authority Home will not receive him, because he is not well enough. Many elderly people with trivial disabilities which, if caught in time, could be treated outside (given the proper facilities) are allowed to swell the hospital waiting lists; and meantime they languish at home neglected both from the nursing and therapeutic angles, until they are beyond hope of cure and the health of their relatives has broken down. The elderly fear being put to bed for their maladies; they think that if they once go to bed they will never rise again; and so they are more prone to depression when illness forces them to bed. As Bluestone (1947) points out, there are few things in this world which humiliate, depress and demoralise people more, or make them more dependent on their relatives and friends than prolonged illness, which blights their lives and saps not only their physical vitality but also their spirit. This is particularly true of the elderly, and as a rule they resist as long as possible the idea of being consigned to "chronic" hospitals, and foresee no good to themselves from the spirit of hopeless resignation which pervades them. Lowe and McKeown (1950)¹⁵⁸ note that the chronic sick are stated to require between 2 and $2\frac{1}{2}$ beds per 1000 of the general population, and/

and that in Birmingham 12 per 1000 of people over 65 are in hospitals for the chronic sick.

The "Abandon hope" attitude of "chronic" hospitals is very trying for devoted relatives: having succeeded at last in securing for their dear one a hospital bed, and that nursing care which they have not the strength to give, they feel that they have betrayed him. It also opens up opportunities for the unscrupulous, who convinced that granny cannot be cured and is in hospital for good, quickly eradicate all traces of her previous niche in the world; while she, torn from her usual environment and sure that she is sent here to die, becomes either violently aggressive or utterly inert, turning her face to the wall and dying apparently of nothing but grief. The "Abandon hope" attitude is also in a great many cases premature and unworthy of the medical profession. The elderly do recover from illness as younger people do, though recovery tends to be slower and less complete, and for this reason the old in hospitals are impatiently dubbed "chronics". Yet Sturdee (1947) reports that in Surrey, in 1943, 29 per cent. of the chronic sick in hospitals and institutions were under the age of 65, and 10.5 per cent. under 45. Cosin (1948) states that the average morbidity of people over 60 is five times that of the population of all ages; but Davies (1949) considers that it is a fallacy to say that elderly patients are of necessity more troublesome than young ones: by the time they have reached 70, they have steered with a fair degree of safety between the Scylla of carcinoma and the Charybdis of cardiovascular disease; they are no longer harassed by the phobias and obsessions/

obsessions that perplex and confuse the minds of the young and middle-aged; their phobia is a great fear of being sent to bed, for "Folks die in bed," they say. This fear is a sound instinct, as the geriatricians have proved; and when it is realised by old people that going to hospital no longer means being put to bed for life, and that the doctor's chief aim is to keep them out of bed and have them on their feet again, hospital will lose its terrors and hope will no longer be abandoned years too soon.

(v). Old people in Homes:- But what if the old person is still "on his feet", but too precariously to live alone, and yet has no one to care for him and give him just that little attention which he needs. To have recourse to a nursing-home would be folly, for even in the best of those establishments he would receive the worst possible treatment (that is, prolonged rest in bed), at the greatest possible expense. Because of his condition he falls down between the Regional Board and the Local Authority, not ill enough to **qualify** for admission to the Hospitals of the one, and not strong enough to be accepted by the Homes of the other. Boucher (1949) points out what a narrow line divides those old people who are well and those in varying stages of ill health or infirmity; but that it has been decreed that a person is either well and follows his normal existence, or that he is ill and is a candidate for admission to hospital. The frail ambulant are neglected and may come into either category from time to time. Homes for the elderly are not always **ideal** places, and Rudd (1951) reports that in certain areas the neglected poor are found/

found inside and not outside almshouses. But such as they are there are not nearly enough of them: Boucher (1949) reports that in 1948 70,000 aged persons in England and Wales (1 per cent. of the total aged population) were in Public Health institutions and Local Authority Homes; yet many people die in their own homes of no specific disease but plain neglect, and the services of home-helpers and meals-on-wheels etc. are not only difficult to obtain in sufficient quantity, but uneconomic when concentrated on individual cases. If Part III Institutions and Old Peoples' Homes were made more attractive, there would be a still more clamant demand for them and a more glaring shortage. If the Institutions offered some privacy and independence, they would soon lose their old work-house reputation and become places of honourable retirement. If the Homes offered a hope of permanent refuge, and an old person could rent his little "Home" with as much security of tenure as a young person who rents a tiny flat in which to live alone, there would be an enormous demand for such places from all classes of the community, and a consequent relief to the hospitals. As it is, the frail elderly tend to be pushed about from Regional Board to Local Authority, with complete disregard for their feelings; and there exists for the ageing person in a Home the tragic situation that illness means transfer to hospital and the speedy filling up of the resulting vacancy, so that if he does recover he is again homeless, and another expensive hospital bed is blocked by someone who neither needs nor desires it, while hundreds of really ill people clamour for admission.

The/

The plight of the frail elderly of proud and independent spirit, who do their utmost to keep going, is perhaps most of all deserving of sympathetic consideration; but as is noted in "The Aged and the Nation"¹⁴⁸, "it is difficult to infuse the administration with the concern for the individual which is particularly necessary in dealing with old people;" and the Lancet (1950)¹³⁸ deplures "the apathy of statutory bodies who tend to be so strict in their stewardship of public money that public needs are overlooked." The most important essential in dealing with the problem of caring for the elderly is to remember that they are not "lesser breeds without the law", but might very well be ourselves, or some dear old relative or friend. What prevents that charming old lady Miss A., with whom we so enjoy playing Bridge, from being in a Public Institution? Her income, of course, and her good health, and her devoted old servant. But any or all of these advantages might well diminish or fade out. She is rather frail, but belongs to a long-lived family, and may last for ten years yet. How long could she afford the appalling expense of a nursing home? Everybody must know of some lonely old man or woman dying in one of those strange establishments for the elderly where the amount of nursing is in inverse ratio to the amount of expense. And some of us have received into Part III or Institution Hospital those who have out-lived their capacity to pay. In this precarious epoch financial security may well be a myth, and the members of public bodies, when tempted to make callous and unimaginative provision for the care of the homeless elderly, should remember that the story of Haman and Mordecai is a cautionary tale which might apply to other unpleasant destinies.

The "Aged" opposed to the "Chronic Sick".

I.f). Most people still refer to "the aged chronic sick" or merely "the chronics", as if the very fact of being old gave the patient no right to have an acute illness, or to be in any way remediable. Though a high proportion of those requiring a long period in hospital are elderly, a certain number are young people with really chronic, and at the present time, irremediable diseases.

In fact the "chronic sick" are really the unwanted sick, unwanted both by their relatives and the medical profession. Lowe and McKeown (1949) think that the reasons for coupling the diseases of old age with chronic sickness (which is not limited to late life) reflect a natural preoccupation with the administrative problem. Warren (1946)²¹⁴ says that "although there is no accurate or precise definition of the term 'chronic sick', in the minds of most people the term refers to patients over 60 to 65 years, who partly from age, partly from the nature of their complaint, require long continued treatment before they are restored even to partial health, if indeed any recovery takes place. Broadly applied, however, the term includes all age groups - infants and children with congenital dystrophies, rheumatic hearts, orthopaedic conditions, mental retardation; young adults with tuberculosis, epilepsy, progressive muscular and nervous diseases; older men and women crippled with arthritis and bedridden with incurable neoplastic conditions, arteriosclerosis, cerebro-vascular lesions and senile conditions of all types, from simple uncomplicated senescence to the terminal stages of senile dementia." It is deplorable that all these "chronics" /

"chronics" are still herded together in large institutions, both Part III and hospital; sensible but frail old people who cannot manage to live alone should not have to live with gibbering and misshapen idiots; even the young and apparently sensible "chronics" are liable to outbursts of bad temper which are upsetting to the elderly. Firth (1949) prefers "long stay sick" to the term "chronic sick", but notes that it includes not only the elderly but cases of tuberculosis, malignant disease and senile cases. Presbyiatrics was the name suggested for the care of the elderly in the Medical Review of October 1899.⁸³ Warren (1946)²¹³ considers that the advantage in the word geriatrics is that it defines the care of the aged as a separate subject and differentiates this group from the large class of chronic cases which includes those from all age groups. Howell (1948)¹⁰⁶ emphasises that "Geriatrics, which is the care of the aged, is not synonymous with the charge of the chronic sick. The elderly can be acutely ill and some of the chronic sick are really untreatable disorders in relatively young people." And according to Bluestone (1947), "Long term illness which former generations in their despair referred to as chronic illness, is outstanding among the unsolved problems of mankind. Long term illness is best thought of as an acute illness unchecked for a long period of time."

I.g).

Other surveys.

The proper care of the elderly has to be considered from so many different angles that anyone trying to improve the situation finds himself overwhelmed by the diversity of conditions which may make an old person a burden to himself and to those around him. Many doctors, confronted with this problem, have made surveys of a number of elderly people, chiefly with the purpose of assessing the extent of their own particular problem and of planning subsequent treatment, but also with a view to assisting others concerned with the care of elderly people at home or in hospital. These surveys cover the elderly in their own homes, in institutions and in hospitals, and give a wide range of information on the social and medical conditions found, and many useful recommendations for their future welfare.

The investigators who undertook the surveys for the Nuffield Foundation (described in "Old People"¹⁶⁷) visited various parts of Great Britain to see for themselves not only what provision was being made for the aged in Public Assistance Institutions, in Homes and in alms-houses, but also the state of those (95% of the aged) living independent lives at home.

(i). At home (old people not in hospital).

One of the investigations sponsored by the Nuffield Foundation was undertaken by Dr. Sheldon,¹⁸⁵ who made a survey of a random sample of approximately 500 old people at Wolverhampton. He gives an excellent picture of the lives led by the great majority of/

of elderly people, i.e. by the 98% whom he found living at home. This survey is an important work which should be read by all those who have anything to do with the elderly in hospital, for there is a widespread tendency to believe that most of our elderly population are already in or waiting to get into hospitals, Homes and Institutions, and that in fact the natural place for the elderly is in bed. Admittedly Dr. Sheldon shows that 7.7% of his old people were laying an excessive strain on the younger generation, but that does not mean that they themselves were suitable candidates for admission to hospital. The medical part of his survey covers only the patients' symptoms and general condition, for it was impossible to carry out a physical examination of these people in their own homes.

Curran et al. (1946) give evidence about the state of elderly people at or near Poor Law level, from their experiences in Glasgow's outdoor medical service. They describe the conditions of 1001 people (273 males over the age of 65 and 728 females over the age of 60), living in densely populated tenement areas, where 29.5% of 199,990 fit houses are overcrowded, and 1302 are unfit for human habitation.

(ii). In Part III accommodation.

Grant and Thomas (1951) give an account of 909 inmates of Part III accommodation in 11 institutions. (Part III provides accommodation for those who are old or infirm or for any other reason need care and attention, but are not qualified by illness for /

for admission to hospital.). They found, living together in these places, the able-bodied, the blind and the deaf, the permanently disabled, frail ambulators, mental defectives and a miscellaneous psychiatric group. Twenty seven per cent were below the age of 60: the older inmates in general were better physically and mentally. Some had been admitted under section 24 of the Lunacy Act of 1890 and were regarded as 'mental', whether or not they had recovered from the original illness. 345 of the 909 were judged to be in need of hospital care, most because of increasing frailty or recurring minor illnesses. The investigators found that it was very difficult to decide where "infirm" ended and "sick" began.

(iii). In hospital.

McEwan and Laverty¹⁵⁸ describe a survey of 701 patients in 3 Bradford Hospitals: 2 of these, which have evolved from Workhouses into Welfare Institutions, house the destitute and homeless in addition to the chronic sick; the third - a large general hospital (formerly municipal), - has wards for the chronic sick. Before making their survey they knew little about these patients, except that most were aged, many were bedridden and in general a poor opinion was held about their powers of recovery.

The investigators found that some of these institutions had wards with 4 rows of beds (the two centre rows being back to back), and all had additional small wards. The wards in general were clean, but bare and dull. There was an air of dejection and apathy, and some patients expressed an unqualified desire to die. The/

The lighting was poor; the wireless was kept on at full volume, and though it broke the silence, the apathy remained. The standard of nursing was excellent. Most of the patients were relatively helpless and the main object was to keep them clean and free from bed-sores. A tepid or sporadic interest was shown by the medical staff. Only 3.8% of the patients were receiving physiotherapy. In the ex-Workhouses, there was an illusion of a brisk turn-over in the chronic sick wards, which a closer inspection revealed to be merely internal transfers of patients between the hospital and institution sides. Some sick and disabled people were found in the ambulant side as there was no room for them in the hospital section. Many had been transferred from institutions converted into municipal hospitals in or after 1929. The usual method of admission was directly from the patients' homes at the request of the general practitioner, or less frequently, at the request of the police, or local authority. Only the general hospital was well staffed and equipped for admitting patients in this way; the two others had no resident doctors; facilities for diagnosis and treatment were poor and were certainly not suitable for urgent admissions or for the many acutely ill patients who were admitted.

The investigators also visited units specially devoted to the aged, and noted that the atmosphere of dejection and gloom commonly found in chronic sick wards was changed in these geriatric units, to one of hope, brightness and activity. They felt that the results were tangible and striking.

A.P. Thomson (1949)²⁰¹ describes 50 institutions in the Birmingham Hospital Region concerned with the reception of the aged and chronic sick. (5780 beds). He found that most of these institutions were small and understaffed, with old and dingy buildings and poor equipment; some were parts of acute general hospitals; most had other functions, - chiefly the accommodation of the poor and homeless, who, though not sick, were in general unable to fend for themselves.

The largest one was the Western Road Infirmary, Birmingham, and on it he concentrated his attention. His survey comprises 714 patients, 77% of them admitted direct from their own homes, many acutely ill, into a hospital where laboratory and X-ray facilities were half a mile away. His most vivid impression in the chronic wards was an atmosphere of profound apathy: food was the patients' major interest; those who were up sat listlessly except when queuing for their meals; they collected a strange and pathetic assortment of trifles in their bags, and outbursts of petulant misbehaviour were common. There were five whole-time doctors for 1,000 bedridden patients, and Professor Thomson considered that their medical treatment was good, though they made use of no therapeutic measures except rest and drugs. Individual case-records were brief and almost incomprehensible, and it was impossible to determine accurately the condition of the patients on admission. There was no physiotherapy; and rehabilitation, he says, could not be attempted because there were no physiotherapists and all the dayrooms were full of beds. There were only 2 nurses on duty per 70 patients, and 30 of these were incontinent.

The/

The wards were clean, the beds impeccably made and only 9 bedsores were found, and those in cases of gross organic nervous disease in the last stages. The supply of equipment was lamentable; basins with running water were few and far between; sluice-rooms were mainly archaic, and there was only an occasional bed-pan washer. There were no pulleys over the beds and the baths were of the ordinary domestic type. At Exhall Hospital in Coventry, he found that "runners" were employed to call the nurses when and where they were most needed. In the smaller hospitals classification was impossible, - babies and young children lay side by side with senile demented.

Lowe and McKeown (1949⁵² and 1950⁵⁵) describe a survey of 1005 patients, also of Western Road Infirmary, Birmingham, carried out by social workers and doctors. They found that the buildings were typical institutions provided as workhouses under the Poor Law Amendment Act of 1834, with a series of hospital blocks added for the sick and infirm destitute. Case histories were obtained from the patients, nurses and visitors. The hospital records were of little use for research, though adequate, they thought, for the needs of the hospital staff. From these the medical diagnoses and laboratory investigations were extracted. They found that 97% required medical attention, but they considered that only 7% required it more frequently than once a month. They tried to find out how many beds were occupied by the chronic sick; how the responsibility for them should be divided between the Regional Boards and the local authorities; to what extent improved services would/

would reduce the numbers requiring prolonged medical or nursing attention; what proportion required the kind of medical or nursing attention provided in hospitals; and what facilities were needed for patients who could more satisfactorily or more economically be cared for outside hospital. In the British Journal of Social Medicine (1950)^{153,154} the results of the Birmingham survey are compared with those of four hospitals in the Stoke-on-Trent area, and found to differ very little.

Affleck (1948) in a survey of 778 patients in Leeds Municipal Hospitals, 79.7% of them over the age of 65, notes that the aversion which is aroused by the mention of work among the chronic sick is probably based on the rather unpleasant experience which we undergo when we have to admit that our therapeutic efforts have failed, and on the forbidding exterior and rather grim interior of the average "chronic sick" hospital. The lack of facilities for investigation and the fatalistic outlook of the authorities have in the past frequently made progressive medical officers glad to escape to other spheres.

In "Old People" (Huffield Foundation)¹⁵⁷ those carrying out the medical surveys noted the unhappy state of mind of patients in general hospitals for three or more years, - obsessed by the fear of transfer to unknown conditions in a chronic sick hospital. In spite of repeated admissions to hospital, they return to common lodging-houses steadfastly refusing permanent institutional care.

In an article by T.N. Rudd (1950), we read of a medical situation which is only too common in Public Assistance Institutions/

Institutions: the bulk of patients are apathetic and bedridden; no case-notes are kept and no medical treatment is given except by stock mixtures; the wards are grossly overcrowded and neither amenities for comfort nor medical care disturb the carefully ordered bed-linen.

"Welfare on Merseyside"²³ describes vast grey institutions such as "Belmont Road" with 1,930 beds, only 39 elderly patients ambulant, a mixed population, and wards with unplastered brick walls.

Greenwood (1949) describes a survey of 399 patients at Withington Hospital, Manchester. He found that they were housed in an annexe of the general hospital, and that most had been transferred from the acute wards as incurable. There was access to full X-ray, pathology and physiotherapy services. When an active treatment unit was established, it soon became evident that many could be restored to activity.

Adams (1949) describes a survey of 310 patients in Belfast City Hospital, at one time the largest Poor Law union infirmary in the United Kingdom, now partly converted into a general hospital of 1800 beds, of which 500 - 600 are set aside for the chronic sick. This hospital for the aged is a remote and antiquated three-storey brick building. There is a heterogeneous collection of 60 beds and cots in each ward, of which one corner is partitioned off as a ward kitchen. There are no lifts, the stairs are narrow and the lighting is poor. The patients have been kept in bed to avoid falls, and apathy is paramount. The wards, however, are wide and/

and good annexes have been added; central heating has been installed, though not yet working efficiently. An almoner has been appointed and ward sisters and staff-nurses are sent in turn on a course of training to Dr. Warren. Irremediable younger patients are no longer admitted.

Crockett and Exton-Smith (1949) describe observations which they made, during the first few months of its existence, at Lord Amulree's unit at St. Pancras Hospital, the first geriatric unit to be established as part of a teaching hospital. The 6 wards contain 243 beds, but they are to be reduced eventually to 120. They found that the diagnosis on the existing case-sheets was often vague. The patients were well nourished, clean and without bedsores, but almost all had painful, stiff, and in some cases fixed joints. Their mental state was one of apathy and depression and some had definite dementia. There was a tacit assumption of a hopeless prognosis by patients, relatives and staff. Formerly there was one nurse to 4.5 patients, but after the change-over to a geriatric unit, 1 to 2.7. The female nurses come from University College Hospital for 3 months of their training. The wards formerly suffered from lack of any recent decoration and were uniformly painted a drab institutional green; there were too many beds, all crowded together, back to back; X-rays were made by visiting radiographers and pathological specimens were sent to the district laboratory; one almoner visited for half a day once a week and a physiotherapist visited for 3 hours daily. Since the ~~change~~-over these services are performed by a permanent staff, and /

and an occupational therapist and a dietitian have been added. Shopping for the patients, previously done by the ward orderlies, is now done by a voluntary helper. Patients are now taken out by the nurses to the cinema and restaurants and to the homes of relatives. Amulree, Crockett and Exton-Smith (1951)²³ give a further account of their work in transforming a typical dumping - ground into a successful geriatric unit.

Warren (1948)²¹⁶ describes 874 patients in a Public Assistance Institution, 714 chronic (more than half of them bedridden), 144 mental observation cases and 16 maternity cases. The following facts were revealed by her survey:²¹⁷ there had hitherto been no classification of the patients, and all the wards contained so many different types that the accommodation and equipment could not possibly be the best for each nor could any one staff cater really well for all; none of the modern ancillary services were in use, nor had they been considered necessary; the wards were large, over-crowded, dull and inadequately lighted; and the ward equipment was neither modern nor adequate. In another article (1946)²¹⁵ she describes these institutions as dumps. The wards are scrupulously clean, and have highly polished floors; the beds are neatly made, in perfect line and invariably tidy; but the patients in them are silent sufferers, - no school officer inquires of their progress, no works manager asks when they will be fit for discharge and too often the relatives are pleased to be relieved of responsibility for them. Their friends, often of a contemporary age, have neither the physical nor the mental energy to demand better attention. /

attention. These institutions fill up and become over-crowded, and the medical beds of general hospitals are also blocked by aged patients. This is an economic and social problem. Dr. Warren declares that no civilised people should condemn its workers, thinkers, planners and organisers, when their work for humanity is done, to suffer, as indeed they must, both physically and mentally, under such conditions.

II. Survey of Foresthall. General Remarks.

The Poor Law Act of 1834 decreed that those requiring financial assistance should be succoured only by admission to the workhouse; and as a result many poor-houses were built for these "paupers". In 1853 Barnhill Institution was completed, at a cost of £34,000⁷⁴. The buildings were probably considered good at that time compared with those of similar English institutions which belonged to an earlier date. But now, nearly 100 years later, these buildings are an anachronism: there has been incredibly little change after more than three generations in this changing world; and in 1928 they were in fact condemned as unfit for human habitation. The hospital blocks date from early in the present century. They at first were used for sick poor-house inmates, and later for transfers from other hospitals. During the last war, part of the original 1853 building (the West wards) was used to house hospital patients to make room in general hospitals for battle and air raid casualties. (The number of hospital beds was increased from 320 to 695). Elderly people were brought in from hospitals in S. England and even from the Channel Islands. Conditions are reported to have been appalling, and these wards have probably not yet recovered from the bad precedent established at that time.

The grounds of Foresthall are extensive and well-kept, with trees, lawns and well-filled flower beds, but they are marred for the elderly by awkward slopes and flights of steps. They are surrounded by a high, bleak, stone wall, probably necessary to curb both/

both the inmates and the outside population, but emphasising the punitive work-house aspect, which is further underlined by notices here and there forbidding loitering and spitting. In 1944 the name Barnhill was altered to Foresthall, in an attempt to cast off unpleasant associations; but "behind the shield of some fair-seeming name" the old Poor Law atmosphere still persisted, with lack of attractiveness as a definite policy.

In 1948 when the Regional Boards took over the hospitals, the hospital section of Foresthall was left in a strange and anomalous position. The patients, though under the jurisdiction of a Regional Board, were housed in buildings belonging to the Local Authority. Any alterations to these buildings, judged necessary for the comfort of the patients, could be vetoed by the Local Authority. The existing lay governor continued in supreme power, responsible only to the local authority, in whose eyes he could do no wrong, provided he was economical. He still arranged (and continues to arrange in 1951) admissions to the hospital section, and could countermand a doctor's orders. The policy continued to be the avoidance of inquiries by disinterested philanthropic individuals, and visiting committees were hastily conducted through a few selected well-prepared wards. Gifts, voluntary visitors and offers of entertainment were discouraged or refused. The Bumble dictum, "These people are not to be treated: they are sent here to die," persisted strongly up to 1950 and has only now gone underground. And names like "The Body of the House", and the "Probationary" still perpetuate the illusion that this/

this institution belongs to the old work-house days. If the problem of the care of the elderly, were not so acute in this large industrial city, if the patients were more influential, more vociferous, their relatives less harassed, such conditions would never have been so meekly accepted in these modern times. But with more than 1000 of Glasgow's 100,000 old people already in hospital and a further 600 awaiting admission, what can they do? "If they are not pleased", says Bumble indifferently, "they can go out".

II. Survey of Foresthall.

Foresthall Institution is divided into three distinct and separate departments, the Hospital (under the Regional Board), Part III accommodation and the Casuals (both under the local authority). On 1st January, 1951, the numbers in each section were as follows:-

Hospital	Female	202	}	623	}	1209
	Male	421				
Part III.	Female	162	}	479		
	Male	306				
	Children	11				
Casuals	Female	25	}	107		
	Male	6				
	Children	76				

It seems desirable to consider Part III first, for in most cases it is the only place to which Foresthall Hospital patients can be discharged. As can be seen from the following description, few elderly people are fit for such an existence.

(a). Part III.

Part III (in work-house parlance "The Body of the House" - a name which still persists) fulfils the function of the old Poor-house; that is, it caters for those persons who, though not qualified to be hospital patients, yet for one reason or another can no longer maintain themselves in the ordinary world outside. The/

The buildings are of grey stone, 4 stories high, and 100 years old. Some wards, because of the slope of the site, are below ground level on one side. The stairs and passages are of stone, with tiled or brown-painted walls, dark even during the day, and very poorly lighted at night. The stair-cases are narrow, often spiral; on some there is no hand-rail, on others one rail, sometimes on the inside of the spiral. There are no other rails anywhere in the grounds. The wards are also dark and dismal, with the institutional brown paint on the walls, small windows rarely opened and never cleaned, except on the ground floor. Artificial lighting consists of a few weak electric lamp bulbs suspended from the ceiling. The basement wards are often damp. The ward floors are of wood and linoleum, usually kept very clean and highly polished by the inmates themselves. There is no central heating, and the few coal fires which modify the temperature of the wards in winter, are uncompromisingly forbidden from March to October, whatever the vagaries of the weather. It is sometimes impossible to examine a patient in these wards, because both the patient and the doctor are too cold. Part III beds are of the ordinary hospital variety, and are closely crowded together, only 21 inches apart. The mattresses are thin and lumpy; the allocation of pillows (thin, straw-filled) is one, except on medical orders; and of blankets, two. No nursing equipment, e.g. mackintoshes, bed-pans, is available. There are no lockers nor any other facilities for keeping personal property, - which admittedly would not be safe, with so many mentally peculiar people about. One wooden chair stands beside each bed.

The/

The sitting-rooms vary from quite small places to the large, bleak, and barn-like. In some there are only benches to sit on, mostly backless. In a non-smoking room for men there are a few arm-chairs. In all these sitting-rooms the lighting is poor. The only sources of amusement in them are wireless loud-speakers relaying part of the Light Programme for a limited period each day. Until recently, the females spent their entire day in such rooms, taking their meals there. Now, in common with the men, they have to traverse the grounds to be fed.

The washing and toilet accommodation is very poor, and located in dark holes and corners. In the male sections, w.c's are one stair down and wash-hand basins one stair up from the level of the ward. Some of the females have to go right outside into the grounds during the day and walk a distance of 20 yards; with bad weather to contend with outside and long dismal stone corridors inside, this requires considerable endurance. No urinals are provided for the men for night use. To avoid the long and difficult negotiation of the stairs, some resort to the use of old tins. As for bathing, the bathrooms are equally dark (some require electric light even by day); the baths have high sides difficult to negotiate; in one part (cottage I) the bathroom is virtually in a separate building.

In addition to the ordinary male and female wards of Part III, there are the 3 "Infirm" wards, each located on the ground floor of a Hospital block, similar in architecture to the wards of the Hospital proper, and therefore much superior to the ordinary/

ordinary Part III accommodation. The inmates of these Infirm wards come under Part III regulations (i.e. local authority) and belong to Part III ("The Body of the House", ex-Poor-house) and not to the Hospital. On what principle are they chosen and why are they privileged to live in these special wards? Some are in wheel-chairs, and they are undoubtedly a natural choice; so also are those of superior class or intelligence: both these categories, mentally superior and/or physically inferior to the other Part III inmates, it is reasonable to segregate from the rough and tumble of the ordinary Part III wards. But some inmates of the Infirm wards are much younger and stronger than many pitifully feeble decent old people in the ordinary Part III accommodation, and there is a surprising number of the mentally deranged in this select community. The female Part III Infirm ward has another privilege: it is staffed by nurses, and has a standard of tidiness and cleanliness equal to that of the Hospital. On the other hand, the male Part III Infirm wards are often dirty, and there is a general unwashed, stale and slummy smell, even worse than in the ordinary male Part III wards.

The Part III wards, apart from the female Infirm ward mentioned above, are staffed by male and female "officials", persons with no nursing or other training. They merely supervise the cleaning of the wards by the able-bodied, the weekly bathing of the inmates, and the distribution of meals. They attend in turn at the morning surgery, bringing those who wish to see the doctor; they give out the drugs ordered, but do not carry out any other treatment, even simple dressings having to be done by the Hospital/

Hospital nurses. Untrained as they are, they are responsible for notifying the doctor of any illness or injury to an inmate of Part III. In character they are very mixed. Some are very kind to the heterogeneous crowd under their care, and make it part of their duty to bring the confused indoors when it rains or remind the forgetful of their meals. Others are ignorant, lazy and insolent, with an offensive bullying manner to their unfortunate charges, and express extreme indignation if they are asked to do anything "which they are not paid to do." Some of the male inmates, when examined by a doctor, give no evidence by their grimy state that they have had a weekly bath. Many of these officials have no idea when a person is really ill or in pain; for example, one of them reported that an inmate - who, as it subsequently appeared, had sustained a fracture of tibia and fibula during an epileptic fit - had been "noisy at night and refused to get up in the morning." But if once the idea of death as an imminent contingency enters their minds, no effort is spared to ensure that the sufferer shall reach hospital in time, and not die on their hands, with resultant unpleasantness.

Medical attention for Part III is supplied by the Hospital doctors at the morning sick-parades, and in emergency, by the doctor on duty. There is no preliminary sifting of the cases by a trained nurse: the officials decide whether or not the person requires a doctor, and fortunately for the inmates, they usually err on the safe side, for they would be "held responsible" if they failed to summon the doctor to a really serious case. The male sick-parade is held in a room called the Surgery, which also serves as/

as record-office and side-room laboratory. There is no proper examination couch, and the room is often too cold for the patients to undress. Soot falls continually from its high glass roof. The female sick-parade is held at one end of the ward called the Female Probationary, where there is little privacy; but the beds are useful as examination couches. There is no waiting-room for the females, and intending patients have to sit on a bench in a draughty corridor. Those who are unable to walk through the grounds to the sick-parades (or "surgeries") are seen in bed in their unheated wards. (The inmates of the Infirm wards are always seen in their own quarters.) The doctor can order drugs to be given by mouth, but it is very doubtful if they are administered with any regularity. Of course most drugs are reconsidered and reordered weekly, but if in the interval the patient does not complain that he is not getting his medicine, treatment (e.g. iron) may be stopped short without further medical consultation. Previous "medical cards" give little information and are frequently lost. Follow-up is difficult; the official and/or the patient forget about it, or the patient cannot be found. The inmates of Part III are permitted to stay in bed, if unwell, for as long as two days; if they refuse to get up after that time, the lay administrators may transfer them to the Hospital part without referring the matter to the doctor. In the case of acute illnesses most of the Part III inmates are treated in Foresthall Hospital wards; but cases requiring investigation, surgical treatment or transfusions, /

transfusions, are transferred to other hospitals. Every 3 months there is a "revisal" of Part III, that is, every inmate has to be seen by one of the doctors. This proceeding, in view of the large number of inmates and the small number of doctors, is necessarily very perfunctory.

Necessitous persons are admitted to Foresthall's Part III accommodation on an order from the Welfare Department, and are supposed to be medically examined there first to make sure that they are fit for the "Body of the House". In fact, many are sent in who are quite unable to cope with the conditions, - to be up all day, to walk without supporting handrails, to go up and down stairs, to go across the grounds for every meal. It even happens that some suffering from acute illnesses are sent in, no doubt from humane motives, because they are in such urgent need of help and it is often impossible to get them straight into any hospital. When the Foresthall doctors find such cases in Part III, they are expected to send them out to other hospitals, and on no account to admit them to Foresthall Hospital. This practice has sometimes been rigidly enforced even to the serious detriment of the patient: on one occasion a woman too ill to be moved was transferred in defiance of the doctor's orders. A few of the admissions to Part III come in straight from outside hospitals where there is obviously no knowledge of the lack of amenity to which they are being sent. The procedure with admissions is as follows. Unless obviously too ill they are bathed. Then they are seen by a doctor, and if found suitable for Part III (the major point is: can they walk unaided?) they are graded as fit or unfit to work. (The over-seventies/

(The over-seventies are ipso facto "unfit"). They are then dressed in Institution clothes and sent to one of the wards.

The men's clothes, though drab, are usually adequate and warm; the able-bodied are dressed in white moleskin trousers, unfortunately very soon extremely dirty. The women are clothed in prehistoric garments, - strange Victorian petticoats tying round the waist, and thin striped cotton frocks completely shapeless and often with ragged and uneven hems. Black stockings, often full of holes, and dilapidated shoes complete this outfit. The demoralising effect of these garments can well be imagined, and many of the new admissions are in tears when first examined. Admittedly many come in with clothes so dirty and infested that they have to be destroyed; but that is no excuse or explanation for the blatant uncouthness and absolute uniformity of the Institution garments, in these days of skilful mass-production in endless varieties of even the cheapest of clothes. When anyone comes in with clothes in a decent state of repair and cleanliness, they are theoretically stored until the owner is discharged; but in actual practice they are liable to vanish with lapse of time and can no more be found. Recently there has appeared a tendency to allow those who come in with respectable clothes to wear them, but not so very long ago (1949) a man found it difficult to obtain permission to retain even his own specially fitted surgical boots. No doubt this reduction to the minimum simplifies administration, but it is surely going too far to provide no dressing-gowns or slippers, so that expeditions to the toilet at night are often made in night shirts and bare feet.

The daily régime in Part III is no less penitential than the living quarters and the garments. All the inmates must rise at 6.30 a.m. Those who are fit must clean the wards and wash the passages and stairs. Many of the women, though labelled unfit for work, prefer to have a light job to keep them occupied, - some help in the laundry and sewing-room. The men clean their own wards, wash the central passage and tiled walls, help in the Institution work-shops, act as messengers, take round newspapers and carry food from the kitchen to the hospital wards; they carry coals for their own wards and for other parts of the Institution. The women of Part III have to carry their own coals, sometimes long distances and up many stairs. Meals are served in dining-rooms close to the kitchen premises, and all the inmates of Part III (except those in the privileged Infirm wards) have to walk some distance in the open to get their food. (This new rigour has only recently been added to the lives of the females: formerly they were fed in the sitting rooms of their own wards.) The men usually form a queue outside for some time before the doors are opened. Because of the scattered position of the buildings and the hilly nature of the ground, a considerable distance up and down hill has to be traversed four times a day, in the open air, in all weathers, without handrails to help them on their way, without protection from the rain, in the darkness of winter without proper lighting in the grounds, in treacherous frost or deep snow. Sometimes an inmate of Part III has to be admitted to Hospital for no medical reason but merely because of inability to reach the dining-room. (Yet it is one of the dicta of the lay governor that "anyone fit to be out of bed is fit/

fit for the "Body of the House!") The meals are as follows: breakfast 7.30 a.m. - porridge, tea and bread; dinner 12 noon., - 2 courses of a quality similar to or poorer than what is provided for the Hospital patients (see page 89); tea 4.30 p.m. - tea and bread, with occasionally a pie or a piece of cheese. The tea is served in bowls, and for dinner the only cutlery is a spoon. Tea at 4.30 p.m. was until 1951 the last meal of the day; but now a supper of soup or cocoa at 7 p.m. has been added. In addition, some brew for themselves cans of old tea over the ward fires and hoard ancient slices of bread in their pockets or handbags; some obtain extra food where they do their odd jobs about the place; and many are pathetically grateful for the gift even of a biscuit. There is a shop in Foresthall grounds where cakes, biscuits, sweets, tobacco, cigarettes are for sale to the inmates, but 5/- a week does not go far in these days.

There is much purposeless idle misery and sloth in Part III, affecting all except those who have jobs to do. There is no regular distraction, no scope for little hobbies and personal amusements, except waiting for meals. It is permissible to wander in the grounds, but there are few seats and no shelters. For the females even this was not permissible before 1950: before that they were restricted to a small paved area on the north side of the building between two gates, usually quite sunless. Now all are free to roam about the grounds, and some walk incessantly, talking to themselves, clinging to their few poor possessions and repeatedly trying to get out at the gate or over the wall.

(Strangely enough in some of the elderly, the more the brain becomes /

becomes enfeebled, the nimbler grow the feet). The men of Part III, on an average much more alert and normal than the women, interest themselves to some extent in cards, dog-racing and football pools. Little mental stimulation is provided by authority. On Sundays, there are services in the church-hall, which are relayed to the rest of the Institution. Apart from that, there were until recently only a few concerts; but within the past two years the film shows given to the Hospital every fortnight, have been repeated at night for the Part III inmates. Occasionally the inhabitants of the special Infirm wards are taken for a bus run. Most of the inmates of Part III, if they behave, are allowed out on pass once a month. Visitors may call on them, but never see them in their wards: the inmate concerned is summoned to the entrance hall or one of the small halls to receive his friend. Books of some sort are available in the Church Hall, but many are tattered and incomplete. The standard of personal hygiene aimed at is a weekly bath and clean underclothes for each inmate; but there is no provision for shaving the men, and most have a horrible stubble of hair on their faces, reminiscent of Bill Sykes, as demoralising as the female clothes. Some find difficulty even in getting their nails cut, and the services of a chiropodist have for long been urgently required.

What kind of people live in Part III accommodation in Foresthall? It would be hard to find anywhere a more heterogeneous collection of human beings. Orphans under the Board of Control are admitted for "care and protection"; adolescents who have out-grown Homes for Crippled Children, languish here in idleness; female/

female epileptics (the males are admitted to Hospital), mostly 'uncontrolled', wander around and have sporadic fits which horrify the inexperienced inmates, - but cause the officials little concern, provided there is no injury to the sufferer, with subsequent onus of 'responsibility' on themselves. (The orphans would benefit from training suited to their capacity, and could perform useful work outside; so too could the epileptics, under supervision, if their fits were properly controlled; but there is no attempt in Part III at social rehabilitation). Then there are the mental defectives, often of very low grade, ranging from children in their teens to adults of 50: some of these were admitted temporarily to await other accommodation, which has never been found; others, boarded out at farms, come to Foresthall between jobs. Among these are the grossly deformed physically, the shockingly repellent mentally, the deaf-mutes. Then there is the class of pregnant women, mostly unmarried or separated from their husbands, and mothers (in similar circumstances) of young babies. Many of these are of low intelligence and have had several previous illegitimate children, (but they are admitted to Part III only with the latest child if under a year old). These women have long hours of idleness each day, but no attempt is made to teach them infant care, and even the duty of preparing the babies' bottles falls upon the nurses in the Hospital; - in spite of which precaution, there is a high incidence of gastro-enteritis. Most of these babies are eventually adopted and the mothers go out again.

The male inmates on an average are superior to the females/

females, mentally and physically. The limit of helplessness beyond which one cannot support existence unaided, is much more advanced in the case of women than of men. A sane and decent woman will cling to her home to the limit of her physical and financial capacity, and can probably maintain herself more cheaply than a man, besides being her own housekeeper. A man may come in because he has no women folk to look after him and cannot afford lodgings. Some of these prefer the freedom of life in the open, and sleep in George Square until the chill of winter and their chronic bronchitis drives them in. Some came in during periods of industrial depression and unemployment 20 or 30 years ago, and, having no female relations to offer them a home, remained in, liking the security from financial worry, - and, as one put it, finding the standard of living better than "in the 'models', where you pay 1/6d. a night for a dirty bed and dry your face on a newspaper." Some of these men are of very good character, and find a niche for themselves, doing their little jobs with professional enthusiasm (e.g. "dispensary John") and old-fashioned zeal and politeness. Some are very kind to the weaker inmates, lending a helping arm on the hills, feeding them with their sweets, and visiting those who have been taken into Hospital. This is true even of some who are rough in manner: their swearing is merely their form of slang, and they show unexpected traits of gentleness to animals and courtesy to the female doctor. But Part III harbours also the really rough and tough of both sexes, people of criminal type and even of criminal record, people who have been in mental/

mental institutions and cannot keep a job, wastrels who have taken their own discharge from many hospitals and make trouble wherever they go, younger men skulking from the necessity to work. There are frequent noisy arguments and ugly brawls, and even incidents of violence which become police cases. And in the midst of this motley crew live the homeless elderly. Some of these old people are mentally peculiar: their faculties, perhaps in some cases never very acute, have become impaired with age. They bear no resemblance to the repulsive mental defectives, but their foibles make them unsuitable for ordinary domestic life, especially in restricted quarters. (Yet some of them are not without a certain Dickensian charm; for example, the 'Squire' of Foresthall, who receives the stranger within his gates so grandiloquently, and is always engaged in some litigation and having consultations with his lawyers, Osborne, Osborne and Osborne). There are others whose mental deterioration has made them aggressive and unmanageable at home; and some who have forgotten all about home and friends, if they ever had any, and are brought in by the police with no record of their previous existence. But many old people are in Part III simply because they can no longer live at home: they have no relative who can look after them, they cannot look after themselves, and they cannot afford to pay to be looked after. To assume that this is in some way their fault, that they were idle or thriftless, is mere foolishness. What would have been modest affluence for a single person in their youth would not pay a general servant's wages nowadays. Of course many of these old people have no money except/

except their old age pension, but the bank balance of some causes acute worry to the doctors: should an old man with £1200 be allowed to languish in Foresthall? These decent homeless old people are the victims of the higher cost of living, the dearth of houses, the lower birth rate and the lower death rate. All these old people in Foresthall's Part III hate and fear the rough inmates and the mental defectives. They have to be constantly on guard in case their possessions are stolen, and some are bowed under the weight of the accumulated half-crowns of their pension money. (These people do not live on charity: the Institution charges them £1. 1/- .a week). In spite of the lack of amenity, the tougher old people prefer Part III to Hospital, where the rags and papers are removed from their persons and their lockers, and brewing old tea over the fire is forbidden. But even among those least suited to this rough life (though cases have been known of illness feigned to escape it) there has always hitherto been a dread of Hospital. "Folks go there to die; they go to their beds and never get up again." Gradually this fear is disappearing: news is spreading that in Hospital one is not allowed to stay in bed, and that dying is discouraged with all the resources at the doctors' command. And so, for the frail and gentle, Hospital is becoming so popular that some patients show reluctance to seem too well, lest they should be sent back to the "Body of the House".

II b).

The Casuals.

Quite distinct from the inmates of the Part III accommodation (the "Body of the House"), there is a fluctuating population to whom the local authority offers intermittent asylum in Foresthall, - namely the "casuals". These people are not the main concern of the Institution, but a sort of deplorable side-line, displeasing both to the doctors and to the administrators, who would gladly see them housed elsewhere. But where are they to go? It is no answer to turn them out and pretend that they no longer exist, on the principle that what the eye does not see, the heart does not deplore.

The term "casual" is normally applied to a person admitted for one night only, and that no oftener than once a month. This continues to be the rule as far as individual men and women are concerned; but in recent times concessions have been made to homeless mothers and children, who have been admitted in considerable numbers and housed for extended periods: in the second half of 1950 the total of these rose to 120 (see appendix 1.). It is difficult to ascertain why all these mothers and children came in. Many tell hard-luck stories of eviction from condemned properties, or from furnished lodgings where the landlady has found another use for her rooms; but on the other hand there are numerous records of non-payment of rent, destructiveness, and filth.

There are undoubtedly among the Foresthall casuals a few innocent/

innocent victims of the housing shortage, of the collapse of ancient tenements (e.g. in Kinning Park December 1951), and of bad husbands who fail to provide for their homes. In the squalid casual wards there is sometimes, around a family group of beds, a pitiful little area of clean floor, which does indeed shine like a good deed in a very naughty world. And there are people like Mrs. G., mother of 10 children, who keeps them all fairly clean and civil, and with a few well-chosen words ejects her husband when he comes up to brawl. Surely the most primitive hovel, all to themselves, would be better for such families than the contagious degradation of the casual wards: they could at least maintain their own standards of decency, and the husbands would be with them to help to cope with the difficulties. For husbands, even those whose only fault is that they cannot find a house, though they have respectable jobs (e.g. tram-car driver) and are willing to pay, are cut off from their wives and families when reduced to finding shelter for them in the casual wards, and are allowed to see them only for brief periods in the front entrance hall.

Life in the casual wards would be difficult even for the most resourceful and competent: the majority of the casuals being what they are, it is squalid. The accommodation provided for the homeless mothers and children consists of large bare wards, unfurnished except for beds and derelict wooden chairs. These serve as dormitories, which they are not supposed to enter during the day. There are w.c.'s and wash-basins easily accessible, and a weekly bath is (theoretically) obligatory; but there are no facilities for washing and drying clothes, /

clothes, or for storing any personal possessions. Coats and other odd garments are piled on the beds for warmth. As many as 95 persons, mothers, girls and boys under 5 (the over-fives are banished to a basement dormitory in another building) have been found in residence at one time in two top-floor wards at the head of 3 difficult flights of spiral staircase. Privacy is impossible; all that can be done to segregate family units is to push the beds into groups. These "casual" families are usually very large and close in age, (though in some cases there is a bewildering variety of surnames), and they seem to call for administrative rather than maternal gifts. Every morning this whole population must transfer itself, with infants in arms, toddlers, and possessions, across the grounds to a basement hall, and spend the day there. Meals are served in this place, of the same quality as those supplied to Part III.

It is obvious that supervision and direction are necessary in such conditions of existence for such large numbers of people, even if the persons concerned were of a superior type to those who generally gravitate to casual wards. The transformation which can be effected by decent supervision was made strikingly plain during 1951. The basement dormitory for boys over 5 was a den of hooliganism: though there were few boys older than 12 years of age, the rowdiness and destruction were appalling; windows and electric bulbs were repeatedly smashed; the plaster and woodwork were torn from the walls; and wild gangs of "toughs" charged about the grounds and climbed the roofs. After a more than usually outrageous orgy, two officials were installed to take charge, and the scene was changed. Meek little boys could be/

be found at night brushing their boots, and in the morning, instead of playing truant, setting off to school with an air of moderate cleanliness and respectability.

There is a crying need for similar supervision in the wards of mothers and children. There are officials, but most of them do no more than count their herds to see how many children each mother has in residence each night, and to make sure that no mother has succeeded in escaping and leaving her offspring behind. These officials act in no way as organisers or instructors, but for the most part resemble bullying gauleiters, abusing the rough and the better sort with indiscriminate brutality: they have been found (acting on the nursing superintendent's instructions, they allege) ordering a mother to get her fevered child out of bed and to put out the ward fire she has dared to light for its comfort; and menacing another one with vile accusations, because her baby has been found dead in bed.

Most of the women in the casual wards are of a very low type, and any superior ones who come in are generally observed to deteriorate from day to day, either from bad example or from apathy. To have "come to this" is the last degradation; there is no further to fall; and there seems little use in trying to keep up appearances or retain one's self-respect. But in the case of the majority, one would say that their fault is not a sort of negative indifference to hygiene, but a positive addiction to uncleanness. The women are expected, quite reasonably, to keep their own quarters clean; but their/

their habits would astonish an anthropologist making a study of primitive tribes. Their ward looks and smells like an outsize slum apartment. The windows are all closed and never washed; the fireplace is surrounded by the ashes of long-dead fires, raked out and left there when a new one is lit; the chairs are broken for firewood, the walls defaced; the lavatories are choked and the floors flooded. The children behave like untrained puppies and urinate on the floors and on the bedding; their clothes are ragged and dirty, though a few new ones are occasionally provided for very necessitous cases; they lie in bed late in the morning, though, if the doctor is called in late at night, they are still running wild in the ward at 11 p.m., and crowd, unchecked, round the bed of the sufferer, while the mothers sit at the fire, smoking and making tea.

Naturally in such a population the morbidity rate is very high. The casuals are supposed to register with a general practitioner outside, but some of them fail to do so, or have been removed from a doctor's list and are referred back to the Institution doctor; and some of them try to see as many doctors as possible, in the hope of finding some acceptable treatment, or simply to pass the time. These are the nuisance-type of patient, calling out the doctor unnecessarily, and often during the night for a child who has been ill all day. It is usually a hopeless task to attempt to treat patients in the casual wards: the mother is mentally incapable of understanding instructions, or too lazy to carry them out, and the facilities are very poor. Babies' bottles are far from sterile and the treatment of gastro-enteritis, (very common in summer even among the breast-fed) is impracticable; - the baby grows steadily worse, and so also do older/

older children and adults when they are ill in the casual wards, for there is no one there competent to look after illness. The indifference of many of the mothers is sub-human: they bring their offspring to the doctor with a history of diarrhoea and vomiting (but no evidence), in the hope of getting the child into hospital, and so getting rid of it, and (as one said) "getting back to the dancing." Sometimes a mother succeeds in planting several children in various hospitals, and quietly slips away, abandoning the rest; the hospitals concerned keep telephoning Foresthall to ask the mother to collect her children, but no trace of her can be found.

Towards the end of 1950 there was an outbreak of the exanthemata among the children in the casual wards. Owing to the usual winter congestion, it was found virtually impossible to get them into fever hospitals. A "casual" child might have any one of the following conditions and be a contact of all the others - chicken-pox, measles, rubella, scarlet fever and whooping-cough. Children with serious skin conditions or otitis media were therefore acceptable nowhere. Many developed broncho-pneumonia, and the situation was a very difficult one for the Foresthall doctors. Isolation in the casual ward was impossible, and so the only thing to do was to admit these children to the female Hospital, distributing them among the wards, and avoiding as far as possible the mental ward and any open tuberculous patient. The Hospital nurses rose to the occasion. Not even the most highly trained had any recent experience in hospital paediatrics, but the assistant nurses came into their own; what they lacked/

lacked in qualifications they made up for in knowledge of life, for many of them were experienced mothers or even grand-mothers. They received into their kind arms the most repulsive, neglected, "mewling and puking" infants, and transformed them into something like normal children. This makeshift arrangement had many drawbacks: there were incontinent patients in the wards, and the nurses, already very busy, had to run between them and the babies. Yet the results were surprisingly good, for all the children admitted to our wards were either cured, or greatly improved before being transferred to other hospitals.

This emergency brought to light many facts about the casuals, and confirmed many others vaguely guessed at before. These children whom we admitted to our wards were almost all very dirty and many of them were lousy. They had no changes of clothes and slept in short vests and several shrunken woollen jerseys. Often they were dehydrated, no attempt having been made to rouse a drowsy baby for its feeds, or to tempt it to drink if it refused milk or tea. There were children of over one year old who were still being bottle-fed (to save the trouble of spoon-feeding); in some cases no other food was given; in others the diet from an early age included pies, chips, sweets, bread and jam. Mentally they were very backward, some barely able to stand alone at 2 years old, or to speak at 3; and some 3 year-olds were found wearing babies' napkins, for no attempt had ever been made to "house-train" them. They had no notions of civilised behaviour, and flung from them whatever they did not want, so/

so that the floor round their cots was littered with discarded food. Many of them were undersized and thin. Extensive skin lesions were common - scabies, impetigo, urine rashes, actual ulceration of the skin in the napkin area, - not surprisingly, for the napkins brought to the wards on request (there were no supplies of baby-linen in the wards) were indescribably filthy. Even to build up their strength with proper children's diet was a difficulty, for they refused at first to take eggs, milk, and orange juice, and yearned for tea and bread and jam.

It is evident from the foregoing account that the casuals at Foresthall concern the Hospital and the doctors much more than might have been supposed. At one time five different wards each had a baby, - not excluding the mental ward, where a mental defective of 46 developed typical measles. During December, January and February 1950 -51 :-

35 children were transferred from the casual ward to another hospital;
of these 13 were first accommodated in Foresthall Hospital,
4 were treated throughout in Foresthall Hospital,
5 were left in the casual ward during their illness
because no bed outside could be found.

(details in appendix 2).

On one occasion a mother abandoned two children, one a baby which had to be cared for in Foresthall Hospital until a vacancy could be found in a Home. In another case, a mother was transferred to a fever hospital with Sonne dysentery; her baby could not be taken into a Home because it was a contact of Sonne dysentery, nor into hospital because it was not actually suffering from the disease. Another mother/

mother, transferred to hospital in labour had to leave 5 children behind in Foresthall, a boy of 14, a girl of 12 who was already in one of the Hospital wards with pneumonia, and three others, aged 7, 4 and 3. These 3 youngest were left in the casual ward throughout the mother's stay in hospital to have her new baby.

How are these homeless mothers and children to be disposed of? To house them according to modern standards of accommodation would require, for such large families, council houses of abnormal dimensions. Are they therefore to do without houses at all, and wander for ever like lost tribes, to fret and harass the closing years of the decent elderly, many of whom never saw such people in their respectable lives as they now find in their immediate environment? Separate habitation even of the simplest type would seem to be a preferable solution, for an inadequate home is better than no home at all. Perhaps this would be deemed unworthy of a welfare state, but there is a great deal to be said for Chesterton's famous paradox: If a thing is worth doing, it is worth doing badly.

II.c)(i).

The Hospital in general.

To cope with the minor illnesses of the inmates of the old poorhouses, certain sections of the institution were set aside as "Hospital". Generally these sections were known as the infirmaries, but in Glasgow, where the Infirmaries are the ex-voluntary hospitals, the word was avoided by the workhouses, and the section for medical treatment in Foresthall is known simply as the Hospital. At first the Institution Hospital was reserved for the sick Institution inmates: the doctor had no power to admit to Hospital anyone, however ill, sent in for Part III; - a reasonable precaution in theory, to avoid "queue-jumping" in the long waiting-lists for admission to all hospitals, but in practice a harsh rule adhered to in defiance of all humanity. With the changing of other Glasgow institutions for "chronics" into general hospitals and the consequent increasing need of beds for the infirm elderly, there has of late been a growing tendency to transfer to Foresthall patients from other hospitals; and quite recently, out of compassion for the plight of the helpless aged, denied admission to general hospitals where the beds are so urgently needed for acute cases, some old people, in a pitiful state of neglect, have been admitted straight from their own homes.

The Hospital has long been regarded with aversion and fear, for in the past it earned for itself an unenviable reputation: it was the place where one was sent to die, the last humiliation of the aged poor; its motto could well have been "Abandon hope all ye who enter here." This tradition dies hard, and even now, after two years of ever-increasing improvement, horrified and protesting relatives/

relatives are liable to arrive when an old person is transferred here. This attitude cannot be attributed merely to a dislike of being pauperised, for even those patients who have nothing but their old age pensions are charged a guinea a week, which is more than patients in general hospitals pay. Whether there is any foundation or not for the traditional reputation of the Hospital will be learned from the following description, written in 1949. Some of the deficiencies in equipment mentioned have now been made good, thanks to the awakened interest of the Board of Management for the Glasgow Northern Hospitals and the kindness of the Hospitals' Auxiliary Association; such items are marked with an asterisk. These and other improvements will be discussed in chapter III which describes what changes were made: this chapter limits itself to what was found. The picture presented by the Hospital in 1949 was a gloomy one, and for many months there seemed little hope that much light would ever dawn upon it.

There are three types of Hospital buildings: firstly, the original Hospital Blocks of 50 years ago; secondly, the more ancient poor-house buildings taken over as Hospital during the war (i.e. the West Wards); and thirdly, the "Cottages", equally ancient, which served as hospital wards before the new blocks were built. There is little ground-floor accommodation, - only sufficient for 78 females and 68 males. There are no lifts and no outside fire-escapes, nor, of course, any verandahs. The wards are scattered, and to visit them much ground has to be covered in the open air. There are no sign-posts in the grounds, and only the West Wards show the number of the ward.

The/

The Hospital Blocks are three-storey brick buildings with four wide straight staircases. The banisters are much too high to be helpful and there are no hand-rails. The ward doors swing in both directions and are entirely of wood, so that people are liable to push against each other, and the frail may be knocked down. The ward door-ways are too narrow to allow the passage of a bed. The wards are looked after in pairs, - one long narrow ward of 22 beds and one small ward of 10 beds. The general appearance is pleasant, with pale green walls and long windows, unfortunately seldom cleaned. The floors are of polished wood, and down the centre of the long wards runs a strip of highly polished linoleum, in which are reflected the neat straight rows of beds with white mats hanging symmetrically over the ends. There is a duty-room (which also serves as linen-room) for the nurses, a kitchen and toilet facilities at both ends of the long wards, but no room for the doctor or for side-room work. Case-sheets have to be written and relatives interviewed in the ward. There is central heating which is often very inadequate, temperatures of 40 to 50⁰F. being common in the wards in winter; the wide stairs at each end of the wards are conducive to draughts. The small wards have fire-places which are occasionally in use. The toilet facilities are fairly good: there are no hand-rails leading to them, but the w.c.s. are light, have half-doors, and there is room to enter and help a patient; they are too few in number (3 per 32 patients) and if many patients are up there is a waiting queue; the bathrooms are rather small for the manoeuvring of wheel-chairs, and the baths have very high sides.

The West Wards were formerly Part III accommodation and consist/

consist of innumerable small wards, much darker than those in the Hospital Blocks, because of smaller windows and deep window-sills; many of them have pillars down the centre. There are two dreadful L-shaped wards which it is impossible to ventilate properly, for they have windows only on one side. In some cases the nurses' duty-room and the kitchen are combined; in one case the bathroom, complete with toilet for the use of the patients and staff, has to be used as the kitchen; in others all the traffic in and out of the ward passes through the kitchen. Again there is no doctors' room and case sheets have to be written standing in the ward. The washing facilities are poor. As in parts of Part III (the "Body of the House") in some cases the w.c.s. are one stair above and the wash-hand basins one stair below (or vice-versa) the level of the ward. In others a staircase landing has to be crossed, not only to reach the toilet but also to convey patients to the bath. Some of the baths empty so slowly that it is impossible to give each patient fresh water; and in the case of one ward, the patients have to be taken down a spiral staircase to the bath, which results in the ward being left unattended. All of these toilet and wash-places are small and dark. These wards also have the usual polished floors. They have no central heating, and during the winter months are heated only by coal fires. The stairs are dark and tortuous as in Part III; few have hand-rails, and in some the iron banister is on the inner side of the spiral.

The two "Cottages" are enormous barn-like buildings with tiled walls, which are extremely dirty above the level to which the maids can reach; and they have high dark ceilings with beams from which showers of soot descend upon the patients and their beds in windy/

windy weather. The windows are of non-transparent glass, and on one side are reinforced by wire netting, as a protection against the stones thrown by the local inhabitants; the resulting effect is very gloomy, except in bright sunshine. The wards are very wide, and have polished wood floors. Each has a small room with a fire-place, which could be used as a day-room ^x, but in one an obsolete operating-table and a large steriliser are housed and the fire-place is boarded up.^x Both of these small rooms have likewise opaque windows. The bathrooms are extremely small and dark; and the toilets are pitch-dark when the doors are shut, and are unfortunately at the opposite end of the wards from the small rooms. The Cottages are not equipped with slunges.

The Hospital wards of all these three types are furnished as follows. The beds are ordinary black hospital beds, only 5'9" long, and 26" high; there are no low beds suitable for "up" patients, and only two cot/^{beds} for the whole Hospital. The wards are not overcrowded, and there is room for a locker (one per patient) on one side of each bed and a chair on the other. The lockers are small wooden ones with a flat top, a door at the front and one shelf dividing the interior; there is a rail at the back for a towel and a shelf almost at floor level for a urinal. Patients have to be very agile to extract their belongings from these lockers. There is nowhere else in the ward to keep any private possessions. The chairs are nearly all ordinary wooden armless ones (like kitchen chairs); there are only/

* Refers to deficiencies in 1949, since made good by the Board of Management for the Glasgow Northern Hospitals or the Hospitals Auxiliary Committee.

only a very few with arms and cushions.* There are no bed-tables,^x and the only available flat surfaces are the tops of the lockers and the chairs, which have to hold papers, glasses, false teeth, sputum mug, urinal and trays at meal-times. With no ash-trays^x available, tobacco ash, cigarette ends and spent matches find their way into the sputum mug, - a receptacle of chipped enamel, without a lid. There are fittings for lights above the beds in some of the wards, but the necessary electric bulbs are lacking. The only artificial lighting is supplied by lamps of low wattage suspended from the ceiling down the centre of the wards, and reading in bed after dark is impossible. There are uniform dark-blue or orange screens, and in some wards dark-blue bed mats. Bed-cages, back rests, air-rings and air-beds are in short supply and often defective. There are no wheel-chairs,^x - if one excepts the ancient plain wooden ones, on huge wheels with iron spokes, which are used to take patients to the bath; these tip up readily and frequently fall to pieces, with consequent risk of injury to the patient. There is considerable difficulty in getting even minor repairs carried out in the Hospital, as the workmen are employed by the Local Authority. Commodes are mostly of the backless armless type, and patients frequently fall off them; there is an inadequate supply of bedpans (4 per 32 female patients), and urinals (most of which are enamelled and chipped). There is no equipment designed to help the patient to move, - no overhead or bedend pulleys, no Balkan beams, not even any walking-sticks.^x Simple surgical equipment is hard to find, yet there is a fantastic collection of instruments for major surgery. There are wireless/

wireless loud-speakers in all the wards except some of the smaller West Wards which would make the best day-rooms; and the Hospital Blocks and Cottages are wired for head-phones, but the supply is inadequate. The choice of radio broadcasts is strictly limited, for only the Light programme is heard, (and that only from 12.30 to 1.10 p.m. and from 5.30 to 11 p.m.), except on Saturdays when only the Home programme is available; the female patients, therefore, if they do not care to listen to the football commentaries on Saturday afternoons, have no alternative but to switch off. Often the loud-speaker is left on indefinitely, and maybe a play, in the English diction of the Home Counties, as incomprehensible to its audience as if it were in Chinese, is poured forth upon a completely apathetic audience in the ward. There is one antiquated gramophone.^x

The wards are frequently very short of bed-linen, especially at week-ends, and sometimes gowns have to be used as draw-sheets. The Institution laundry has an insatiable appetite for tapes and buttons, and the monthly supply of these accessories is very small. There are no soiled linen carriers,^x and the used linen has to be trailed round the wards on a rubber mackintosh. All particles of faeces have to be removed by the nurses before the linen is sent to the laundry. There are no linen baskets for the return of the clean linen; the consignment for each ward is tied up in a large cloth, and the bundles are wheeled round the grounds by a mentally deficient inmate from Part III. While he delivers to one ward, the rest of the linen is left in the open, where it may be soaked with rain or snow; sometimes fresh linen has to be dried in the wards before being/

being used. The amateur laundry-man's method of delivery is peculiar: he usually charges upstairs with his bundle on his back, bursts into the duty-room, empties the clean linen on the floor with a frightful laugh, and rushes out again, trailing the covering cloth behind him.

The clothing supplied to the patients of Foresthall Hospital is deficient both in quantity and quality. There are no proper dressing-gowns, only some bath-robos made of towelling, and a few tartan cloaks which hardly reach the thighs. There are few pairs of bedroom slippers^x, and those are mostly the personal property of the patients; there are some leather slippers in a poor state of repair (with nails visible inside and large holes in the soles). Most patients go to the toilet in night-gown and bare feet, and bring a considerable amount of dirt back into bed with them, - though some fastidious ones seek to improve matters by kneeling on their beds and dusting their feet with their hands. No outdoor or day-time footwear is supplied^x. For day-time wear there are for the female patients a few drab thick shapeless frocks which shrink extraordinarily at each washing; for the male patients the supply of hospital-blue suits is slightly better, but by no means adequate; (at the time of the survey: 61 frocks and 176 suits for a Hospital of 640 patients)^x. Socks and stockings (black)^x are in such poor supply that they can seldom be spared for repair, and are simply allowed to disintegrate. There is great difficulty in getting worn articles "condemned", and replacements are granted only once a year, at stock-taking. No handkerchiefs are supplied, and patients tend to steal rags, dusters and dressings, - or use the sheet.

The/

The food for the hospital (and for the rest of the Institution) is cooked in the Foresthall kitchen, and transported to the wards either by inmates of Part III (often mentally deficient) or by specially employed porters. There is no method of keeping the food hot on its long journey.^x The containers are either open racks, or discoloured and battered cans, their interiors rough and blackened with incrustations of old food. The standard of cleanliness is very low: the food carriers can be seen peering into the cans, or dumping the potatoes (in open wire trays) on the gravel, or on the stone floor where the soiled linen is dropped from the wards above; loaves are hugged to dirty jackets, and if they drop, are picked up and brushed with dirty hands; butter and jam, transported in open bowls, is sampled with the fingers. When the food has reached the wards, the meals are dished out in the kitchens by the ward sisters (or nurse in charge), and carried to the patients on heavy wooden trays by the maids and nurses, who afterwards collect the used plates in the same way. There are no food trolleys.^x The patients eat from metal trays, sometimes without tray cloths, balanced precariously on their knees. The bread is cut and spread beforehand, sometimes so long beforehand that it is dry when served and curled up at the corners. Bread, and even shelled hard boiled eggs, are given out by hand. Bowls are necessary for most of the dinners, because of the soup-like consistence of even the main course; and some of the male wards still use bowls for tea.^x The only cutlery provided is one large soup spoon per patient, nor is it washed between courses.

The/

The menus are as follows:-

Breakfast: (7.30 a.m.) Porridge, bread with butter or margarine, and tea, made in the kitchen with sugar and milk added, and sent over in cans. This brew does not smell like freshly made tea, and there is no pandering to such idiosyncrasies as taking no sugar or no milk.

Dinner: (11.30 a.m.) 1. Soup (of unpleasant smell and often blackish in colour, usually thin and watery, but sometimes populated with hard peas.)

2. The main course is of seven varieties, and each day of the week religiously adheres to its own particular dish. The programme is as follows:

Monday - mince (greasy and often with a nauseating "faecal" odour).

Tuesday - stovies (a mixture of potato and onion).

Wednesday - pies (i.e. individual "bakers' pies", with very hard bases, and cold.)

Thursday - rabbit (with a decaying odour, and obviously inadequately cleaned.)

Friday - fish (coarse and smoked and often only half-cooked).

Saturday - stew (a sort of sloppy Irish stew, with very infrequent pieces of meat.)

Sunday - tripe (worst of all, often greenish in colour, and with a foul smell).

The potatoes served with this course are blackish, sometimes earthy, and very water-logged; if cabbage is served, it has the same appearance.

3. The third course (if any) is always a milk pudding (usually lumpy, watery and insufficiently cooked) except on Fridays, when curious pale slabs are handed out dry, like cake.

"Ordinary diet" consists of soup and "meat", with occasional pudding course; "light diet" consists of soup and pudding, with occasional fish.

Tea: (3.30 p.m.) Bread, sometimes with jam, and an occasional pie, sausage roll, or hard-boiled egg. (Many patients dislike hard-boiled eggs, but they are always served this way, except for a very few raw ones which reach the wards, and are cooked appetisingly by the nurses). The beverage at this meal is the same as at breakfast.

Supper: / (6 p.m.).

Supper: Cocoa (a queer pale brew) or milk, which some patients (6 p.m.). prefer and can usually be obtained.

A few extras are available in the Hospital Blocks and the Cottages (such as eggs, milk, milk puddings, jellies), but not in the West Wards which are not permitted even to have "light" diets.* There is never any fresh fruit, nor any provision for special diabetic, reducing or salt-free diets.

It is hardly surprising that a number of patients eat extremely little of the Hospital diet, and come to rely on what is brought in by their visitors (usually carbohydrates), or on what the nurses can supply. Some patients have omitted the main course at dinner for years. To anyone encountering them for the first time the smell of the mince, tripe, and fish are extremely nauseating; some people are sickened by having to dish them out; and a Sister was once accused by a nursing superintendent of leaving the soiled linen in the kitchen when the smell was in fact emanating from the mince. Small outbreaks of diarrhoea are taken as a matter of course: if on Monday, "it was the tripe, doctor;" if on Friday, "I was hungry and took a wee bit rabbit yesterday." The sense of smell must deteriorate with age or the sensation of hunger overpower all other feelings. It is not at all surprising that the following report was returned on a sample of the Hospital tripe sent for culture:

The cooked specimen produced a very heavy growth of B. Coli. No pathogens were isolated but the growth of coliforms indicates some source of faecal contamination between the cooking-pot and the ward.

Considering the stress which has been laid in the last fifty years on/

on adequate and well balanced diet, and the importance which food has in the lives of the elderly in hospital, one is amazed that such a state of affairs is allowed to continue. To plead that Foresthall patients have never been used to anything better is absurd: even the old "modellers" despise the food; no intelligent woman, however poor, would cook and serve food in such a way; and many patients, especially the females, come from very respectable and superior working-class homes.

The size of the medical staff is an indication of the amount of medical care which has been contemplated for this hospital of 640 patients (plus Part III, plus the Casuals in emergencies). There is a medical superintendent who is also in charge of two other hospitals, and visits Foresthall twice a week. The medical care of the whole Institution devolves upon a resident staff of at most three, of whom only one as a rule is a qualified doctor.^x The remaining two are usually final-year medical students, who vary in calibre from those who by some unexpected mischance have failed to pass their final examinations, to those who by equally strange good fortune have reached the last hurdle: whatever their ability they naturally have other preoccupations more urgent than the welfare of the patients, for whom in any case they cannot be held responsible. The one qualified doctor has therefore a Herculean task. But strange to say this post has always been regarded as a sinecure, - a restful position for the doctor who has been ill, or who has not been successful in the competition for residencies in better hospitals, or who aims simply at having as easy a time as possible: when one considers the numbers of the patients, the widely scattered wards, and the severe strain of/

of night calls in such a place, this idea is fantastic. Conditions are made so difficult for the carrying out of reasonable medical care that the conscientious doctor feels himself an interloper. There is no doctors' office, and relatives have to be interviewed in a crowded general office. The Surgery (referred to in the description of Part III) cannot be regarded as the doctors' private office as it also fulfils the functions of side-room laboratory, record room and dispensary store. Communication with the widely scattered wards is very uncertain, for there are few telephones, and these are frequently out of order; the male and female Hospital Blocks have only one telephone each. Little information can be obtained from other hospitals when they send in a patient, - merely a transfer-form bearing the words: "Diagnosis, senility; treatment, rest in bed."* The previous case sheets of the patients are in a deplorable condition, and the record-system is a chaotic muddle of dirty sheets of cardboard. The shift system in vogue among the male nurses gives the doctor no assurance that prescribed treatment is being carried out or that anyone is responsible for what happens in the men's wards. There are obstacles in the way of even the simplest investigation: the ordinary clinical testing of urine presents a problem when all specimens have to be carried through the grounds to the surgery, and the lack of reagents shows that little has been done in that way for some time; a broken centrifuge, a burette and some beakers seem to indicate some long departed enthusiast, but there is no microscope and no haemoglobinometer; patients requiring X-rays have to be sent by ambulance/

ambulance to a hospital a mile away, and biochemical and pathological specimens are conveyed to the same destination by messenger, with the result that specimens sent for culture are only too frequently found to be sterile.

A newcomer to this Hospital, if accustomed only to acute general wards and the bright activity of a successful geriatric unit, is appalled by the moribund aspect of the place, and is at once aware that reform is necessary on two planes, firstly in ordinary medical treatment, and, after that has been established, the initiation of remedial therapy. Surprise that so little amelioration of the work-house atmosphere has ever been attempted is soon dispelled when it is realised that no solitary young doctor, without outside support, with such enormous Augean stables to be cleaned, and with very probably no more than six months tenure of the position, could possibly have achieved anything, especially in the teeth of the implacable opposition of established authority. Foresthall Institution, qua ex-poor-house, has lay administrators appointed by the Local Authority; Part III and the Casuals come under their jurisdiction. Although the Hospital has been transferred to the Regional Board, they continue to exercise authority there also, for by a curious anomaly, the Hospital buildings still belong to the Local Authority, and its administrators refuse to permit any "structural alterations," for example, the erection of a Balkan beam, the painting of numbers on the ward doors, or the opening up of a blocked fireplace. Patients are kept in bed "by order of the Governor"; inmates of Part III are transferred to Hospital on his decision, and indeed rushed there should they show signs of dying in the/

the wrong section of the Institution; a sudden accident with the risk of unpleasant inquiries causes great consternation, while the prolonged misery of existence in Part III and the living death of the Hospital patients, are contemplated with absolute indifference. The views of the lay administrators, stated frequently, loudly, and before many witnesses, are that the doctors' only useful function in Foresthall is to sign death certificates, and that the patients are not to be treated, for they are here to die. And so laziness and incompetence have long been condoned and worse aberrations treated with complaisance, if only the doctor fell in with these views and "co-operated". (Any doctor daring to raise a little flag of resistance was no doubt bluntly warned, as the present doctor is from time to time: "If you go on like that you will not be allowed to work here.") In the past, therefore, there has been only sporadic revolt. Now that the care of the aged has become a matter of national concern, it would have been natural to expect that the most inveterate Bumbles would abandon their position and fall in with the new ideas. On the contrary, the opposition (1949-51) goes on with scarcely diminishing fierceness, and it is made plain that no "interference" will be tolerated.

The Hospital wards are staffed by male and female nurses. A matron and her administrative staff are in authority over the female nurses and the domestic staff; but the male nurses come under the jurisdiction of the Institution governors. It is frequently reported that the wards are overstaffed, there being a nurse: patient ratio of 1 : 3.7, whereas 1 : 5 is considered adequate. At present, however, /

however, there are only 50 female nurses and 90 male nurses, a ratio of 1 : 4.6 patients, - which may appear sufficient on paper, but takes no account of several facts, - that nurses do not work for twenty-four hours on end, that they have days off and holidays, and may be absent through illness, that the female nurses have to do a three months spell on night duty, and that on the male side the shift system causes desperate understaffing at critical hours of the day. In a hospital such as this, there are many **time-consuming** tasks to perform: there are heavy patients to prop up in bed or convey to the bath, there are weak patients to feed, restless patients to control, beds to be changed 4 hourly, and frequently the domestic work of floor-polishing to be done; and all these duties have to be performed under difficult conditions with many shortages, and the complete absence of many necessities of nursing technique. The administration relies on the operation of the laws of chance to share out admissions evenly and to keep the wards equal in "heaviness"; but this theory is fallacious, as will be shown in the section on redistribution in Chapter III.

The male wards are staffed entirely by male nurses: there is no equivalent of the ward sister, although some of the men are capable and intelligent, and would probably do very well in charge of a ward, with adequate staff under them, and given some direction by an active and interested doctor. As it is, there is no one in the ward who can be held responsible for what goes on there. The nurses work in three shifts, and one cannot count on finding the same nurse on the same shift, for they change shifts each week. Each shift hands over completely to the next shift, and no one takes any responsibility/

responsibility for anything that happens in another shift, (which it usually does). To organise the nurses' work in shifts is to assume that the patients require the same amount of attention throughout the twenty-four hours: in practice it works out in such a way that one nurse is on duty alone for 32 patients, for eight hours during the day. There is consequently so much to do that even the best nurse sometimes loses heart; one can only admire the way in which they succeed in keeping the patients clean and fed and free from bed-sores. Rehabilitation in such conditions would be out of the question. The training of the male nurses has been for the most part in "mental" work, and some of them are liable to treat all their patients as if they were "confused"; there are a few fully trained nurses (S.R.N.); and a number of orderlies with nothing but a little army experience, and in some cases unkempt, uncouth, and without any desire to learn. But probably all of these types would benefit from the introduction of some dynamic energy and direction, and many of them could, in favourable conditions, develop into successful geriatric nurses.

The female wards are each under the charge of a fully trained ward-sister (S.R.N.), with in some cases a staff-nurse, "mentally-trained", under her. The other nurses are either "assistant nurses" or orderlies; there is no real difference in the work which these have to perform; and any previous experience they have had is, as a rule, only of "mental" nursing. The standard of efficiency in the female wards is much higher than in the male, owing to the presence of competent trained Sisters in charge. Also, the female orderlies are much superior in nursing gifts to their male counterparts, for many of the simpler nursing duties come naturally to them, having no/

no doubt been often performed, with the same motherly kindness, in their own homes.

E.W. Hard (1947) writing in the American journal of Geriatrics on how to nurse the elderly patient, says that a good geriatric nurse should have patience, interest and a sense of humour, and should treat the patients as individuals, not cases; the patients should never be hurried, or treated with impatience, or corrected if they forget recent events and make mistakes; they should be excused for their carelessness about personal cleanliness, for that may be caused by physical weakness or poor eyesight; they should not have their feelings hurt by careless remarks about dribblers, nor be treated as babies, though they have "some of the qualities of childhood without its endearing qualities." The Foresthall nurses have for long years followed these precepts, without any instruction in geriatrics. There has admittedly been no remedial therapy in their wards; but it was no business of theirs to go against the established policy of "keep them in bed", nor any part of their duty to get people up without the doctor's orders, and jeopardise their own security. But, faced with wardfuls of bedfast patients, they proceeded to perfect a technique for dealing with them, and became specialists in their own line. Elderly people, confined to bed for years, are supremely hard to nurse: many become heavy and helpless, apathetic or aggressive, careless or even disgusting in their habits. They offer none of the satisfaction, interest or variety of acutely ill patients cured and returned rejoicing to the bosom of the family. They do become like weakly children: it takes time and patience to feed them and to soothe their querulousness; and it takes infinite skill to keep intact their tender/

tender skins, subjected to the pressure of long years in bed and the incontinence which so often occurs in such circumstances. The Foresthall nurses have the patience and the interest and the sense of humour advocated by Hard. They are genuinely attached to their patients and know all their idiosyncrasies. They are mines of information on the ramifications of their family trees, and know the names of their relatives, though seldom or never seen. They shop for their patients and bring them presents of sweets and clothes, and cheer them with supererogatory cups of tea. The scoldings are affectionate, and the hard words merely repartee, or teasing, as one would tease a child. And they would not admit for a moment that their elderly "children" are less endearing than young ones, for anything helpless is "endearing" to them. The words "a dear wee patient" are often on their lips, (and, after all, could a child make a more endearing remark than "God bless you, hen.") Situations which would try the patience of a saint are taken in their stride. As for bed-sores, there are none that human ingenuity could avoid (see under section on skins). A new admission with broken skin is seized upon with alacrity, and soothed with pitying words and the latest thing in Sister's repertory of salves; and if a patient should chance to die with a sore not quite healed, the nurses' sorrow is aggravated by regret for having fallen short of their own standard of perfect nursing. Visitors have remarked on reaching at last their desired destination after bewildered wanderings and strange encounters within Foresthall precincts: "I never imagined that the ward would be like this," as if they had found an oasis in a wilderness. Those who despise /

despise the nurses of the aged for giving their talents to such a "dead-end job," should rather regard them as heroines in some outpost, keeping up their standards of excellence in the most adverse circumstances. That it is not unusual for good nurses to be found caring for the elderly will be seen from the following eulogies:- Thomson (1949)²⁰¹ referring to the nurses at the Western Road Infirmary, Birmingham, says: In their quiet endurance and their efficiency, as in their triumph over discouraging circumstances and lack of proper equipment, the nurses recalled the virtues of their fathers in the rank and file of the county regiments who held the trenches in Flanders in the campaign of 1914-18, and saved Europe. Crockett and Exton-Smith(1949) The care and devotion the nurses have shown to these patients is almost beyond praise. Looking after these people, who often are helpless and entirely dependent on others, carries with it a sense of inner reward and aesthetic satisfaction probably not to be found in any other branch of nursing.

McEwan and Laverty (1949)¹⁵⁴ also note that the standard of nursing is excellent, and give individual examples of devotion and self denial.

Adams (1949): The few nurses deserve the greatest credit for the way in which they managed to look after their patients under the difficult conditions. Not only did they succeed in keeping them with few exceptions free from bedsores and clean (despite scarcity of bed-linen and clothing) but the wards themselves were remarkably well-kept.

In/

In "Welfare on Merseyside"²³ some special training is advocated for all those concerned with the care of the aged sick. Elliot (1947) proposes that older nurses should look after the chronic sick, and that younger ones should be reserved for "more strenuous and specialised aspects of nursing." But the West Middlesex Hospital shows that chronic sick nursing, if properly done, is not only one of the most strenuous and specialised, but also one of the most engrossing and testing forms of nursing. Certainly it is true that resourcefulness, ingenuity and a constant standard of treatment are of extreme importance in the care of the elderly: one lazy night-nurse can cause bed sores which take weeks to heal; one tactless day-nurse can undo the rehabilitation of months.

The staffing situation in the female wards at Foresthall is better than in the male ones, and is tolerably good for ordinary care and attention, though not for active remedial therapy. With a sister and four nurses on day duty for a ward of 32, there is some time of the day when there are three or four on duty, and the heavy work of bathing and changing beds can be done then. It should be noted that some patients require at least four people to move them; that the nurses have to help with dusting, cleaning lockers, polishing floors, giving out food and washing dishes, and that in the Hospital Blocks the nurses have to take all the telephone calls and convey the messages to six wards. Absolutely every duty connected with the wards and the stairs leading to them, is the work of the nurses, with the help of only two maids per ward: if the maids are not available, it is expected that domestic duties shall take priority over nursing. Many hospitals employ ward orderlies (not nurses) who give out food, attend/

attend to flowers, etc. In Mr. Cosin's unit orderlies from the physiotherapy department help the patients to dress. Other units are staffed as follows: McEwan and Laverty found

11 sisters	}	170 for 630 beds i.e. 1 nurse : 3.7 patients.
27 trained nurses		
132 untrained or in training		

They considered this sufficient to carry out routine work but not for active or intensive treatment.

Thomson (1949) reports that on an average

4 trained nurses	}	25 nurses are employed for 100 chronic beds i.e. 1 nurse : 4 patients.
21 assistant nurses		
22 domestic workers		

He considers that in a teaching hospital the ratio should be 1 : 1 but in an infirmary (= chronic hospital) 1 : 7 patients.

Cosin (1947)⁵¹ considers that 100 beds in an active unit require -

24 nurses
12 orderlies
1 - 2 physiotherapists
4 physiotherapist orderlies.

He states that 1 nurse : 4 patients is required for rehabilitation or for the permanently bedfast.

Dr. Warren's unit has for 45 beds

1 sister	}	for 24 hours.
1 staff nurse		
15 nurses		

Sister and staff of 12 on day duty; 4 nurses on night duty.

Convalescent ward : 2 fewer nurses on day and night duty.

Extras: /

Extras: night duty relief and part time staff.

Ratio of one nurse to 2 to 2½ patients.

She also recommends extra help for dressing the patients.²¹²

Amulree (1951)¹¹ has

1 sister	} on day duty	} 11 for 30 patients.
1 trained nurse		
7 student nurses		
2 student nurses on night duty		i.e. 1 nurse : 2.7 patients.

The student nurses at University College Hospital work in his geriatric unit for three months as part of their training.

Crockett and Exton-Smith (1949) report that formerly there was one nurse to 4.5 patients.

"Old People"¹⁴⁷ considers 1 staff to 7 - 8 healthy old people sufficient.

Brown (1951) however notes that with one trained nurse to more than 20, and one untrained nurse to more than 3, it is not possible to achieve the turnover of Lord Amulree.

At Foresthall there is no establishment for physiotherapists, occupational therapists, almoners, dietitians, librarians or chiropodists; any services of such a nature must be supplied by the nurses, both male and female. (See also chapter III). A barber is employed to clip the male patients, not to shave them, the reason alleged being that they have not been accustomed to being shaved, and might get cut.

The Survey of Foresthall Hospital Patients.

II. c) (ii).

The first part of this survey, that is the description of Foresthall Institution as a whole (Part III, the Casuals, and the Hospital in general), was written between September 1949 and January 1950, when, as is explained in the Introduction, the writer held the post of resident doctor. Ideally, the detailed survey of the patients should have been made contemporaneously, but the duties of sole qualified medical practitioner in the Institution made it possible to do no more than carry out the preliminary investigations, study the general conditions, estimate the attitude of the administrators and of the nursing staff in the wards, make a rough assessment of the capabilities of the patients, and institute a little tentative rehabilitation in one ward.

The paramount interest of the investigator was in the elderly patients themselves, and the aim was to make a detailed examination of their condition and circumstances, in order to find out if the best use was being made of their powers, in the light of the discoveries of successful geriatricians. But no detailed and systematic investigation was found to be feasible until February 1950, when the investigator resigned from the position of resident doctor and concentrated upon completing the survey of patients as quickly as possible, -while maintaining contact with the nurses, and encouraging their awakened interest in remedial therapy. By this time, in spite of concerted opposition, a slight improvement was noticeable, a gradual lessening of the prevailing torpor: not only in /

in the ward chosen for rehabilitation, but in the others as well, patients were encouraged to arise and walk if they were plainly able to do so; and in the male wards, where shortage of staff made active rehabilitation impossible, the policy of compulsory bedfastness had been more or less allowed to lapse.

The purpose of this most important part of the survey was to find out what sort of people were occupying the 644 beds in Foresthall Hospital, and why. In the remaining part of this chapter (II), a detailed description of their state will be given under the headings of A. "Medical assessment," and B. "Social assessment." It must be remembered that the figures given for mobility are more favourable than they would have been six months earlier. In September 1949 it was difficult to determine exactly how many male patients actually were completely bedfast, for in the understaffed condition of the male wards some nurses connived at unauthorised sallies from bed to go to the toilet. But it was possible to make exact computations in the female wards, and it cannot be sufficiently emphasised that in September 1949 only 5 per cent of the female patients got up, that is only 10 women out of 200; whereas by the end of 1951, only 19 per cent are completely bedfast.

Perhaps it is unjustifiable to draw general conclusions about the elderly from the survey of such a selected part of the aged population as that found in Foresthall; but the similarity of the findings here to those published in regard to other institutions of the same type leads to the hope that this survey may be of some use to those who are planning for just such an aged population, and would/

would be glad to know what conditions they might expect to find.

Method of Investigation.

All the patients were seen within as short a period of time as possible, approximately one month for the female patients and two months for the male. Each ward in turn was completely examined; if a bed was found to be vacant it was counted as such, and any admission to that bed at a later date was omitted from the survey. A small amount of information was gleaned from the case-sheets and bed cards; the patients were themselves questioned and fully examined; inquiries were made of the nursing staff about incontinence, ability or desire to walk, the available stock of clothes, the number of armchairs; and suggestions for improvements were noted. A summarised case-sheet was made for each patient, and the general findings were tabulated. (see appendices 4 and 5). The existing case-sheets were found to contain remarkably little information, and the reason for admission was often obscure. It would have been interesting to discover how many had become bedridden since admission, but there was no reliable source of information on this subject. McEwan and Laverty (1949)¹⁵⁸ questioned the relatives, but in Foresthall, - where visiting times are so few and visitors for the most part are neither regular nor numerous, where the wards are so scattered and there is no doctor's office in which to interrogate visitors, - this was found to be impracticable. In some cases it was doubtful if any relatives existed; but in general the statements of the patients were accepted as correct. Details about visitors to the female patients, their number and regularity, could be easily ascertained /

ascertained from the nurses; but in the male wards, owing to the shortage of staff and the operation of the three-shift system, such observation was impossible. Opinions about incontinence were found to lack precision: some would label a patient incontinent for infrequent lapses, whereas others would hasten to say that there was only an occasional "accident"; but the true state of affairs could frequently be determined from the condition of the bed. As for the classification "Remediable", it was hoped that a serious attempt at rehabilitation would be made throughout the Hospital as soon as this Survey was completed, and that the accuracy of that label could be verified; but this has been possible only in the female wards. Those patients were classified as "Remediable" whose condition was deemed comparable with that of patients seen in Dr. Warren's wards at Isleworth, and who had in fact been taught to walk again. The results in the female wards have proved that the estimate made was under - rather than over - optimistic.

General findings: (Sex, age, time in Foresthall, activity, previous medical attention).

The allocation of Hospital beds was found to be in the proportion of 2 male : 1 female. That this is an unfair policy is proved by the fact that it is much more difficult to obtain admission for a female than for a male. The exact numbers on the waiting list are unknown, but female patients lie for years in other hospitals awaiting admission, whereas a male patient can be transferred almost immediately. The higher male death rate, the greater female longevity, combined with higher female morbidity, the greater difficulty /

difficulty of the man in looking after himself or his sick wife than of the woman in similar circumstances, are all reasons for making more beds available for the female elderly. (The higher female morbidity may well be artificial, caused by social circumstances, and the lengths to which a woman will go "to keep on her feet".)

Dr. Warren finds that even with 3 female : 1 male bed, the female waiting list is always much the longer. McEwan and Laverty (1949) found 41 per cent male : 59 per cent female beds, but consider that 2 women : 1 man is a more accurate estimate of the sex ratio of beds required in the hospital group of aged sick. Other figures quoted are:

	Male.	Female.		
Thomson	45%	55%	in	Birmingham
Greenwood ⁸⁹	34%	66%	in	Manchester
Affleck	29%	70%	in	Leeds
Adams	50%	50%	in	Belfast

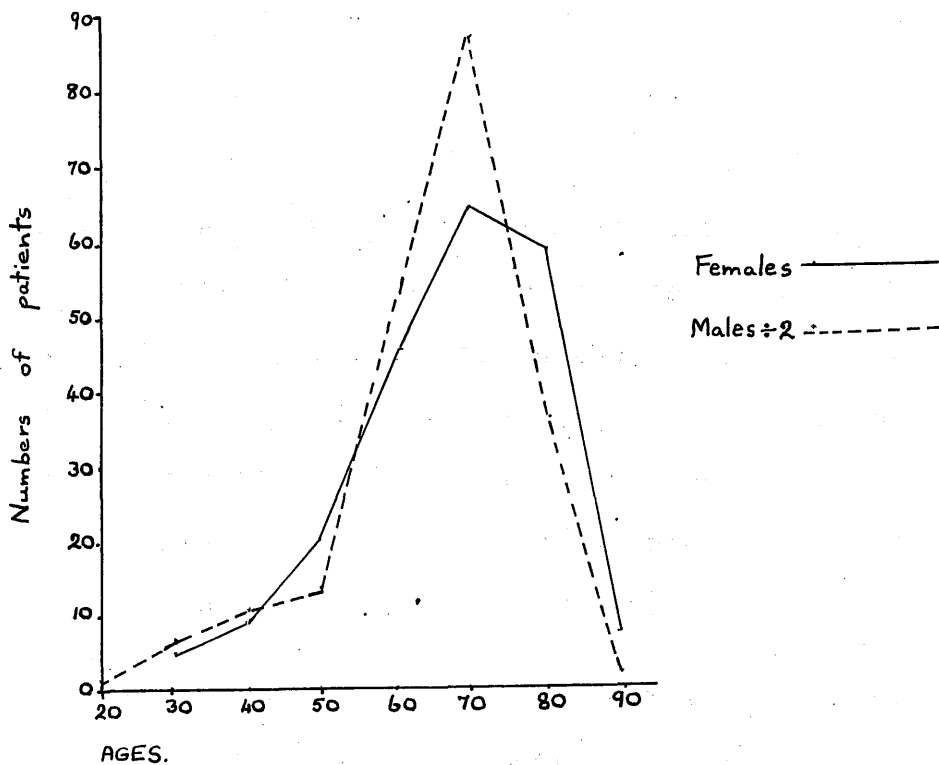
Kropach (1951) found the sex ratio of the waiting list of elderly patients in the Paddington district of London to be 3 female: 2 male, and notes that the sex distribution of hospital beds does not conform with the morbidity figures outside. (Morbidity however is judged by requests for admission to hospital, and social circumstances as already mentioned, may help to increase female "morbidity.")

Age of Patients.

The ages of the patients in Foresthall Hospital at the time of the Survey are shown in the following table.

Ages /

Ages.	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99
Female (207)	0	4	9	20	44	64	59	7
Male (415)	3	10	21	26	104	174	74	3
TOTAL (622)	3	14	30	46	148	238	133	10



Age	60-69	70-79	80 and over
Females	21%	31%	32%
Males	25%	42%	19%

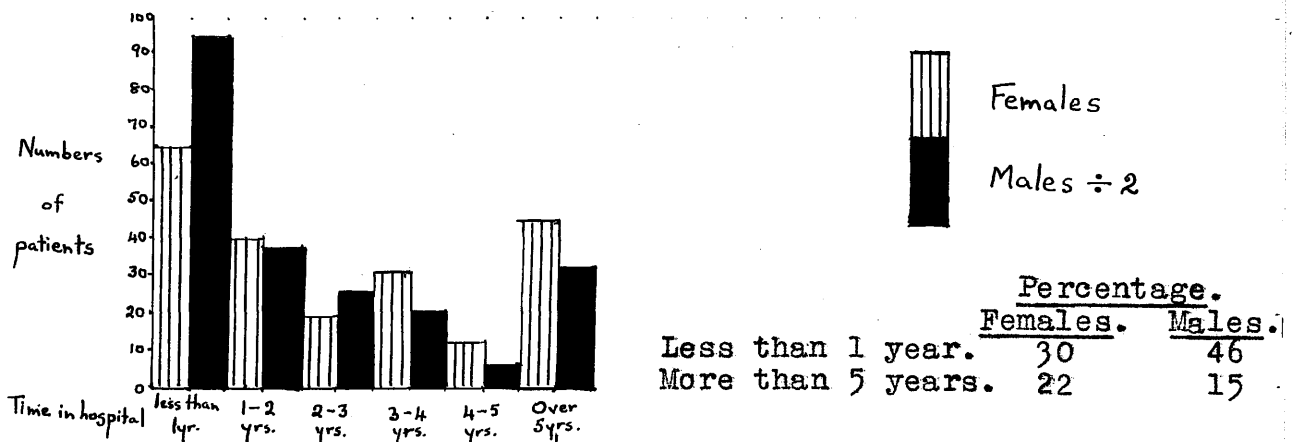
Findings in other surveys. /

Findings in other surveys.

Ages.	over 60 yrs.		over 70		over 80		over 90	
	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>
Foresthall	84%	86%	63%	61%	32%	19%	4%	1%
McEwan and Laverty	87%	81%	72%	58%	29%	19%	3%	1%
Thomson	95%	92%	71%	75%	37%	27%	-	-
Affleck	87.6%	86.5%	-	-	-	-	-	-
Greenwood	87%	85%	-	-	-	-	-	-
Adams	-	-	-	-	35%	27%	-	-
Lowe and McKeown ¹⁷²	-	88%	-	-	-	-	-	-

It should be noted that, although the population in such hospitals is on the whole elderly, there are exceptions to this rule. The marked higher percentage of females over the age of 80 years is also noteworthy. Sheldon (1950) comments on the lower death rate but higher morbidity rate of women; the men tend to maintain a better physique but their hold on life is nevertheless brittle; the women, in spite of increasing decrepitude, have a power of sheer survival denied to the men.

Years in Foresthall Hospital. - The following graph shows the relative lengths of time which the male and female patients have spent in Foresthall Hospital.



The chart shows that more males have been in hospital for less than 1 year. and more females for more than 5 years -

again emphasising the longer survival rate of females.

Findings in other surveys.

Time in hospital.	More than 3 months.		More than 1 year.		More than 3 years.		More than 5 years.	
	F.	M.	F.	M.	F.	M.	F.	M.
Foresthall	-	-	70%	54%	43%	26%	22%	15%
Thomson	-	-	71%	62%	28%	26%	-	-
Greenwood	-	-	89%	90%	50%	51%	34%	26%
Lowe and McKeown	50%	-	-	-	36%	30%	-	-
McEwan and Laverty	56%	-	25%	-	-	-	5%	-
Affleck	-	-	75%	-	-	-	12.5%	-

Degree of activity of patients.

The following figures show the degree of activity found among the Foresthall patients during the course of the survey of the Hospital patients begun in February 1950. During the previous six months rehabilitation had been instituted in one ward, and the idea of remedial therapy was sufficiently in the air to bring about in other wards a relaxation of the rule: "Keep them in bed." But it must be remembered that in September 1949 only 5 per cent of the females were ambulant.

(The meaning of the symbols is as follows:

- B Bedridden.
 C up in a Chair.
 FA+ frail ambulant with human assistance.
 FA- frail ambulant without human assistance.
 A Ambulant.

	<u>Female.</u>	<u>Male.</u>		<u>Female.</u>	<u>Male.</u>
B	99	264	}	50%	65%
C	4	6			
FA+	25	-	}	12%	-
FA-	75	128		38%	35%
A	4	17			
(Remediable of B and C)	35	176	% of B and C	34%	65%

Note the absence of group FA+ among the male patients. They can either walk without help or they are forced to remain in bed, as there are too few nurses to help them. Because of this, the percentage of bedridden male patients is inflated, and the percentage of remediable male patients i.e. those at present unable to walk unaided but who could be made to walk alone, is also inflated. Among all the patients 32 per cent of the females and 23 per cent of the males are unlikely to walk again.

For 145 male ambulant patients there were at the time of the survey only 33 arm-chairs of any kind; in the female wards 104 up patients to 27 arm-chairs. There were 176 suits of clothes for these 145 male patients but only 61 frocks for 104 female patients.

Age and Degree of activity.

Ages.	<u>Patients who are bedridden.</u> (% of each age group.)		<u>Irremediably bedridden.</u> (% of each age group)	
	F.	M.	F.	M.
Under 60 years.	51%	53%	36%	43%
60 - 69 yrs.	55%	65%	38%	24%
70 - 79 yrs.	47%	67%	33%	17%
80 - 89 yrs.	47%	68%	25%	15%
over 90	57%	100% (numbers too small)	43%	33%

Among the male patients only, the incidence of bedfastness appears to increase with age. But in this hospital many male patients are kept in bed because there is no one to help them to walk. The percentages of irremediable patients (those who are unlikely to walk again) in each decade give a truer picture and seem to show that irremediability does not increase with age. (The numbers of the over 90s are too small to be compared with the other age groups.) This may be explained by the fact that younger/

younger patients have usually some serious disability before they are sent to Foresthall; while older patients have merely outlived their relatives and are often only in need of ordinary care and attention. The tendency to keep elderly patients in bed increases as they become older.

Findings in other surveys.

	<u>Ambulant or Frail ambulant.</u>		<u>Bedridden or up in a chair.</u>		<u>Irremediably bed- ridden. (% of bedridden.)</u>	
	F.	M.	F.	M.	F.	M.
Foresthall.	51%	34%	49%	66%	66%	35%
Affleck. ²	-	-	41.7%	33.9%	-	-
Adams.	35%	32%	-	-	-	-
Thomson. ²⁰¹	-	-	60%	49%	-	95%
McEwan and Lavery.	9.6%	-	90.2%	-	-	69%
Amulree. ¹¹	-	-	95%	(inherited patients).	-	-
Warren. ²¹⁶	-	-	more than 50%	(inherited patients).	-	-

Sheldon,¹⁸⁵ in his survey of the elderly in their own homes, found that 66% had unrestricted movement, 22.5% had limited movement out of doors, 8.5% were limited to the house, and 2.5% were bedridden.

Of all, 38.5 per cent. had difficulty with the stairs. He considered that 24.5 per cent. were normal plus, 46.2 per cent. were normal, and 29.2, per cent. were subnormal

Curran (1946) also in a survey of old people at home, found 74 per cent. ambulant or frail ambulant and 28 per cent. bedridden.

Previous medical attention.

The 640 patients in Foresthall Hospital had relied for their medical care upon the services of one qualified doctor, who had /

had in addition the charge of 500 inmates of Part III, and whose only assistants as a rule were two medical students. It was not to be expected that satisfactory medical treatment could be obtained in all cases, or that 640 fully informative and up-to-date case-sheets could be written. Even now, when the Hospital is divided between three qualified doctors, and illnesses are kept under control by regular ward visits plus prompt attention at any time of day or night, the doctor whose turn it is to relieve the other two by being "on duty" for the whole Institution, may in winter weather spend eight or nine hours continuously running from ward to ward through the grounds and passages and up and down stairs, to see patients who require urgent medical attention. Add to this the fact that the doctor must personally provide many services taken for granted in other hospitals e.g. if oxygen has to be given, the chances are that the doctor has to fetch the cylinders and set them up; or give an injection because there is no nurse available qualified to do so. In consideration of these difficulties, it would have been unreasonable to expect to find that the previous medical attention of the Foresthall patients had been all that could be desired.

The case sheets were found to consist of single sheets of cardboard, generally in very poor condition, ragged and in many cases spattered with blots of ink; the writing was often illegible and the scanty information generally anonymous or acknowledged merely by initials. There was in no case any evidence in writing that the patient had been examined more than superficially on admission. Some patients had been in the Hospital for many years without a single/

single note appearing on the case-sheet; others had a diagnosis entered, and nothing more. A surprising number of the rarer conditions were recorded, e.g. Addison's disease (on the ground of skin pigmentation and loss of weight), pernicious anaemia (since the elderly patient looked pale), myxoedema (because of apathy or loss of eyebrows), cirrhosis of the liver (reasons unknown): perhaps these diagnoses were a reflection of the cases which the medical students were being shown at their clinics. The appropriate treatment was often prescribed for these diseases, and the alleged sufferers from them were put on liver or D.O.C.A. without further investigation. In other case-sheets a purely pathological diagnosis was favoured, e.g. fatty infiltration of the heart, or myocarditis. A remarkable number of auricular fibrillations and valvular diseases of the heart had been found, but could not be confirmed. In the case of some patients, an obvious diagnosis such as rheumatoid arthritis or disseminated sclerosis (which must have been present at the time of admission) had been discarded in favour of "senility", a condition which may apparently occur at the age of forty-five. There were gross errors in diagnosis, such as rheumatoid arthritis for a patient with flail joints, and hemiplegia for an undoubted cerebellar ataxia; and sometimes an alarmist note was struck, e.g. "the paralysis is creeping up the spine", or "the myocardium is failing rapidly", on case-sheets dated several years before the date of the survey. On few case-sheets was there any mention of physical capabilities or the presence of contractures, incontinence, or bed sores. On few case-sheets was any notice taken of the mental state which is so important, beyond /

beyond the word "confusion", and a long list of sedatives, (chiefly mist. pot. brom. and morphine + hyoscine) to be given "S.O.S." Strange mixtures were ordered, e.g. mist. 10½, M.V.G. (containing a small amount of digitalis); digitalis, thyroid and phenobarbitone (for epilepsy) were prescribed in token doses of gr.½ daily. Even when the diagnosis was not flagrantly off the mark, there was seldom any note made on the patient's condition: "senility" and "arterio-sclerosis" give no precise information. Crockett and Exton-Smith (1949) remark that the diagnosis on the case-sheet of an elderly patient is often in such vague terms as senility, myocardial degeneration and hypertension.

The medical care of 1200 people, (among them a large proportion of elderly, and a number of the mentally abnormal and of children), had evidently been in itself a soul-destroying task, and for most doctors in this unenviable position there could be no thought of looking for remediable conditions and trying to treat them properly.

A few vague memories were reported of abortive attempts at reform; but unsupported innovators had been quickly quelled by making them too busy and so breaking their spirit; it is so easy for an untrained official or nursing orderly (for there is no initial screening by a trained nurse) to call out the doctor at all hours of the day or night to give an opinion on an inmate or patient who turns out to be in no need of medical attention. (This particularly virulent form of the resistance movement was experienced during the first six months of the survey). There had grown up in the Hospital a sort of tacit agreement that if the doctor did not stir up the patients and cause extra work in the wards, and if he left enough sedatives "S.O.S." to /

to keep them quiet, he would not be called out to visit the wards except or even in the direst emergency.

After these general preliminary remarks on the state in which the patients were found at the beginning of the survey, a detailed account is now to be given of the medical and social assessment which was made of them in the following months.

A. Medical Assessment.

It should be noted that this assessment is made from the geriatrician's point of view: emphasis is laid on conditions occurring in the elderly, especially in the bedridden elderly, and particularly on those conditions which keep them from getting up; many clinical findings, while interesting in themselves, are for present purposes unimportant if they do not interfere with the mobility of the patient. There will be no attempt to give an exhaustive account of diseases which occur just as frequently or more frequently in younger patients, and for which the treatment would be the same at any age.

Mc Ewan and Laverty¹⁵⁸ classify the physical disorders of the elderly as:

- 1). Pathological phenomena common in old people and regarded as part of the natural process of ageing.
- 2). Diseases which are often the result of (1).
- 3). Functional and organic disorders which are the outcome of prolonged rest in bed.

Crockett and Exton-Smith (1949) note that it is hard to distinguish the effects of long immobilisation from those of the original disease. The mode of onset and the nature of the original symptoms have long been forgotten. The diagnosis has to be made largely on the results of objective examination. Little help is obtained from case records.

Thomson (1949) /

Thomson (1949)²⁰¹ notes how strange phenomena of pathology abound in such hospitals. There is evidence of numerous distinct pathological processes in one body at one time, and the theory of a single diagnosis is rarely relevant. He classified the patients according to the condition which seemed most disabling.

McEwan and Laverty:¹⁵⁸ "The physical disability is the criterion for classification; each patient is placed under the heading of the most disabling disorder. It does not give a true picture of the multiplicity of conditions often present in one individual."

Curran (1946) also stresses this multiple pathology.

Howell (1947)¹⁰⁰ found that 21 per cent of the Chelsea Pensioners showed no abnormal sign whatever and notes that the significance of physical signs varies greatly according to the age of the patient.

There is a regrettable tendency to use the word senility very freely on the case-sheets of the elderly, without any precise connotation: some doctors mean no more than that the patient is old and frail, while others use the word to indicate senile dementia. There are varied comments in the journals on senility as a diagnosis: Messer (1950) remarks that the word seems to cover a wide range from senile dementia to frailness through extreme old age, and that it is especially difficult to determine the state of a person to be admitted to a Home with a certificate of senility.

Hill (1949) notes that some doctors mean old and feeble, others complete mental and physical break-up.

Crockett (1950) states his opinion as follows: Senility is the pathological exaggeration of the normal ageing process. There is a degree /

degree of intellectual deterioration which is the normal accompaniment of ageing, the exaggeration of which amounts to dementia.

Senility may well embrace both dementia and frailty; but the word should be used as a medical diagnosis as infrequently as possible.

Greenwood (1949)⁸⁹ used the diagnosis of senility as a rule when the patient showed general deterioration, not when there was deterioration of one system.

Thomson (1949) includes senility among his diagnoses.

Affleck (1948) includes senile weakness.

Howell (1944) on the other hand, states that to affix a label of debility or senility is a confession of ignorance. There is much to be said in favour of Howell's opinion; the word is so often entered in case-sheets as a "pis aller", and meaning nothing in particular. And yet there is a certain condition found among elderly patients, and not exclusively among the bedridden, which cannot properly be included among definite diseases. In this survey it is called general apathy or weakness. There certainly is need for a word to describe an elderly frail person who is not suffering from any particular disease, but is something less than able-bodied merely because of his advanced age. The word senility might have been used for this condition if it had not already been in common everyday use as a term implying mental weakness. MacDonald Critchley (1931) makes an interesting contribution to the subject: The problem at once arises whether distinction can be made between what is "normal" and what is "pathological" in old age. Létienne was bold enough to attempt a distinction between senescence or healthy /

(Table continued.)

Diagnosis	Foresthall.		Thomson.		Greenwood.		Affleck.		McEwen
	F.	M.	F.	M.	F.	M.	F.	M.	
Cardiovascular Diseases.	3%	5%	12%	9%	12%	12%	11%	9%	12.6%
Respiratory system diseases (including pulmonary T.B.)	2%	4%	9%	9%	4%	14%	6%	10%	8.7%
TOTALS.	92%	82%	83%	79%	85%	87%	85%	85%	76.8%

In the Journal of the American Medical Association (1947)¹¹⁵ it is stated that more than one sixth of the population in the United States have a chronic disease and that the prevalence increases with age, half being over the age of forty-five. The most important chronic diseases are found to be heart disease, arteriosclerosis, high blood-pressure, nervous and mental disease, arthritis, kidney disease, tuberculosis, cancer, diabetes and asthma. Affleck (1948) notes that the chronic sick under the age of 65 are either very long-term, and relatively young, or those really admitted to die. Among the under 65s the commonest diseases were diplegias, epilepsy, post-encephalitic states, infantile paralysis, muscular dystrophies, disseminated sclerosis, chronic heart disease and rheumatoid arthritis.

The principal diseases from which the Foresthall patients were found to suffer, will be seen from the following table:

Summary of diagnoses of Foresthall patients. (for details see appendix 6).

<u>Diagnosis.</u>	<u>All patients.</u>		<u>Under 60s.</u>	
	F.	M.	F.	M.
Central nervous system diseases	29%	28%	58%	50%
Mental disorder alone	12%	10%	12%	12%
Epilepsy	2%	4%	9%	14%
Apathy or debility /				

<u>Diagnosis.</u>	<u>All patients.</u>		<u>Under 60s.</u>	
	F.	M.	F.	M.
Apathy or debility	26%	21%	6%	5%
Arthritis	12%	7%	-	3%
Contractures	3%	1%	-	-
Other bone and joint disorders	3%	3%	-	-
Cardiovascular diseases	3%	5%	-	3%
Chronic bronchitis	1%	2%	6%	3%
Pulmonary tuberculosis	1%	2%	6%	3%
Skin diseases	1%	2%	3%	2%
Defective vision	3%	4%	-	-
Deafness	1%	2%	-	-
Neoplasms	1%	3%	-	5%
Loss of leg or legs	1%	2%	-	-
Suprapubic cystostomy	-	1%	-	-
Painful feet	-	2%	-	-
Miscellaneous	1%	1%	-	-

A large proportion of these patients were found to suffer from disease of the central nervous system, i.e. $\frac{1}{4}$ of all the patients, and $\frac{1}{2}$ of those under the age of 60. (see also Affleck P. 121). It was also found that $\frac{1}{4}$ suffered from no particular disorder but merely appeared weak and apathetic, that is they suffered from what some call senility, but as is shown, they were not all old.

The chief aim of the detailed medical assessment was to discover if there were good and sufficient reasons for ^{the} bedfastness of the patients. The following table shows -

The Causes of Bedfastness in the Foresthall patients.

(for details see appendix 7.)

<u>Diagnosis.</u>	<u>% of bedfast.</u>		<u>% of irremediably bedfast.</u>	
	F.	M.	F.	M.
Central nervous system diseases.	51	47	53	60
(of the under 60s)	94	72)		
Mental disorder alone	-	1	-	-
Epilepsy	-	1	-	-
Apathy, weakness, unsteadiness	14	20	5	3
Arthritis	10	6	12	7
Contractures	16	2	21	5
Other bone and joint disorders /				

<u>Diagnosis.</u>	<u>% of bedfast.</u>		<u>% of irremediably bedfast.</u>	
	F.	M.	F.	M.
Other bone and joint disorders	4	3	3	1
Cardiovascular diseases	2	1	3	1
Chronic bronchitis	-	1	-	1
Pulmonary tuberculosis	1	2	1	5
Skin diseases	-	1	-	-
Defective vision	-	5	-	1
Deafness	-	1	-	1
Neoplasms	1	4	1	9
Loss of leg or legs	1	2	1	5
Suprapubic cystostomy	-	1	-	-
Painful feet	-	1	-	-
Miscellaneous	-	1	-	-

50% of the females and 65% of the males are bedridden.
 32% " " " " 23% " " " " irremediably bedridden.
 or 66% " " " " 35% " " " " who are bedridden are irremediable.

Central nervous system and bone and joint lesions account for 81% of the females and 60% of the males who are bedridden and 89% of the females and 73% of the males who are irremediably bedridden.

As noted in appendix 7 the percentage of irremediably bedridden is highest among the under 60s and the over 90s, but otherwise tends to fall with advancing years.

On the subject of bedfastness, McEwan and Laverty¹⁵⁸ remark that walking is a complex and susceptible function, dependent on many composite mechanisms. They found that 64.7 per cent. were confined to bed as a result of physical disorders, and 25.5 per cent. were kept in bed because they were mentally ill. They list the disorders impairing locomotion as follows:- central nervous system: hemiplegia, Parkinsonism, disseminated sclerosis, tabes; joints: rheumatoid and osteo-arthritis; cardiovascular system: cardiac dyspnoea/

dyspnoea, peripheral vascular disease; respiratory system: respiratory dyspnoea. They found that general weakness associated with old age or with diseases such as cancer, anaemia, malnutrition, made walking impossible in over 100 cases; and that the feet of the patients showed many physical deformities, and tended to assume the position of plantar flexion with tightening of the tendo Achilles; flexion of the toes, hallux valgus and inversion were also common. These troubles were seldom complained of in bed, but began to give trouble when walking was restarted. (In Foresthall, 5 per cent. of the men made spontaneous complaints about their feet. Most of the new admissions require the services of a chiropodist). They noted that obesity hampered movements in several cases: the obese are also more prone to falls, breathlessness and osteoarthritis. 32 patients complained of their liability to fall. Mental disturbances deprived many of the desire to get up and walk; and others said that there was nothing to get up for.

Sheldon¹⁸⁵ lists the conditions causing limitation of movement: dyspnoea, arthritis, weakness, lack of confidence; lesser causes being painful feet (in women 50 per cent., in men a steep rise after 75 years), vertigo, mechanical disabilities, defects of vision, lack of inclination, angina, spinal deformity, stress incontinence in women, and the effects of previous strokes.

Steinbrocker (1950) lists the varieties of what he calls musculo-skeletal inadequacy: inflammatory and post-inflammatory states, such as joint diseases; progressive postural and mechanical defects and distortions, such as congenital, post-traumatic and static /

static disorders; metabolic disorders, such as gout, Paget's disease, rickets and senile osteoporosis; degeneration, such as osteoarthritis; neuromuscular and central nervous system diseases; neuropsychiatric disorders; and idiopathic "senile myasthenia".

ON SEPTEMBER 21,

	10-14	15-19	20-24	25-29
Reaction to light	74%	74%	81%	81%

The variation in accommodation could not be explained by the difficulty in obtaining the patients of the general cases.

One per cent of the females and 2 per cent of the males (over 60) had irregular pupils, and 1 per cent of the females and 1 per cent of the males definitely absent reaction.

Graves' disease is the elderly group with disturbance of accommodation of the eyes both in the young and old.

Condition of pupils are usually normal in the young. In the elderly pupils are usually small.

However, it is noted that in the elderly group there is a tendency towards a larger pupil.

Medical assessment continued. Central Nervous System.

In the following pages the findings made in the medical assessment of the Foresthall patients will be recorded in detail.

The Central Nervous System.

General findings in Foresthall patients over the age of

60.

Pupils. (details in appendix 8).

(%s of those examined in each age group.)	Ages.					
	60 -69		70 -79		80 and over	
	F	M	F	M	F	M
<u>Equal.</u>	86%	94%	81%	91%	86%	93%
<u>Reacting to light.</u>	76%	76%	75%	72%	65%	67%

The reaction on accommodation could not be recorded because of the difficulty in obtaining the patient's co-operation in many cases.

Only 5 per cent. of the females and 2 per cent. of the males (over the age of 60) had irregular pupils; and 7 per cent. of the females and 6 per cent. of the males definitely small pupils.

Critchley (1931) notes in the elderly a progressive sluggishness in the response of the pupils both to light and on accommodation and ultimately a condition of pupillary immobility may develop. He states that the pupils are usually small. Howell (1949)¹⁰⁸ notes that small pupils are commoner than large; that there is an increasing number with age who have inactive pupils; and that 54 per cent. react to light and 41 per cent. on accommodation.¹¹⁰ He also notes however (1944) that a positive Wassermann reaction was not uncommon in his subjects - the Chelsea pensioners. Gledhill(1949) suggests /

suggests a vitamin B deficiency causing a mid-brain lesion with pupillary changes.

Tendon reflexes and plantar responses.

The following is a summarised table of the tendon reflexes and plantar responses found in Foresthall patients over the age of 60, excluding hemiplegics (with typical unilateral signs of increased tone), and those who would not co-operate. The details will be found in appendix 8.

	<u>Ages.</u>					
	<u>60 - 69</u>		<u>70 - 79</u>		<u>80 and over.</u>	
	F	M	F	M	F	M
Tendon reflexes. All normal.	40%	56%	60%	58%	50%	55%
" " All increased.	18%	10%	13%	10%	12%	13%
" " All absent.	2%	2%	-	2%	1%	2%
" " Knees, absent.	5%	9%	8%	6%	12%	10%
" " Ankles "	3%	6%	5%	10%	9%	12%
Plantar responses. Flexor.	43%	66%	75%	75%	80%	82%
" " Extensor.	14%	4%	3%	3%	1%	4%

(%s of total number in each age group.)

Tendon reflexes.

- 1) Absent: Of those with absent reflexes, 3 females and 2 males were ambulant. All the others were bedridden and had some definite abnormality such as rheumatoid arthritis, generalised contractures or extreme weakness. Of those with absent reflexes in the legs only, 2 females and 1 male showed no cause. 5 males were very weak; the others had lesions such as contracted knees or arthritis.
- 2) Exaggerated: Of those with increased jerks, 4 females and 4 males were ambulant and apparently healthy; other 8 females and 8 males had /

had doubtful reasons for the condition. The others were mostly of the bedridden "vegetable" type without contractures.

Plantar responses. Only one male had no apparent reason for bilateral extensor plantars and 1 female and 5 males for unilateral extensors. There was no obvious weakness or increase of muscle tone in these patients.

These findings suggest that the elderly, if healthy, should have normal physiological reflexes and that, although there are more exceptions than among the young, the absence or exaggeration of these reflexes is usually the result of some physical abnormality or disease. This conclusion does not agree with Dr. Howell's results among 200 (ambulant) Chelsea Pensioners. Only 7 per cent. had all their reflexes; ankle jerks were present in only 30 per cent. and knee jerks in 77 per cent;¹⁰⁰ the vast majority of the plantars were normal;¹⁰⁰ and the abdominal reflexes were absent in more than 50 per cent.¹⁰³ But in Old Age (1944) he notes that a positive Wassermann reaction was not uncommon; on the other hand his subjects were active healthy old men. Critchley (1931) also notes sluggish or absent tendon jerks among the elderly, especially of the ankle jerk; the plantars are usually flexor though extension of the great toe occurs in old age in the absence of obvious disease of the pyramidal tracts.

Sensation. Was not tested because of the extreme difficulty in making many of the patients understand what was required of them.

Howell (1947) /

Howell (1947)¹⁰⁰ notes that partial or complete loss of vibration sense is common; 90 per cent. possess it in their upper limbs and 70 per cent. in the ankles.¹⁰⁸ Critchley (1931) also notes loss of vibration sense. Howell (1949)¹⁰⁸ notes that the results of tests for pain, temperature and light touch are hard to interpret but that 24 per cent. have some impairment. Critchley (1931) notes diminution in objective pain (e.g. in coronary thrombosis) but that complaints of subjective pain are common; he comments however that accurate objective study of the acuity of cutaneous sensibility is usually difficult and may be impossible on account of the relative mental inaccessibility of the patient. Joint sense of position is noted by Howell (1949)¹⁰⁸ to be present in the vast majority; but he found that quite a number were unable to do nose touching though they did not show intention tremor.

Howell (1947)¹⁰⁰ notes that only 5 per cent. of his patients had signs of definite neurological lesions (such as hemiplegias); but that **the** other findings do not fit in with anatomical lesions, though the absence of reflexes and alterations of sensation might give rise to misdiagnosis of neurological lesions. He suggests a progressive but patchy dissolution which may be functional and not organic - like that associated with incontinence. Gledhill (1949) suggests that the state of the vascular system and the defective absorption of vitamins (achlorhydria being not uncommon) may be important factors; that the factors operating are peripheral vascular occlusion sufficient to impair the blood supply to the peripheral nerves, /

nerves, and vitamin B deficiency causing peripheral nerve lesions and also mid-brain lesions with pupillary changes. In support of this theory, he notes that the pyramidal tracts are normal in practically all cases and that lesions in the legs are more pronounced than in the arms, as in peripheral vascular disease.

Diseases of the Central Nervous System. (see appendix 6).

It is not proposed to discuss in detail each disease of the central nervous system encountered among the patients in Forest-hall Hospital. It should be noted that there were more male epileptic patients than female because it was (and still is) the custom to house the female epileptics in Part III accommodation. The diagnosis of mental and physical degeneration was made usually in weak and inert patients, who lay curled up in bed taking no interest in anything; the condition was frequently accompanied by contractures, hypertension and unpleasant habits. Under Parkinsonism was included the post-encephalitic (in younger patients), the arteriosclerotic (in the aged) and true cases of paralysis agitans. Under "other lesions of the central nervous system" were gathered together a collection of strange diseases, probably of the central nervous system, in which the diagnosis was obscure; one female appeared to have Huntington's chorea but no history was available; 3 females and 4 males had signs of paralysis with or without spasticity in two, three or all four limbs without a history of remissions or signs of cerebellar involvement; one female and one male had signs of inco-ordination without hypotonia, dating from early childhood; 2 females and 1 male had one or/

or more weak and wasted limbs, but the condition was of unknown duration; and one female had a peculiar syndrome of wasted muscles with fairly good muscle power and normal reflexes combined with signs suggestive of cerebellar disease, present from birth but becoming worse after the age of twenty. Thomson (1949)²⁰¹ also notes that in "chronic" hospitals strange phenomena of human pathology abound and that such patients are a rich mine of clinical material for teaching and investigation.

Medical assessment continued. Central Nervous System.Hemiplegias. (for details see appendix 9).

The incidence of hemiplegia among the Foresthall patients was found to be:- Females 30; Males 65; Total 95 = 15 per cent. of all the patients. Sheldon¹⁸⁵ reported 4.4 per cent. of old strokes in his survey of old people at home, Howell (1947)¹⁰⁰ 5 per cent. past hemiplegias and Parkinsonism among his Chelsea pensioners; McEwan and Laverty¹⁵⁸ found 15.1 per cent. (females 54 : Males 52) and Affleck (1948) found 15 per cent. in their surveys of hospital patients.

At Foresthall, the numbers of hemiplegic patients belonging to each age group were found to be as follows:-

	<u>30-39</u>	<u>40-49</u>	<u>50-59</u>	<u>Ages.</u> <u>60-69</u>	<u>70-79</u>	<u>80-89</u>	<u>90-</u>
Female	-	1	7	11	7	4	-
Male	1	4	4	20	29	7	-
Total	1	5	11	36	36	11	-
% of each age group.		18%		21%	15%	8%	-

The under 60s are a highly selected part of the younger population and are more likely to have some gross organic lesion before they arrive in such a hospital. (McEwan and Laverty found hemiplegia commonest in the 7th and 8th decades at slightly greater ages in women than in men.)

Age at time of onset of hemiplegia. /

Age at time of onset of hemiplegia. (29 unknown but including 2 females and 2 males at present under the age of 60).

	<u>Under 20</u>	<u>20-29</u>	<u>30-39</u>	<u>40-49</u>	<u>50-59</u>	<u>60-69</u>	<u>70-79</u>	<u>80-89</u>
Female	1	-	-	2	7	6	3	1
Male	1	1	2	1	8	13	20	-

i.e. 27 (out of 95) patients were under the age of 60 when the hemiplegia occurred.

Only 3 give a history of a second stroke.

Side affected.

	<u>Left.</u>	<u>Right.</u>
Female	14	16
Male	<u>33</u>	<u>32</u>
TOTAL.	<u>47</u>	<u>48</u>

(McEwan and Laverty: 49 54 3 both sides.)

Degree of activity.

	F.	M.	<u>Remediable.</u>		<u>Irremediable.</u>	
			F.	M.	F.	M.
Bedridden.	23	54	11	40	12	14
Ambulant	7	11				

Reasons for being irremediable.

Contractures	16
Poor mental state	5
One leg	2
Blindness	2
Obesity	<u>1</u>
	<u>26</u>

Contractures.

	<u>Arm only.</u>	<u>One knee.</u>	<u>Both knees.</u>
Left hemiplegia	16	8*	5
Right hemiplegia	10	9	4

i.e. /

*includes contracted left knee of a right hemiplegia.

i.e. 52 out of 95 (55 per cent.) have some contracture and 27 per cent have contracted knee or knees.

McEwan and Lavery¹⁵⁸ found only 17 out of 106 (16 per cent.) not contracted; the arm was usually more affected but contracture of the leg was present in 60 cases; the foot was fixed in plantar flexion; it was commonest to find the leg fixed in extension but 19 (18 per cent.) had flexion contractures of the leg; most were found to be spastic (except 5 recent ones).

Thomson (1949)²⁰¹ found that usually the leg was extended and the arm flexed; (the attitude described constitutes the so called Strümpell's Sign); but that in some there was gross flexion of the leg; this was found to occur slowly, some time after the initial lesion and he considered that it might be due to a further vascular lesion.

From the above investigation it was found that there were in Foresthall Hospital 51 bedridden hemiplegics who could definitely be re-educated to walk, and that there were 16 others whose contractures - which need never have occurred - were the sole reason for their being unable to walk. (McEwan and Lavery note that their 106 hemiplegic patients represent a total of 231 bed years.)

Severity of hemiplegia.

	<u>Mild.</u>	<u>Moderate.</u>	<u>Severe.</u>
Left hemiplegia	12	22	13
Right hemiplegia	13	22	13

Mental state of patients.

	<u>Good.</u>	<u>Fair.</u>	<u>Very poor.</u>
Left hemiplegia	28	12	7
Right hemiplegia.	31	11	6

(McEwan and Lavery found 13 to be mentally unstable.)

Speech./

Speech.

	<u>Normal.</u>	<u>Slight</u> <u>dysarthria.</u>	<u>Dysarthria +</u>	<u>Aphasia.</u>
Left hemiplegia.	30	12	3	2 *
Right hemiplegia.	15	7	15	11

* were not left-handed; perhaps had a previous stroke.

(McEwan and Laverty found 12 out of 106 with aphasia.)

Incontinence.

	<u>Female.</u>	<u>Male.</u>	<u>TOTAL.</u>
Left hemiplegia.	7	16	23
Right hemiplegia.	<u>11</u>	<u>12</u>	<u>23</u>
	18 (of 30)	28 (of 65)	46 (most doubly incontinent)

(McEwan and Laverty found 37 incontinent.)

The side affected does not appear to matter except in speech defects. Otherwise the figures are extraordinarily even.

Hemiplegias and Blood-pressures.

	<u>All patients.</u>		<u>Hemiplegics.</u>	
	F.	M.	F.	M.
<u>Diastolic blood pressure.</u>				
Less than 90mm.	32%	35%	15%	18%
90 to 100mm.	35%	31%	33%	30%
Over 100mm.	33%	34%	52%	52%

i.e. the hemiplegic patients were found to have a higher blood pressure than the patients in general.

Cause of hemiplegia.

At least 27 of the 95 patients were under the age of 60 when the hemiplegia occurred. Of these 27, one was probably a birth injury/

injury, one embolic (mitral stenosis), one followed an operation for a brain tumour, 1 was possibly due to thrombo-angiitis obliterans; 5 were known to have a positive Wassermann, (but the W.R. was not done on all patients.)

McEwan and Laverty found that most of their hemiplegias were due to cerebral thrombosis or haemorrhage and that they had severe arterio-sclerosis; 2 were embolic (mitral stenosis) and 2 had a positive W.R. Hawkins (1947) writing of hemiplegia in young adults, records that two reported cases of cerebral haemorrhage were found at post mortem examination to be due to a haemangioma. Joly Dixon (1947) on the subject of hemiplegia in young adults, states that strokes in the elderly are usually reported as manifestations of cerebro-vascular disease while in the young adult they are generally thought to be due to some extraneous cause; his article shows the obscurity of the aetiology. He gives an account of 35 hemiplegias in young adults, 19 of minor degrees - 7 due to cerebral tumour, 6 to disseminated sclerosis, 3 congenital, 2 hysterical, 1 to syringomyelia - and 16 severe and sudden - 2 embolic (rheumatic carditis), 1 Herxheimer reaction, 1 cerebral aneurysm, 1 hypoglycaemia and 11 not readily diagnosed. He considers that some of these hemiplegias may be due to venous thrombosis in the Rolandic system of veins, or a haemorrhage, thrombosis or embolus in the cerebro-arterial system; sepsis in the jugular vascular bed, recent pulmonary disease and a tendency to abnormal elevation of the blood-pressure are frequent associated findings.

Medical assessment continued. Central Nervous System.Muscle Power.

The muscle power of the legs of patients over the age of 60, was tested in bed and roughly graded as Good, Fair and Poor. Patients with hemiplegia, other definite diseases of the central nervous system, rheumatoid arthritis and extensor plantar responses were excluded; also those who were unco-operative.

(recorded as percentages of numbers tested in each age group).

Muscle Power.	Mobility.	<u>Females.</u>			<u>Males.</u>		
		Ages.			Ages.		
		60 - 69	70 - 79	80 and over.	60 - 69	70 - 79	80 and over.
Good	Ambulant	61%	36%	22%	47%	29%	31%
	Bedridden	67%	40%	29%	70%	58%	71%
Fair	Ambulant	6%	4%	7%	23%	29%	40%
	Bedridden	27%	30%	36%	5%	12%	3%
Poor	Ambulant	33%	45%	53%	21%	23%	17%
	Bedridden	6%	15%	17%	16%	11%	14%
	Ambulant	-	-	5%	4%	4%	2%
	Bedridden	-	15%	18%	9%	19%	12%
% tested (of total age group)		-	15%	13%	5%	15%	10%
		41%	73%	80%	54%	66%	78%

In this population, as age increases, there is an increase in the number who have no obvious pathological lesion affecting muscle power, i.e. they have none of the excluded conditions listed above. In the females there is a decrease in muscle power with age; in /

in the males after a fall in the 8th decade, there is a rise in the 9th decade, possibly because only the fittest men survive. In spite of this, 40 per cent of the men with good muscle power complained of weakness.

The numbers of ambulant and bedridden are false because of the large number being kept in bed for no reason at the time of the survey. The figures however show that among the men there is an increase with age of those with good muscle power being kept in bed. There are however some with only poor muscle power who are able to walk; this is often seen clinically, whereas some with good muscle power are unable to walk because of a poor sense of balance and co-ordination.

Medical assessment continued. Central Nervous System.Weakness of the Elderly.

The characteristic weakness of the elderly is an interesting clinical phenomenon, which causes considerable distress and depression in the sufferer. In all, 13 per cent. of the Foresthall patients made a spontaneous complaint about this feeling of weakness. Sheldon¹⁸⁵ noted it in 12.1 per cent. and considers it as a genuine "senile" phenomenon; he found that women were more liable to it, especially after the age of 75. The cause is obscure but there is no question of its importance in the medicine of old age. Affleck (1948) gives "senile weakness" as the diagnosis in 17 per cent. of cases, and Howell (1949)¹⁰⁸ notes some loss of strength with age. McEwan and Laverty¹⁵⁸ found "general weakness" in 6 per cent. of cases, all over the age of 70 and could find no definite pathological process to account for it, though in some it was associated with increased tone and brisk reflexes, possibly caused by degenerative changes in the spinal cord. Critchley (1948) considers that weakness of the limbs in the aged is not a definite paralysis and may be cortical, subcortical, spinal or muscular in origin; it is the cause of the small steps, the hesitating gait and cerebellar signs in the elderly. He also questions whether some of the weakness found on walking is not functional, when compared with the integrity of the muscle power when tested in bed; the difference, he says, between this weakness and what he terms "senile paraplegia" is merely one of degree.⁵⁵ Steinbrocker (1950) gives "senile myasthenia" as one of the causes of musculo-skeletal inadequacy, and suggests that /

that it may be due to some undiscovered biochemical or hormonal deficiency or aberration. Boyd (1951) suggests that arterial deficiency in the legs resulting from obstruction of the lower quarter of the aorta may produce a sense of weakness from the waist downwards ("as if his legs did not belong to him") coming on with exercise.

In some patients who complain of a "general feeling of weakness", of "feeling done", the weakness may be part of a general state of depression and apathy; but on the other hand, nothing could be more conducive to depression than such a sensation. In others the complaint is of weakness of the legs which may come on suddenly when the patient has been walking well: this may be that sort of weakness which cannot be confirmed by testing the power of the muscles with the patient in bed. Weakness may also be the cause of the unsteadiness which is so common in the elderly, - they complain that their "joints feel loose" and "let them down", and once they stagger, they have difficulty in regaining balance. There is also an acute generalised weakness which comes on at rest, is often accompanied by a brief period of unconsciousness and is perhaps a primary cardiac condition: this variety of elderly weakness is known in Foresthall as the "Wee Turn".

Medical assessment continued. Central Nervous System.Involuntary movements.

It was not found possible, in a survey of so many patients, to note minor degrees of tremor; but notes were made on cases of marked tremor of various sorts.

Cerebellar tremor is typically an intention tremor, but not all the cases of disseminated sclerosis showed it. In some patients the sign was lacking; in others the paralysis was so complex that co-ordination could not be tested.

Parkinsonian tremor typically subsides on voluntary movement, but often in the arteriosclerotic variety and in the tremor of the elderly unaccompanied by rigidity of muscles, the tremor is present on movement alone or at rest. The tremor of the elderly present on movement may be due to muscle weakness rather than disease of the central nervous system, or perhaps the muscle weakness is caused by a lesion of the central nervous system. Critchley (1931) notes that senile tremor shows some resemblance to the tremor of parkinsonism, but that the absence of rigidity as well as gross slowness and poverty of movement, is a point of distinction; he suggests that it may possibly represent a delayed form of idiopathic familial tremor.

	Sex	Under 60	60-69	70-79	80 and over	Number Bedridden.	TOTAL
Cerebellar tremor.							
Disseminated sclerosis.	F	3	1	-	-	4	4
	M	7	2	-	-	1	10
Cerebellar ataxia	F	1	-	-	-	1	1
Friedreich's ataxia	M	1	-	-	-	1	1
Other cerebellar lesions	M	1	-	1	1	2	3
Parkinsonian tremor. /							

	Sex	Under 60	60-69	70-79	80 and over	Number Bedridden.	TOTAL.
Parkinsonian tremor.							
Post-encephalitic	F	2	-	-	-	1	2
	M	2	-	-	-	-	2
Arteriosclerotic	F	-	1	1	1	2	3
	M	-	2	7	-	7	9
Tremor of the elderly.	F	-	-	-	1	-	1
	M	-	4	8	5	16	17
Huntington's chorea.	F	1	-	-	-	1	1
Unknown cause.	F	1	1	-	-	2	2
	M	2	-	-	-	1	2
Clonic movements.	M	1	-	-	-	1	1

In Foresthall, 6 per cent. of the patients over the age of 60, had tremor of some kind (excluding those with disseminated sclerosis). Sheldon¹⁹⁵ reports 1.05 per cent with tremor.

Of the patients 20 per cent. of the females and 10 per cent. of the males had some speech defect.

(1947) found 3.7 per cent of the females and 1.5 per cent of the males with aphasia or dysarthria.

Medical assessment continued. Central Nervous System.Speech.

Speech disorders increase the difficulty of communicating with the elderly. A speech disorder combined with some slowness of thought, a degree of deafness, and an impatient questioner may cause a patient to be wrongly labelled "confused".

At Foresthall the findings were as follows:-

Type.	Sex	Total	Hemi- plegia.	Congen- ital.	Deaf Mute.	Cerebral Lesion.	Cerebellar Lesion.	Unknown.
Aphasic	F	7	Rt. L. 5 1	1	-	-	-	1
	M	10	6 1	1	2	-	-	-
Distorted	F	24	7 2	-	-	5	8	2
	M	59	15 13	4	-	7	14	6
Monotonous	F	7	<u>Post-en- cephalitic</u>	<u>Parkin- sonism</u>	<u>Dull Mentally</u>	-	-	-
	M	17	2	2	3	-	-	6
Indistinct	F	19	-	-	<u>Confus- ion.</u>	7	<u>Apathy</u>	8
	M	1	-	-	2	-	2	-
Hoarse	F	3	-	-	-	-	-	3
	M	1	-	-	-	-	-	1

Of all the patients 20 per cent. of the females and 26 per cent. of the males had some speech defect.

Affleck (1947) found 8.7 per cent of the females and 14.8 per cent. of the males with aphasia or dysarthria.

Medical assessment continued. Central Nervous System.Mental State.

The following estimate of the mental state of the Foresthall patients may not be quite accurate in every case; but it was carefully built up from impressions gained 1) during conversation with the patient, 2) while working in the ward and observing the patient, and 3) from the nursing staff. It is difficult to be precise in dividing the patients into definite groups; e.g. the very apathetic are on the borderline of the "vegetable class".

Mental State.		Ages under 60		60-69		70-79		80-89		90 and over.		TOTAL.	
		F	M	F	M	F	M	F	M	F	M	F	M
Group A	(Normal	9	19	20	48	16	71	22	37	1	-	68	175
	(Slightly impaired.	6	17	6	21	7	39	8	14	1	2	28	93
	(Apathetic	2	7	5	11	16	28	7	10	-	-	30	56
	(Garrulous	-	2	-	1	2	6	2	4	-	-	4	13
	("Difficult"	3	2	3	2	3	-	1	-	-	-	10	4
	(Emotional	3	-	4	4	1	5	2	2	-	-	10	11
Group B	(Mental Defectives	4	5	1	-	-	-	-	-	-	-	5	5
	(Almost mental defectives.	2	2	-	3	-	-	-	-	-	-	2	5
	(Those who talk to themselves *	1	1	-	1	-	3	2	2	-	-	3	7
	("Vegetable" class	-	1	1	5	4	6	1	1	-	-	6	13
	(Confused	-	2	1	6	12	9	7	4	3	1	23	22
	(Noisy and/or aggressive.	3	1	3	2	3	8	7	2	2	-	18	11
*4 of this group were blind.													

Group B = those who should not be cared for in a general ward and consists of 28 per cent. of the females and 15 per cent. of the males. A further 26 per cent. of the females and 20 per cent. of the males, though not certifiable, would be very difficult to care for at home. (last 4 categories of group A). 33 per cent. of the women /

women can be classed as normal mentally. (27 per cent. of the under 60s, 45 per cent. of the 60s, 25 per cent. of the 70s, and 35 per cent. of the over 80s).

42 per cent. of the men can be classed as normal mentally.

(32 per cent. of the under 60s, 46 per cent. of the 60s, 41 per cent. of the 70s, and 48 per cent. of the over 80s).

The "difficult" type of patient constitutes one of the great problems of this type of hospital. Such patients may have been ejected from several other hospitals, but they cannot be put out of Foresthall Hospital except to Part III (where it would be impossible to look after such conditions as foul discharging ulcers and pulmonary tuberculosis). They have nothing in common with those elderly patients whose minds have become enfeebled with age, who live in the past, talk harmless nonsense and are often rather pleasant and lovable. The "difficult" patients converse in an apparently sensible fashion, and their statements are apt to be believed; they spy upon everything that goes on in the ward with sly malice, and use the knowledge obtained to stir up strife between nurses and other patients and visitors. Their constant accusations are irritating to an extreme degree and they are liable to outbursts of aggressiveness and destructiveness. By those ruthless solvers of geriatric problems of a cruder era, such trouble-making old women would doubtless have been classified as witches.

Mental state related to activity.

(In this table the mental state is roughly divided into three categories - for exact numbers see appendix 10).

Mental state. /

FEMALE.

MALE.

Mental State.	Ambulant.	Bedridden.	Ambulant.	Bedridden.
Good	51%	49%	51%	49%
Fair	61%	39%	26%	74%
Poor	39%	61%	10%	90%

From the above figures it can be observed that the percentage of bedfastness is much higher among the "mentally poor". In the "mentally fair" group of female patients, it should be remarked, some rehabilitation had already been carried out. Whether the poor mental state is the cause or the result of the bedfast state is not known.

It would be interesting to know what the "mentally poor" elderly were like when young. Are they the less intelligent part of the population with fewer reserves when old, - the illiterate who, having nothing to occupy their minds when they retire, sink readily into apathy? One is often tempted to wonder if their habits when old reflect the manner in which they were accustomed to live when young; but that is certainly untrue in some cases. Unfortunately those who are most abnormal have fewest visitors, - which may be the cause as well as the result of their apathy, - and there is no method of discovering their earlier mental state. Some of the women have obviously been busy housewives, as they babble not of green fields but of bathing the children and putting them to bed, and of getting up early, making men's "pieces", waking them and getting them off to work.

In Foresthall Hospital. /

In Foresthall Hospital.

	<u>F.</u>	<u>M.</u>
Mentally normal	33%	42%
Slightly impaired	13%	23%
Could not be cared for at home.	26%	20%
Grossly abnormal	28%	15%

Sheldon¹⁸⁵ found (in their own homes)

Fully normal	81.8%
Slightly impaired	11.2%
Eccentric but intelligent	3.2%
Forgetful, childish or demented.	3.8%

He notes that the mental health of old people living in their own homes is distinctly better than their physical health; the fact of living in their own proper environment may help to explain why their mental level appears to be so much better than that of those living in institutions. On the other hand, those who are found in institutions may have been sent there because their low mental level had made it impossible for them to look after themselves or be looked after by their relatives.

McEwan and Laverty¹⁵⁸ report:

	<u>Numbers.</u>		<u>% of TOTAL.</u>
	<u>F.</u>	<u>M.</u>	
Normal adult mentality	143	98	34
Senescent mental deterioration	101	65	23.6
Senile dementia	119	49	24
Presenile dementia and organic disease	32	40	10.3
Depression /			

	<u>Numbers.</u>		<u>% of TOTAL.</u>
	<u>F.</u>	<u>M.</u>	
Depression	14	6	2.9
Congenital mental deficiency	3	2	0.7
Functional mental disorder	3	1	0.6
Psychopathic and eccentric personalities.	2	23	3.9

Those with senile dementia they divide into the apathetic, the noisy and aggressive, the restless and wandering (due according to Howell⁹⁹ to low blood pressure and cerebral ischaemia), the delusional and the anguished. They also report mental disorder and myxoedema in 3 cases and objectionable behaviour in some patients.

Affleck (1947) noted a 37.3 per cent (36.6 per cent. female and 38.9 per cent. male) incidence of mental disorders in chronic sick hospitals and more psychiatric states in young chronic sick patients than in the old.³ Thomson (1949)²⁰¹ found 39 per cent. of the females and 32 per cent. of the males abnormal mentally and 25 per cent. of all certifiably insane. Though Affleck believes that the large majority of these mental disorders are organic in basis, Thomson suggests the possibility of there being functional elements derived from hopelessness and lack of interest. Lowe and McKeown (1950)¹⁵⁵ found one third mentally abnormal but only one fifth requiring constant personal supervision. Adams (1949) records 25 per cent. psychiatric cases. Howell (1944) classifies his Chelsea pensioners as adult 12.5 per cent., normal senile 65 per cent. and mentally impaired 22.5 per cent. Everywhere, former public assistance institutions /

institutions continue to accommodate mental patients (B.M.J.1949)³², even in accommodation under **Part III** of the Act. (Grant and Thomas 1951). It is very true that the ambulant senile confusional patient presents one of the major problems of geriatrics (De Largy 1951) and much distress is caused by the growing tendency to gain admission to an institution by using an order under the Lunacy Acts.

Marshall (1949) stresses the importance of a full physical investigation of all psychiatric patients. Of 175 cases he found that 44 per cent. had some physical condition needing attention. (a higher incidence, 61 per cent, in those over the age of 40). In 6 per cent. the physical disorder was the result of the psychological illness, in 22 per cent. it contributed to it, and in 15 per cent. it was not related. McGraw (1949) emphasises that mental disturbances of the elderly are not always permanent or progressive and may be temporary and curable. He quotes cases due to trauma, toxicity and emotional factors. Similar temporary mental disturbances, usually in the form of restlessness, can also be due to an unfamiliar environment (especially at night), cardiac failure, retention of urine, imminent or recent cerebral thrombosis, the use of sedatives and the approach of death. This last is mentioned also by Firth (1949). Among the more gradual causes of mental disorder Asher (1949) quotes myxoedema as a cause of psychosis; others, Amulree (1951)¹¹ and Fleetwood (1951) show how confinement to bed contributes to mental deterioration, ranging from an exaggeration of the normal involution to the "vegetable" state. This mental failure may be the result of

a lowered blood pressure with rest and chronic cerebral ischaemia (Howell 1944). But in the Foresthall patients the blood pressure was not found to be low in the vegetable class; on the contrary, it was above the average. As Crockett and Exton-Smith(1949) point out, recovery through time shows that chronic cerebral ischaemia is not the usual reason for apathy, but rather that the apathy is disuse atrophy of the mind. The type of mental illness is modified not only by the original character of the patient, (cf. the shrewd comments of King Lear's two elder daughters: "'Tis the infirmity of his age, yet he hath ever but slenderly known himself"; and "The best and soundest of his time hath been but rash.") but by loneliness, dependence on others, physical disability and loss of self-esteem. Sheldon (1948) notes the mental decline hastened by increasing social isolation, as when the wife or husband dies or on retirement.

Felix Post (1951) notes that though there is a rising number of first admissions to mental hospitals due to the increasing frequency of mental disorders peculiar to the elderly, only a small proportion occupy hospital beds for prolonged periods; of those with functional psychoses 27 per cent. died and 54 per cent were discharged, and with organic psychoses 60 per cent, died and 23 per cent. were discharged; as in all surveys of the elderly he notes the larger proportion of women among the higher age groups, and among the men the tendency to die sooner.

Medical assessment continued. Central Nervous System.Mental state. The Habits of the patients.

No account of the mental state of the Foresthall patients can be complete without some mention of the undesirable habits found among them. Ward sisters too often try to shield doctors from all knowledge of the more disagreeable aspects of nursing duty, and in acute wards of younger patients, where incontinence is the exception rather than the rule, they succeed only too well. It was naturally to be expected that, in a hospital where the majority of the patients were elderly, incontinence would be a more serious problem; but during the first months of the Survey no one could have suspected, from the unruffled demeanour of the ward sisters and the surprisingly fresh air of the wards, just how serious and disagreeable the problem was.

The general habits of a certain number of this very mixed population were noted to be peculiar, and not what one would encounter in a general hospital. The hoarders gave endless trouble to the nurses. Some would collect scraps of food, dirty rags, pieces of old newspaper, soiled dressings etc. and secrete them in their pockets or lockers or even under their mattresses. Some would acquire pieces of brown paper, and wrap them round their chests and knees "to keep out the cold". And it was a common habit with the ambulant, to lug about heavy loads of half-crowns (the collected change from their weekly pension money, from which the Institution deducts £1. 1/- a week); and in the case of any real or imagined loss /

loss there would be a terrific uproar and stripping of beds while they searched for their treasure. Then there were the smokers, whose habits with tobacco ash and sputum mugs were offensive to all around them; and the snuff-takers (many old women at Foresthall take snuff) were noticed to be nearly as troublesome, and capable of getting their pillows, sheets and every fold in their bodies ingrained with the dark powder. And if supplies of these commodities ran out, that was another occasion for wild turmoil and excitement, which only the desired article could soothe. Then the eating habits of some patients, - even allowing for the difficulty of eating in bed from a bowl with a large soup-spoon, without back-rest or bed-table, - were found to be primitive, and another cause of mess and work for the nurses. Interference with dressings and scratching of wounds was prevalent even in some whom one would have hesitated to classify as mentally abnormal; and there were others who scratched even when there was no visible lesion, in an ape-like fashion, as if they enjoyed it.

Although the fact has been stressed that even respectable middle-class people may find themselves in Foresthall, it is by no means claimed that the patients there are all or even mostly of that class, and that this ex-poor-law hospital is to be cheerfully regarded as a suitable nursing home for one's elderly relative, with kind and competent nursing and congenial company, all for one guinea a week. It must be remembered that the Hospital recruits its patients from all the varied population of Part III, and the flotsam and jetsam of an industrial city, as well as from decent people who are left /

left without relatives to look after them. And so it is not surprising that the lack of civilised inhibitions, and the habits of slums and "model" lodging houses make their appearance. Also, although geriatricians object to the indiscriminate use of the word senile, it is not denied that the minds of a certain number of old people do deteriorate; and, while it is callous to label "confused" an old person who has temporarily lost his bearings (because of illness, or strange surroundings), it is a conceded fact that some old people do lapse with age into a permanent state of confusion.

But some of the most repulsive habits found among the elderly when bedridden are not confined to the above categories; they occur among people who seem otherwise sensible, respectable, and by no means confused, as well as among the deranged. In Foresthall it was learned, during prolonged sessions in the wards in the course of the detailed survey of the patients, that cleanliness was achieved with much stress and trouble, and that the nurses regarded the ordinary repulsive duties of changing soiled beds, the "doing of backs", and the slunging of the sheets as easy and pleasant, compared with the task of repeatedly cleaning up incontinent patients who would not keep their hands from the faeces. When a ward sister was compelled to reveal this fact to the doctor, and was asked how many of her patients had this horrible habit, she admitted that most of her bedridden doubly incontinent patients were guilty of it, even apparently sensible and alert people, who would apologise abjectly afterwards, but seemed unable to refrain from repeating the offence. She could only suppose that their action was due to some obscure feeling of guilt, and vain endeavour to conceal their mistake. There is a general tendency among the aged, especially males, to be dissatisfied/

dissatisfied with the action of the bowels. They complain bitterly of constipation and swallow enormous doses of purgatives which cause profuse diarrhoea. The presence of piles or prolapses increases the complaints and the general preoccupation with the perineal region. Some incontinent patients are ashamed of causing so much trouble, but a surprising number come to take it as a matter of course; and there are even some who see no reason why they should try to avoid it, for "that is what the nurses are there for". Among the really deranged the excretory habits of the bedridden are even more foul; often complete baths have to be given several times a day; and many people would declare that such patients are fit only for mental wards. But they are not deranged in the sense of being dangerous to others or to themselves, and in any case, no mental hospital will accept a patient from Foresthall without giving one in exchange. Some of the faults of behaviour of the Foresthall patients may be due to early life in slums without plumbing or privacy; some of the disgusting habits, which cause such excessive and disagreeable work for the nurses, and must affect recruitment to hospitals of the elderly, may be the result of a certain degree of confusion, and in their most outrageous form, to real dementia; but, as was discovered later, they can also in great measure be attributed to confinement to bed, for when such patients get up the trouble usually ceases, and even the mentally deranged are seldom unclean. To the superior type of elderly person, who is completely sane and has lived a rather sheltered life, the sight of such habits is nauseating and has been known to cause vomiting. The existence of such habits in their extremest form /

form is a strong argument for segregating the mentally peculiar in a ward of their own, and of course getting them up. Yet at Foresthall any sort of redistribution was at first forbidden: chance had already "arranged the patients perfectly."

...	42	14	22	27
of sev.	17	6	7	1
in the ward.	19	3	3	4
...	168	27	44	66
...	149	23	40	33
...	17	8	2	2

... of the females and 41 per cent. of the males were ... in some way. 71 per cent of the ... do nothing though only 10 per cent ... of the males are ... 41 per cent. of the females and 17 per cent ... occupied and ...

... (1949) noted that although 92 per cent ... of the males were reported to ... this was excessive. ...

Medical assessment continued. Central Nervous System.Mental state. Occupation - how the patients pass their time.

	Nos.	Under 60.	Percentage of age groups.			
			60-69	70-79	80-89	90-
Those who do nothing. Females	107	33	27	64	60	100
Males	238	47	53	63	55	100
FEMALES.		Number in each age group.				
Those who read.	73	16	24	17	16	-
listen to the wireless.	62	14	19	15	14	-
knit or sew.	15	6	7	1	1	-
help in the ward.	13	5	3	4	1	-
MALES.						
Those who read.	168	27	44	66	31	-
listen to the wireless.	143	25	40	53	25	-
paint.	1	1	-	-	-	-
help in the ward.	17	6	8	2	1	-

49 per cent. of the females and 43 per cent. of the males occupy themselves in some way. 51 per cent of the females and 57 per cent. of the males do nothing though only 25 per cent of the females and 20 per cent. of the males are mentally unfit to do anything; that is, 26 per cent. of the females and 37 per cent. of the males should be occupied and are not.

Thomson (1949)²⁰¹ noted that although 52 per cent of the females and 63 per cent. of the males were reported to be occupied, from his own observations this was excessive. Lowe and McKeown (1950)¹⁵³ state that half the females and two fifths of the males had no occupation such as reading or sewing; in some there was a reason for this, but there was no reason in 72 women and 26 men. McEwan and Laverty¹⁵⁸ report that 14 could do light work but only 7 were /

Medical assessment continued. Central Nervous System.Mental state. Complaints and Comments of the Patients.

A detailed list of the spontaneous complaints made by the patients, during the clinical examination for the survey, will be found in appendix 11. From this list a summary was made as follows:-

	<u>Percentage</u> <u>of total patients.</u>	
	<u>F.</u>	<u>M.</u>
No sensible answer.	37	23
No complaints.	7	5
With complaints.	56	72

	<u>Percentage</u> <u>of total complaints.</u>	
	<u>F.</u>	<u>M.</u>
Social conditions in the ward.	26	21
Pain.	16	15
Weakness, shakiness, stiffness or disorders of locomotion.	11	24
Being in bed.	15	13
Cough or breathlessness.	4	10
Eye or ear defects.	10	4
Alimentary disorders.	3	2
Urinary function.	4	3
TOTAL.	<u>89</u>	<u>92</u>

As the survey proceeded various comments on their situation were volunteered by the patients. In general their strange detachment was very marked, as if "custom lay upon them heavy as frost". They seldom grumbled about the way in which fate had treated them or lamented that their relatives had abandoned them. If they did ever voice any such complaints it was in an unemotional impersonal way, as if /

if they were talking about someone else. Most were pathetically pleased to be talked to. On the whole, the most original and vigorous remarks were made by the male patients, of whom a higher proportion were being needlessly kept in bed; the females tended to make spiritless dismal remarks about "living too long", wishing they were "out of it" and feeling "very near the end". Quite a number, both men and women, stated bluntly that they knew they were sent here to die. But there were others who seemed slightly puzzled by being kept in bed and given no treatment, - as if that was not what they expected of a hospital, - and would say: "I don't think they want you to get better here;" "I have not been allowed up since I came here;" "they just dump you here - it's worse than being a lunatic;" "I could walk with a walking-machine in the other hospital;" "I suppose I'll be getting up soon?" A few felt aggrieved and said: "I should not have been allowed to become bedridden; they don't give you a chance here." There were many remarks about the monotony of life: "I was sent here to die and there is nothing else to do but die," (which he did four months later, of no particular disease); "what is there to do?" "I do nothing but smoke and cough;" "It gets monotonous in here; I lie in bed doing nothing". Many were themselves aware of the effects of prolonged rest in bed: "I have stayed in bed too long"; "lying in bed does you no good, makes you stiff, makes you weak"; "my doctor advised a rest six years ago and here I am". Some mentioned in a completely detached manner that the doctor or the nurse had said: "you will never walk again; now you are in bed for good; when you leave here, you will leave in a wee box." But after a little sympathetic encouragement their frozen indifference /

indifference began to thaw, and they said such things as: "I would do anything to be able to walk again"; "could anything be done to make me walk?"; "if only I had broken an arm instead of my leg" (fractured femur); "will I ever get well again?"; "will I live a wee bit longer?"; "what about a wheel chair", "an artificial limb?"; "what about some massage?"; "you will try to make me walk, won't you?". Some, when the ice was broken, became a little frantic and exclaimed: "I must get out of here, I must have my freedom"; "I'm used to an open-air life - I must get out into the fresh air"; "I wish they would let me out"; "If I could walk even a few yards I'd have been home long ago." One, evacuated from the Channel Islands during the war, spoke with dreadful longing of the blue seas and green fields of Guernsey. Some insisted that a relative could take them home, though on investigation the relative was found to be unable or unwilling. And one, most pathetically, was acute enough to realise that he was keeping a bed that "some ill man might need." Among those who were encouraged to get up, new difficulties arose: "I've no suit"; "I can't wear these rags"; "they won't let me wear my own shoes"; "it's too cold - can't you give me a job to keep me warm"; "the floor's too slippery for me to walk on"; "I can't manage stairs without something to hold on to "; "if I was fed properly I would feel better"; "I'm paying twenty-one shillings a week for that (pointing to a bowl of tea and a thick slice of bread and jam) - I could do better outside in a 'môdel'"; "I cannot eat the food." Some of those who were learning to walk again, began to have fears for the future: "I don't think I could manage living alone /

Medical assessment continued.Diseases of Joints and Muscles.

	<u>Percentage of total.</u>		
	<u>F.</u>	<u>M.</u>	for details see appendix 12.
Stiffness (objective)	9	1	
Osteoarthritis	23	9	(21 per cent. following injury)
Rheumatoid arthritis	<u>6</u>	<u>2</u>	
TOTAL.	38	12	
Stiffness and muscle and joint pains.	10	13	(from "complaints")

All types of muscle and joint pains and stiffness constitute an important disability of the elderly, which not only reduces their mobility and makes them less able to look after themselves, but by causing pain, renders them cantankerous and difficult to please. Curran (1946) considers that "rheumatism", comprising all types of muscle and joint pains, is the most prevalent and incapacitating ailment of the elderly though not necessarily the most dangerous; he finds it especially among stout women, making housework and the maintenance of personal cleanliness difficult. Sheldon¹⁸⁵ found that 55.4 per cent. complained of rheumatic symptoms, more women than men (muscular 28.1 per cent., F.30 per cent. and M. 24 per cent., rarely leading to curtailment of activity; joint 31.8 per cent., F.35 per cent. and M.24 per cent.). Howell (1947)¹⁰⁰ found fibrositis in 10 per cent. and osteoarthritis in 2 per cent., and Affleck (1948) quotes 12.6 per cent. with arthritis. McEwan and Laverty¹⁵⁸ found rheumatoid arthritis /

arthritis in 9 per cent. and osteoarthritis in 21 per cent; 50 per cent. of the rheumatoids and 15 per cent. of the osteoarthritics had difficulty in moving or were bedridden. They found that osteoarthritis increases with age and that the knees are most affected especially in obese women. In their survey, muscular rheumatism was rarely reported and they suggest that this was due to the frequency of dehydration, according to Copeman's⁴⁹ theory that abnormal retention of fluid by the fat lobules in certain situations causes pain labelled as rheumatic, fibrositic or arthritis. Copeman suggests that this selective swelling is probably endocrine in origin. Crockett and Exton-Smith (1950) describe a condition which they call "frozen shoulder"; it is common among the elderly, especially in hemiplegics and those with Parkinsonian rigidity; the limitation of movement is due to pain and adhesions in the periarticular tissues; there is no true arthritis. They also note that a surprising number of patients acquire rheumatoid arthritis for the first time between the ages of sixty and seventy, and that in these patients the fingers become deformed fairly rapidly. This late onset of rheumatoid arthritis was also noted among the patients at Foresthall.

Medical assessment continued.Muscle and joint diseases. Contractures.

The most important causes of bedfastness found in Foresthall Hospital, - not as a medical diagnosis but as a primary physical disability, - may be summarised as follows:-

	<u>Percentage of bedfast.</u>		(for details see appendix 13)
	<u>F.</u>	<u>M.</u>	
Contracted knees.	46	18	
Weakness of leg or legs.	18	16	(due in most to a hemiplegia)
Mental deterioration.	13	17	
Insufficient reason.	-	19	(some female rehabilitation already carried out)
TOTAL.	<u>77</u>	<u>70</u>	

Details of the contractures (excluding those with rheumatoid arthritis) will be found in appendix 14. They may be summarised thus:-

	<u>Percentage of patients.</u>	
	<u>F.</u>	<u>M.</u>
Hand only	3	5
Arm	7	8
One knee	5	5
Both knees	<u>13</u>	<u>6</u>
TOTAL.	<u>27</u>	<u>24</u>

Causes of contractures:

Hand only: females, - due to hemiplegia; males, - due to injury or Dupuytren's contracture.

Arm: /

Cause of contractures (continued):

Arm: females, - due to hemiplegia; males, - due to lesion of central nervous system, usually a hemiplegia.

One knee: only 63 per cent had a lesion of the central nervous system.

Both knees: only 44 per cent. had a lesion of the central nervous system.

Contractures of knees.

Contracture at any joint forms a serious disability, but it is only severe contractures of the legs which makes it impossible for the patient to walk. These contracted limbs not only cause considerable discomfort and even pain but also greatly increase the difficulty of nursing and the prevention of bed sores. In some cases the contracture can be so severe that the knee is pressed close against the abdomen and the heel against the buttock, making the use of the bedpan quite impossible. Most of these contracted knees are accompanied by flexion contracture at the hip joints, which is not apparent unless the patient is examined when lying on one side. As can be seen from the above summary of the causes of bedfastness, in Foresthall Hospital contracted knees presented the initial difficulty in re-educating to walk 46 per cent. of the bedridden female patients, and 21 per cent. of those male patients who had an adequate reason for being bedridden.

It is generally assumed that contracted knees are caused either by diseases of the joints such as rheumatoid arthritis where the /

the legs are held flexed for the relief of pain (the pain is supposed to diminish when the smallest possible areas of articular surface are in contact inside the joint); or by diseases of the central nervous system causing increased tone in certain groups of muscles. It is considered that a lesion of the pyramidal tracts will cause a spasticity in flexion, provided that the vestibulo-spinal tract is intact. The typical deformity of a hemiplegic is an extended leg and a flexed arm.

But there was a group of Foresthall patients with contracted knees who showed no evidence of rheumatoid arthritis or even of osteo-arthritis. There was no history of fractured femur, which also leads to contractures, though passive flexion at the time of injury is so painful. Muscle tone and tendon reflexes are unreliable when contractures are present but the plantar responses in this group were found to be flexor and no abnormality could be detected in the arms.

The causes of contracted knees in this survey can be grouped as follows:-

	<u>No. of Patients.</u>			<u>Percentage of contracted knees.</u>	
	<u>F.</u>	<u>M.</u>		<u>F.</u>	<u>M.</u>
Central nervous system lesion.	18	24	Lesion of central nervous system.	39	50
Rheumatoid arthritis.	9	4	Arthritis.	24	12.5
Osteoarthritis.	2	2	Cause unknown.	37	37.5
Following fractured femur.	1	-			
Cause unknown.	<u>17</u>	<u>18</u>			
TOTAL.	<u>47</u>	<u>48</u>			

A general impression was gained that those who had contracted knees for no very obvious reason had been lying in bed for a very long time. It was however impossible to determine whether the contractures had been present on admission, because of the inadequate case records. In order to try to determine the effect of rest in bed in causing contractures, the number of years probably spent in bed was noted for each patient with contracted knees, - that is the number of years spent continuously in this and other hospitals, if the patient was unable to give a reliable history of how long he had been in bed. A control group of patients without contracted knees, but bedridden with some adequate reason for being so, was treated in the same manner. The control group was chosen from the case-summaries of the whole hospital, taking the patient with the above qualifications, coming next on the list after one with contracted knees. It was found that the average stay in hospital of:

Females with contracted knees	was	5.5	years;
Controls without	"	"	4.6 years;
Males with contracted knees	"	3.0	years;
Controls without	"	"	2.7 years.

(2 males age 62 and 49 were excluded as their limbs had been contracted from birth or infancy).

These findings suggest that confinement to bed plays some part in causing contracted knees, and also may explain the greater number of contracted knees among the female patients, who have a longer survival but higher morbidity rate and therefore are more likely to have spent many years in bed. Why should lying in bed cause contractures? The normal person when lying in bed on one side, tends /

tends to flex the knees slightly; this tendency is increased if the extremities are cold. Elderly people, because of impaired circulation in the legs, do tend to have cold feet and there is seldom any attempt in hospitals of the type of Foresthall to provide hot-water bottles as a routine, partly because of the shortage of bottles and of staff, but also through fear of burns. The wearing of short gowns by incontinentals also increases the feeling of cold and many are found curled up, trying to get their short gowns wrapped round their knees. If the patient lies on his back, he may feel the weight of the bed-clothes on his feet oppressive; he tries to remove some of the weight by flexing one or both knees; and this may also account in hemiplegics for the contracture which occasionally occurs of the knee on the non-hemiplegic side. Moreover bed-cages are in short supply in this hospital and they are in any case disliked by some patients who say that their use makes the bed draughty. Tall patients too, find that the hospital beds are too short (only 5' 9" here) and have to flex their knees to keep their feet under the blankets. Weak patients who try to sit up in bed without the aid of an overhead pulley or a back-rest, flex their knees to keep themselves from slipping down again. In the early stages of contracture, the knees can be straightened passively, but gradually the muscles shorten; to obtain any change of position for the joints, the patient has to flex them still further; eventually the position becomes irreversible and something approaching bony ankylosis may occur.

Example: An ambulant but confused female patient was kept in bed by the use of sedatives. In eight weeks both her knees were contracted. Six months later she was still in bed. After two months rehabilitation /

rehabilitation she was able to walk again and her legs were perfectly straight. There was no evidence at any time of disease of the central nervous system or of the joints.

Thomson (1949)²⁰¹ noted extreme contractures developing without any apparent lesion in either nervous or locomotor system. He found this in the very old who had been long in bed, and compares the position to that of the intra-uterine foetus; the plantars were flexor and there was no history of arthritis or detectable abnormality in the joints. McEwan and Lavery¹⁵⁸ found contractures in 12 males and 24 females to be due entirely to confinement to bed. They, too, could find no physical disorder to account for the contractures. The shortest time for the development of the contractures was 6 weeks. They suggest that general flexion for warmth or comfort may be the cause, combined with an attitude of withdrawal and resentment of interference. Some contractures they found were due to hemiplegia, disseminated sclerosis, Parkinsonism, rheumatoid and osteo-arthritis, and in orthopnoeic patients; some of these patients found that flexion occurred spasmodically, sometimes during sneezing or coughing or if heat was applied. At Foresthall, flexor spasms were only noticed in those with disseminated sclerosis or subacute combined degeneration of the cord - that is, progressive lesions of the spinal cord. Thomson (1949) notes that in hemiplegics the arm is usually flexed and the leg extended. He suggests that the cause of extreme flexion of the leg which occurs slowly some time after the initial stroke, is a further vascular lesion. McEwan and Lavery found 19 out of 106 hemiplegics (18 per cent.) had flexion contractures of the /

the leg. They also note the absence of contractures in those with chorea, athetosis and hypotonia. But at Foresthall one patient with Huntington's chorea became very contracted for a few months before death. Crockett and Exton-Smith (1949) noted that almost all their inherited patients had painful, stiff, and in some cases fixed joints in their lower limbs which were usually held in that position found most comfortable; and they comment that it is these stiff and painful joints - resulting from long continued immobilisation in tightly made beds - that form the greatest problem in getting these patients walking again. They also note³⁹ that patients with rheumatoid arthritis keep their knees flexed for the relief of pain; apart from muscle weakness, a slight flexion deformity of the knees is the most important single factor in preventing these patients from walking. Critchley (1931) notes the attitude of general flexion commonly adopted by elderly people, partly one of the manifestations of an extrapyramidal lesion, but also due to senile atrophic changes in the intervertebral discs and ankylosing affections of ligaments and joints; rigidity is another common sign in old people especially in those showing gross cerebro-vascular degeneration; in typical cases this consists in a uniform resistance to passive manipulations, more marked in the legs than in the arms, with often a superadded hyper-tonus of a quasi-volitional nature. He notes that one of the commonest neurological symptoms in old age consists in a progressive weakness of the lower extremities with the frequent development of contractures, and considers that these "senile paraplegias" may be cortical, subcortical, spinal or muscular in origin. He suggests a subcortical lesion as the explanation for the flexion of both legs developing some time after a hemiplegia. He considers that there is often a vascular basis for these paraplegias.

Medical assessment continued.Cardio-vascular System.

Gavey (1949) states that the nervous and cardio-vascular systems are together the source of most of the troubles of old age. Biological death is a primary cardiac death. Howell (1944) finds that cardio-vascular disease is the commonest cause of death in the aged; but he adds that except by finding definite cardiac enlargement (which is hard to gauge clinically in the presence of emphysema), persistent hypertension, calcified aortic stenosis, a loud constant apical systolic murmur, clearly abnormal cardiac rhythms, signs of congestive failure or a typical electro-cardio-graphic pattern of conduction defects or myocardial ischaemia, there is no way to determine abnormal cardio-vascular ageing. Bain (1950) says that the same heart conditions are found in those over the age of seventy as in younger patients. Boas (1950) finds arteriosclerosis and hypertension the commonest causes of cardiovascular problems after the age of seventy.

Howell (1947)¹⁰⁰ stresses that the significance of physical signs varies greatly according to the age of the patient, e.g. a harsh systolic murmur. He found arterial thickening usual, though absent in 15 per cent; clinical evidence of cardiac enlargement was present in only 6.5 per cent though it was probably masked in others by fat or emphysema; however it is often found that the X-ray of the chest of elderly people with a raised blood-pressure does not reveal a large heart. Gibson (1950) notes that atrophy of the heart in the elderly /

elderly is compensated by atrophy of the rest of the body, that loss of elasticity of the aorta causes an increase of systolic pressure in order to maintain the diastolic, and that there is an increase in peripheral resistance and blocking of the coronaries by arteriosclerosis. He emphasises however that the aim of geriatricians should be to impress the elderly with their abilities rather than to stress their disabilities, and that their abilities depend very largely on the condition of the cardio-vascular system.

Post-mortem examination of the heart.

Gavey (1949) notes that function does not run parallel with pathology. Vischer (1950) found some degree of arteriosclerosis in 99 per cent., and myocardial fibrosis in more than one quarter. Howell and Piggott (1950) found that the commonest forms of degeneration of the heart were a soft friable muscle in 17 per cent., general fibrosis in 16 per cent., brown atrophy in 12 per cent., fatty degeneration in 6 per cent. and that 50 per cent. had normal muscle.

Peripheral vessels. Among the Foresthall patients 2 females and 7 males were found to have a purple discoloration of the feet but only one case of actual gangrene was found. McEwan and Lavery¹⁵⁸ found peripheral vascular disease to be the chief cause of disability in 21 patients, of whom 11 had gangrene of the feet. Many people stress the importance of preventing gangrene in the elderly by proper attention of the feet, avoidance of injury, especially when cutting the toe nails, and adequate cleanliness and well-fitting shoes. Boyd (1951) notes that typical cases of intermittent claudication in the /

the calf muscles are easily diagnosed, but that if the exercise pain occurs in an atypical site such as the front of the leg or the sole of the foot, the diagnosis is often missed. He also mentions arterial deficiency in the legs resulting from obstruction of the lower quarter of the aorta producing a syndrome which is not well recognised. The patient complains of odd pains in the thighs or legs or sometimes a sense of weakness from the waist downwards, "as if his legs did not belong to him", coming on with exercise. The disappearance of the leg pulses on exercise and their return with rest is pathognomonic of a high arterial block.

Other patients with arterial deficiency complain of a feeling of numbness or tingling in the feet, especially at night.

Electro-cardio-graphic findings.

Fox et al. (1948) found that the incidence of abnormal E.C.Gs. increases with age. Dolgin et al. (1949) found that 77.5 per cent. of 71 elderly subjects had heart disease; less than half had a diminished cardiac reserve and an abnormal E.C.G. was the most frequent reason for making the diagnosis of heart disease.

Wosika et al. (1950) found in 100 patients aged 80 and over, 20 with normal E.C.Gs. and 30, who were considered normal clinically, with abnormal E.C.Gs. The incidence of E.C.G. abnormalities was:

- 31% left ventricular hypertrophy.
- 29% prolonged auriculo-ventricular conduction time.
- 14% myocardial infarction.
- 12% bundle branch block.

Eliaser and Kondo (1941) attempted to determine what constitutes a normal /

normal E.C.G. for an elderly person by studying the E.C.Gs. of 100 ambulant people over the age of 70, without signs of impaired cardiac function. Their findings were as follows:-

Only 15 were normal by the usual standards.
 62 had left axis deviation.
 37 low voltage.
 13 bradycardia of less than 60.
 1 tachycardia of more than 100.
 3 auricular fibrillation.
 5 auricular } ectopic beats.
 15 ventricular }
 40 partial A.V. conduction defects.
 24 I.V. conduction defects of which
 6 were left bundle branch block.

These E.C.G. changes they presume to be the result of minor silent coronary occlusions. They add that E.C.Gs in the older age groups must be interpreted with greater care than in younger people; and that the usual standards of normality cannot be adhered to too strictly. Gavey (1949) notes that Eliaser and Kondo found normal E.C.Gs in 15 per cent of ambulant males and females over the age of 70 and Fox 51 per cent of normal E.C.Gs in ambulant males over 60. Gavey considers that these results are unsatisfactory and thinks that until more information is available, E.C.Gs in the elderly should be regarded as of less diagnostic and prognostic importance than in the young. He gives an account of the E.C.Gs of 200 consecutive patients over the age of 70 in whom an E.C.G. was indicated clinically; several abnormalities were found to be no commoner than in the so-called "normal" series of other writers.

Medical assessment continued. Cardio-vascular system.Blood pressure.

In the survey of the Foresthall patients, the blood-pressure of each patient was taken once only, in bed and at rest. As Smirk (1949) points out, the level of the blood-pressure in a ward or a consulting room is not an accurate guide to the average blood-pressure of the patient throughout the day and during the night. But it was impossible for one person working alone to repeat almost 600 blood-pressures several times within a limited period.

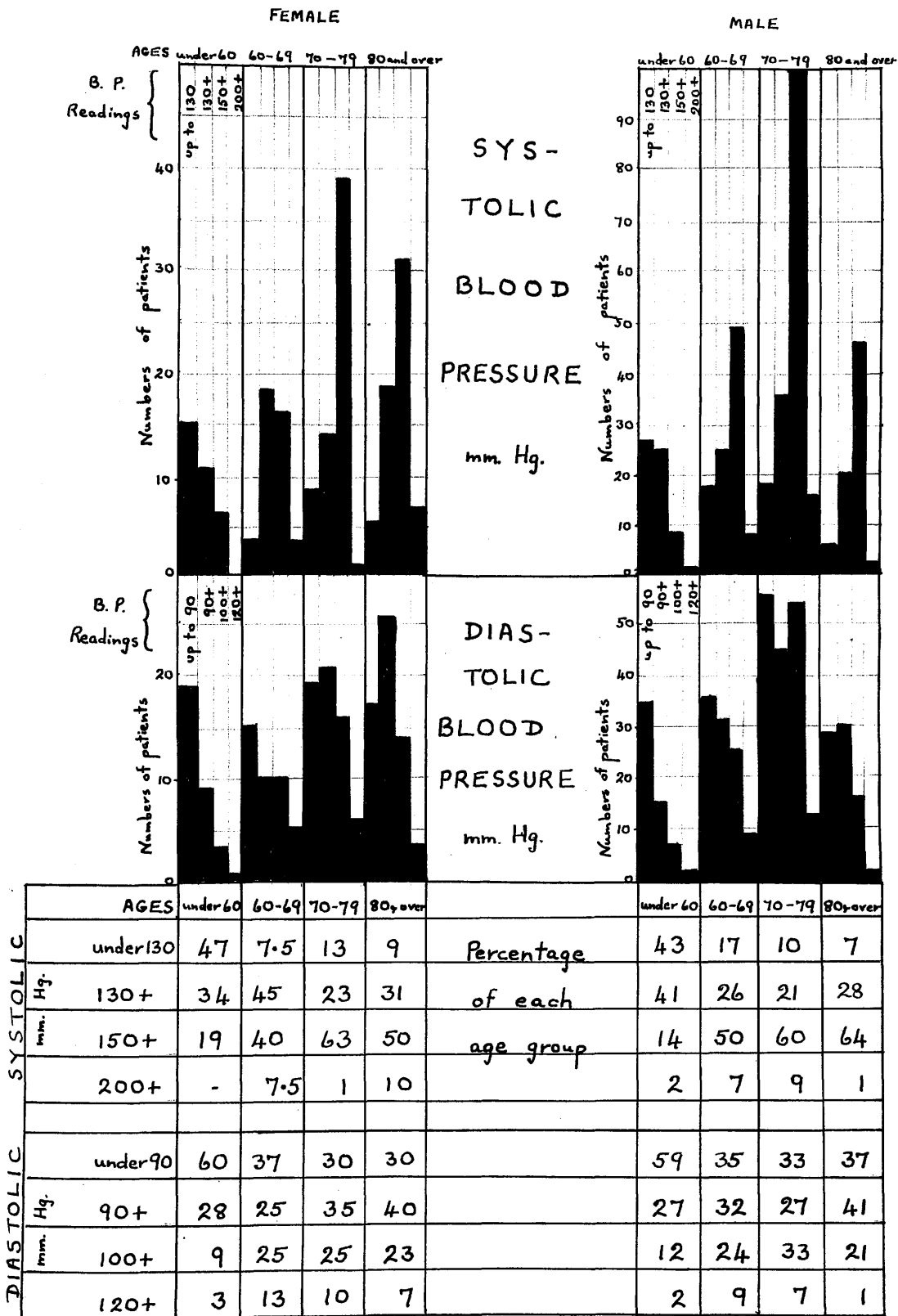
No. taken.

Female	194	13 } could not be taken because of the aggressiveness of the patient, or 22 } severe tremor or extreme contractures.
Male	393	

Average blood-pressure.

<u>Age.</u>	<u>F.</u>	<u>M.</u>
Under 60	$\frac{133}{84}$	$\frac{130}{82}$
60-69	$\frac{151}{94}$	$\frac{151}{91}$
70-79	$\frac{150}{92}$	$\frac{157}{93}$
80 and over	$\frac{155}{91}$	$\frac{151}{88}$

Frequency of different systolic and diastolic blood pressures in each decade.



From these charts it can be seen that the blood pressure, both systolic and diastolic, in the Foresthall patients tended to be higher in the older age groups until the ninth decade was reached.

Blood pressure and disabilities.

Of all the patients whose blood pressures were taken

49 per cent. of the females and 64 per cent. of the males were bed-ridden.

43 per cent. of the females and 61 per cent. of the males with a diastolic B.P. of less than 100mm. were bedridden.

62 per cent. of the females and 70 per cent. of the males with a diastolic B.P. of more than 100mm. were bedridden.

But how much does "bedridden" mean in a hospital where people are kept unnecessarily in bed?

Patients over age of 60.

<u>Diastolic B.P.</u>	<u>TOTAL.</u>		<u>Hemiplegics.</u>		<u>Cerebral degeneration.</u>	
	<u>F.</u>	<u>M.</u>	<u>F.</u>	<u>M.</u>	<u>F.</u>	<u>M.</u>
Under 90	32%	35%	15%	18%	11%	16%
90-99	35%	31%	33%	30%	33%	32%
Over 100	33%	34%	52%	52%	56%	42%

This table shows that those with cerebro-vascular lesions have a higher diastolic blood pressure than the patients in general.

McEwan and Laverty¹⁵⁸ found hypertension with symptoms in 14 cases (without cardiac failure) consisting of dizziness, falling, tinnitus, head pains, failing vision and mental disturbance; 10 others had hypertensive heart failure. They found the incidence of hypertension (= diastolic of over 110) was 138 (20 per cent.) but they also point out that as no control group of normal people was studied /

studied, the figures are of no value concerning hypertension in different ages. Hypertension was shown to be well tolerated by many aged patients. Howell (1944) quotes the following observations on the blood pressure made by himself and others:-

Thewlis quoting Saller:

Age 60-67 $\frac{173}{93}$ in men; $\frac{216}{102}$ in women.

67-89 $\frac{186}{80}$ " " $\frac{222}{112}$ " "

Willius: of 700 people over the age of 75, 74 per cent. had a systolic pressure of over 140; 40 per cent had a diastolic of over 90.

Age.	Robinson & Brucer.	Richter.	Wildt.	Bowes.	Howell.	Foresthall	
						F.	M.
60-64	-	$\frac{138}{74}$	$\frac{137}{76}$	-	-	$\frac{151}{94}$	$\frac{151}{91}$
65-69	$\frac{139}{75}$	$\frac{150}{71}$	$\frac{143}{78}$	$\frac{151}{82}$	$\frac{149}{80}$		
70-74	$\frac{137}{77}$	$\frac{150}{73}$	$\frac{148}{80}$	$\frac{160}{86}$	$\frac{157}{83}$	$\frac{152}{92}$	$\frac{157}{93}$
75-79	$\frac{154}{80}$	$\frac{155}{66}$	$\frac{153}{82}$	$\frac{166}{86}$	$\frac{166}{87}$		
80-84	147 87	$\frac{157}{69}$	$\frac{148}{78}$	$\frac{175}{84}$	$\frac{158}{84}$	$\frac{155}{91}$	$\frac{151}{88}$
85-90		$\frac{161}{67}$	$\frac{162}{85}$	$\frac{170}{90}$	$\frac{147}{79}$		
over 90			$\frac{129}{59}$	$\frac{142}{81}$			
Number examined	189	165	-	150	120	194	393

Fox et al. (1948) found 38.6 per cent. of 300 elderly males with a blood pressure of less than $\frac{140}{90}$. Boas (1950) found the incidence of hypertension of women compared with men (over the age of 70) to be /

be in the ratio of 3 to 2. Gavey (1949) considers the blood pressure abnormal, whatever the age, if it exceeds $\frac{160}{100}$, and found that the average was $\frac{188}{102}$ in 360 patients over the age of 70. Gibson (1950) states that the blood pressure does not necessarily increase with age; most statistics merely represent the accumulated hypertensive hazards that old people have encountered and can give no information as to the effect on the blood pressure of ageing itself. Howell (1944) reports that a rise of pressure is customary after the age of 60, reaching a peak between 75 and 89 and falling thereafter; the pulse pressure is usually high (more than 70 mm. in nearly all those over the age of 70); and acute infections and cardiac failure lower the blood pressure. He noted that 42 per cent. of his patients had a systolic pressure of over 160, whereas 70 per cent. of the healthy Chelsea Pensioners had such a pressure; he found that those with a high pressure were among the fittest. Stieglitz states that hypertensive arterial disease is much more frequent and more significant among the ageing than the truly aged. Zeman and Schwartz (1948) note that previous studies have pointed out: 1) an increased systolic blood pressure with age when large numbers of persons of different age groups have been averaged, but there are no data which demonstrate this progressive rise in systolic pressure in a large number of individuals. 2) relatively little change in diastolic pressure with age, when studied under similar conditions, but the number with systolic and diastolic hypertension increases with age and the number with an abnormally low diastolic pressure also increases with age; 3) increasing pulse pressure with age. /

age. They maintain that the blood pressure is the result of changes in cardiac output, peripheral resistance, and elasticity and volume of the larger arteries; that as age increases there is a tendency for peripheral resistance to increase, for aortic elasticity to decrease, for aortic volume to increase and cardiac output to decrease, and that the blood pressure will reflect which of these factors predominate. Platt (1950) states that as the aorta and large vessels become less and less elastic, a rise in systolic pressure without any similar rise in diastolic is the natural result according to simple physical laws; it is part of the process of growing old. He reports that one quarter of the population suffer from some degree of hypertension in later life, and in many of these it is the direct or indirect cause of death, (either from cardiac failure or cerebral complications); headache and dizziness occur only in some; the dizziness is not rotatory as in a labyrinthine upset, but more a light-headedness especially after stooping. He considers that the prognosis of those with hypertension is not uniformly bad though a high diastolic pressure does shorten life.

Medical assessment continued. Cardio-vascular system.The Pulse.

Pulse rate. The pulse rate was counted for half a minute in the Foresthall patients in a resting state. The findings are tabulated as follows:

198 females

410 males. In 14 the pulses could not be counted because of restlessness or tremor.

Ages.	under 60		60-69		70-79		80-89		90 and over		(Numbers of patients).
	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	
Pulse rate.											
40-49	-	-	-	-	-	1	-	2	-	-	
50-59	-	-	-	-	-	1	-	-	-	-	
60-69	2	8	2	21	9	37	5	21	1	1	
70-79	20	29	31	53	44	91	44	40	3	2	
80-89	9	20	10	23	9	33	8	9	1	-	
90-99	-	1	-	2	-	2	-	1	-	-	
100 and over.	-	1	-	3	-	8	-	-	-	-	

Of those over the age of 60

percentage of total.

	F.	M.
Pulse rate 60-69	10	23
70-79	73	53
80-89	17	19
	<u>100</u>	<u>95</u>

4 male patients had a pulse rate of less than 60/min.

18 male patients had a pulse rate of more than 90/min.; of these 4 were in cardiac failure, 4 had a carcinoma, 4 were dying, but the other 6 had no apparent cause for their tachycardia.

Alteration of pulse rate with age.

Pulse rate.	Percentage of age groups.			
	60-69	70-79	80 and over.	
60-69	5	14	10	} FEMALE
70-79	72	72	76	
80-89	23	14	14	
				} MALE /

Alteration of pulse rate with age.

Pulse rate.	Percentage of age groups.			
	60-69	70-79	80 and over.	
60-69	20	21	28	} MALE
70-79	52	52	55	
80-89	22	19	11	

In the higher age groups there was a smaller percentage with a pulse rate of more than 80/min.

Laplace notes that the average heart rate is said to become somewhat slower in old age, but that this has not been consistently demonstrated. Bramwell (1937) found that during the later period of life the pulse rate tends to rise slightly. A graph by Tigerstedt, quoted by Mackenzie in 1902, of a series of 2521 normal healthy individuals shows a rapid fall of pulse rate from 130 at birth to 70 at the age of 25, followed by a slow rise as age increases. Cohn (1939) states that the ageing heart shows a decrease in rate. Gavey (1949) finds that the pulse rate scarcely varies in different age groups. Boas (1950) states that in the over 70s, the ventricular rate is usually slow, due probably to fibrosis of the A.V. bundle and to increased vagus tone but no histological or experimental studies are described in support of these assertions. Eliaser and Kondo (1941) found in 100 patients over the age of 70 with hearts clinically normal, bradycardia (of less than 60) in 13, and tachycardia (of more than 100) in one. Howell (1947¹⁰⁰ and 1949¹¹⁰) found a wide variation in the pulse rate of the elderly, from 44 to 110, without any abnormal physical sign; he found a fall from 75.6/min. at 60 years to 69.1/min. at 85 with a subsequent rise in rate.

Pulse rhythm. /

Pulse rhythm.

Among the Foresthall patients 9 females (4 per cent.) and 25 males (6 per cent.) had extrasystoles at the time of examination.

One female (aged 52) had auricular fibrillation with mitral stenosis and a history of rheumatic fever. 4 males (1 per cent.), all over the age of 60, had auricular fibrillation without evidence of rheumatic carditis; of these, 2 showed signs of cardiac insufficiency and another was on the danger list.

Three other males had regular irregularities, the rhythms being a) 4 -1 -4 -1 - b) 3 -3 -3 - c) 4 - 3 - 2 - 1 - 4 - 3 -

All the other patients had a regular pulse rhythm at the time of examination.

A considerable number of patients were recorded as having auricular fibrillation, but this was never confirmed, and the low standard of carefulness revealed in the case-sheets leads to the conclusion that these statements were worthless.

During the year following the making of this survey, 7 patients were seen, who had normally a regular rhythm but who developed clinical auricular fibrillation, (2 during the course of pneumonia) accompanied by signs and symptoms of cardiac insufficiency, and died a few days later. Two other patients were admitted with definite auricular fibrillation, which has remained symptomless in one, but in the other gives rise occasionally to complaints of palpitations.

Opinions about the incidence of auricular fibrillation in the elderly are extremely variable. Fox et al. (1948) give a 4.3 per cent. incidence of auricular fibrillation in 300 elderly males (and premature contractions in 14 per cent.); Wosika et al. (1950)

a 7 per cent. incidence in 100 patients over the age of 80; and Boas (1950) a 1.6 per cent. incidence. Eliaser and Kondo (1941) found in 100 people over the age of 70 with hearts appearing normal on clinical examination, 3 with auricular fibrillation and 20 with ectopic beats. Laplace found a 17 per cent. incidence of auricular fibrillation in unselected hospital patients over the age of 70. Gavey (1949) found auricular fibrillation in 14.5 per cent. and extrasystoles in 25.5 per cent. of 200 patients over the age of 70, in whom an E.C.G. was indicated clinically. Howell (1947)¹⁰⁰ states that arrhythmias are few; only 4 per cent have extrasystoles, auricular fibrillation or heart block. Crockett and Exton-Smith (1949) say that auricular fibrillation is common in the aged. Evans (1951), Cohn (1939) and Sprague all note an increased tendency to irregularities of the pulse rhythm in the elderly. Many note that if unassociated with demonstrable organic heart disease, auricular fibrillation is frequently symptomless, does not impair efficiency or shorten life and is of little clinical import. (Evans;⁷³ Boas; Laplace; and Sprague). Sprague does mention the possibility of paroxysmal auricular fibrillation.

Medical assessment continued. Cardiovascular system.Cardiac insufficiency.

Among the Foresthall patients, cardiac insufficiency, as judged by oedema of the feet, breathlessness on exertion, or typical anginal pain, was found in 30 patients. (5 female, 2 per cent., and 25 male, 6 per cent.) These figures however are probably false because few of the patients were leading lives of normal activity. It should be noted that the onset of cardiac failure in an elderly person is frequently accompanied by peculiar behaviour such as restlessness or aggressiveness.

AGES.

Signs and symptoms.	Under 60		60-69		70-79		80 and over.		TOTAL.	
	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.
Breathlessness on exertion without swollen feet or bronchospasm.	-	2	-	1	1	5	2	1	3	9
Swollen feet plus other signs of cardiac failure.	-	1	-	5	1	5	1	1	2	12
Angina without breathlessness or swollen feet.	-	-	-	2	-	2	-	-	-	4
TOTAL.	-	3	-	8	2	12	3	2	5	25
Swollen feet without any evidence of cardiac failure.	1	-	-	1	-	2	-	2	1	5

It was found that those with anginal symptoms have frequently areas of local tenderness on the chest wall, - usually anteriorly and near the sternum.

Of /

Of the last group (with oedema, but without other evidence of cardiac failure) the female was a stout mental defective, able to walk about and with a blood pressure of 140/90. The man aged 60 had paralysis agitans and was ambulant. One of those of 70 was a hemiplegic and the other had an ulcer of his leg with swelling of the foot on the side of the lesion. One man aged 80 was bedridden, with a blood pressure of 150/80 and no evidence of paralysis. One aged 90 was bedridden and confused. This oedema of the feet without other evidence of cardiac failure may also be seen in stout patients with varicose veins or old thrombophlebitis, in patients who have been bedridden for a long time and are now sitting in a chair but unable to walk or move very much, in paralysed limbs or conditions associated with rigidity and difficulty in moving, and with contractures of the knees. Following mid-thigh amputation for gangrene oedema is also frequent in the foot of the remaining limb. Septic conditions of the feet, and venous or lymphatic obstruction also cause it as in younger patients. Sheldon¹⁸⁵ found oedema of the feet in 13 people in his survey, 11 due to heart disease and 2 to varicose veins. Gibson (1950) notes that in stout elderly people, oedema of the legs is probably not due to heart failure unless accompanied by other evidence of heart disease. Gavey (1949) notes that oedema in the elderly is not always cardiac in origin but may be due to varicose veins, anaemia, malnutrition, obesity, cirrhosis of the liver or a pelvic tumour; he also mentions the "shelter" oedema which was common during the war.

Breathlessness: /

Breathlessness: Sheldon¹⁸⁵ found a complaint of breathlessness in 14.8 per cent. (F.16.1 per cent., M. 11.8 per cent.) and of these 55 per cent had some degree of limitation of movement. As his survey did not include a medical examination, he was unable to determine the cause. Gavey (1949) states that there is a reduction in exercise tolerance with age but that dyspnoea is not a feature of healthy old age if a "physiological amount of exertion, appropriate to the age", is taken. Gibson (1950) emphasises very truly that no symptom is more prone to exaggeration than breathlessness. Dolgin (1949) found that 77.5 per cent. of 71 patients (66 of them over the age of 70) had heart disease (diagnosed chiefly from E.C.G. findings) but that less than half had diminished cardiac reserve.

Angina: Gibson (1950) notes that pain in the chest is more often due to a local cause and that anginal pain is not so ominous in old age as in earlier life. Lovibond (1949) states that extra-thoracic pain in cardiovascular disease, including coronary artery degeneration, is commoner as age advances. McEwan and Lavery¹⁵⁸ found angina in 4, 3 of whom were ambulant. Sheldon¹⁸⁵ found that 2.3 per cent. gave a spontaneous complaint of angina of effort but notes that cardiac pain may be very atypical in the elderly. Boas (1950) states that coronary artery disease is two and a half times as common in males over 70 as in females.

Coronary thrombosis has been diagnosed and confirmed in patients at Foresthall who complained only of vague discomfort across the chest or in the upper abdomen, "indigestion", or a choking feeling in the throat. /

throat. Frequently restlessness, peripheral failure and feeble heart sounds are the only clinical findings. Only one patient over the age of 70 with acute and agonising pain has been seen here in two years. But many complain of their hearts or declare that a doctor said they had a "bad heart" when there is a small area of tenderness between the ribs.

Heart failure: Howell (1944) states that the commonest cause of heart failure in old age is hypertension; since the blood pressure falls, the cause of the failure is apt to be misdiagnosed. Gibson (1950) notes that wasting of the heart combined with the tendency for fat to accumulate in the myocardium does not cause the ageing heart to fail, as the rest of the body also wastes and makes smaller demands on it. The loss of elasticity of the aorta imposes an additional strain as the inability to maintain the pressure during diastole necessitates an increase in the systolic pressure. Myxoedema as a cause of heart failure is often missed. Gavey (1949) notes that function does not run parallel with pathology; a man is as old as his arteries, as Cazali says, but one may be diseased out of proportion to the others. Gavey found congestive heart failure in 12.7 per cent. of his series; of these 60 per cent. were hypertensives. McEwan and Lavery¹⁵⁸ found heart failure in 49 out of 701 (7 per cent.) and of these they considered 41 to be irremediable; the causes were as follows:-

Acute coronary thrombosis. 2

Congestive heart failure attributed to
Coronary artery disease. 19 (=the term senile
myocardial
degeneration)

Hypertension. /

Hypertension.	10
Valvular heart disease.	8
Pulmonary heart disease.	5
Myxoedema.	2
Paget's disease.	2
Aortic aneurysm.	1

Medical assessment continued. Cardiovascular system.Cardiac murmurs.

The cardiac murmurs found in the Foresthall patients were as follows:-

	FEMALE.	MALE.
Systolic murmurs.	19 (3 under 60 yrs.)	30 (2 under 60 yrs.)
Diastolic murmurs.	2	2
Mitral stenosis.	1 (under 60 yrs.)	-

All these murmurs were apical, or heard all over the precordium. A detailed analysis of the apical systolic murmurs in patients over the age of 60 will be found in appendix 15. The incidence was found to be 9 per cent. of the females and 8 per cent. of the males (8 per cent. of the total). Only one showed evidence of cardiac insufficiency at the time of examination. Most of the murmurs were blowing in character, only 8 being rough or harsh and 4 squeaking. Four of the loudest murmurs were heard all over the precordium, and 7 (1 rough and 3 very loud) were propagated into the axilla. The effects of posture, respiration and exercise were difficult or impossible to estimate in some of the patients because of lack of co-operation. Sixteen murmurs disappeared on exercise, 6 on sitting up and 3 on holding the breath. Clinical estimation of cardiac enlargement was probably valueless because few had a palpable apex beat and the extent of cardiac dullness was difficult to determine on percussion. Three had extrasystoles and 3 a short diastolic murmur. /

murmur. Thirty one had a systolic blood pressure of over 150mm. i.e. 70 per cent. compared with 63 per cent. of all the patients over the age of 60. Nineteen had a diastolic pressure of over 100mm. i.e. 43 per cent. compared with 34 per cent. of all the patients over the age of 60. Nineteen had a moderate degree of arteriosclerosis and in 5 it was very marked. In those 44 patients over the age of 60 with apical systolic murmurs there was no other significant finding apart from a higher blood pressure than the patients in general.

Fox et al. (1948) found apical systolic murmurs in 66 out of 300 (22 per cent.) elderly males; of these 42 had enlarged hearts and 21 a dilated aorta. Howell (1947)¹⁰⁰ found murmurs in 8 per cent., three quarters of them being systolic, and apical twice as common as basal; less than 1 per cent. had double murmurs; there was no past history of rheumatic fever, and syphilitic heart disease rarely allows survival over the age of 60. He considers that most of these murmurs are probably sclerotic in origin. While in the young the presence of a harsh systolic murmur indicates the need to distinguish between a possible congenital or rheumatic heart disease, such a finding in the aged is usually of little or no importance (apart from the rare case of aortic incompetence). Sprague states that a definite apical systolic murmur cannot be considered a phenomenon of normal ageing and usually signifies left ventricular dilatation. He also finds that the heart sounds are often normally decreased in loudness. Gavey (1949) considers that the heart sounds should be clear and unaccompanied by murmurs, though systolic murmurs are frequent and seem to have but little significance. Crockett and Exton-Smith (1949) note the infrequency of valvular disease. McEwan and Laverty¹⁵⁶ found 4 with /

with mitral stenosis, 3 with aortic incompetence, and one with aortic stenosis, out of 701 patients; all were severely disabled and dyspnoeic. It is stated in the B.M.J. (1950)³⁴ that necropsy records show that one third of all cases of mitral stenosis survive to the age of 50, though it is asserted that mitral stenosis is seldom discovered after the age of 50. There is a reluctance to diagnose valvular disease in the elderly and the diagnosis is often confused by concurrent hypertension. Cookson (1949) describes 37 cases of mitral stenosis in patients between 51 and 77 years of age; 31 had auricular fibrillation. He emphasises the need for prolonged and careful auscultation. Sixty per cent. of these patients gave a history of rheumatic fever in early life; their physical activity was little restricted until the onset of auricular fibrillation. The reason for their survival may be the presence of hypertension (in half), the degree of myocardial involvement and the amount of physical stress (three quarters of them were females). An even larger number are found at necropsy.

Medical assessment continued.Respiratory System.

In the investigation of the respiratory system of the Foresthall patients the chest was sometimes not examined as fully as it might have been because many patients were unable to sit up without help. As the full time services of a nurse were not available, many of these patients had to be rolled on to one side in order to examine the back of the chest. It was also found to be very difficult to make some of the patients breathe deeply; any instructions about breathing caused them to hold their breath; in others only the vocal resonance could be assessed.

The findings were as follows:- (details in appendix 16)

<u>Clinical findings.</u>	<u>Percentage of total.</u>			<u>Percentage of Ambulant.</u>		<u>Percentage of Bedridden.</u>	
	<u>F.</u>	<u>M.</u>		<u>F.</u>	<u>M.</u>	<u>F.</u>	<u>M.</u>
Clear.	80	62		81	62	80	61
Bronchial asthma.	3	4	with marked emphysema.				
Bronchiectasis.	1	-	proved on X-ray.				
Tuberculosis.	1	2	proved on X-ray.				
Rhonchi.	8	23					
Basal crepitations.	4	6					
Could not be examined.	3	3					

Chronic chest complaints cause considerable annoyance to a large number of elderly people, especially men, increase the liability to acute pulmonary infections in winter, and may even limit severely the exercise capacity of the sufferer. Firth (1949) considers that among /

among the elderly long stay sick, chest troubles probably claim the greatest number of victims, with cardio-vascular diseases second.

The incidence of so-called "chronic bronchitis" among the Foresthall patients was difficult to determine. The survey was done in the spring and only 2 females and 33 males made a spontaneous complaint of cough. In a population largely consisting of old people direct questioning usually yields an affirmative answer. Twelve per cent. of the females and 27 per cent. of the males appeared to have adequate signs in the chest to account for coughing (excluding pulmonary tuberculosis). But a much larger proportion of these patients do in fact suffer and complain of coughs in winter. Sheldon¹⁸⁵ notes 40.9 per cent. (in their own homes) liable to cough - 46.6 per cent. males compared with 38.7 per cent. females. McEwan and Laverty¹⁵⁸ noted chronic bronchitis in 78, disabling in 26; of these 17 were men 11 were under 60, and only 2 (of the 26) able to get about. Yet, as they point out, in many it may be a harmless affliction. Affleck (1948) records 10 per cent. with chronic bronchitis. Pemberton (1949) reports that 11 per cent. of patients attending eight general practitioners in Sheffield had chronic bronchitis. Howell (1947)¹⁰⁰ found moist râles, rhonchi or sibili in 10 per cent. and endorses the dictum of Dr. Samuel Gee that profuse expectoration may be present despite the absence of physical signs in the lungs. At Foresthall the production of sputum could not be properly assessed because of the intermittent appearance of sputum containers and the frequent use of other receptacles or of none. It is often considered that chronic bronchitis in the elderly is really a manifestation of cardiac insufficiency; /

insufficiency; but these elderly patients frequently give a very long history of cough which combined with breathlessness at rest - yet considerable tolerance of exertion - makes one agree with Lister (1949) that the great majority are in fact sufferers from asthma in a mild form. Lister adds however that in the elderly this syndrome of cough, shortness of breath and production of sputum is often caused by incipient left ventricular failure. Crockett and Exton-Smith (1949) report that after misdiagnosis had been excluded, chronic bronchitis was found to be comparatively rare; the cause of the symptoms was often left ventricular failure. In the asthmatic group infection is occasionally a primary cause, but is far more commonly secondary; and it has been found at Foresthall that the acute pulmonary infections in winter have much more dire results in the asthmatic type than in the more aged but non-asthmatic. Evans (1950) gives pulmonary fibrosis as the cause of diminished activity among the elderly. He found that those with chronic bronchitis, old tuberculosis, and bronchiectasis at this age all had pulmonary fibrosis. The main symptoms were dyspnoea, a wheezing cough and the onset of congestive heart failure, hypertrophy of the right ventricle being prevented by coronary insufficiency. Howell (1947)¹⁰⁰ notes 1 per cent. with clubbed fingers due to chronic lung disease and in some the presence of small dilated venules along the costal margins and prominent veins over the chest wall.

Emphysema. Though only 24 of the Foresthall patients are classified as having gross emphysema with chronic bronchitis and bronchospasm, many had milder degrees of emphysema. Chest expansion and /

and air entry are difficult to judge in these patients, but only 7 per cent. of females and 9 per cent. of males over the age of 60 had a palpable apex beat. McEwan and Laverty¹⁵⁸ noted chest deformities and emphysema in many of their patients with chronic bronchitis. Gavey (1949) states that the elderly chest tends to kyphosis from atrophy of the vertebral discs and that the apex beat is difficult to localise because of emphysema. Vischer (1950) found at post mortem that emphysema was more frequent with advancing years. Yet Howell (1947)¹⁰⁰ found only 5 per cent. with chests suggestive of emphysema. In "Chronic Bronchitis" (1951) he reports that a degree of emphysema is almost invariable in the over seventies - mostly of the atrophic type. Christie (1950) states that it has been repeatedly shown that the signs which belong to what Cabot called the barrel-chest phenomenon, may bear no relation to the symptoms of emphysema or to the presence of emphysema as found at autopsy.

Basal crepitations. Basal crepitations are considered by many to be a normal finding in patients who have been lying immobile in bed for a long time. The findings at Foresthall do not confirm this view. Of the 9 female patients with basal crepitations, 7 were in bed and obviously ill; the other 2 were over the age of 80 and were ambulant - no definite cause could be found for the crepitations. Of the 25 men, 18 were in bed - 7 obviously ill and 4 more with other signs of cardiac failure; 7 were up but 6 had signs of cardiac insufficiency. i.e. of the 359 patients (out of 630 examined) who were in bed, only 7 (males) had crepitations at the bases of the lungs for no apparent reason - less than 2 per cent. of the bedridden patients, /

patients, (and 1 per cent. of the ambulant patients had also basal crepitations for no apparent reason). Howell (1947)¹⁰⁰ states that moist râles, rhonchi and sibili are not unusual and are found in 10 per cent. but in his publication he does not distinguish between râles and rhonchi. McEwan and Laverty¹⁵⁸ found moist sounds at the bases of the lungs in 186 patients (26 per cent.); of these 49 were in heart failure, 137 had some chest disease (bronchopneumonia, unresolved pneumonia, persistent cough), 18 had hypertension without heart failure; of all these, 80 had been confined to bed for more than one year and the hypostasis was attributed to it. They considered that weakness and the use of sedatives and previous pulmonary disease increase the liability to hypostasis. But Thomson and Curran (1948) state emphatically that they cannot endorse the opinion that a few râles in the lungs of those over 70 are to be expected as a normal concomitant of age; in the healthy elderly they found no such adventitious sounds.

Pulmonary tuberculosis. At Foresthall one ward of 10 beds is reserved for male patients with pulmonary tuberculosis. They may have been diagnosed in other wards, in Part III accommodation or sent in from chest clinics in the city. Though they are segregated and have some additions to their diet, the position is extremely unsatisfactory: they are usually either elderly, or in the last stages of cachexia, or of the younger (that is, in the 50s) disgruntled type whose behaviour would not be tolerated in an ordinary sanatorium. Any turnover is caused by deaths, or irregular discharges due to depression /

depression at the high death rate, their own poor prognosis, or complaints about the food and lack of treatment. Since this survey was completed some more remediable patients have been admitted for active treatment. Of the 10 patients at the time of the survey, 8 were over the age of 60 and 7 had a positive sputum. One year later none of these patients remained. More recently a few patients have felt so much better after a few months rest in bed, that they have taken their own discharge in spite of severe lung damage and a positive sputum. The one female tuberculosis patient, aged 33, and of rather low grade mentally, was admitted from Part III accommodation. Her sputum has remained persistently positive, but she has improved subjectively and may insist on being discharged. There is no provision for her isolation and no hope of gaining her admission elsewhere. Hebbert (1948) stresses the danger of imagining that tuberculosis in the elderly is rare, chronic and relatively benign. The symptoms are insidious and may be masked by the general progress of ageing. Of 69 tuberculous patients over the age of 60 (60 males and 9 females) he found that 27 were admitted with "bronchitis" and 34 had a positive sputum. Allowance must be made for the fairly common practice of some medical practitioners in sending their tuberculous patients to general hospitals as cases of bronchitis and pneumonia knowing them to be cases of Koch's infection. Lister (1949) points out that the diagnosis in the elderly may only be made when the disease appears in a young relative. Paul (1951)¹⁷¹ finds that a recent acute spread of a chronic fibro-cavernous phthisis often brings the diagnosis to light. Without this the diagnosis may never be made as local signs are masked /

masked by chronic bronchitis and emphysema. These patients are an important source of infection. Treatment is difficult where the advanced state of the disease makes collapse therapy impossible, and without such measures the sputum usually remains positive. McEwan and Lavery¹⁵⁹ found 14 cases of pulmonary tuberculosis among 701 chronic sick patients and urge the importance of their proper segregation and general management.

The following table is a summary of the results of the study of the relation of the sputum to the chest x-ray in 100 cases of chronic bronchitis and emphysema. The results are given in the following table. The results are given in the following table.

Amount. Examination.

Very positive	72	34
Positive	7	32

The results are given in the following table.

Case No.	Amount		Examination	
	Wet	Dry	Wet	Dry
10	10	10	10	10
20	20	20	20	20

Medical assessment continued.Gastro-intestinal System.General Nutrition.

Very fat patients.

	<u>F.</u>	<u>M.</u>	<u>% of each age group.</u>
AGES. Under 60	15%	3%	
60-69	25%	11%	
70-79	25%	6%	
80 and over.	18%	8%	
Incidence for whole series.	21%	7%	

There was a general impression in Foresthall that it was the sensible bedridden females who became so grossly overweight. There were certainly more obese females, but their numbers were divided equally between ambulant and bedridden, (but of course many of the ambulant had prior to 1949 been bedridden for years).

	<u>Ambulant.</u>	<u>Bedridden.</u>
Very fat (Female.	22	22
patients. (Male.	9	22

The mental state appeared to bear some relation to the obesity.

MENTALLY -	Good.	Fair.	Poor.	Percentage			who are obese.	
				of Good.	Fair.	Poor.		
Very fat patients. {	Female.	30	2	12	30	4	21	
	Male.	22	5	4	11	3	6	

Certainly the most enormous patients were found among the female patients, bedridden for years, but in full possession of their faculties, and visited regularly by well-laden relatives. Gross obesity constitutes /

constitutes a serious nursing problem. Bathing can be carried out only with the help of a ward's whole domestic and nursing staff. Even in the absence of such gross disabilities as rheumatoid arthritis or hemiplegia, the very size of the patient reduces her mobility in bed and increases the liability to pressure sores. The high incidence of osteoarthritis and cardiac insufficiency makes any attempt at rehabilitation even more difficult.

Sheldon¹⁸⁵ found that 3 per cent. of elderly people in their own homes appeared undernourished. In body build the women showed more variation in the direction of either leanness or stoutness. Twenty five per cent. of women over the age of 85 years were undeniably stout.

Very thin patients at Foresthall. The following findings are difficult to assess:- 12 females and 39 males were very thin but of these 4 females and 28 males were obviously ill.

AGES.	<u>F.</u>	<u>M.</u>
Under 60	2	3
60-69	-	11
70-79	4	19
80 and over.	6	6

McEwan and Laverty¹⁵⁸ noted malnutrition in 13 patients out of a total of 701. All had been admitted a short time before the survey was made; 9 had been living alone, and 2 in lodgings.

State of tongue. /

State of tongue.

Coated.	AGES.	<u>under</u> <u>60</u>	<u>60-69</u>	<u>70-79</u>	<u>over</u> <u>80</u>	<u>TOTAL.</u>	<u>Percentage of</u> <u>Total Patients.</u>
Females.		2	3	9	4	18	9
Males.		6	17	36	10	69	17

	<u>Ambulant.</u>	<u>Bedridden.</u>	<u>Mentally Good.</u>	<u>Fair.</u>	<u>Poor.</u>
Females.	9	9	5	5	8
Males.	19	50	29	26	14

Dry. Females. 6 (3 per cent.) 4 bedridden and having to be fed.
1 ambulant and mentally deranged.
1 with very large protruding tongue.
(Pituitary tumour causing acromegaly).

Males. 16 (4 per cent.) 15 bedridden - 3 with suprapubic cystostomy.
6 very poor mentally.
6 very ill.
1 ambulant and sensible.

McEwan and Lavery¹⁵⁸ noted dehydration in 93 patients (13 per cent.) giving rise to dry tongue and skin; it was uncommon to find a drink beside the bed and the patients did not bother to ask. The same is also true at Foresthall except in cases of acute infections, but the sensible patients do ask for drinks when thirsty, those who are weak and helpless are carefully fed at mealtimes and those who are ill have their mouths washed out regularly. Of all the 622 patients, only one complained of thirst.

Abdominal examination.

Abdomen distended and tympanitic:

		<u>AGES.</u>		
		<u>60-69</u>	<u>70-79</u>	<u>80 and over.</u>
Males	12			
all bedridden.		3	5	4
Females	10			
8 bedridden.		1	5	4

Abdominal examination. (continued.)

Abdomen distended with fluid.

Males 3.

1 distended bladder.
1 cardiac failure.
1 carcinomatosis involving
peritoneum.

Operation scars.

Males.Females.

5 prostatectomy.	1 for skin graft.
1 healed suprapubic cystostomy.	2 appendicectomies.
1 appendicectomy.	1 hysterectomy.
1 cause unknown.	2 ovarian cystectomy.
6 suprapubic cystostomies.	4 lower abdominal.(cause unknown)
4 colostomies.	1 upper abdominal.(cause unknown)

Herniae. (not a complete list; patients examined in bed; herniae noticed in passing or mentioned by patient).

Males.Females.

2 umbilical	2 incisional
6 inguinal	2 umbilical
3 scrotal	1 inguinal

Sheldon¹⁸⁵ notes 86.1 per cent. with no hernia
and 13.9 per cent. with a hernia. (30 per cent. of the male
sample
7 per cent. of the female
sample).

Howell (1947)¹⁰⁰ found a large number with hernia.

Abdominal palpation. One female age 40 was found to have uterine
fibroids. /

fibroids. No other tumours were discovered. One female and 6 males had a palpable liver as part of a congestive cardiac failure. Howell's account (1947)¹⁰⁰ of 37 per cent with enlarged liver must surely be associated, as he suggests, with their past military service abroad.

In several patients, especially those who were overweight, some vague abdominal tenderness was found, but always localised to the abdominal wall. No definite deep tenderness was found. Later, however, several patients were seen who gave a typical peptic ulcer history, frequently of short duration, with epigastric tenderness, and who responded to a mild dietetic regime. Intermittent complaints of dyspepsia, vomiting and diarrhoea are common at Foresthall, and when not caused by dysentery or some general toxæmia are attributed to unappetising food or some dietary indiscretion. The presence of achlorhydria which is reported to be not uncommon in the elderly (Gledhill, 1949) may be a factor, but many who vomit complain of its acid taste, which is usually considered to indicate the presence of free hydrochloric acid. It was found from the case-sheets that a diagnosis of gastric carcinoma was made apparently on the evidence of one dark-coloured vomitus. Many of the elderly do vomit dark-coloured material which contains no blood on testing. Others have small hæmatemeses over a period of years without any deterioration in their general condition. Sometimes persistent vomiting, which may be streaked with red blood, is found to be self-induced, presumably to evoke sympathy. McEwan and Laverty¹⁵⁸ found dyspepsia common, and peptic ulcer in 5 patients. Levin et al. (1949) describe 41 patients with benign gastric ulcer over the age of 65. They say that 10 per cent. /

cent. of patients with benign gastric ulcer are over this age. The symptoms may be of short duration and indistinguishable from those of carcinoma. The rate of healing is slower than in younger people. No instance of carcinomatous degeneration was found; haemorrhage is the most frequent complication. It is thus very important that the correct treatment should be given and not just palliative medicines.

Medical assessment continued. Gastro-intestinal system.State of the Teeth.

The patients' mouths were examined when possible, (a few resisted this examination). Inquiries were made about the presence of false teeth in the locker or elsewhere or a history of the loss of false teeth. Information about extraction of teeth as opposed to loss of teeth by natural processes was unreliable; previous possession of false teeth was often doubtful. Only 6 patients were found with both false teeth (upper) and some remaining natural teeth. Fourteen gave a history of teeth having been left at another hospital; 4 left their teeth in Part III accommodation when they were transferred to hospital with an acute illness, and thereafter they could not be found. Twelve were wearing teeth which required repair - in one case an upper dental plate had only 2 teeth left in it.

		<u>F.</u>		<u>M.</u>	
No teeth at all.	106	51%	209	50%	
Own teeth - good.	-	} 19%	71	} 32%	
fair.	26		56		
bad.	13		71		
False teeth - upper and lower.	29	} 28%	37	} 14%	
upper only.	28		21		
Lower only.	1		2		
lost.	2		6		
not worn.	11		4		8 lower, 3 upper, 4 both.

State of teeth in different age groups. Percentage of each age group.

<u>AGES.</u>	<u>FEMALES.</u>				<u>MALES.</u>			
	<u>Under 60</u>	<u>60-69</u>	<u>70-79</u>	<u>Over 80</u>	<u>Under 60</u>	<u>60-69</u>	<u>70-79</u>	<u>Over 80</u>
No teeth of any kind.	36	43	64	51	36	48	53	57
False teeth.	30	43	15	28	16	20	13	8
TOTAL.	66	86	79	79	52	68	66	65

As age increased a higher percentage were found without teeth of any kind; but the percentage without teeth of their own remains fairly constant after the age of 60. There was a higher percentage of females with false teeth; and in both sexes a higher percentage of false teeth among the younger patients, - presumably owing to the ease of obtaining teeth which the older patients at their age could not afford to buy; or was it rather that they had had them for a shorter time and had not yet broken or lost them? Are women more sensible of the aesthetic value of false teeth or do they simply take more care of their dentures?

Sheldon¹⁸⁵ describes the state of the teeth in 91.4 per cent. of his survey:

26.6%	own teeth.	} 15.8% never use them. (compared with 50% at Forest-hall).
59.8%	upper and lower false.	
3.9%	some own, some false.	
9.6%	no teeth of any kind.	

He points out that these people passed through the years when medical opinion favoured the theory of focal sepsis; that men are more prone to retain their own teeth than women, but having lost them are much more willing than women to depend entirely on their gums; that complete dentures are more frequent in women. He considers that old people suffer no specific ill-effects from the defects in their teeth; lack of them does not appear to be related to indigestion. McEwan and Lavery¹⁸⁸ found that 4.7 per cent. had a healthy set of their own teeth; that 93.5 per cent. of those over 60 who had teeth had carious teeth; that 54 per cent. had dentures (82 ill-fitting or broken) and that 28 per cent. were edentulous. They report that food was the main item of interest.

Medical assessment continued.Urinary tract.

One man, age 75, was found on examination to have a distended bladder.

Five patients gave a history of prostatectomy.

<u>Present age.</u>	<u>Age at operation.</u>
72	?
80	77
61	60
65	64
60	60

Six patients had suprapubic cystostomies; another patient had had one which healed spontaneously.

<u>Present age.</u>	<u>Age at operation.</u>
62	61
70	69
73	71
72	70
80	75
71	64
32	30

} all 5 died during
the following
12 months.
now healed; passing
urine per urethram.
WR+ve.

McEwan and Lavery¹⁵⁸ found 5 suprapubics and 28 with frequency of micturition. Sheldon¹⁸⁵ found frequency of micturition in 31.5 per cent. (35.3 per cent. of the females and 22.9 per cent. of the males). Wilson (1948) found only 5 (of 35) males and 9 (of 33) females without complaints about micturition; the others had difficulty, slowness, precipitancy, frequency and incontinence. In the Forest-hall /

Foresthall survey no specific inquiry was made about disorders of micturition; it should be noted that frequency as a complaint is not always confirmed in hospital patients.

Retention of urine.

Male: In the cases of retention occurring in Foresthall, the precipitating factors which have been noticed are exposure to cold, particularly combined with consumption of alcohol - as occurs when a man goes out on a day's pass in winter; cerebral thrombosis; acute infections; and the successful use of diuretics in congestive cardiac failure. It is much commoner in acute units for the elderly than in "chronic" wards. It should be noted that many who are reported to have retention, have in fact oliguria caused by dehydration from acute infections or inability to swallow, or by cardiac or peripheral circulatory failure.

Female: Retention of urine rarely occurs in the female, apart from those cases which follow gynaecological perineal operations. Occasionally it is found following a cerebral thrombosis or an abdominal operation.

Medical assessment continued. Urinary tract.

Incontinence.

Incontinence might be described as inability or failure to prevent the passing of urine or faeces until a suitable receptacle is available, but it is not suggested that this statement represents a comprehensive definition of all varieties of incontinence. It is one of the greatest disasters that can befall an elderly person. The difficulty and unpleasantness of coping with the problem makes his relatives both unwilling and unable to care for him, and frequently accounts for his admission to hospital. The persistence of the incontinence in an otherwise fit patient is an absolute bar to his discharge home, unless his relatives are fully aware of it and have adequate facilities for dealing with it. Most general wards frown on the presence of incontinents, partly because of the unpleasant odours, partly because the time-consuming task of changing them and keeping their skins intact interferes with the care of the younger acutely ill patients. It is not surprising that at the first opportunity incontinents are transferred to a "chronic" hospital. Such a hospital with its high proportion of elderly patients, who are either bedridden or purposely kept in bed, and in addition its quota of younger patients with disorders of the central nervous system, is thus likely to have a high percentage of incontinents, and one of its main tasks is to keep such patients clean and free from bedsores.

Incidence of incontinence (all types) /

Incidence of incontinence (all types).

		<u>Female.</u>	<u>Male.</u>
Foresthall.		37%	26%
McEwan and Laverty. ¹⁵⁸		19%	
Lowe and McKeown. ¹⁵⁵		41.5%	26.4%
Thomson. ²⁰¹	(urine only)	44%	25%
Wilson. ²²²	(over 70s)	42%	31%
Greenwood. ⁸⁹		31%	25%
Affleck. ²		24.1%	22.9%
Brocklehurst	{ Foresthall.	33.3%	18.3%
	{ General Hospitals	14.0%	7.0%
Adams.		3x	x
Sheldon ¹⁸⁵	(at home)	12.7%	7.4%
Lowe and McKeown. ¹⁵²	(those requiring admission to hospital)	33%	20%

Type of incontinence.

It is difficult to be sure of the exactness of the following figures for Foresthall. Those who are doubly incontinent are usually always incontinent and always of both urine and faeces; those with urinary incontinence alone may be so only at night; those with faecal incontinence alone may be so only if the bowels happen to move at night or the stools are loose. Those who are sometimes incontinent may not be far removed from "those who have an occasional accident", a group not included here.

Type of incontinence. /

Type of incontinence.

	FEMALES.			MALES.		
	Doubly	Urine or Faeces	Some- times	Doubly	Urine or Faeces	Some- times
Foresthall	25%	1%	11%	18%	2%	6%
Lowe and McKeown ¹⁵⁵	32.1%	9.4%	-	18.5%	7.9%	-
Brocklehurst	13%	5%	-	8%	3%	-
Affleck ²	11.4%	10.5%	2.2%	10.6%	8.5%	3.8%
McEwan ¹⁵⁸	Both sexes. 11%		8%			

Sheldon's¹⁸⁵ survey showed only 3 with faecal incontinence, a great contrast to that found in the institutional care of the aged.

The Foresthall figures were examined to see if they showed an increase of incontinence in the elderly with advancing years; but they gave no evidence of this being the case.

Age and incontinence. (% of each age group who are incontinent - all types).

	Under 60	60-69	70-79	80 - 89	90 and over.	TOTAL
FEMALE	33	48	28	42	29	37
MALE	28	25	30	18	-	26

Thomson (1949)²⁰¹ observed from his figures that incontinence in either sex was not a consequence of age; there was very little difference in the incidence in the ten year groups 60-69, 70-79 and over 80.

Brocklehurst /

Brocklehurst gives the age incidence of 312 incontinent patients (out of 2223) as :-

Under 60	18.6%
60-69	20.5%
70-79	38.8%
80-89	19.6%
90-100	2.6%

but he does not mention how many of each age group (continent and incontinent) were included in his survey.

Causes of incontinence.

The possible causes of the incontinence of the Foresthall patients appeared to be as follows:- (details in appendix 17)

<u>Possible cause.</u>	<u>Percentage of total patients.</u>		<u>Percentage of incontinent.</u>	
	<u>F.</u>	<u>M.</u>	<u>F.</u>	<u>M.</u>
Central nervous system lesion.	17	11	47	43
Mental state.	14	8	36	30
Other reasons (hernia, contractures)	1	1	3	4
No apparent reason.	<u>5</u>	<u>6</u>	<u>14</u>	<u>23</u>
TOTAL.	<u>37</u>	<u>26</u>	<u>100</u>	<u>100</u>

McEwan and Laverty¹⁵⁸ found the conditions associated with incontinence of urine to be as follows:-

	<u>F.</u>	<u>M.</u>
Central nervous system lesion.	17	11
Mental state.	67	39
Genito-urinary disorders.	15	12
Delay in obtaining receptacle.	17	2

They concluded that incontinence of urine and faeces was almost invariably /

invariably caused by mental disorder.

Lowe and McKeown (1950)¹⁵⁵ found that out of 345 patients, 137 (40 per cent.) had some reason for their incontinence (such as central nervous system disease, carcinoma, prolapse or prostatic hypertrophy) and 129 (37 per cent.) were abnormal mentally.

Brocklehurst considered the causes to be:-

Organic nervous disease	33%
Mental confusion	29%
Psychological disease	3.8%

Thomson (1949)²⁰¹ found that in only one quarter was there a physical condition that might be considered to be the cause of the incontinence.

In some patients there is a constant dribbling of urine or soiling with faeces, - never a proper evacuation of bladder or bowel; this condition is commonest among the extremely apathetic. In others there is a proper evacuation, but the patient either gets no warning of it or is entirely unaware of it. In some, an extraordinarily large volume of urine appears to be passed at one time, soaking not only the drawsheet but also the top sheet, the blankets, and even the pillows. Some are incontinent of faeces only when the stools are loose, but many pass even a formed stool without apparently being aware of it. Most of the incontinent patients who appear in this survey were doubly so; but as the patients got up, the proportion of those incontinent of urine only was observed to rise, because incontinence of "up-patients" occurs as a rule only at night, the bowels having moved usually by day.

Wilson /

Wilson (1948) reports that some investigators explain incontinence as a senile muscular atrophy of the sphincter; that Langworth (1937) considers it to be due to injury to the central nervous system; and Geist and Salmon (1943) attribute it to senile vaginitis and oestrogen deficiency. Wilson himself determined, with a simple cystometer, the reaction of the bladder of incontinent patients in response to gradual distension with fluid, and found the cause of the symptoms to be mainly an overactivity of the neuromuscular mechanism of the bladder. Sphincter weakness was important in only a small minority of cases. He finds that this overactivity results from diminution of cortical control and from local irritative conditions of the bladder and outlet; impaired cortical control, he says, may be due to structural changes within the central nervous system and to a functional loss of inhibitory power. He adds that impaired mental state is a contributory factor, as also is the confinement of the elderly patient to bed. Brocklehurst reports increased tone and excitability and diminished capacity of the bladder in incontinent patients, but no increased rectal tone, though the rectum was hyperexcitable. He found the main predisposing factors to be lesions of the central nervous system, including senile degeneration of the cortex; and precipitating factors to be cerebro-vascular accidents, becoming bedfast and the onset of mental confusion.

Though many authorities attribute incontinence to a lesion of the central nervous system, doubt is cast on this explanation when it is found that the incontinence is not permanent, as one would expect it to be if some definite area of the brain or cord were damaged /

damaged or destroyed. Some people are coming to be of the opinion that in the majority of cases it is the mental condition of the patient which is at fault. McEwan and Lavery¹⁵⁸ consider that mental abnormality is really the chief cause, and almost invariably so in the doubly incontinent; they maintain that many of the other conditions causing incontinence would not have done so in mentally normal people. Thomson (1949)²⁰¹ states that patients do not seem distressed by it, and that the lack of conscious inhibition is more important than overactivity of the bladder mechanism; psychologists consider it to be a retrogression to the state in infancy. If mental abnormality is to be accepted as the chief cause of incontinence, it is extraordinary that such a large proportion of incontinent patients appear to be perfectly sensible and alert when one talks to them. Brocklehurst notes that though incontinence may follow mental deterioration, it may also begin in a mentally alert person of clean habits. Affleck (1947) makes the important statement that while there can be no objection to the segregation of incontinent patients in so-called "changing" wards when the incontinence is accompanied by or is the result of dementia, it is essential to see that the mental state of the patient justifies inclusion in such a ward. Some of these sensible though incontinent patients may have lesions of the central nervous system, but many have no demonstrable reason for their incontinence. Some deny their incontinence; others say that they are unaware of passing anything until they find the bed wet or soiled. There are a few in Foresthall who say "Why shouldn't I? It's time some one looked after me. Other patients do it. It's what the nurses are here for"; - which seems to prove that people

so susceptible to bad example should not be mixed with those who are invariably incontinent. McEwan¹⁵⁸ considers that a few may misbehave on purpose in order to obtain more attention: it takes longer for the nurses to clean and change them than merely to tidy their beds, and during that time they talk to the patient. Some patients are reported (by McEwan¹⁵⁸ and by Thomson²⁰¹) to become incontinent as a protest against being got out of bed. Then there are some who are just too lazy to bother, and when they see one "accident" being cleaned up by the uncomplaining nurses, they feel no urge to prevent its recurrence. Others, however, are acutely distressed by the condition, and talk of it with disgust and loathing even after many years of incontinence. But these are perhaps exceptional, for there is much truth in Asher's (1947) observation that prolonged incontinence leads to a deterioration of hygienic morale, and that a patient may continue to be incontinent from sanitary sloth rather than from urological disease.

Whether the cessation of incontinence on getting the patient up is due to the resulting mental stimulation or merely to the change of posture is not definitely clear. A few patients are found to be incontinent in bed or on standing, but not when sitting in a chair; for example a sensible patient with disseminated sclerosis ceased to be incontinent when lifted out of bed and put in a chair, although there was no change in the mental attitude. In some cases the incontinence disappears completely when the patient is ambulant again, nor does it recur even during the night; in others it ceases by day, and happens only during sleep. Several writers note that a large number of elderly people become incontinent after admission /

admission to hospital. Thomson (1949)²⁰¹ reports that 108 (out of 457) lost control while in hospital, and Lowe and McKeown (1950)¹⁵⁵ report that one quarter of the males and two fifths of the females became incontinent after admission. There is unfortunately no record of the state of continence of the Foresthall patients on admission; but it should be noted that pre-hospital history is not always reliable, and that doctors from the most humane motives frequently represent a candidate for admission to hospital as continent when in fact he is not so, because they are certain that the hospital would not accept an incontinent patient. Whether incontinence which really does appear for the first time in hospital is due to confinement to bed, or to a feeling of hopelessness for the future, leading to apathy, is not known.

There is a variety of other conditions which may be contributory causes of incontinence. General infections such as pneumonia, heart failure, the use of hypnotic drugs, - any of these may cause a change in the mental state, and therefore lead to incontinence. When the history of an illness is very vague, the presence of incontinence is often another important clinical sign, and one of the indications of recovery is the cessation of the incontinence. Lowe and McKeown (1949)¹⁵² comment on this temporary incontinence associated with acute illness and emphasise that such patients should not be excluded from acute hospitals because of their incontinence. There are moreover some local causes of incontinence. Large sacral bed-sores may make the use of a bed-pan excruciatingly painful. Arthritis, especially of the hip joints, and fractured femora may also cause pain. /

pain. Extreme contractures of the legs may make it mechanically impossible to use a bed-pan. Prolapse of the rectum, large hernias in the male and prolapse of the vaginal walls in the female also may cause incontinence. The higher percentage of female incontinents reported in all the surveys, makes it probable that anatomical structure plus the weakening of ligaments by repeated pregnancies plays a considerable part in the production of incontinence. Yet that would not account for double incontinence in females. Brocklehurst considers that the stresses of childbearing probably play little part in incontinence: the more advanced age of the females in hospital and the higher incidence of mental confusion among them may be responsible for the difference between the sexes. The short female urethra is certainly more liable to stress incontinence; mild degrees of cystocele may give rise to trouble only when the patient has a cough. Those who have some spinal lesion complain of incontinence of urine during flexor spasms. In some cases, the presence of a urinary infection, where the attempt to inhibit the frequent desire to micturate causes intense pain, is a definite factor; and patients who become incontinent without mental or physical deterioration should have the urine properly examined for pus. Wilson (1948) found that a chronic urinary infection did not appear greatly to increase the excitability of the bladder reflex, but that an acute infection did. The effects of prostatic hypertrophy are well known and the fact that urinary incontinence may really be overflow incontinence from a distended bladder. What appears to be less well known is that the same state of affairs can occur in the rectum. (Warren, 1950): /

(Warren, 1950)²¹⁹: the lower colon is jammed with hard faeces and only a little liquid material manages to pass. Brocklehurst noted some degree of filling of the rectum in 90 out of 100 patients incontinent of faeces. In some, incontinence of faeces occurs only when the stools are loose and the bowel overactive, as in diarrhoea or after an aperient or in rectal carcinoma. The very large doses of purgatives given to satisfy some patients that their bowels have moved adequately, often causes diarrhoea; also the use of plain unemulsified liquid paraffin causes leakage. Overeating (especially of fruit) on visiting days or on receipt of a parcel of food, and the consumption of hospital tripe, rabbit and pies causes diarrhoea in many patients in this institution. Some of these are incontinent only if the bowels move during the night, and the curious practice of giving drugs of the cascara type in the morning is likely to increase the incidence of this nocturnal incontinence. It is generally considered that cold causes the bladder to contract: it is therefore not unlikely that this tendency is increased by lying on a cold rubber mackintosh (separated from it only by a drawsheet) in a short gown; and that a sheet once soaked causes further bladder contractions which then become habitual. Some nurses have noticed an increased incidence of incontinence in cold weather among both bedridden and semi-ambulant patients; also they say, after a hot bath, which probably means on returning to a cold bed. And yet, when one recalls the virtue of a hot bath in helping to relieve retention of urine, one is willing to grant that the nurses may be right.

There are some "social" or "environmental" causes for incontinence. /

incontinence. The patients may be unused to hospitals and unaware what to ask for, or they may hesitate to give trouble or to raise their voices until it is too late; or they may be aphasic or too weak to make themselves heard; they may not appreciate the fact that there are regular rounds by ^{the} nurses and may refuse to try or fail to pass urine in an unfamiliar way at these routine times. In those with precipitancy, any delay in obtaining the receptacle may be disastrous. The shortage of staff, the "just a minute" attitude of some nurses, and the shortage of bed-pans (here - 4 to a ward of 32 females) and urinals, all contribute; it is also an unfortunate fact that there is a type of patient who expresses resentment at delayed attention by being incontinent deliberately. In the male wards, the lack of anywhere easy of access to leave the urinal causes difficulty, for few can reach out to the shelf near the floor at the back of the locker, and some who appear to be incontinent have really just spilt an overfull urinal in the bed. The higher proportion of incontinent females may be due in part to anatomical structure: a male patient requires only one hand to use his urinal, but few bedridden females could seat themselves on a bed-pan even if it were left near at hand. It is a deplorable fact that there is a tendency to regard patients who are once wet or soiled as habitual offenders; and as the nurses cease to offer them bed-pans or urinals, they become incontinent of necessity. In those who are up and able to walk a little, the distance of the toilet from the ward and the lack of supporting handrails, causes difficulty especially to slow moving patients with precipitancy, and those who have not "got there in /

in time" are apt to be refused permission to get up again.

Greenwood (1949) reports:

	<u>M.</u>	<u>F.</u>
Requiring bed-pans.	38%	51%
Able to get to w.c.	24%	9%

He notes that men make their way to the toilet without troubling the nurses, for as long as they can, whereas women are treated as bed cases because it is easier for the nurse to bring the bed-pan than to help the patient to the toilet. (It may also be that some men are unable to use a urinal in bed and that they have no privacy to use it when up.) Though it is generally agreed that even very frequent bed-pan rounds do not prevent incontinence in most, it does help in some. Brocklehurst considers that bed-pan rounds after meals are not enough. Some nurses appear better able than others to keep the patients dry and may even blame themselves when a patient is incontinent. It is generally the custom to do rounds after meals; this may suit the gastro-colic reflex, but many patients find that the combined effect of sitting up in bed and taking a hot fluid, is to produce an urgent desire to micturate.

It is obvious that a large supply of bed linen is required to nurse an incontinent patient - five to six drawsheets and night-gowns per twenty-four hours plus frequent changes of sheets in those with dirty habits; that the high cost of laundering and the excessive wear and tear of the bed linen is a large item of hospital expenditure; and that it is essential to have a twenty-four hour service /

Medical assessment continued.Fractures.

The following fractures were found among the Foresthall patients:- (details in appendix 18).

	<u>F.</u>	<u>M.</u>
Pelvis	-	1
Neck of femur	4	8
Pathological fracture	1	-
Patella	-	1
Tibia	3	6
Humerus	1	1
Colles fracture	-	3
Thumb	-	1
Ribs.	-	2
TOTAL.	<u>9</u>	<u>23</u>

Of these 32 patients in Foresthall, known to have fractures, 24 were found to be bedridden; of these 24, the fracture was the cause of the patient's going to bed in 21 cases, 1 was bedridden with rheumatoid arthritis and 2 had been bedridden for some years. Of the 21 cases who went to bed because of the fracture, a leg was affected in only 16, and only one of these 16 was immobilised in plaster at the time of the survey.

A fractured neck of femur was found to be the most disabling only one out of 12 was ambulant. The others had been bedridden for an average of $4\frac{1}{2}$ years. In none had treatment by pinning or plating been attempted. Most had been told that they would never walk again.

Fractures and dislocations are a potent cause of osteoarthritis in later life, especially in the arms of manual workers and in the legs of the overweight, and considerable disability may be caused /

caused in the elderly by injuries occurring many years before (cases 1, 17, 19 in appendix 18).

McEwan and Lavery¹⁵⁸ found 21 cases of fractures in their survey; 14 of the femur, 3 of the tibia, and 4 of the arm. They found that most of these patients had other disorders which prevented rehabilitation from being properly carried out. This was not the case at Foresthall, where the fracture was usually the prime disability

It should be noted in the diagnosis of fractured femur that if the patient is examined immediately, shortening and rotation may not be present and shock may be slight. A mild hemiplegia of sudden onset may cause error in diagnosis as it leads to the patient's falling to the ground, often striking the hip on the affected side, and being unable to raise the leg.

Medical assessment continued.Malignant conditions.

The following malignant conditions were found among the Foresthall patients:-

AGES.

	No.		AGES.			
			Under 60	60-69	70-79	Over 80
<u>FEMALE.</u>						
Epithelioma of face and of back.	1	No treatment offered.	-	-	-	1
Pituitary tumour.	1	Inoperable	-	-	1	-
<u>MALE.</u>						
Rodent ulcer or epithelioma of face.	5	treated, no recurrence.	-	3	2	-
	2	inoperable (1 treated but recurred).	-	1	1	-
	1	refused treatment.	-	-	1	-
	1	no treatment offered.	1	-	-	-
Epithelioma of tongue.	1	no treatment offered.	-	1	-	-
Gastric carcinoma.	2	inoperable.	-	-	2	-
Alimentary carcinoma (+colostomy).	4	2 rectal, 1 anal, 1?	1	1	2	-
oesophageal Carcinoma.	1	well, and gaining weight	-	-	1	-
Penile carcinoma.	1	refused treatment.	-	-	1	-
Choroidal sarcoma.	1	eye removed 4 years before.	1	-	-	-
Sarcoma of leg.	1	10 years before.	-	-	-	1
Cerebellar tumour.	1	inoperable.	1	-	-	-
Brain tumour.	1	post-operative-hemiplegic and aphasic.	1	-	-	-
TOTAL.	24	Of these 8 causing no disability.				

Medical assessment continued.Blood Disorders.Pallor.

A large proportion of the elderly who have been in bed in hospital for a long time are very pale in complexion, especially when they are asleep.

31 per cent. of the females and 38 per cent. of the males over the age of 60 were found to have pale mucous membranes. Unfortunately only a limited number of haemoglobin estimations could be done at the time of the survey - 80 per cent. of the pale female patients (25 per cent. of total females). Of these, 48 per cent. had a haemoglobin level of less than, and 52 per cent. more than 12G per cent.

	Those with pallor of mucosae.				
	AGE.	60-69	70-79	<u>Over</u> <u>80</u>	
Female		30	36	44	percentage of each age group.
Male		41	44	39	

Haemoglobin levels in
females.

Less than 12G	5	11	9	number of patients.
More than 12G	4	8	15	
Unconfirmed	4	4	5	

Two patients (one female, one male) had been investigated at a general hospital and diagnosed as suffering from pernicious anaemia. Two other female patients who had not been investigated at all were receiving liver therapy; but six months after this treatment had been /

been stopped, neither showed any evidence of a megaloblastic anaemia. In general there were more acutely ill male patients with a clinical reason for pallor - terminal conditions, pulmonary tuberculosis, chronic urinary infections, malignant conditions.

Anaemias in the elderly. A further survey of 76 elderly female hospital patients was carried out at a later date. They were chosen from the other patients because of some degree of pallor of the mucous membranes, or extreme pallor of the skin. It was unfortunately not possible to investigate all the hospital patients, so that this group is by no means a random sample. At first only patients with no obvious cause for their anaemia were chosen, but later, because of the good response to iron, others with recognised cause for anaemia, such as rheumatoid arthritis or peptic ulcer, were added to this later survey.

In each patient the haemoglobin was estimated by the Sahli method in electric light after 5 minutes, and expressed as grams per cent. (The instrument used was standardised against a photo-electric instrument). Electric light was preferred because of variable weather conditions and the lack of translucency of the windows. Whenever possible the estimations were carried out at the same time of day; all were done by the same observer. The faecal occult blood (Gregerson test) was done in all but one of the treated patients. In most cases further investigation was impossible, as the elderly patient would not tolerate it. Even to achieve a weekly ear puncture required a great deal of persuasion and in some cases there was much abusive /

pernicious anaemia were found. Two patients gave a history of previous in-patient treatment for anaemia at other hospitals. An attempt was made to find the cause of the anaemia in these 38 patients, but it was frequently obscure.

	<u>No. of patients.</u>
Unknown cause (possibly dietary deficiency).	23
? Neoplasm	4
Definite neoplasm	1
Clinical peptic ulcer	5
Combined with pernicious anaemia	1
Blood loss due to injury	1
Rheumatoid arthritis	3

Of the 29 treated patients:

No. where cause of anaemia
unknown.

18 had been in Foresthall Hospital for over 3 years.	14
4 had recently come from other hospitals.	1
3 had recently come from Part III.	2
4 had come from home or lodgings.	1

As the diet at Foresthall is extremely deficient in iron and protein, it is very likely that much of the anaemia is due to dietary deficiency while in hospital. Any supplements brought by visitors are usually carbohydrates in some form or other.

Olbrich (1947) finds that different investigators have obtained results which are remarkably discrepant and indeed contradictory, which raises the suspicion that they do not refer to the physiologically aged. In his series the blood was removed in the early morning from a vein of a fasting subject in bed.

His findings were as follows:-

Red blood count:

Over 60 years	Male :	5.075	$\times 10^6$	(a slight rise with age)
	Female :	4.761	$\times 10^6$	(a slight fall with age)
Younger subjects	Male :	5.4	$\times 10^6$	
	Female :	4.8	$\times 10^6$	

Haemoglobin /

Haemoglobin (100% = 13.8G%)

Over 60 years Male : 100.7% = 13.9G (rise with age to 80 years).
 Female : 94.6% = 13.2G (rise with age to 80 years).

M.R.C. report : Younger subjects Male : 102.2%

Female : 93.7%

Howell (1948)¹⁰⁶ found the average haemoglobin level (Sahli - after 10 minutes) of 53 men over 60 years to be 18.6G per cent. and of 63 women over 60 years to be 16.6G per cent. These levels which are higher than those found by other investigators are presumably due to the long duration (10 minutes) of the testing time. Newman and Gitlow (1943) state that a reduced haemoglobin may be found in the aged with, so far as can be ascertained, no organic disease, the levels being 12.65G in the male and 11.7G in the female; and Fowler et al. (1941) report an average haemoglobin level of 12.9G. Sheldon¹⁰⁵ reports that 5 per cent. of the women in his survey showed evidence of iron deficiency but does not state the grounds for this diagnosis. McEwan and Laverty¹⁰⁸ found microcytic anaemia in 34 (5 per cent.), 23 being due to iron deficiency, and in 11 it was part of a general state of malnutrition; and pernicious anaemia in 7. McIntosh and Morris (1941) investigating anaemias among the poor of Glasgow, found lower haemoglobin levels in men in lodging-houses than at home, though the females were the same, whether at home or not. This was attributed to the lack of potatoes and vegetables in the diet cooked by the men themselves. It was noticed that few had any symptoms of ill-health while they remained untreated. It may be added here that in Glasgow hospitals /

Medical assessment continued.Hearing.

Auditory acuity was judged during the ordinary questioning of the patient in the course of the survey. The patients were graded as:

- deaf + slightly deaf; able to hear if voice is raised slightly.
 ++ deaf; even with raised voice, the patient misses phrases.
 +++ very deaf; examiner has to shout.
 ++++ stone deaf; impossible to make him hear anything.

Numbers of patients in each group.
AGES.

Degree of Deafness.	Under 60		60-69		70-79		80-89		90 and over.		Percentage of total.	
	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.
+	2	2	2	10	5	26	5	15	2	-	7	13
++	2	2	1	11	9	18	14	13	-	1	12	11
+++	1	-	2	2	6	8	4	3	2	1	7	3
++++	-	1	1	3	2	2	-	7	-	-	1	3
percentage of each age group.	15	8	13	25	34	31	39	51	57	66	27	30

i.e. the incidence of deafness is approximately the same in males and females but tends to be of a less severe degree in the males. But an incidence of one in three is sufficient to make deafness a common disability. It is generally assumed, especially among the patients themselves that people do become deaf with increasing age and that nothing can be done about it. The incidence does appear to increase with age in both sexes. Any further attempt at classification /

classification of the deafness was found to be of little use. It was very difficult to explain to a deaf elderly patient that he was to say when he heard the tick of a watch or when he heard the tuning-fork best. It was therefore decided to investigate the deafness in the following simple manner - Is there wax in the ear? If there is, does the patient hear appreciably better when it has been removed? Several difficulties were encountered. Some patients refused even an auriscopic examination; more refused to have their ears syringed or were too restless to have the syringing completed. The investigation unfortunately had to be confined to the female patients. As the syringing had to be done by the investigator unaided, only a few patients could be treated each day. When the work was completed in the female wards, it was found that the population of the male wards had altered considerably, making a further complete survey necessary if the figures were to be accurate. A previous history of syringing of the ears was unreliable; the patients' account of the duration of the deafness was also vague, except that it had been present for years.

Of the 60 deaf female patients

51	(85 per cent.)	had wax in their ears
6		had no wax
3		could not be examined.

Of these 51, the wax was removed in 29.

18 were improved (62 per cent. of those treated or 30 per cent. of total deaf).

10 were not improved.

1 was doubtful.

Degree of deafness.	Wax removed.			No wax.
	Improved.	?	No change.	
+	2	-	-	-
++	13	1	6	-
+++	2	-	3	4
++++	1	-	1	2

Deafness is thus^a common and important disability of the elderly and is frequently due to or aggravated by wax. This should always be excluded before any other cause is considered.

Sheldon¹⁸⁵ also notes a 31 per cent. incidence of defective hearing. He grades them as $\frac{1}{2}$ per cent. total deafness, 7 per cent. severe and 23 per cent. moderate. He notes a steady rise in the incidence of deafness with age, especially among the females, until among the over 80s, $\frac{2}{3}$ have some degree of deafness. He suggests nerve deafness as the cause in most cases. (17.8 per cent. had tinnitus and 51.6 per cent. vertigo). McEwan and Lavery¹⁵⁸ found 3 per cent. stone deaf, 4 per cent. severely deaf, 26 per cent slightly deaf - a total of 33 per cent.

Deafness increases the sense of isolation of the elderly and makes them appear slow and stupid; if they try to conceal their defect by answering questions at random, they are readily labelled as confused. Affleck (1947) notes the paranoid tendency in the deaf and there is no doubt that in the presence of even a mild mental defect, imperfect hearing of what is said to him, will cause the patient to answer irrationally. Affleck records 7.8 per cent. females and 7.2 per cent males with deafness and 5.6 per cent females and 8.1 per cent. males with poor hearing.

Medical assessment continued.Sight.

The following tables show the findings among the Foresthall patients:-

GROUP.	No. of patients.		Percentage of patients.	
	F.	M.	F.	M.
a) {	Totally blind	7 11	} 6	5
	Almost blind	5 9		
b)	Can see objects around them but cannot see to read.	37 68	18	16
	Apparently can see near objects. ? can see to read. (most abnormal mentally).	61 73	-	-
c)	Can see to read (name on bed card) with glasses.	46 120	22	29
	d) " " " " " without glasses	47 130	23	31
	Can see well but never taught to read.	4 4	-	-

Percentage of each age group.

GROUP	Under 60		60-69		70-79		80-89		90 and over.	
	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.
a)	-	5	2	3	6	3	10	9	14	-
b)	4	5	14	12	15	20	30	20	43	33
c)	17	13	40	30	23	32	17	33	-	-
d)	65	52	20	30	18	30	13	19	30	33

Forty five per cent. of the females and 60 per cent. of the males can see to read but only 35 per cent. of the females and 40 per cent. of the males do read for pleasure. In very few cases could the patients remember when they obtained their glasses. Most had had their eyes tested but 9 volunteered the information that the glasses originally /

originally belonged to some one else.

Eye defects found among the patients:

	<u>F.</u>	<u>M.</u>	
One eye	1	9	Loss in 7 due to injury, 1 to rodent ulcer.
No eyes	-	3	" " 2 due to injury, 1 to rodent ulcer.
Cataracts -unilateral	10	18	Seen on ordinary inspection. 8%
bilateral.	8	13	
Corneal opacities	5	6	
Previous eye operations.	3	5	
Conjunctivitis	3	2	
Tarsorrhaphy	-	1	
Severe ectropion	2	1	

Sheldon¹⁸⁵ found

- 1% totally blind.
- 6.3% normal sight (able to read a newspaper in comfort and in women, ability to thread a needle).
- 2.9% needing glasses.
- 2.5% illiterate.
- 30.6% unsatisfactory glasses.

He found that 17.5 per cent. of those with glasses had never had their eyes tested; some obtained them by gift or inheritance.

5.6 per cent. of his survey had cataract. McEwan and Laverty¹⁵³ found blindness in 3 per cent. (14 caused by bilateral cataract), defective vision in 13 per cent. and cataract in 11 per cent. 401 had glasses but only 113 had had their eyes tested; 11 per cent. had difficulty in reading and had no glasses. Affleck (1947) found 4.5 per cent. females and 8.1 per cent. males were blind and 2.9 per cent. females and 8.1 per cent. males had poor sight.

Medical assessment continued.Skin disorders.

Abnormalities of the skin were not studied in particular detail, but the frequency of certain types of skin and pathological skin conditions was noted. De Morgan spots, scattered ecchymoses on the arms (especially in those with thin wrinkled skin) and erythema ab igne were all very common, varying from very slight to very marked degrees, which made it difficult to assess the actual incidence. Tattooing was found to be common among the men and even some women had designs on their arms.

It is not perhaps generally realised that the presence of ecchymoses on the arms of elderly patients is of little clinical importance; scurvy, injury or rough handling by the attendants have all been blamed. Tattersall and Seville (1950) found that senile purpura, as they called it, is not rare. It was described by Bateman in 1836, and occurs principally along the outside of the forearm in successive dark purple blotches of irregular form and varying size. Each continues for a week to twelve days and then the extravasated blood is absorbed. The skin of the arm is left of a brown colour. They describe a series of sixty cases; they found that the skin in the affected areas was inelastic, thin, pigmented, that permanent freckles were often present and that the hair was scanty or absent. The blood pressure, arteriosclerosis and blood findings were not relevant nor the results of ascorbic acid excretion tests. They found that it was produced readily by trauma, probably acting on inadequately /

inadequately supported skin vessels in degenerated skin.

The important findings in the Foresthall survey were as follows:- (details in appendix 19).

	<u>Percentage of total patients.</u>	
	<u>F.</u>	<u>M.</u>
No gross abnormality.	32	65
Thin wrinkled skin.	37	3
Thin shiny skin.	6	1
Rough or scaly skin.	3	2
Generalised pigmentation.	4	1
Pigmented legs (not erythema ab igne).	6	6
Ulcers of leg.	1	1
Dermatitis.	2	1
Epithelioma	less than 1	1
Simple tumours.	1	1
Urine rash.	1	-
Pressure sores.	1	2

The higher percentage of males with more or less normal skin and the higher percentage of females with thin wrinkled skin bears out Sheldon's ¹⁸⁵ finding that the females usually show more of the stigmata of old age. Thin shiny skin is of course particularly associated with rheumatoid arthritis.

Generalised brown pigmentation is found particularly in those who have lived in lodging-houses (vagabondism) but is also found in those who have led clean and respectable lives. The question of Addison's disease is frequently raised, but this pigmentation tends to be as much on the trunk as on the limbs. Howell (1947) ¹⁰⁰ considers that it is almost a physiological variant in senility.

Patches of pigmentation on the legs were present in 6 per cent. and were usually caused by healed varicose ulcers; the incidence /

incidence of actual ulceration was low. Sheldon¹⁸⁵ found 5.4 per cent. of the women in his survey with varicose ulceration; 49 (10 men and 39 women) had varicose veins.

The extremely low incidence of pressure sores (2 per cent. of the males and 1 per cent. of the females) and urine rashes (1 per cent. of the females) is worthy of note. In most general hospitals it is imagined that a large number of bedsores will always be found in hospitals for the elderly and chronic sick, because of the large number of patients there who are bedridden and incontinent. The incidence of bedsores plus urine rashes in this survey was in fact only 8 per cent. of the incontinent male and 7 per cent. of the incontinent female patients, a total of 14 patients. Of these 2 were dying, 5 had disseminated sclerosis and one was a paraplegic, 2 had only one heel affected; 6 had recently been admitted from other hospitals with their bedsores. These findings have been confirmed during the two years following this survey; the sores are either present on admission and are healed by the treatment given here, or they appear as a terminal event in very helpless weak patients who are unable to eat. This excellent state of affairs is a good index of the quality of nursing given to the patients, for the results of neglecting the skin of such patients even for one night, can be apparent in the morning. Thomson (1949)²⁰¹ also reports a low incidence of bedsores in a hospital for the chronic sick - only 9 in 1000 patients, and those in cases of gross organic nervous disease in the last stages. McEwan and Laverty¹⁵⁸ found bedsores in only 4 per cent., on sacrum, greater trochanter and heels. Brocklehurst however reports that only /

only 45 out of 100 incontinent patients had no lesions on the back; 12 had a urine rash, 33 had bedsores and 10 had both a urine rash and sores. This extraordinarily high proportion of bedsores, however, occurred in 100 selected patients, many in a general hospital where admittedly there are more acutely ill patients, but where also the nurses have not the same experience of preventive measures as the "chronic" nurses have. Far too often they only treat the buttocks and forget about the elbows and greater trochanters (especially in those with rheumatoid arthritis), the heels and lateral border of the foot (in those with hemiplegia or fractured femur) and between and behind the knees (in those with adductor spasm and contractures). They may complain that they have not the time that the "chronic" nurses have, but do not appreciate that it takes far less time to prevent a sore than to treat and heal one already present. Of course the "acute" nurse may hope that she will get rid of her patient and his bedsores to a chronic hospital; the "chronic" nurse knows that if she (or he) does not cure the sores, no one will.

There are several types of pressure sore. Those that appear as areas of redness, followed by wrinkling of the outermost layers of the skin and superficial ulceration, are usually quickly healed by prompt and constant attention. A few begin as blisters, even over pressure points: sensitivity to certain types of rubber mackintosh has been suggested as the cause in some cases. These superficial sores may become worse if the patient persists in scratching. In some the skin becomes thickened and tends to crack and bleed. These sores if neglected, will spread and become deeper and heavily infected /

infected until they involve large areas of tissue; the worst are seen in patients admitted from their own homes. A peculiar type of bed sore which usually occurs as a terminal event in a patient with a progressive central nervous system disease, appears to rise from the deeper structures of a pressure area and bursts on the surface like a boil or carbuncle; there is a copious purulent discharge and a grey or black slough. Sometimes such a sore with constant attention may be made clean and appear to be healing, though the patient goes steadily downhill and dies, but not apparently from toxic absorption.

Nagamatsu et al. (1949) note the following factors in skin excoriation: pressure against the skin over a bony prominence; poor arterial circulation; loss of the normal neurovascular skin reflexes; poor general nutrition especially of protein; debilitating system disease; inevitable secondary infection; the macerating effect of continuous bathing with fluid; the irritating effects of ammonia produced by the action of urinary organisms on nitrogen containing urinary compounds. McEwan and Laverty¹⁵⁸ found three types of patient most susceptible to bedsores: those with severe contractures and deformities, especially due to central nervous system disorders; hemiplegics, especially the greater trochanter on the paralysed side; apathetic, inert, immobile incontinent, mentally confused and sometimes overweight, who do not feel the pain and discomfort. They found the predisposing factors to be obesity, tremor, involuntary movements, fixed and habitual postures, immobility, diabetes mellitus, incontinence and the presence of crumbs in the bed.

It /

It should be noted that even mentally alert patients without clinical anaesthetic areas, often do not appear to have a normal amount of sensation over pressure points, for they do not complain of pain even in large bedsores. It should also be emphasised that bed cages of a certain type, placed over restless patients, can cause extensive excoriation down the anterior aspects of both legs; and that the skin of the elderly patient does not stand traction, so that dressings and extension apparatus should not be applied with adhesive bandages, particularly to the legs, where the blood supply is poor and healing is slow.

B. Social assessment.

Class of population. It is perhaps generally supposed that only the very poorest of the population find their way into an ex-poor-law hospital. But with the increasing difficulties of obtaining admission to general hospitals, the high cost of nursing homes and domestic help, people of the middle classes may be found here, especially among the female patients. The women were difficult to classify socially; 65 per cent. were married at some time but they were frequently vague about the husband's occupation. Only 7 per cent. had had a definite employment of their own. The men however could be roughly classified according to employment, though this classification is not always quite accurate, for some took a lighter job when they became old. The figures however do show a large number of unskilled labourers and semi-skilled workers in heavy industry - foundries and shipyards. The majority of the patients were certainly found to come from the poorest classes living in the slums of the city, areas where Curran (1946) found 29.5 per cent. of 199,990 satisfactory houses were overcrowded and 1302 houses were unfit for human habitation. When they are forced to leave such places, the only alternative for those still able to walk is the "model" lodging house. Some find it cheaper to live al fresco and sleep on a bench in George Square, but are forced into hospital when they develop pneumonia in the winter. Few of the younger unemployable worthless types or psychological misfits are found in hospital though many come and go in Part III accommodation.

Previous occupation. /

Previous occupation.

Males.	None.	4%
	Unknown.	9%
	Professional. less than	1%
	Skilled non manual worker.	4%
	Skilled manual worker.	25%
	Semi-skilled manual worker.	24%
	Unskilled manual worker.	34%

Social conditions - Where were these people living before they were admitted to hospital or institution?

This information was obtained from 76% of the men and 54% of the women. The others were too confused or too deaf or could not or would not remember.

Previous mode of living.	Percentage of total patients.	
	<u>F.</u>	<u>M.</u>
Not ascertainable	46	24
Living alone	19	11
Living in lodging house or hostel	2	21
Living in lodgings or in resident post.	6	14
Living with relatives	27	30
with parents.	2.5	3
with wife or husband.	7	13
with children.	8	2
with siblings.	7	10
with other relatives.	2.5	2

Percentage of
total patients.

	<u>F.</u>	<u>M.</u>
Patients admitted direct from Part III.	28	18
Patients who had ever been in Part III.	42	26
of these, for less than 1 yr.	60	50
of these, for more than 5 yrs.	20	31

Investigators who make surveys of the elderly not in hospital, find of course that the large majority (95 per cent or over) of elderly people do live at home or at any rate in private houses. The conditions under which they live naturally vary according to the district and family circumstances. In a small community such as the Rhondda valley where family feeling is strong, only 1 per cent. of the single elderly people live alone compared with 18 per cent. in London. (Amulree, 1950). Rowntree (1947) notes the sex difference of those living alone - 8 per cent. men and 15 per cent. women in Wolverhampton, 18 per cent. men and 29 per cent. women in two London Boroughs; and Curran (1946) found 25 per cent. living alone among the Glasgow poor, 243 females : 36 males. This is an expected result as women are more likely to be able and willing to look after themselves. But such figures are liable to be deceptive as shown by Sheldon in his survey at Wolverhampton: he found that 53 per cent. of the widowers and 51 per cent. of the widows officially living alone had children living close at hand; he also noted the natural tendency among the widowed for the man to go to his children, and the woman to stay in her own home. /

home. Curran found that the majority of the elderly poor in Glasgow were tenants of their homes; some were lodgers, usually with relatives; and a small number were in common lodging houses. Many were satisfied with their houses and surroundings as they had never been used to a higher standard of living. Only one third of the houses had baths and one half inside lavatories. Only one third were self-reliant and one in ten were dependent on the charity and goodwill of neighbours on a similar social level, and expecting no material reward for their services. He found that the old people preferred to remain outside institutions, avoiding rules and regulations and preserving their own individuality. Few were found who had a family close at hand who were not interested in them. Thomson (1950) also finds lamentations about the decline of family cohesion and sense of social and neighbourly responsibility unwarranted. During a survey in Birmingham of 355 patients seeking admission to hospital, all the doctors were struck not only by the courage, endurance, and gratitude of the patients but also by the kindness, charity and devotion of neighbours, friends and relatives. They found incredible home conditions among these people, all much worse than the average in Birmingham; 7 per cent. had no internal water supply, 72 per cent. no bath, and only 20 per cent. had indoor sanitation. Ninety per cent. of the elderly people surveyed were over the age of 60, 66 per cent. over 70, and one third were living alone.

Of those in hospital, McEwan and Lavery¹⁵⁸ found, of 362

patients /

patients admitted direct or via another hospital from outside, 28 per cent. had lived alone, 15 per cent. in lodgings, 19 per cent. in Public Assistance institutions and 38 per cent. with relatives at home. Lowe and McKeown (1950)¹⁵³ found two thirds were admitted from their own homes or had been living with relatives, and one third from lodgings and lodging houses.

How did the patients in the present survey arrive in Foresthall Hospital?

	<u>Percentage of total patients.</u>		
	<u>F.</u>	<u>M.</u>	
Direct from outside.	10	17	From own home, lodging-house or found wandering.
Via Part III accommodation.	28	18	
From Glasgow's general hospitals.	58	63	
From Crookston Homes.	3	2	
As evacuees from Channel Islands.	1	-	

Most hospitals of the type of Foresthall did not formerly admit patients direct from their own homes; but recently because of the shortage of beds in general hospitals, this rule has been relaxed. Amulree (1951)¹³ says that none of his inherited patients were admitted direct. McEwan and Laverty¹⁵⁸ however record only 11 per cent. of transferred patients. Lowe and McKeown (1950)¹⁵⁵ note that admission through general hospitals has of course been valued as a guarantee of adequate investigation before an illness is accepted as chronic; in their survey however three quarters were admitted direct from their own /

own homes to a chronic hospital. It is obviously a disaster for the patient to be admitted direct to a hospital which undertakes no investigation or treatment. But unfortunately even some general hospitals do extremely little for their elderly admissions.

What initiated the journey from the patient's normal place of living, to an institution or hospital?

This was found not always to be the illness of the patient.

	<u>Percentage of total patients.</u>		(details in appendix 20)
	F.	M.	
Reason vague or unknown.	35	29	(probably onset of confusion.)
Purely social reasons.	13	10	
Medico-social reasons.	6	6	
Medical reasons - gradual onset	24	33	} 55
- sudden onset	22	22	
Those who left home for hospital treatment.	16	22	

Others also note the discrepancy between the physical state of the patient and the need for admission to hospital. Affleck (1948) finds that admission is frequently sought as a social emergency, the death or illness of a relative or a minor illness in someone living alone. Thomson (1949)²⁰¹ found that one third were admitted because of some domestic catastrophe. McEwan and Lavery¹⁵⁸ found, in more detail, the reasons for admission to be as follows:-

Arising from the patient's condition: /

Arising from the patient's condition:

	<u>Percentage.</u>
Illness	51.86
Mental disorder	6.59
Objectionable habits	3.30
Accidents and falls	9.32
Unable to carry on	<u>5.16</u>
	<u>76.23</u>

In connection with relatives:

	<u>Percentage.</u>
Death	6.02
Illness	3.72
Unable to carry on	10.03
Other reasons	<u>4.00</u>
	<u>23.77</u>

They found that the death of the marriage partner was an important factor in the physical and mental decline of aged people, and was more devastating to men than to women. Thomson (1950) found, of 335 patients seeking admission to hospital, only 40 per cent. required admission, 10 per cent. should have been in a mental hospital, 24 per cent. in a hostel and 26 per cent. would have been best at home with social services.

It is a sad fact that in Scotland an old person living alone can be forcibly removed from his home on a Sheriff's order because the neighbours complain about his habits or the danger of his setting the house on fire, and made to occupy a valuable hospital bed for the rest of his life. In theory his home is cared for "against his return", but no attempt is made to make him fit or to supply him with help. For example Miss D. aged 76 was forcibly removed from her own home to Foresthall. Nine months later a doctor was /

was asked to sign a form stating that she would never be fit to return home. It was found that she had been kept in bed all that time but was still able to walk. The doctor suggested that her home should be got ready for her and that she should be given a trial with a home help. This suggestion caused surprise and nothing further was heard of it, though the authorities were still paying her rent.

(This is representative of my experience in the management of cases admitted on a Sheriff's order; at the same time it does not preclude the possibility that preventive measures by welfare officers and voluntary workers do in fact reduce the number of those who might otherwise find their way to institutions of this kind on a Sheriff's order).

Why cannot these patients return home?

Relatives.

Marital status of Foresthall patients - compared with other surveys.

	Married.		Widowed.		Single.		Percentage of total patients.
	F.	M.	F.	M.	F.	M.	
Foresthall	4	16	61	33	35	51	
McEwan	13.7	26.4	53.5	38.0	28.5	25.0	
Thomson	11	22	73	58	16	20	
Affleck	14.5	26.0	59.3	34.5	26.3	29.3	
Sheldon at home.	38.0	58.7	49.5	33.6	12.5	7.7	
Curran at home.	21	52	70	35	9	13	

This information was available for 98 per cent. of the men and 99 per cent. of the women in the Foresthall survey. McEwan and Laverty have also /

also groups "separated" and "divorced", not included in the above table. As one would expect, there are more single people in "chronic" hospitals than at home; one would also expect more widowed in hospital but the figures quoted do not confirm this. Curran himself wonders why there is such a high proportion of widows in his series; he suggests the wear and tear of work in heavy industry among the men, as nutritional anaemia as a cause of earlier death in the man living alone cannot play any great part in the discrepancy. Lowe and McKeown (1950)¹⁵³ and Affleck (1948) both note a higher proportion of single and widowed (especially widows) in "chronic" hospitals than in the general population. Sheldon's¹⁸⁵ figures probably give the best indication of the proportion of each group in the general (elderly) population.

Those with families (among the Foresthall patients).

	F.	M.
Those with families.	42%	31%
Definitely no family.	7%	12%
Not known.	16%	6%
Not married.	35%	51%

Information offered by the patients about near relatives still alive tended to be quite untrustworthy, and reliance was placed on their existence only when they visited. A few patients were found to have relatives living at a distance who kept in touch with them by sending parcels; but such relatives were not counted as visitors. It was hoped to obtain from the nurses accurate accounts of frequency of visiting, but this was possible only on the female side, because the male nurses work on a three shift system. It was not considered safe to record frequency of visiting on the evidence of the /

the patients, who have vague ideas about the passing of time.

		<u>Percentage of</u> <u>total patients.</u>	
		<u>F.</u>	<u>M.</u>
<u>Visitors</u>	None	40	40
	Some	60	47
	Not known	-	<u>13</u>
	Visited weekly	<u>47</u>	<u>?</u>

		<u>Percentage of</u> <u>those visited.</u>	
		<u>F.</u>	<u>M.</u>
	Parents	2	3
	Wife or husband	5	14
	Children	40	33
	Siblings	16	30
	Other relatives	20	15
	Friends	17	5

Visitors counted once only for each patient, under nearest relative - in order as shown, e.g. patient visited by wife and children is entered under wife).

Visiting related to mobility of patient.

		<u>Females only.</u>	
		<u>Ambulant.</u>	<u>Bedridden.</u>
	No visitors.	53	29
	Visited weekly.	41	58

Visiting related to mental state and mobility of patients in female wards after rearrangement of patients in October 1950.

		<u>Percentage visited weekly.</u>
	Mental ward.	14
	"Vegetable" and apathetic ambulant.	35
	Less sensible ambulant.	37
	Rehabilitation and admissions(few recent).	47
	Rehabilitation and admissions(most recent)	56
	Sensible ambulant.	57
	Sensible bedridden.	78

As would be expected, the sensible patients have more visitors than the apathetic or confused, the recent admissions than the long stay, and the sensible bedridden than the sensible ambulant. It is perhaps surprising that so many of the sensible ambulant patients have visitors who come regularly and yet do not take them home.

It was felt that lack of opportunity (the only visiting times being Wednesday afternoons and Saturday afternoons) might be one reason for the infrequency of visiting. Relatives out at work could not visit on Wednesday afternoons, and none but the nearest could be expected to give up every Saturday afternoon, the play-time of the week for so many working people. It would have been interesting to discover if permission for evening and Sunday visiting would have provided more patients with visitors. What it means to an old person to be abandoned in hospital, to lose all personal contact with the outside world and to have no one in the world who cares what happens to him, no one who has not suffered it can tell. It is not surprising that so many say that they have lived too long and would be better dead, or that they wrap themselves up in their past experiences and take no further interest in their surroundings. Yet until quite recently, visitors and entertainers of various kinds were still refused access to these deserted patients.

Rowntree (1947) considers that loneliness and not infirmity is the greatest evil of old age. Investigators into social conditions recount in their surveys pathetic tales of elderly people living alone, some of whom find their way into hospital simply because they can no longer endure their solitude. But it is possible to be extremely lonely even in a crowded hospital ward. As remarked in the /

the Nuffield Survey on Old People,¹⁶⁷ loneliness is not dependent on physical isolation; old people in large institutions, unvisited and unwritten to, and without congenial associates, suffer acutely from loneliness, although they are living in close contact with their fellow residents.

Thomson (1949)²⁰¹ found that

82%	of the males and	79%	of the females were visited weekly for	
				3 months.
40%	" " " "	46%	" " " "	" " after 4 years.
15%	" " " "	7%	" " " "	never visited.

Lowe and McKeown (1950)¹⁵³ found that

16%	of the males and	7%	of the females were never visited.
55%	" " " "	69%	" " " " were visited at least weekly.

Some visitors come very seldom because they cannot bear the patient's persistent pleadings to be taken home, or outbursts of rage at being abandoned in Foresthall; or because they are afraid of being peremptorily ordered to take the patient home, - when such a step is utterly impossible, owing to personal ill-health, or lack of accommodation, or other heavy responsibilities. Those other visitors who call merely to collect the patient's weekly five shillings, leaving in exchange a few cheap buns, could readily be dispensed with.

It was found that philanthropic visitors were systematically discouraged, and therefore it was hard to judge how much interest was taken in Foresthall Hospital by the churches. The population of the whole Institution on 1st January 1951 was recorded as follows:-

Church of Scotland /

Church of Scotland.	801	=	72%
Roman Catholics.	292	=	26%
Church of England.	7		
Jews.	<u>2</u>		
	<u>1102</u>		

An attempt was made to estimate how much contact the patients had with their former homes, and what were the reasons which prevented their return home.

Females. Males.

30%	46%	had been in Foresthall Hospital for less than 1 year.
48%	39%	" " " " " " " " one to 5 years.
22%	15%	" " " " " " " " over 5 years.

But

12%	33%	were last at home (or lodgings) less than 1 year ago.
48%	43%	" " " " " " " " 1 to 5 years ago.
40%	24%	" " " " " " " " more than 5 years ago.

In many cases it was impossible to determine exactly whether their previous homes still existed. Many did not know; and it was sometimes found that relatives had disposed of patients' homes without informing them. Thomson (1949)²⁰¹ found that in the first three months in hospital, 71 per cent. of the males and 51 per cent. of the females still have a home to go to; after 4 years only 24 per cent. of the males and 13 per cent. of the females have any sort of home. Lowe and McKeown (1950)¹⁵³ found that a quarter of the males and half the females /

females who had had a home on admission had no home at the time of their survey. Even with the services of an almoner, the home of a patient may be lost overnight, if the relatives are not seen immediately the patient is admitted to hospital, and the necessity firmly stressed of keeping the home intact, no matter how ill the patient appears to be on admission. But Foresthall has no almoner, and many of the patients in this survey lost their homes years ago while they lay in other hospitals.

In the majority of cases it was found that the patients could not return home, because they were unwanted: they might have no one to care for them; they might have some physical defect (bed-fastness, unsteadiness, incontinence) or some mental defect (mental deficiency, confusion) which would make their presence in an ordinary home intolerable; or the relatives themselves, either because of personal ill-health or lack of accommodation, or simply lack of any feeling of responsibility for the patient, might be the bar to his return home. Certainly the work of looking after these old patients could not reasonably be demanded of any but the nearest kin, -husband or wife, children, or perhaps brother or sister. It is only the younger patients - not the real concern of the Hospital - who have parents alive; only 16 per cent. of the men and 4 per cent. of the women have a wife or husband living; the siblings are often elderly and being cared for by their own children; the children have their own family responsibilities and their homes are usually grossly overcrowded. (In spite of this, Sheldon found in his Wolverhampton survey that 98 per cent. of old people were living at home). The

number of the present inmates of Foresthall Hospital who could live alone and look after themselves adequately without help, is almost nil.

Reasons for patients remaining in Foresthall Hospital.

Patient.

a) Incontinence or bedfastness.	F. 40%	M. 54%
b) Requiring considerable assistance or constant treatment.	11%	2%
c) Very abnormal mental state.	20%	9%
d) Frequent epileptic fits.	-	3%
Purely medical reason.	71%	68%

Relatives.

(i) No relatives.	F. 3%	M. 14%
(ii) No near relatives or none living near.	3%	5%
(iii) Illness of relative.	-	2%
(iv) Relatives not wanting patient.	8%	9%
Purely social reason.	14%	30%

Sometimes there are several factors which combine to prevent the discharge home of the patient.

Patient.

Relatives.	F.		M.		Group a)		b)		c)		d)		TOTAL.	
	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.
			84	220	-	1	41	36	-	16	125	273		
Group (i)	7	58	2	-	8	6	8	2	-	-	23	66		
(ii)	6	22	-	-	10	1	4	1	-	-	20	24		
(iii)	1	11	1	-	-	-	-	-	-	-	2	11		
(iv)	17	37	2	-	6	2	11	2	1	-	37	41		
	31	128	89	220	24	10	64	41	1	16	207	415		

The amount of nursing which these patients required was assessed during the survey. (see appendix 3). They were divided into groups as follows:-

	F.	M.
Able to care for themselves and be of positive assistance to others.	9%	4%
Requiring ordinary care but unable to live alone.	+ 16%	26%
Requiring, for physical or mental reasons, to be led to toilet.	++ 19%	12%
Bedridden, not incontinent.	+++ 28%	32%
Bedridden, incontinent or very heavy or helpless.	++++ 28%	26%

That is, over half of the patients really require the constant services of a nurse, and of these, half could not possibly be cared for at home.

Lowe and McKeown (1949) found 16 per cent. requiring skilled nursing for acute illness (excluding incontinence) and 93 per cent. requiring simple nursing, including incontinent. But the treatment of incontinence is far from being an unskilled job. Many acute illnesses can be more easily nursed by an untrained person than can incontinence, which requires not only a twenty-four hour service of strong attendants with the endurance and training necessary, but also ^{adequate} bed linen and laundry facilities. It should be accepted unreservedly that an incontinent patient should not be discharged home unless the relatives are fully aware of what it involves. The extent of incontinence among the Foresthall patients at the beginning of 1950 was 37 per cent. of the females and 26 per cent. of the males. This does not /

not mean that these patients must remain in hospital for the rest of their lives. It has been conclusively proved that incontinence disappears in a large proportion of patients who are got out of bed and re-educated to walk.

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III.

Treatment of the Foresthall Patients.

"You are old Father William," the young man said,
 "And your hair has become very white,
 And yet you refuse to remain in your bed,
 Do you think, at your age, it is right?"

When the investigations described in the preceding chapters were begun in 1949, it was intended that they should be merely a preliminary to the work of ameliorating conditions at Foresthall, and that "what was found" would be followed by "what was done." But many times during the succeeding year the hope of carrying out any improvements on a large scale was almost given up. It might have been supposed that some knowledge of the widespread interest in the care of the elderly, and of the recent achievements of the geriatricians, would have penetrated to Foresthall, and that co-operation, *bon gré, mal gré*, was to be expected from even the most inveterate Bumbles. But apart from the patients and the nurses, little friendliness was encountered, and much open hostility and obstruction. An objective idea of the prevailing attitude can best be given by quotations from the Foresthall creed. Here are a few examples:-

"These patients are sent here to die; nothing can be done for them; if it could it would have been done in the hospitals they came from." "Nothing must be done for them, for the nursing staff are employed on that understanding, and they will refuse to work at Foresthall if any treatment is begun." "If the lay administrators could sign death certificates there would be no need for a doctor."
 "If you make Foresthall too attractive, too many will want to come in!"

"There /

"There is no use in re-educating the patients to walk if they cannot be discharged, for no hospital beds will be released thereby."

"Anyhow they have been in bed too long, and are all confused and senile." "Clothes cannot be supplied to hospital patients: anyone who is fit to be out of bed is fit for Part III accommodation."

"The food cannot be as bad as that or someone would have complained before." "It is none of the doctor's business what Part III is like; once patients are discharged there, he is no longer responsible."

"No doctor has any right to try to improve Foresthall if he has no administrative post here." "Foresthall has always been like this: why change it?" "Don't let yon professor (the Professor of Materia Medica) start any o' that rehabilitation here," - a request by a former lay superintendent addressed to the Medical Officer of Health. In the face of these opinions, reiterated frequently and accompanied by threats of expulsion, no solitary junior doctor could have achieved anything without the most powerful and determined outside support.

Was it in fact worth while to treat these patients? Could nothing be done for them, and had they literally been sent to Foresthall "to die", in the sense that death was imminent? The facts disclosed by the Survey do not confirm this view. There were found to be three types of patient:-

- a) Those who could walk but were not fit to live alone or in Part III accommodation.
- b) Those who required constant assistance or re-educating exercises to make them walk again.
- c) Those who were unlikely to walk again and needed nursing care.

a)	$\frac{F.}{79}$	$\frac{M.}{145}$	(FA-) +A	$\frac{F.}{38\%}$	$\frac{M.}{35\%}$
b)	60	176	(FA+) +R	29%	42%
c)	68	94	(B+C) -R	33%	23%

(see appendix 5).

Only 45 per cent. of the males and 30 per cent. of the females had been in Foresthall Hospital for less than a year, - that is, they had been "an unconscionable time a-dying." How much longer were they likely to live? The fact that elderly people are likely to die within the next ten, twenty or thirty years seems to be no good reason for leaving them untreated, - unless we wish to follow Osler's jocular suggestion that everyone should be quietly disposed of with chloroform on reaching the age of sixty.

In the following pages an account will be given of the treatment carried out on the Foresthall patients, the "morituri" of the old régime. It must again be emphasised that there is no intention to discuss the treatment of all diseases which occur in the elderly, but only those to which they are most liable, or in which the treatment in some way differs from that which is usually given in younger patients.

Prognosis.

The patients present in Foresthall Hospital at the beginning of the detailed survey (in February 1950) were classified thus:

		<u>Male.</u>	<u>Female.</u>
Bedridden.	B	264	99
Up in a Chair.	C	6	4
Frail Ambulant with assistance.	FA+		25
Frail Ambulant without assistance.	FA-	128	75
Ambulant.	A	17	4
Able to walk unaided.		145	79
Not able to walk unaided.		270	128

This last group was divided into remediable (R) or irremediable (IR) by assessing their chances of being able to walk unaided.

	<u>Male.</u>	<u>Female.</u>
IR	94	78 (including 10FA+)
R	176	50 (including 15FA+)

The prognosis for the males and the females, based on these figures taken in February 1950, are not really comparable, for the rehabilitation of the females had already been going on since September 1949. A further classification was made of those with any chance, great or small, of becoming ambulant: they were divided in (1) Very Easy, where little more was required than clothes, and permission to get up; (2) Easy, where some persuasion was required; (3) Difficult, where moderate /

moderate help was required; (4) Very Difficult = ?R; and (5) Extremely Difficult = ? IR. The last group E.D. was composed of the least hopeless members of the IR group above.

Male. Female.

	?		10 females were already up when the general survey was begun in September 1949.
V.E.	45		25)
E.	43	5	35) 79 were rehabilitated before the detailed
D.	63	22	9) survey was begun in 1950.
V.D.	25	23	
E.D.	19	15	

It was not possible to follow up all 622 patients to see if the prognosis was correct. Very little rehabilitation was going on in the male wards. Among the females during the following 12 months the results were as follows:-

Of groups E. and D. (27 patients)	11 became	FA-
and	9 "	FA+
Of group V.D. (23 patients)	4 became	FA-
and	5 "	FA+

Of groups E., D., and V.D. 5 died.

In the irremediable group (78 patients) 2 became A or FA+ and 16 died.

The condition of the female patients was again assessed in June 1951, in order to discover what had happened to the patients in the various categories of February 1950.

In Feb. 1950 /

In Feb. 1950.

In June 1951.

				<u>Died.</u>	<u>B and C.</u>	<u>FA+</u>	<u>FA- and A.</u>
B and C	103	R	35	13	4	13	5
		IR	68	33	33	1	1
FA+	25	R	15	6	-	4	5
		IR	10	6	1	3	-
A and FA-		79		15	4	2	45

Of the remaining 13 patients (A and FA-), 11 were discharged ambulant, and 2 were transferred to another hospital.

Of the 13 remediable bedridden patients who died, 4 had reached the stage of being classified as FA+.

Of the 6 remediable FA+ patients who died, 2 had reached the stage of being classified as FA-.

Irremediable. In many cases it was feared that over-optimism was being shown by placing patients in the Remediable category. Yet many geriatricians would have considered that the patients were being too readily consigned to the Irremediable (i.e. unlikely to walk again) category. They fully expect that patients with one leg should walk again; even those with bilateral amputations do at Isleworth. (Patients with the depressing combination of a mid-thigh amputation and hemiplegia on the opposite side or a fractured femur and hemiplegia have been seen restored to activity). But such patients at Forest-hall have often failed several times on crutches in other hospitals, or have other lesions such as contractures, cardiac insufficiency, obesity, or mental deterioration.

Classification /

Classification of the irremediable found in Foresthall in Feb. 1950.

	<u>Male.</u>	<u>Female.</u>
Dying.	10	2
Contracted knees.	24	34
Irremediable C.N.S. conditions.	49	27
Joint diseases.	6	8
Poor mental state.	21	19
Weakness.	6	5
Blind.	11	6
? irremediable.	19	15

Many appear in several groups, i.e. they suffer from several disabling conditions:

for example - hemiplegia, one leg, contracted, blind and apathetic;
or - very obese, blind, and complete hemiplegia.

The mental state is often a greater obstacle to rehabilitation than a physical lesion; yet apathy disappears in many cases as soon as some physical progress is made.

Thirty-two per cent. of the females and 23 per cent. of the males were regarded as unlikely to walk again, even with assistance.

It would be interesting to compare irremediability with the time spent in bed, but the duration of bedfastness is often unknown, and those with chronic disorders of the central nervous system or rheumatoid arthritis were very likely to have been already in the irremediable category when they went to bed many years before, and yet are still alive after many years in bed. It has been said that if a patient still lives after being bedridden for two years he should not have been confined to bed in the first place.

Prognosis in other units. /

Prognosis in other units.

Warren (1948)²¹⁷ reports:

in 1946, discharges in her unit	-	M. 34%	F. 30%
deaths	-	40%	41%

and (1946)²¹³ - 30 to 35% can be sent home.
40% die.
25% are left as a permanent residuum.

Cosin (1947)⁵² reports:

in a 2 year period, of 780 patients over the age of 60

45% were rehabilitated.

35% died.

10% remained bedfast after 6 months.

The remainder (10%) comprised transfers and recent admissions.

McEwan and Laverty¹⁵⁸ found

62% bedridden and irremediable.

16.2% remediable (considered as an optimistic estimate).

Amulree (1951)¹³ records that

of 89 new admissions 20% were suitable for a hostel.
13% were irremediable.

Of his inherited patients, 95% were bedridden; now only 10% are confined to bed.

Crockett and Exton-Smith (1949) report that among their cases, 30% of bedridden patients became ambulant after a few months.

Lowe and McKeown (1950)¹⁵³ record that 79 per cent. of admissions in 1 year died or were discharged within 4 months; 15 per cent. of the bedridden could get up with treatment, 3 per cent. without treatment; 56 per cent. were irremediable, and 26 per cent. had a doubtful prognosis.¹⁵⁵

Greenwood (1949) /

Greenwood (1949) found that 42 per cent. of the men and 56 per cent. of the women (of 399 chronic patients) could be improved. He points out that the longer they are bedfast, the less are the chances of recovery.

Affleck (1948) states that 80 per cent. will have either died or recovered in 6 months. He found that 23.9 per cent. were bedridden and infirm and 76.1 per cent. did not require chronic sick accommodation. He reports that other units show 40 to 50 per cent. recoveries, 40 per cent. deaths and less than 20 per cent. for chronic wards, - but these figures will depend on the source of the admissions.

Boucher (1949) states that work in former local authority hospitals shows that half the patients could be discharged to home or hostels, 20 per cent. would remain bedfast and the others (30 per cent.) would die.

In the Lancet (1947)¹²⁷ it is held that by active treatment the bedridden can be kept at 10 to 20 per cent.

In an editorial in the Lancet (1949)²³⁷ it is reported that the benefit expected in Manchester is 205 out of 399 (51 per cent.) and in Belfast 67 out of 310 (22 per cent.)

Adams (1949) found

21%	remediable.
34%	irremediable.
22%	were discharged to their own homes or resident homes.
16%	" " " long-stay annexes or mental hospital.
19%	died.
43%	remained (because of a lack of long-stay annexes).

It was noted on reclassification that some of the "irremediably bedfast" had become "elderly infirm."

Thomson (1949) /

Thomson (1949)¹⁰¹ gives the following figures:

38% died.
37% were discharged.

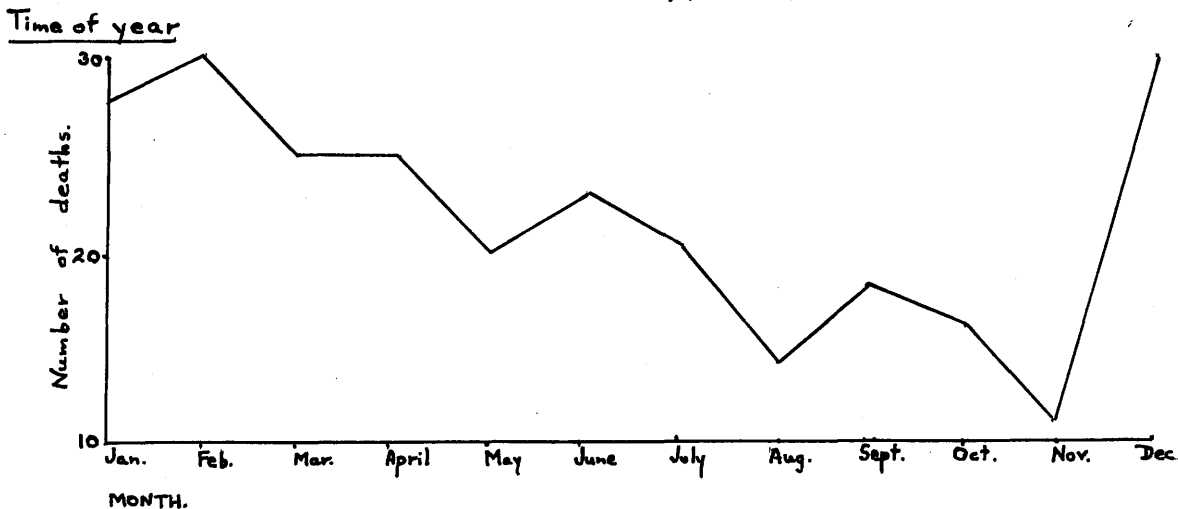
He reports that many were acutely ill on admission (77 per cent. were admitted from their own homes), and was soon convinced that improvement, to a degree that they would be able to return to their own homes, was quite impossible for the great majority. He pessimistically declares that most inmates of chronic wards must be regarded as a sad inheritance from a long period of neglect, and that the opportunity for effective treatment has long since been lost; all but 5 per cent. of the bedridden were beyond hope of rehabilitation. In another article (1949)¹⁰² he states that the ultimate fate of the aged can be determined within three months of admission - some die, some go home, some require protracted care in the infirmary.

Lowe and McKeown (1950)¹⁶⁵ declare that it is only realistic to admit that there can be little hope of freeing large numbers of hospital beds by disposing of the patients who now occupy them, - because they have no homes, and there is such a great lack of adequate alternative facilities.

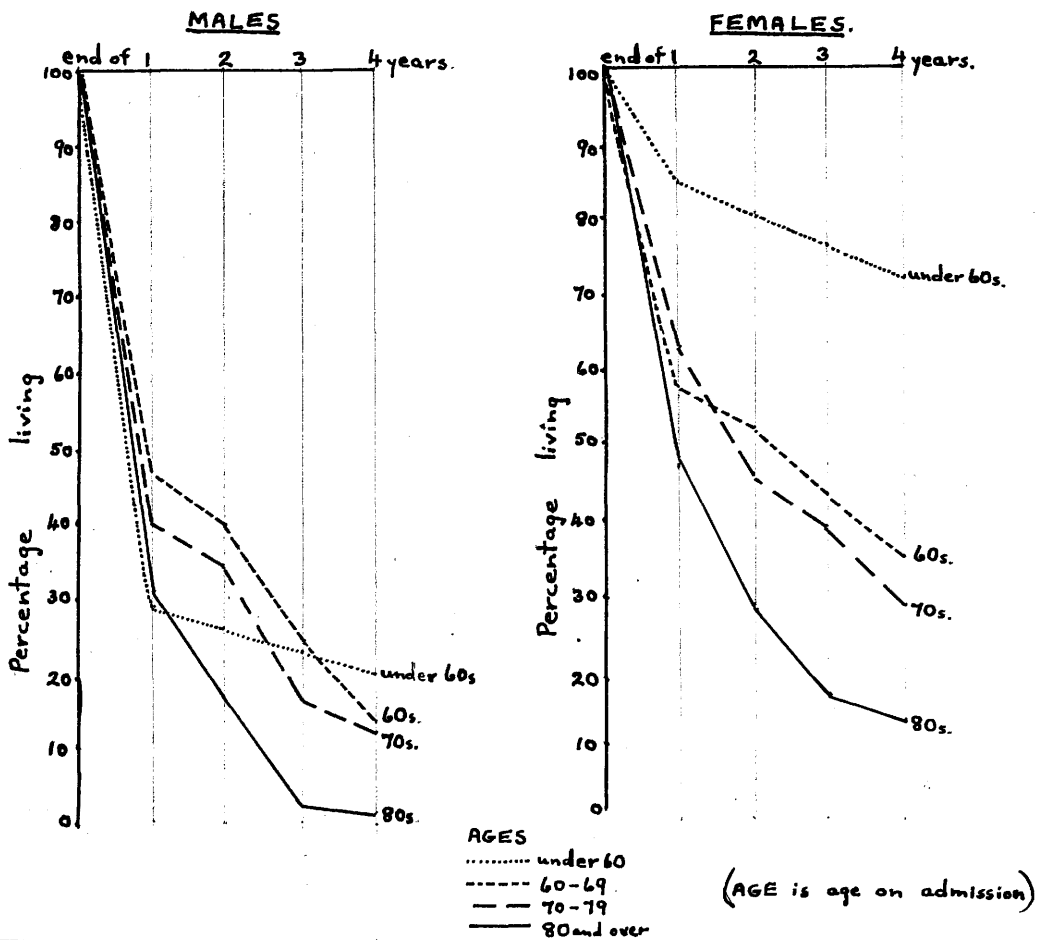
Death Rate.

Deaths in Foresthall Hospital during 1949.

Total:- Males 194 = 1/2.2 beds.
 Females 66 = 1/3.2 beds.



Duration of life in Foresthall Hospital. (among those who died in 1949).



Of those who died in 1949:

60% of the males and 40% of the females had lived for less than 1 year in Foresthall Hospital.

91% " " " " 90% of the females were over the age of 60 on admission.

92% " " " " 94% of the females were over the age of 60 when they died.

Of those admitted from Part III accommodation (who died in 1949)

55% of the males and 56% of the females lived for less than 1 year.

Of those admitted from general hospitals (who died in 1949)

65% of the males and 35% of the females lived for less than 1 year.

During 1949:

	<u>Male.</u>	<u>Female.</u>	
Admissions to Part III			690
Admissions to Hospital	357	81	438
(from other hospitals	268	62	330
	75%	76%	1128

Subsequent history of these admissions to Foresthall Hospital (up to the end of 1951)

	<u>Male.</u>	<u>Female.</u>	
Remaining in Foresthall	40 11%	25 31%	
Transferred to other hospitals	36 10%	9 11%	
Discharged.	104 29%	17 21%	usually O.R. * - not an indication of cure.
Died.	177 50%	30 37%	

(Deaths among Part III admissions 18 male, 11 female. = 4% of total admissions to Part III).

Time spent in Foresthall Hospital of those who died after direct admission to Foresthall Hospital in 1949.

	<u>Male.</u>	<u>Female.</u>
Less than 1 month.	18 10%	none.
1 to 6 months.	77 43%	8 27%
6 months to 1 year.	39 22%	8 27%
1 to 2 years.	24 14%	4 13%
More than 2 years.	19 11%	10 33%
	<u>177</u>	<u>30</u>

* On own responsibility.)

It is usual to find the male death rate much higher than the female; the higher proportion of women in the older age groups supports this. But the higher death rate among the men enables more men to be admitted to hospital and thus shortens the waiting list, so that some are admitted just in time to die; whereas many women because of their long waiting list die at home. During 1951 a large number of male admissions came directly from home or lodging-houses in a very poor, sometimes dying condition. It has been noticed however that a certain number of patients who seem in fairly good condition on admission (and on leaving home or hospital, according to reports from relatives or doctors), die shortly afterwards, of broncho-pneumonia or even of no clearly defined disease syndrome. Some lose heart on leaving home or on changing surroundings (even if for the better) and have no further wish to live. Rapid deterioration may in such cases be due to refusal to eat or more especially to drink. There is also reason to suspect that the actual process of moving, even by stretcher and ambulance, has a bad effect on an elderly patient: quite a number develop pneumonia shortly after admission and some die of it - perhaps caused by their meeting organisms to which they are not accustomed. The pernicious practice of transferring aged people to hospital through the night, because there are then fewer emergency calls on the ambulance service, often results in patients' arriving in the wards in a shivering and collapsed condition. The practice in Foresthall Hospital of admitting patients to a ward near the office and transferring them, - sometimes many hours later, - through the grounds on an open stretcher, has a similar bad effect.

The /

The cause or even mode of death was unobtainable from most of the case sheets in 1949. Most deaths in the elderly seem to occur with signs of bronchopneumonia often following a cerebral vascular catastrophe, though a surprising number die suddenly of coronary thrombosis. Platt (1950) considers cardiac failure to be the first cause of death in the old, cerebral complications taking second place.

Warren (1946)¹¹³ reports that 40 per cent. of her admissions die (almost all coming from home or in an acutely ill state from Homes.)

Cosin (1947)⁵² records that 35 per cent. died and (1948) that three-quarters of the deaths occur within the first three months after admission.

Adams (1949) reports that 19 per cent. died (a lower death rate than in other units because the patients are not admitted direct from outside, but from other hospitals).

Thomson (1949)²⁶¹ records that 38 per cent. died: many were acutely ill on admission, 77 per cent. being admitted from their own homes. Only 12 per cent. of those who died had been in hospital for more than two years; the "stragglers" survive long and give a false picture at one point of time.

Thomson and Curran (1948) record that in their experience cardiovascular disease accounted for half the deaths in those of pensionable age admitted to hospital. Of 217 who died (during the six months of their review) 24 (11 per cent.) died within twenty-four hours of admission, but not because of delay in admission.

At /

Redistribution of the Patients.

From the very first sight of the Foresthall Hospital wards, it was quite obvious that the patients were extremely ill-assorted, both from the point of view of their own comfort and of ease for the nurses. As beds fell vacant in the wards through deaths or discharges, it was the custom for the lay governor's office staff to fill them at random with new admissions. By this method, it was claimed, the wards were kept of the same nursing "heaviness", with the patients evenly distributed, so that no nurse could complain that she was doing more exacting work than her colleagues. Apart from the patients' own feelings in the matter, it is obvious from a glance at the Survey that this belief in the levelling virtues of Chance was unjustifiable. By an assessment of "heaviness" in units per patient, (see appendix 5) the wards were graded as follows:-

<u>Female Wards.</u>	<u>103</u>	<u>104</u> and <u>105.</u>	<u>106</u> and <u>107.</u>	<u>108</u> and <u>109.</u>	<u>110</u> and <u>111.</u>	<u>05</u>	<u>06</u>			
Units/patient.	2.0	1.7	2.1	2.6	3.2	2.0	2.7			
<u>Male Wards.</u>	<u>94</u> and <u>95.</u>	<u>96</u> and <u>97.</u>	<u>98</u> and <u>99</u>	<u>100</u> and <u>101</u>	<u>W1</u>	<u>W2</u>	<u>W3</u>	<u>W4</u>	<u>W5</u> and <u>6</u>	<u>W7</u>
Units/patient.	2.1	2.2	2.5	2.4	2.1	2.9	2.8	1.2	1.8	2.8

It was obvious what conditions were bound to be like from the patients' point of view. For example ward 104 had 4 bedridden patients, 2 being mentally alert and the other 2 doubly incontinent; 5 patients requiring help to walk; and 12 able to walk alone, but including 7 "mental" patients, either noisy or restless, and 5 very apathetic patients: that is, sensible bedridden women lay all day and night, hemmed /

hemmed in by incontinent apathetic "vegetables", the depressing silence being broken only by the senseless ravings of the demented. As mentioned before, the habits of some of these were extremely nauseating, and even to the lay observer it should have been obvious that to leave the patients in this heterogeneous state was an extreme form of mental cruelty. It was pitiable to hear new admissions asking anxiously, "Is this a mad hospital?"

When rehabilitation was first attempted, difficulties at once arose. The patients considered to be remediable were scattered through many wards, making it very difficult for the doctor to keep track of their progress. The nurses were faced with the problem of helping a few to put on their clothes, walking them up and down the wards, and watching to see that they did not slide off their chairs; then turning to change the incontinents and feed the helpless; and at times having to leave everything hurriedly in order to pursue a confused and restless patient who had quietly disappeared downstairs clad only in a nightgown. Further, patients who could walk a little, longed to get into the fresh air, but found that they could not negotiate the stairs. For all these reasons it seemed desirable to rearrange the patients, not according to disease, but according firstly to mental capacity, and secondly to physical capabilities and prognosis. With this object in view, each patient was allocated during the Survey to a group for redistribution (see appendix 5). It was found that they could be grouped into the following categories:

Female. Male.

Ambulant, sensible /

	<u>Female.</u>	<u>Male.</u>
Ambulant, sensible.	49	122
" less sensible.	31	24
Bedridden, sensible.	33	48
" less sensible.	21	25
" vegetable.	8	10
Mental, ambulant.	17	18
" bedridden.	7	15
For rehabilitation.	41	153
	<u>207</u>	<u>415</u>

It should be mentioned that these groups do not correspond exactly with the original classification into 1) Ambulant, 2) Frail ambulant, 3) Bedridden, and 4) Bedridden who appeared to be Remediable. In the group for rehabilitation there were now included some who, though they appeared irremediable, seemed worthy of or anxious for a trial; some were reclassified as Ambulant who obviously required only a little help to enable them to walk again; some of those originally classified as "Mental", if on the whole quiet, were now included in the less sensible or "vegetable" bedridden categories; and some of those reclassified as "Mental" were bedridden but remediable, or required some help in walking.

To put this scheme into practice, it appeared to be easier to begin on the female side; there the hospital population was more static than on the male side; the 200 patients were divided among 7 large (3 on the ground floor) and 4 small wards; the female nursing staff were more adequate in numbers than the male because they did not use the three shift system; and there was a Sister in charge of each ward. The aim of the rearrangement was as follows:-

1) Ambulant patients should be able to get outside in good weather /

weather without having to walk up and down several (up to four) flights of stairs lacking suitable handrails. The Cottages appeared to be suitable wards for this class, (an additional factor being that they were not equipped with the necessary slung facilities for dealing with incontinent patients).

2) The confused, noisy and mentally deranged should be segregated, for it was not considered desirable that sensible patients should be distressed and disturbed by their presence. Many noisy patients improve when they are up all day, yet they are apt to have irritating habits, such as rummaging in other patients' lockers, or escaping downstairs to wander in the grounds. Therefore it was decided that it would be best for them to be in a ground-floor ward, from which they could go outside without fear of their falling downstairs, and without causing the nurses to toil endlessly up and down stairs to look for them. It was appreciated that an adequate amount of sedatives would have to be given at night to keep the "mental" ward reasonably quiet, especially as it was known that one noisy patient is apt to excite the others.

3) Patients who appeared to have remediable disabilities should be together in one ward, where the medical and nursing staff could concentrate on re-educating them to walk; there the patients could learn from each other, and receive encouragement from their neighbour's progress. Once some equipment was supplied, it could be kept in this ward and would not have to be moved about or duplicated in several wards. The work of the hoped-for physiotherapists would also be made /

made easier.

4) and 5) There remained the bedridden patients who appeared unlikely to become ambulant again. Some of these (e.g. those with rheumatoid arthritis) were absolutely normal mentally, and it was considered most undesirable that they should be forced to live with the "vegetable" type, just because they were all bedridden. If all the sensible bedridden patients were together, it was thought, more entertainment could be arranged for them. The "vegetable" type could be consigned to another ward.

By September 1950 the patients had all been listed in the categories most suited to them, and the plan had been fully discussed with the ward sisters in order to assess their willingness and aptitude for a particular kind of ward. It was found that it would be possible to reconstitute the wards as follows:- 103 "Mental" ward (ground floor); 104 and 105, 108 and 109 Rehabilitation; 107 less sensible and vegetable Bedridden, and (as compensation to the nurses) ward 106 sensible Ambulant; 110 and 111 sensible Bedridden; Cottage 6 sensible Ambulant and Cottage 5 less sensible Ambulant - both at ground level. To prevent the wards from drifting back into their former heterogeneous state, it was decided to admit all new patients into the rehabilitation wards, and keep vacancies in other wards filled from these admitting wards. It was fully realised that this classification into homogeneous categories did not take into account some unpredictable human factors, and that Mrs. A. who was so fond of her own particular corner in the ward and was so very friendly with /

with Miss B. might feel very miserable if her irremediable state caused her to be moved upstairs, while Miss B. remained behind to be taught to walk again. As observed in the Lancet (1949)³³³ there is a trend towards segregating people into categories without remembering that the members of each group are also individual human beings. But it was considered that the advantages of the scheme far outweighed the disadvantages, and that at all events any patient who was too unhappy could be transferred back to her original ward.

The next step was to put the scheme into operation. The nurses were asked for their views and were found to be over ninety per cent. in favour of the rearrangement. (Only a few suggested a gradual change as vacancies occurred, which, considering the low turnover, would have taken a very long time to complete). This most important progressive step was just about to take place when an administrative officer interposed her veto: the patients were already perfectly arranged, and no one could move a patient from one ward to another without her sanction. (This opposition to reform in Glasgow in 1950 seems incredible, when it is known that Dr. Warren similarly rearranged her wards in London in 1936). Finally the Hospital Board intervened with their approval of the scheme, and the moves were made in October 1950, with the help of four porters from another hospital. This difficult and complicated manoeuvre gave the nurses an opportunity of showing with how much enthusiasm they regarded the scheme: it had been estimated that the moves would take from ten days to three weeks, but though handicapped by shortage of linen the nursing staff, making up beds with incredible speed, completed the rearrangement of the patients and their belongings in three days. /

days.

The benefits of the scheme were immediately obvious.

1) The sensible ambulant patients found many of their own kind to converse with; some even renewed acquaintance with a fellow patient of ten years before. Some were able to walk in the grounds, though this was limited for a time by lack of clothes. It was found easier to keep a whole ward out of bed than individual patients. The less sensible ambulant ward progressed more slowly, because of the refusal of the lay Governor to allow the side room of Cottage 5 to be used as a dayroom. 2) The noisy ward, rather unexpectedly, quickly settled down to be one of the most cheerful wards in the hospital. Most of the patients were up all day and required fewer sedatives at night than when kept in bed. They were found to be much less disturbing to each other than to the sensible patients in their former wards. The nurses handled them in an extremely tactful manner and there was no quarrelling. The chief difficulty was their habit of wandering from the ward, so that the nurses had to go and fetch them back; there was no method of limiting the space available to them. 3) The rehabilitation wards began at once to get the patients up with great energy and enthusiasm. Any reluctant patients soon felt that getting up was the custom of that ward, and gained encouragement from the progress of others. It was found to be a great advantage to potentially remediable patients to have been removed from wards where they had been for many years considered hopelessly irremediable, both by the staff and by themselves. 4 and 5) The less sensible bedridden ward was found to be depressing and the work rather monotonous; yet the nurses found that when their duties consisted only of changing /

changing and feeding patients, they could be carried out smoothly without interruption. The patients in the sensible bedridden ward probably disliked the change most, as many had become accustomed to their own corners, having been in the same ward for ten years or more. But they soon settled down and found it pleasant to have plenty of people with whom to converse.

Further results of the redistribution:

After working for more than a year with the redistributed patients, it is possible to estimate how much advantage has been gained by the change. The scheme has proved to be even more successful than was expected. There have been no regrets, and no part of it has had to be altered, except that vacancies in the bedridden wards have frequently had to be filled with "up" patients, because of a shortage of the definitely irremediably bedridden. Some wards still tend to be rather heavy on account of inertia in adjusting the distribution of nursing staff in accordance with the needs of the patients.

"Mental" ward: Owing to an increase in the numbers of "restless" patients admitted, the bedridden in the "mental ward" have been transferred to the "vegetable ward" where there is no one sufficiently alert to be disturbed. Now all are ambulant in the mental ward, which means that the nursing staff can concentrate their attention on the dayroom once the patients are up. The only difficulty arises when a nurse is on duty alone; she does not know whether to follow a wanderer or stay with the others. These patients /

patients have been remarkably quiet since they were put together, much quieter than when they were distributed through the other wards; and only one patient at present requires a sedative regularly.

Noisy patients transferred to this ward also become quieter. If patients transferred to this ward are in no way upset by the antics of the others, then it is considered that they are in their correct environment. This ward is affectionately known as the "Zoo" (as the patients are always chattering and moving about) for it is not considered that the elderly, rather muddled patient should be termed mental. Some of the nurses show unlimited patience and good humour in dealing with these women, and are as reluctant as the doctor to give them sedatives - as if to do so were a confession of failure. The problem type of patient is not housed in this ward; they are much more unpleasant to work with than most of the elderly muddled women, of whom the nurses are extremely fond.

Rehabilitation wards: These have made excellent progress in turning the bedridden (B) into the frail ambulant with assistance (FA+). The final stage of walking unaided has been less easy of attainment, which may be partly due to the fear which still lingers that people who can walk alone will be discharged to Part III accommodation. ("People who are fit to walk are fit for the Body of the House^{*}" is a well-known administrative axiom.) The arrival of Physiotherapy students from the Royal and Western Infirmaries, one month after the Redistribution, was most opportune. The patients then realised that they had been rearranged for some purpose; and the physiotherapists were able to concentrate their attention on the rehabilitation /

* = the Glasgow term for the old workhouse section of the institution.

rehabilitation wards. It has been very satisfactory to be able to show a despondent new admission how well the other patients are doing. There have always been sufficient ambulant patients to fill vacancies in ambulant wards, and even in the bedridden wards vacancies have had to be filled by ambulant patients, because bedridden patients were not available. It has been found inadvisable to class a patient as irremediably bedridden in less than one month. Some who would be classed as "vegetable irremediable" on admission show remarkable improvement, (when the effect of the previous hospital's sedatives has worn off). Patients are moved from ward to ward as little as possible; slight alterations in behaviour or acute illnesses are not regarded as sufficient reasons for transfer to another ward. Frequent changes give the patients a sense of insecurity and uneasiness. Rehabilitation has been slowed down because of redecoration during the summer months; one rehabilitation ward was scattered and the other had to take the whole load of new admissions. The heaviness of these wards waxes with new admissions and wanes again as rehabilitation progresses; the amount of staff should be adjusted accordingly.

Bedridden sensible ward: There have not been sufficient irremediably bedridden patients to fill vacancies in this ward and ten sensible ambulant patients have been added. These patients have to be able to walk unaided, as the nurses are fully occupied with the heavy and immobile bedridden patients, many of whom are incontinent. This ward has proved rather heavy because of the uneven distribution of nurses.

"Vegetable" ward: /

"Vegetable" ward: This ward of inert relics of the old system was very depressing at first, but after a high mortality rate among them during the winter of 1950-51, similar patients could not be found among the new admissions, and the vacancies were filled with ambulant patients who were rather dull or deaf, and who would not be distressed by having to sleep in the same ward as the "vegetable" patients. During the day these ambulant patients join the ten sensible up-patients in the small ward (106). The nursing staff have cared for the apathetic bedridden with great devotion, and even when all twenty-two were doubly incontinent, the ward had almost always a surprisingly fresh clean smell.

Sensible ambulant: These patients have all remained up and a few have been taken home by their relatives. When being up is the rule in a ward, it is very easy to notice when one exception has gone back to bed. A few do take occasional days in bed for minor illnesses but there is little fear now that they will still be found in bed ten years hence. These and the

Less sensible ambulant: sat outside in the summer of 1951 and now look much healthier than the patients in the main Hospital Block. The progress of Cottage 5 has been delayed by the lack of a dayroom and fire, and the patients tend to sit silently beside their beds. Some have deteriorated mentally and have been transferred to the "Zoo". The new admissions have been superior mentally, and this ward is now rather more animated. The problem type of patient (housed in this ward) still causes difficulty, and their presence is a reason against putting more sensible patients here.

(On Christmas Day 1951 the fire was lit in the dayroom

of Cottage 5. During the following month there has been a marvellous transformation of the patients: they now almost hurry in the morning to get a good seat at the fire; and they talk to each other and even sing songs in a most animated fashion, - patients who previously were little removed from an ambulant vegetable class.)

Most of the patients in the Cottages have no real need to be in hospital; some however are incontinent of urine at night; many require a little help in dressing, and none is fit to endure Part III accommodation in its present state. Hence they must remain the problem of the Regional Board.

After more than a year, one half of the patients present in the wards at the time of the redistribution are still in hospital, that is, if the redistribution had been carried out gradually as vacancies occurred, (a course which some people advised), the wards would still be very heterogeneous in character.

Composition of Female wards:- (for details see appendix 21).

	<u>At time of redistribution.</u>	<u>6 months later.</u>	<u>1 year later.</u>
Ambulant. with or without help.	59%	71%	75%
Up in a Chair.	9%	7%	5%
Bedridden.	32%	22%	20%
% of total irremediable.	30%	24%	22%

Redistribution in other units:

The Nuffield Survey, "Old People",¹⁶⁷ on the subject of
insufficient /

insufficient classification in chronic institutions, states that it was not the original intention to mix the aged with other classes, but that it is the frequent practice; the majority are aged, but there are also children, epileptics, the feeble-minded young, the blind and the sick. It is emphasised that no real comfort for old people is possible until they are accommodated in separate units; extreme classification is not desirable, as the more able-bodied often like to help those who are feeble, (but care should be taken that they are not overworked by the feeble).

Warren (1943) reports that the West Middlesex Hospital inherited several hundreds of chronic sick patients in 1935 by appropriation of the Poor Law Institution and that they were unclassified and ill-assorted. She reclassified them as:

- 1) Chronic up patients.
- 2) Chronic continent bedridden.
- 3) Chronic incontinent patients (only on female side).
- 4) Senile, quietly restless and mentally confused, requiring cot beds for their own safety but not noisy or annoying to others.
- 5) Senile demented requiring segregation from other patients

She emphasises that patients should be grouped with those congenial to them and of equal mental capacity. She considers that a geriatric unit requires:²¹⁷

1. Wards for investigation and treatment including new admissions.
2. Cot beds for those needing restraint but not bad enough for mental observation wards.
3. Female wards for incontinents.
4. /

4. Wards for those who are up and about and awaiting vacancies outside.
5. Wards for those no longer needing active medical treatment but requiring a good deal of nursing and medical supervision, a group which could be nursed in a long-stay annexe but which should remain the medical responsibility of the Geriatric Unit.

Adams (1949) tried grouping his patients as hopelessly irremediable, potentially remediable and ambulant, - sixty in each ward. He reports that the hopelessly irremediable class was a failure with regard to both patients and nurses, and now he divides such patients out among the other wards, although, he admits, they distract attention from rehabilitation. (But he does not mention what the mental state of these irremediable patients was.)

McEwan and Laverty¹⁵⁸ consider that patients should be grouped not according to disease but according to their prospect of ultimate recovery; separate wards are required for the mentally confused and incontinent; degenerate patients must not be mixed with those in whom there is some prospect of cure.

Affleck (1948) comments that the most disconcerting feature of ex-poor-law institutions is the lack of classification of the patients; mixed wards, he says, can only produce misery for the patient and reduce nursing or medical efficiency to a minimum; classification must be strictly maintained by segregation of confused and demented patients. Voluntary workers, he adds, are easily discouraged if the patients do not respond to their services, as tends to happen in unclassified wards. Classification and arrangement must be planned and supervised by someone with wider authority than the ward sister. He considers that there should be an admission or screening /

screening ward - the patients used to be admitted to any vacant bed - linked to a general hospital for all diagnostic facilities. The decidedly "mental" should be transferred to appropriate wards; and the others should be divided as follows:-

1. Admission wards. (the acutely ill, short term recoveries and those under investigation).
2. Long term recoveries.
3. Long term bed cases.
4. Infirm hospital patients and ambulant patients awaiting other accommodation.

He considers that there is no objection to segregating incontinent patients, when the incontinence is accompanied by or the result of dementia, but that it is essential to see that the mental state of the patient justifies inclusion in such a ward.²

There are arguments for and against incontinent wards.

There are some continent patients very susceptible to bad example, and if in a ward with incontinent patients, they see no reason why they should maintain their good habits. On the other hand incontinent patients are of varying mental calibre: should a sensible patient with disseminated sclerosis, for example, be surrounded by "vegetables" just because of the common factor of incontinence? Some may object that the proximity of incontinence is unpleasant for the sensible continent; and yet is it any more unpleasant for neighbouring patients than the use of bedpans, provided the incontinent person's habits are otherwise clean?

Cosin (1947)⁵¹ considers that most public assistance institutions can be utilised temporarily with different wards for different classes. He recommends that the available hospital accommodation should be reorganised to provide:

1. /

1. Acute geriatric wards.
2. Long stay annexes for the permanently bedfast.
3. Long stay annexes for the frail ambulant.
4. Resident home type of accommodation for the more robust.

He points out the advantage of segregating the permanently incontinent or mentally confused.

Howell (1947)¹⁰¹ divides the patients into three classes:

1. Those who need nursing but are unlikely to benefit from medical treatment.
2. Those going gradually downhill.
3. Those who can benefit by skilful, judicious and persistent therapy.

Crockett and Exton-Smith (1949) classified their patients as follows:

1. Recovery (with treatment) anticipated.
2. Infirm class.
3. Irremediable.

Amulree (1950) records that 42 per cent. of the patients remaining in St. Pancras Hospital do not need hospital treatment; many patients fall in between the National Health and the National Assistance Acts - too well for one and not able to lead independent enough lives for the other.

Lowe and McKeown (1949) state that if hospital beds for the chronic sick are required at the rate of 2 to 2.5 per 1000 of the population, one third of the accommodation of general hospitals would be needed (M.O.H. Hospital Surveys). But their data suggest that only one fifth of such patients are suitable for hospital. They classify them as follows:-

Hospital 1/5 /

Hospital 1/5 - those needing skilled nursing and/or medical attention once a week or oftener.

Institution 3/5- Simple nursing -more than $\frac{1}{2}$ } May at some time
 None - less than 1/10 } require the services
 of a trained nurse
 or doctor -should
 be able to obtain
 admission to hospital when required.

Mental hospital 1/5

They observe that patients now listed as "chronic sick" do not form a homogeneous group, and therefore estimates of hospital bed requirements which are based on national returns are misleading.

Bluestone (1947) found three classes of patient in Montefiore

Hospital:

1. The majority - who should never have been sent there; they had been transferred because the medical staff of the acute hospital had lost interest in them.
2. Those who could be cared for in their own homes by relatively inexpensive extension of hospital service.
3. Those suffering from a residual handicap, who need care in an institutional home.

Warren (1946)²¹⁴ finds that all elderly people can be divided

into the following groups:-

1. Those who can remain at home or go home.
2. Those who cannot. Further classified. -
 - a) Up and about, → to a Home with full freedom.
 - b) /

- b) Sedentary or partially ambulant, → to a Home with suitable provision (with lifts, or bungalows).
- a) and b) require a doctor on call, a trained nurse in charge and nursing attendants.
- c) Must remain in hospital. They require a daily visit from a doctor and regular full medical rounds. They can be divided into those needing:
 - (i) Much help and little trained nursing and medical supervision. (assistant nurses and orderlies under trained staff).
 - (ii) Much nursing and some medical attention (staff as for (i) with the addition of student nurses).
 - (iii) Full nursing and medical care i.e. sick patients, incontinent, those requiring restraint and segregation. (full nursing staff).

Confinement to Bed: Reasons and Results.

The recorded diagnoses of the patients found confined to bed in Foresthall Hospital often provided no satisfactory explanation of their immobility (cf. Lowe and McKeown, 1950)¹⁵⁵. Even when the explanation was satisfactory, it was frequently not clear why the patient had been confined to bed in the first instance; e.g. a woman aged 81 had been in bed for at least eleven years following a fall, but there was no evidence of any injury; the only abnormality found was congenital deformity of the feet.

Amulree (1951)³ writing of the practice of confining elderly people to bed, classifies the reasons as medical, hygienic, medico-legal, - and reasons of expediency.

Medical reasons: Patients with heart disease, hypertension, hemiplegia, arthritis, fractures of the upper limbs, varicose ulcers, neurological and orthopaedic conditions do not necessarily require to be confined to bed. McEwan and Lavery¹⁵⁶ remark that delay in diagnosis, investigation and treatment may mean a period of inactivity if movement in bed is not instituted and maintained. Delay in obtaining adequate information about a patient transferred from another hospital may also lead to hesitation in getting the patient up, in case there is some unknown contraindication. In general, acute illness with rise of temperature, gastro-intestinal upset etc. should be nursed in bed; but care should be taken that the patient is not left in bed, as so often happens, when the acute illness is over. Patients have been found in Foresthall irremediably bedridden six years after admission with diarrhoea.

Hygienic reasons: /

Hygienic reasons: Nurses generally consider incontinence to be an unanswerable argument in favour of confinement to bed, little realising that it is often a result and not a cause; and that getting the patient up would cure it.

Medico-legal reasons: There are certain nurses who have a great fear of being held responsible if a patient should fall, or should come to some harm while wandering in the grounds. It is certainly not the business of any nurse to take the responsibility of getting patients up if the doctor orders "Keep them in bed." McEwan and Laverty¹⁵⁸ found that in some cases the only reason for the patients' being kept in bed was the anxiety of the sister and nurses lest they should fall. It is well to remember, they add, that in such cases the alternative to embarking on thorough treatment may be years in bed, for the patients may survive for another decade or even two.

Reasons of expediency: Some nurses feel that it is easier to keep patients in bed. They are trained to look after people in bed; they know where to find the patient to give him his meals or his treatment; dressings are more easily applied and bedsores are more easily treated with the patient in bed; they ignore the fact that the patient seldom "sits" on a sore when up in a chair, and that the pressure which causes the sore then ceases. The ward can be kept tidy when everybody is neatly tucked in, and there are no beds lying open and unmade, no old people half-dressed shuffling about the floor. There is also, especially among the older nursing staff, as McEwan and Laverty noticed, a certain antipathy to re-activating patients,

"a /

"a maternal and protective barrier." This feeling has its origin in well-meant if misguided kindness, and the sentimental cry of "Poor old souls! left with nobody to look after them after working hard all their lives! They surely deserve a rest now!" is the expression of the good nurse's traditional desire to comfort and console. Such nurses are not acquainted with enough old people living in their own homes (where 95 per cent. still remain) to realise that old age is not normally passed in bed, and that they are really doing the patients under their care a great disservice. The strong views held by administrative staffs on the importance of neat and tidy wards, with highly polished floors, does untold harm. In Foresthall Hospital there was the case of the patient who liked to make her own bed, which she did very neatly indeed. But unfortunately she was not very nimble, and shuffled round her bed in leather-soled slippers which left scratches on the polished linoleum. So she was sternly ordered to stay in bed and never make it again.

To the above varieties of reasons why old people have been confined to bed may be added the following:

Social reasons: Affleck (1948) observes that recovery in some cases is apparently held up by the fear that it would mean return to a lonely life and the battle against cold, hunger and discomfort. McEwan and Lavery also believe that to some patients bed in hospital may be more attractive than home. At Foresthall there always was, and still is among the gentler sort of patients, a great dread of being sent to the Part III accommodation, which they may know from experience /

experience or only by sinister repute. It is an undisputed fact that the discharge of one reluctant patient to Part III accommodation was sufficient to send the rest of the ward back to bed: one decent woman cried that she would go to prison rather than be sent there, "for in that place they are all mad or have fits." If the administrative dictum that anyone who was not in bed was fit for the Body of the House (Part III accommodation) was known to the patients, there was obviously no alternative but to remain in bed.

Mental reasons: It has often been the practice to keep patients in bed because of senile mental changes. In the case of dangerously aggressive, noisy, and uncontrollable patients it is admitted that there is no alternative to confinement to bed, plus the administration of strong sedatives to keep them there. But in mild mental disorders the most effective treatment is to get the patients up: they dissipate their restlessness by moving about all day, and so require fewer sedatives at night. The Foresthall ward which is composed of such patients, all up, at present uses no sedatives at all.

Personal reasons: Lastly, a patient sometimes remains confined to bed of his own volition. Apart from the social reasons already mentioned, some patients are really lazy and would far rather lie in bed and be cared for, than exert themselves in the slightest degree. Many take it as a right because of their age, state plainly that that is what the nurses are there for, and even go so far as to say that they are supplying the nurses with a job. Then there are those with painful conditions of the joints or feet who find that walking causes extreme discomfort, and that the only relief can be found in bed.

(yet /

(Yet in some cases the deformity of toes and nails may have been caused or increased by the pressure of bedclothes tightly tucked in.) But many patients, it was found in Foresthall, were simply waiting to be told to get up, and expressed surprise that they were kept in bed so long, for, they assured the doctor, "that does you no good," and "it makes you weak and stiff." When they did get up, they found that there were no clothes or shoes, and nothing to sit on but small hard armless chairs, beside their beds, in a cold ward. There was nothing for them to do, and it seemed preferable to retire to bed and at least keep warm.

Warren (1947) summarises the causes of confinement to bed as follows:-

- 1) The primary condition may remain untreated or be inadequately treated, thus preventing the patient from getting up safely.
- 2) Atrophy of the trunk and limbs may develop owing to lack of attention to general rehabilitation during a long period of treatment for the primary condition.
- 3) He may have inadequate help.
- 4) He may have been put to bed and kept there by indulgent relatives.
- 5) He may, by mismanagement, suffer from loss of morale causing complete apathy and established incontinence.
- 6) He may be a victim of social conditions causing him such anxiety that confinement to bed presents itself as the only way of escape from a return to unsatisfactory conditions outside.

Results of confinement to bed:

The evil results of confinement in bed are best described in Asher's famous article.¹⁴ He complains that it is always assumed that /

that the first thing in any illness is to put the patient to bed; hospital accommodation is always numbered in beds; bed is not ordered like a pill or a purge but is assumed as the basis for all treatment. Yet, he declares, we should think twice before ordering our patients to bed, and proceeds to record the effects of confinement to bed on the various systems as follows:-

Respiratory system	:	hypostatic pneumonia.
Blood vessels	:	thrombosis of leg veins.
Skin	:	bedsores.
Muscles and joints	:	contractures and wasting.
Bones	:	Osteoporosis.
Renal tract	:	stones, and retention or incontinence.
Alimentary tract	:	dyspepsia, heart-burn, anorexia, constipation.
Nervous system	:	deterioration, especially in ataxic diseases.
Mental changes	:	fussiness, pettiness, irritability at first, but later a dismal lethargy and comatose vegetable state.

Then he continues: "Look at the patient lying long in bed. What a pathetic picture he makes, the blood clotting in his veins, the lime draining from his bones, the scybala stacking up in his colon, the flesh rotting from his seat, the urine leaking from his distended bladder and the spirit evaporating from his soul." He admits that there is much comfort and healing in bed and that rest is essential in the management of many illnesses: it is the evils of overdose that should be emphasised. He advises that (1) bed rest should be prescribed and not assumed; (2) that doctors should revise their attitude to rest where it is unsound; (3) that there should be day-rooms, and lockers for the patients' clothes.

Warren (1946)²¹⁴ remarks how the bedridden patient, having
lost /

lost all hope of recovery, with the knowledge that independence has gone, and feeling helpless and frustrated, rapidly loses his morale and self-respect and develops an apathetic or peevish, irritable or sullen, morose or aggressive temperament, which leads to laziness and faulty habits with or without incontinence. The results of rest in bed are the assumption of a position of flexion and adduction, loss of muscle tone, stiffness of joints, contractures of limbs, and an increase of weight caused by the lowered metabolism and absence of all exercise, and aggravated by the inclination to eat carbohydrate foods between meals.²¹⁹ This obesity is shown earliest in the abdominal wall, which further increases the difficulty in moving, especially in sitting up; because they lie flat in bed, the patients feed inaccurately or protest that they cannot feed themselves, and as a result become "feeding cases."²¹⁵ Such conditions soon produce mental apathy, especially among the less erudite and those with poor sight or hearing, so that they tend to have irregular sleeps between meals by day, and fail to sleep at night. These patients are heavy nursing cases, and a drag on society; they are no pleasure to themselves and are a source of acute distress to their friends. Still, alas, in this miserable state, dull, apathetic, helpless, hopeless, life lingers on sometimes for years, while those around them whisper arguments in favour of euthanasia. Only those who have had charge of such patients can know anything of their misery and degradation.

McEwan and Laverty¹⁵⁸ writing of disabilities arising from rest in bed, mention stiff joints, ankylosis, wasted muscles, contractures, tight tendons, brittle bones, deformed arms, legs and feet, congested /

congested lungs, incontinence, constipation, and a mental attitude of chronic invalidism, apathy, dependence and defeatism.

Amulree (1951)¹¹ also remarks that confinement to bed contributes towards mental deterioration.

Dunlop (1949) sums up the indictment: Complete rest in bed should be prescribed like a potentially dangerous drug.

Recommendations for Rehabilitation.

Medical science has succeeded in adding many years to life, and now there devolves upon it the duty of "adding life to years." That is the aim in the rehabilitation of the elderly.

Dunlop (1949) remarks that surgeons are realising the dangers of rest in bed more quickly than physicians, because of the dangers of post-operative atelectasis, hypostatic pneumonia, thrombophlebitis and pulmonary infarction, particularly in the middle-aged and elderly. He would expect the nursing staff to be the doctor's willing allies in keeping patients out of bed, for their work could be immensely lightened by the consequent reduction in bed-baths and bed-making, and by a lower incidence of bed-sores.

Crosland (1947) observes that owing to a faulty approach on the part of authority, a lack of staff and a general lack of interest, many of these elderly patients have not been given a chance to become ambulant. Instead they have been treated by recumbency in an atmosphere of more or less complete apathy, until their rheumatic joints or their paralysed limbs have become fixed in the wrong position; they have lost their morale and they no longer have the desire to get up, even if they could. The greatest difficulty in starting a scheme of rehabilitation is to arouse interest in the mind of authority, and in the minds of those responsible for treatment.

Crockett and Exton-Smith (1950) write of rehabilitation as follows: It is the aim of preventive medicine, in which physiotherapy plays so large a part, to maintain the individual in his normal run of /

of activities. This is important both from the economic standpoint and from aspects which concern the individual. Slow recovery from illness by the elderly, causes them to be labelled chronic, owing to a large extent to patients' having been allowed to remain inactive in bed over a long period. Even as short a period as ten days of such inactivity may lead to permanent bedfastness, with physical and psychological deterioration and eventual complete disintegration of the patient's personality. "Anyone with a knowledge of physical medicine can transform the chronic wards of any institution into centres of therapeutic progress," says Howell. Irrespective of the system in which the elderly patient has his disease, active and passive exercises are essential, whenever the main illness makes it necessary for the patient to be treated in bed for any length of time. This is the preventive aspect of physiotherapy, - to prevent the loss of tone of muscles, the formation of adhesions and the fixation of joints. There should be avoidance of tightly-made beds causing foot-drop; frequent change of position to avoid bed-sores; breathing exercises to prevent respiratory infections. Rehabilitation is much simpler if preventive measures are carried out during the acute illness; it may be complete and allow the patient to return home; it may only allow him to sit in a chair and feed himself; but even that is well worth while, for by doing so he loses his mental apathy and incontinence. Physiotherapeutic measures in the relief of pain due to stiff muscles and the stretching of joint adhesions are better than analgesics, which often cause confusion and delirium. It is important that the patient should do everything for /

for himself, with nothing to help him but words of encouragement, and with the presence of a doctor, nurse or physiotherapist beside him to steady him should he begin to totter. Walking machines and parallel bars have their uses, but the patient is apt to place too much reliance on them and weaning is difficult. Dragging the patient round the ward, dangling between two physiotherapists like a marionette, will never get him on his own feet. Difficulties in rehabilitation are often caused by cerebral damage, which not only interrupts pyramidal tracts, but causes lack of initiative, poor co-operation and unsuitable temperament; if one did not know that perseveration was a feature of all cases with major brain damage, one would often decide that the patient was inattentive or perverse; and some patients become violent if they are asked to do something difficult. There are often physical difficulties to hamper the patient, hemianopia (which is common in hemiplegia), ambulatory ataxia, etc. They go on to emphasise that one must never lose sight of the concept of the individual as a total entity and not merely as a collection of component parts: if the psychological make-up of the patient is neglected, he may be dismissed as "unwilling to cooperate." They point out that the attitude of the elderly to rehabilitation varies: some are delighted at being more independent, others are resentful because they realise the possibility of their discharge from the shelter of the hospital; temperamental difficulties are common in the elderly and progress is usually slow. They advocate communal exercises in a gymnasium for accelerating mental and physical improvement, and strongly recommend occupational therapy which not only helps specific conditions, but is also of psychological value /

value in renewing interest in life and dispelling boredom.

Warren (1946)²¹⁴ advises rehabilitation by a team (consisting of the medical and nursing staffs and students of both, of physiotherapists, occupational therapists and medico-social workers) of which the theme should be optimism and hope. She recommends that there should be a kindly discipline in the wards (The patients enjoy mild "bullying".) from which all unnecessary red tape has been removed; and an intelligent understanding of and interest in the patients as individuals. In another article (B.M.J. 1950) she stresses that the maintenance of personal independence depends on the attitude of mind of the patient and those around him, and on the medical and social conditions. She emphasises that, without due care, inactivity is apt to follow any illness which necessitates a period of time in bed: in treating the elderly, instead of deciding how soon they may safely get up, one should consider very carefully whether it is really necessary and wise to put them to bed.

McEwan and Lavery¹⁵⁸ recommend that physical strain should be avoided by a graduation of exercises and rehabilitation procedures, and that mental strain should be tactfully and carefully handled. They found that the previous treatment of their patients had seldom been continued for any length of time; physiotherapy had often been stopped after a fall, or because of the onset of incontinence, or owing to complaints from the patient about getting up. Sometimes they found that confinement to bed had been advised though a useful amount of power and movement still existed.

Amulree (1951) /

Amulree (1951)¹³ states that in his unit 95 per cent. were at one time bedridden, and that now there are only 10 per cent. who have gross physical deformities (many of which were preventable), which make it impossible for them to sit in chairs. The average length of stay in hospital of his inherited patients was 32 months, and for new patients 10 weeks.

Cosin (1948) considers that recovery should be completed in less than a year, but that only six months should be required for 90 per cent. of those who recover.

Boucher (1949) after commenting on the successes which can be achieved, adds the reminder that they take skill, patience and a long time, and require great enthusiasm.

The Results of Rehabilitation

The results of rehabilitation at Foresthall have been studied more closely among the female hospital population than among the male. For a large part of the time under consideration the writer has been in medical charge of the female wards, and has thus come to know the female patients very well, and to make close observations of their progress. The turn-over is much less than on the male side and therefore the population can be observed for a longer period. But if the deaths are excluded rehabilitation among female patients always shows a poorer success rate because of the larger number of irremediably bedridden elderly women. (32% females: 23% males in the Foresthall survey).

In September 1949 only 10 female patients were ambulant and of these only 3 were up in clothes for the greater part of the day. The other 7 got up in dressing-gowns and shuffled about the ward for short times.

It was decided to begin very tentatively and attempt rehabilitation in one ward only at first. Ward 104 was selected. Although the patients there were not the easiest to rehabilitate, the decision was made because of the ready and enthusiastic response of the ward sister. In spite of lack of clothes and chairs and the adverse comments of the administrative nursing staff, the patients were got out of bed, clothed as well as might be and put in the smaller ward where a fire was lit. The first people to put on record the good results of the new policy were probably the/
the/

/the night staff, who commented on the quietness and the notable reduction of insomnia in the ward. Hardly any of the patients were incontinent when up, and several became wholly continent, even when in bed at night. (For report made in November 1949 on the first attempts at rehabilitation at Foresthall, see appendix 22).

Further results among the female patients are summarised below. Naturally there have been some changes among the patients since the survey, but there has been no selection of admissions. At the end of December 1951, nearly 100 of the female patients of the survey remained in the wards.

Survey Redistribution

	September 1949	in February 1950	in October 1950	April 1951	December 1951
A and FA-	10	79	90	97	116
FA+	-	25	28	45	31
C	-	4	18	14	15
B	196	99	64	44	39
Of B and C IR	?	68	60	47	43
Total Patients	206	207	200	200	201
Total Beds	211	211	206	206	206

The fate of the female patients in the survey was as follows:-

	B	C	FA+	A and FA-		
February 1950 →	99	4	25	79		
Oct- ober 1950 {	Died	22	1	3	7	33
	B	55		2	1	58
	C	7	3	1		11
	FA+	10		12	1	23
	FA-	5		6	58	69
Dis- charged			1	12	13	

/cont'd.

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Of the 207 female patients in the survey

33 died

13 were transferred or discharged

128 remained in their original categories
(58 B and C; 70 FA+ and FA-)

28 improved

5 deteriorated

		October, 1950						
	State in Feb. 1950	Died	Dis- Charg- ed	Remain- ing from survey	Pres- ent state of these	Addit- ions from other groups	Total	Present state of patients
B	99	22		77	55	3	58	64
C	4	1		3	3	8	11	18
FA+	25	3	1	21	12	11	23	28
A and FA-	79	7	12	60	58	11	69	90

This shows that in addition to the increase in ambulant patients among those still left from the survey, the new admissions on the whole have not been allowed to increase the number of bedridden, i.e. 6B, 7C, 5 FA+ and 21 FA- have been added. The table also shows the low turn-over among the females - 161 of the original patients (in the survey) were still alive and in hospital 8 months later.

"Let None give over their patients when they come to be burdened with the infirmities of Age, as though they were altogether incapable of having any good done unto them; for as this will argue great weakness and ignorance in the Physician, so it is exceeding/

/continued

/exceeding cruelty to the patient."

(Dr. John Smith, 1868, quoted by Crockett and Exton-Smith, 1949).

The patients in Foresthall Hospital were alleged to have been sent there because "nothing further could be done for them"; but could nothing further have been done for the following examples?

(1) Mrs. C. aged 84, was transferred to Foresthall in 1944, having lain in another hospital for 5 years following a fall. There was no evidence that she had injured herself in any way. In 1949 she was still in bed, doubly incontinent and very depressed, though sensible. The only abnormal finding was a congenital deformity of the feet. She is a tall and heavy woman and it required several people to get her out of bed into a chair. She complained of dizziness and pain in the back at first. During the following twelve months the nurses assisted her to walk for short distances every day in the ward, without help from physiotherapists or equipment of any kind; and at the end of that time she was ambulant, walking slowly but unaided except for a walking stick.

(2) Mrs. McA. aged 70, fell and fractured her femur in 1941. She was told that she would never walk again, and was still in bed in 1949. It was reported that she made no attempt to help herself and on the one occasion (about 1948) when she had been tried on her feet, she screamed and lay on the floor. It was found that there was two inches of shortening of the affected leg but that movement was good and painless. She was very pale, however, and felt dizzy when/

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when she sat up; her haemoglobin was found to be only 6.3G%. The anaemia was treated successfully, a patten was supplied to correct the shortening, and the patient gradually made to assume an upright posture. She has worked very hard indeed, in spite of having had two severe attacks of pneumonia, and now, one year after rehabilitation was begun, she can stand unaided and can walk alone if someone is close beside her.

(3) Miss S. aged 51, was admitted to a Glasgow infirmary unable to walk because of osteoarthritis of the knees. After a few months she was transferred to a convalescent home, and spent the following ten months in a wheel-chair before being transferred to Foresthall Hospital. She was then found to have a degree of contracture of both knees, and to be very depressed because she had been relegated to a "chronic".hospital. She is^a/tall and heavy woman and could not raise herself to a standing position. She was not given a wheel chair at Foresthall, but was encouraged to do standing exercises at the end of her bed, then to walk with a heavy wooden pusher (an ordinary chair was too light), and finally with two "Warral" sticks. Her knees have gradually straightened out, and when walking she can almost put her heels on the ground. The physiotherapists have now taken over and are completing her rehabilitation with the help of radiant heat.

(4) Mrs. H. aged 76, is a large stout stupid-looking woman who had been in bed for nine years with hemiplegia. There was complete/

/continued.

complete paralysis of the left arm and little movement of the left leg, though there were no contractures. She was classed as probably irremediable because of the degree of paralysis, her obesity, and apathy. She was tried up, at first in a chair, then walking with assistance. She has made slow but steady progress and within eight months was able to walk alone.

(5) Miss S. aged 64, had been troubled with increasing stiffness of her legs and was admitted to hospital in 1941. She was transferred to Foresthall in 1943 and it was recorded on her case-sheet that she could "shuffle round the ward." In 1949 she was very decidedly bedridden, and reported that she had not been up for six years. She was considered to be suffering from "neurosis", and morphine and hyoscine had been prescribed Si Opus Sit. On examination she appeared mentally alert, but was very bitter about her lack of treatment. She was very obese, her knees were very stiff, and her left arm and leg were weak. She was transferred to a rehabilitation ward at the time of redistribution of the female patients in October, 1950, and with many protests and the help of five people was assisted into a chair. Her time "up" was gradually increased and she was given a self-propelled wheel chair. This gave her a new desire to walk, for she was able to tour the ward and even to visit her previous ward where she had been so long bedridden. Progress with walking was at first very slow because of her size, but she gradually became more mobile. Her weight has definitely diminished, and she is very pleased with her own progress, /

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progress, though still regretting those six lost years. The opportunity to wean her from the wheel-chair was taken when some defect in it required repair; she then found that she could tour the ward pushing an ordinary small chair in front of her (with her belongings on it). She is now walking with two "Warrals" - unaided.

(6) Miss J. aged 65, was admitted to hospital in 1943 following a left-sided hemiplegia. Many attempts were made to get her on her feet : she had an operation to correct foot drop; she had many months of physiotherapy, but without success. She had no home to go to; she knew that she would eventually be transferred to Foresthall; and many times when the porters arrived to take her out of bed to the physiotherapy department, she had a severe asthmatic attack. She was transferred to Foresthall in 1949. She appeared to be much less reluctant to get out of bed in a rehabilitation ward where everybody was getting up; and six months later was able to walk with a stick and the help of one person. She did not acquire sufficient confidence in herself to walk alone until she was supplied with a four-legged stick. She is now in a ground floor ward, and is able to walk outside in summer; she has very few asthmatic attacks; and recently, with instruction from the occupational therapist, she made herself a large brooch.

Methods of Rehabilitation.

Though trained physiotherapists and an adequate amount of equipment are essential for a good geriatric unit, it is surprising how much can be done by the unaided efforts of the medical and nursing staffs. It is not enough for the doctor to instruct a nurse to get a certain patient up, and uncritically accept a report on the following day that the patient refused to co-operate. The doctor should literally lend a helping hand or arm, and encourage the patient, who is often more reluctant to lean heavily on the doctor than on the nurse. He will thus learn the particular difficulties of getting that patient up; the overwhelming heaviness of some and the extreme ataxia of others will be discovered by personal experience. Some nurses are adept at coaxing a patient out of bed; others have to be shown by example how to do it. The task of rehabilitation even in a well-staffed geriatric unit should not be handed over entirely to the physiotherapy and nursing staff. No one but the doctor can properly assess the patient's capabilities or his fitness to get up. Improvements in methods of treatment are more likely to emanate from the medical staff, who must also be fully acquainted with the elderly person's special difficulties at first hand, if arrangements are to be made for his discharge.

At Foresthall Hospital it has been found advisable to allow a patient on admission, - even if he is fully able to get up, - about two days in bed, so that he may become accustomed to his surroundings, and the ward routine. (Many are transfers from other hospitals and are not acutely ill, but there is seldom any information /

information on their transfer forms about their previous degree of activity.) There will be much less chance of his thinking that he is doomed to bed for life, if he sees the other patients moving about and being encouraged to walk. Even rather disorientated patients who are constantly begging to be allowed to go home, often settle down during these first two days in bed. Thereafter the patient sits up in a chair for a gradually increasing period each day, at first beside his bed, then later in the small ward which acts as a dayroom. It is of great value to admit new patients to wards where most of the patients are up and learning to walk again: if most of the patients in the ward get up and make their way to the day-room, the new admission left behind in bed feels lonely, and becomes less reluctant to get up and join the crowd, especially when he finds that he can get a comfortable arm-chair near a fire. It is often recorded on transfer forms that patients refused to get up in their previous hospitals, whereas at Foresthall they are found to be very eager to try. If patients have not been up for some time, or if there is any doubt about it, they should stay up for a very brief period at first until they become accustomed to the upright posture; ideally they should be returned to bed protesting that they want to stay up longer. They should on no account be tried on their feet until they feel well enough to be up for about an hour in a chair: that dreadful feeling of weakness or giddiness or even loss of consciousness which accompanies too rapid assumption of the upright posture daunts even the most determined patient. Clothing, armchairs and warmth are the first essentials: the clothing must be warm and easy to put on and take off, so that the patient is not exhausted when dressing and undressing; /

undressing; armchairs of a suitable height and giving support to the back are also necessary, both for the comfort and the safety of the patient. Hemiplegic patients and the very weak or apathetic cannot be left for a moment in an armless chair; and the makeshift arrangement of wedging the chair between the locker and the bed does not prevent the patient from sliding off the front. At Foresthall rehabilitation was almost abandoned at one time, because of the miserable expressions of the patients, sitting in thin dressing-gowns on hard armless chairs and without a fire in the room. But it was decided that hearts must be hardened, and this callous "Get them up" policy persisted in, for no one would ever be convinced of the need for clothing and armchairs by the sight of rows of people in bed.

After some time of getting up in a chair, the patients should begin bed-end exercises as described by Dr. Warren. With difficulty six foot boards were acquired at Foresthall and a few armchairs of a suitable height. There were many patients who could not be left to do their exercises unattended, and these were retarded by the lack of sufficient staff to give them help and encouragement. On the other hand, a surprising number were found to be able to walk a few steps with assistance on each side, especially those with stiff knees who find rising from a chair particularly difficult, but do very well once they are on their feet. It was found that, failing walking-machines, the weight of the patients on the nurse or doctor could be reduced by making them push ordinary wooden chairs along the floor in front of them. The noise is rather strident on a stone floor but not unbearable on a wooden one, and patients soon learn that if they lean less heavily, the noise diminishes. The most difficult /

difficult stage of progress was found to be that between walking with the help of one person, and walking alone: not only the lack of hand-rails, but the fear of being discharged kept many marking time just short of physical independence. But progress, however slow, continued to be made, and the results of using even the simplest devices were surprisingly good. The first special geriatric equipment to be obtained was one four-legged wooden walking stick, of the pattern designed by Dr. Warren; this proved to be of great value to a hemiplegic patient and has enabled her since then to walk alone. Later two three-legged "Warral" sticks were acquired; these (made by Remploy) are also of Dr. Warren's design (B.M.J. 1951)²²⁰ and have a handle adjustable to the height of the patient; an osteoarthritic patient has been successfully walking with a pair of these since November 1951.

It was a great advance in the fortunes of Foresthall geriatrics when in November 1950, the Royal and Western Infirmarys sent four physiotherapy students to Foresthall for two hours every morning. These young physiotherapists concentrated chiefly on walking exercises, but were able to give in addition massage, radiant heat and active exercises for particular muscles. The elderly patient tends to prefer massage and heat which call for no effort on his part, to active exercises; and there is no doubt that the psychological effect of radiant heat (especially in a cold ward), both on the patient concerned and on the onlookers, is truly remarkable.

There was until recently no method of exercising patients in bed at Foresthall - no overhead or bed-end pulleys, and no slings and springs. Remarkable results have been seen elsewhere from the use /

use of the Guthrie-Smith apparatus in arthritic patients, but to suspend a patient in it is a skilled and time-consuming job for which there is not as yet sufficient staff.

It is very important when treating acute conditions in the elderly, not to omit to get the patient up; this is a common mistake in acute general wards. Patients often say that they were waiting to be told to get up; only the very strong-minded patient - or the demented - insist on getting up. It is advisable to keep the patient in bed until the temperature has settled to 97°F. , - the normal temperature in the vast majority of old people, - but after pneumonia there is no need to wait until the chest is clinically clear before getting the patient out of bed. Even patients who appear to be leading a vegetative existence after an acute illness should be tried up in a chair. The treatment of skin conditions of the legs should be carefully watched; for when the skin is eventually considered to be healed, the patient may have become irremediably bedridden.

Many geriatricians advise that at least part of the patients' treatment should be carried out as class-work in a gymnasium, and that the doctors and nursing staff should go and watch their progress. It is certainly remarkable how some apathetic patients brighten up when urged to do some exercise as a member of a team. The question of this sort of treatment does not arise at Foresthall; there is nowhere available for a gymnasium, the wards are much too scattered, and have no connecting corridors or lifts for easy transport. One has therefore to concentrate on giving the patients all /

patients all the advantages which they can derive from individual care (of which they are certainly very fond), and on encouraging the others who are as yet untreated owing to lack of staff. These are given new hope by seeing the progress of their companions, and become very eager to have a share of the physiotherapists' attention; they do their simple exercises with renewed zeal, in the hope that the "young ladies" will notice them and think them worthy of help.

Even if it is considered unlikely that a patient will ever be able to walk unaided, he should be made as mobile and independent as possible. Many elderly people can be helped to live almost normal lives in the ward by providing them with a self-propelled wheel-chair; the improvement effected in the patient's morale by being able to move about again has to be seen to be believed. Even if the patient can be made to comb her own hair when formerly she could not, it is well worth doing.

Difficulties of Rehabilitation.

Even in a propitious environment, with patients and nurses accustomed to geriatrics, and with adequate equipment, rehabilitation required much patience and enthusiasm.

Patients: The patients at Foresthall, though they had been sent there "to die, because nothing could be done for them", were far from being moribund. The long years in bed, however, had caused not only contractures and wasted limbs, but a feeling of apathy and hopelessness, from which it was difficult to rouse them. Elderly people, too, are always prone to view any change with misgiving, and the homeless at Foresthall had to fear either expulsion from shelter into a friendless world, or transfer to Part III accommodation. "Anyone who is fit to walk is fit for the Body of the House" might be a convenient maxim for the administrator, but it was a serious obstruction to the efforts of the geriatrician, for the discharge of one reluctant patient to Part III was the signal for the rest of the ward to retire to bed with imaginary complaints. Even when encouraged by promises of protection, and cajoled by descriptions of what people, ^{just} / as old and feeble as they, had been known to accomplish, the patients required considerable courage and determination to get up and sit, inadequately clothed on a hard chair in a cold ward, with a complete lack of any form of recreation. After such long periods in bed, there were medical difficulties too. When even a young patient has been lying in bed for no longer than a few weeks, a sudden return to the upright posture is apt to cause a feeling of giddiness and weakness; therefore it is not surprising that elderly people who have been /

been in bed for years have to be treated very carefully and got up gradually. The muscles of the back have had little exercise, and many complain of aching backs when they first make the effort to maintain an upright position in a chair. At Foresthall, however, this complaint practically ceased when high-backed padded chairs were provided (by the Hospitals' Auxiliary Association), and made one inclined to attribute at least some of the back pains to the hardness of the ordinary plain chairs and the lack of support which they afforded. In some patients the condition of the feet was the chief obstacle to getting up: as McEwan and Laverty¹⁵⁸ noticed, foot deformities are seldom complained of in bed, but begin to give trouble when walking is restarted. In other patients their weight was the principal drawback: after years in bed some become very fat, and obesity (which mobility subsequently reduces) is at first a serious problem in rehabilitation. There was difficulty too, in rousing to activity the very apathetic who no longer cared whether they were bedridden or not.

Nurses: In view of the régime to which they had become accustomed, it was to be expected that the Foresthall nurses would at first be sceptical about proposed reforms. They echoed, - not smugly but regretfully, - the prevailing hopeless attitude, and said, "These patients have been in bed too long for anything to be done now". They feared to be held responsible "if anything happened" to a patient when up, (anything that happened through years in bed was a venial offence), and regarded "letting the patient fall" as a nursing crime to be avoided at all costs, for to some people it is axiomatic that /

that falls are always the result of nursing carelessness, whereas, in point of fact, they can happen even with a nurse standing close by the patient's chair. The nurses had also noticed those transient spells of unconsciousness in the elderly (which are discussed in a later section), and they were most reluctant to allow patients out of bed except on the most definite and specific instructions from the doctor. And in that they were perfectly right. There are some who regard rehabilitation as a nursing affair, - "tell the nurses to get them up, that is all". But it is not the business of a nurse to decide that a patient is fit to get up, or how he should be got up, and for how long. If an elderly patient who has been in bed for years is suddenly dragged out and stood on his feet, he may become unconscious, or feel so ill that he subsides on the floor and makes no effort at all. After such an occurrence anyone inexperienced in geriatrics might return him to bed and label him unco-operative. This hap-hazard procedure discourages rehabilitation, which most decidedly requires medical supervision. At Foresthall, the doctor, about to tackle Mrs. McA., was told that she had been up once before and had been most unco-operative: she had been lifted out of bed and helped to her feet, and, - according to the ward sister, - she just sat on the floor and screamed. According to the patient she felt "dreadful and thought she was going to die". This patient had been eight years in bed, and her haemoglobin was only 6.3G per cent.

But the Foresthall nurses, as soon as they saw what could be done, and realised that it was for the good of the patients, offered no opposition to the new plans, and their attitudes ranged from /

from interested toleration to extreme enthusiasm. Even the most conservative Sisters were soon uttering the accepted dogmas of geriatrics, and some assistant nurses were ready to instruct the doctor on the virtues of "getting them up." The Sister in whose ward rehabilitation was first begun possessed to a marked degree the pioneering spirit, and the policy of "let bad alone lest worse should befall" was obviously abhorrent to her nature. In spite of the most distressing criticisms from her nursing superiors, she never wavered in her enthusiasm and loyalty. The nursing staff was far too small for a geriatric unit, and unsuitably distributed; the nurses were much hampered by domestic duties of polishing and dusting, and the lack of any of the usual nursing aids such as trolleys; and they had - until the Redistribution of Patients in October 1950 - very difficult heterogeneous wards, with a further admixture in winter of acutely ill adults and infants. But by their brisk and intelligent co-operation they made possible far greater progress than would ever have been accomplished by twice the number of apathetic nurses.

Equipment etc: Given the requisite enthusiasm, many of the initial steps in rehabilitation can be taken without waiting for elaborate equipment or physiotherapists (Foresthall of course had neither). But the absence of certain basic necessities is an almost overwhelming drawback. The shortage of clothes, armchairs (no padded chairs, or cushions) and outdoor shoes, (so much better than loose slippers for relearning to walk), greatly retarded progress at Foresthall. The cold draughty wards, the slippery floors, and the lack of hand-rails and wheel-chairs made it unnecessarily difficult /

difficult to induce the patients to make a real effort. When rehabilitation first began there were not even sufficient dressing-gowns to go round, and the patients had to be got up in relays. When a dressing-gown went to the laundry, several patients had to be kept in bed until it returned. Those who were up had to take turns of the few arm-chairs. Even although there had been some improvement since September 1949 when the general survey of Foresthall was begun, in the first half of 1950 there were only 27 arm-chairs and 61 frocks for 108 female "up" patients, and 33 arm-chairs and 176 suits for 151 male "up" patients. There were no wheel chairs, apart from the uncomfortable dilapidated bath chairs. The wards were as cold and draughty as ever, and fires were pronounced to be unnecessary for people who should either be in bed or in Part III accommodation.

Environment: The environment was not propitious. The administrative nursing staff, with its heavy responsibility for the welfare of so many old people, was naturally expected to be well-informed about the practice of geriatrics in other similar institutions, and to be interested in the latest methods of treatment. But there was no such interest; the new ideas were rejected, not after careful appraisal and mature deliberation, but summarily. There was an inflexible determination to maintain the status quo, - the long bleak vistas of recumbent patients, the deadly quiet and unruffled order, the traditional policy of "Keep them in Bed." The radiant expression of a woman who had just taken six steps after years of inactivity, was disregarded, while a fuss was made about dust under the /

the pipes. Sarcastic comments were directed against the doctor, the nurses, and even the patients; instead of admiration for modest but undeniable achievements there were hurtful insinuations about the "untidiness and filthiness" of the wards; the enterprising and diligent Sister of the rehabilitation ward was accused of incompetence and asked to resign. But the work still went on; the "up-patients" increased daily in number, and were to be found even in the wards of the most conservative and fastidious Sisters. Hardness is seldom encountered among nurses who actually work with patients: what is proved to be good for the human beings under their charge is incontrovertibly good in their eyes, and they do it with all their might.

Difficulties of Rehabilitation.The "Wee Turn".

The elderly are liable to sudden transient episodes of unconsciousness of varying duration, and their occurrence tends to cause the patient to be kept in bed. The different types described below may not be varieties of the same condition with the same aetiology (whatever it is), but they have been seen in the same patient at different times.

The briefest variety usually occurs when the patient is sitting in a chair; he is noticed to look vacant for a moment and may drop anything he is holding, then quickly returns to normal; - a description suggestive of "petit mal". Or he may become very pale, lose consciousness, and slide off his chair; but recovers immediately and completely when returned to bed, knowing nothing of what has happened. A recent meal, getting up in the morning, proximity to the fire, a warm close atmosphere (as during a film show), or excitement (at film show or ward party), may be precipitating factors; but attacks indistinguishable from these may occur on getting up for the first time after many years lying in bed, in gross anaemia, severe nausea, vomiting, diarrhoea, or internal haemorrhage (confirmed by the subsequent appearance of haematemesis or melaena). Sometimes a patient may have several such attacks on successive days and then be free from them for weeks. There are also attacks of longer duration than those just described. The patient remains unconscious for a longer period and recovers more slowly. He is very pale, sometimes slightly cyanosed, with cold extremities and feeble or imperceptible /

imperceptible pulse, but neither tachycardia nor bradycardia. The breathing is quiet; there is no twitching; and no evidence of a lesion of the central nervous system. Sometimes incontinence occurs, of urine or of a very loose stool. He usually recovers gradually when returned to bed, and improves if given brandy as soon as he can swallow. He is as a rule rather vague at first, but may say that he felt dizzy or very sick, and sometimes vomits on regaining consciousness. A few however, with exactly the same signs, die a few minutes later, before or after regaining consciousness, without further clinical sign or symptom - presumably of a coronary thrombosis.

In a few cases the appearances are exactly as above, but the patient does not immediately recover consciousness, though the pulse becomes palpable again and the patient's colour improves. On examination he is found to have a definite flaccid hemiplegia. The blood pressure is usually at the patient's normal level - of about 160/90. The appearances are those of a cerebral thrombosis, but the breathing is quiet, not stertorous. The patient may remain unconscious for as long as twelve hours, then regains consciousness and is found to have no evidence whatsoever of a hemiplegia; he is usually up and about as usual within twenty-four hours. This may be repeated in the same patient several times.

Transient hemiplegia is also seen accompanied by unconsciousness, flushing of the face and twitching of one side of the body; in such cases the pulse is unaltered. These patients frequently develop a permanent paralysis after several such attacks. There is also the sudden weakness, especially of the legs, which occurs when the patient is either standing or sitting and which makes him completely helpless; /

helpless; it is not accompanied by loss of consciousness or alteration in the volume of the pulse, but he sometimes becomes rather pale, and reports that he felt "completely done". Such attacks are usually transient, but are on occasion the reason why old people, living alone, are found on the floor, having lain there many hours or even for days, because they were unable to rise.

Examples of patients:

Mrs. G., aged 84, was a very pale woman with a haemoglobin level of 7G per cent. She had several brief attacks of unconsciousness, usually on rising in the morning, with quick recovery on return to bed. Since her anaemia has been corrected she has ceased to have such attacks.

Mrs. S., aged 76, has a slight right hemiplegia. For four years she has had brief attacks of unconsciousness when sitting up in a chair; she becomes pale and pulseless and recovers gradually when returned to bed. These attacks were the reason for her being kept in bed for many years. Often she has none for weeks or months, then several in one week. She is not anaemic and her blood pressure is 150/90.

Mrs. G., aged 80, on several occasions became very pale when sitting in a chair after dinner. Her pulse was impalpable and her extremities very cold. She recovered gradually when returned to bed but was rather vague in manner; she could only say that she felt very sick; on one occasion she was doubly incontinent. She eventually died suddenly one night when convalescing from pneumonia.

Mrs. S. /

Mrs. S., aged 72, is a diabetic and is blind. One day when sitting in a chair after dinner she became deeply unconscious and fell from her chair. She was very pale, but not cold, her pulse very feeble (70/min.) and her breathing quiet. There were signs of a complete flaccid left hemiplegia. She remained unconscious for twelve hours; twenty-four hours later she appeared to have recovered completely; there was no sign of any paralysis and she was able to walk as before. The blood sugar at the time of the attack was 200mgm. per cent. There has been no recurrence (in twelve months).

What is the aetiology of these attacks in the elderly? Some are so transient that little or no investigation can be made. The pallor, the cold extremities and the imperceptible pulse suggest a primary cardiac condition (possibly caused by vagal inhibition) with secondary cerebral anaemia leading to unconsciousness, and in some cases signs of paralysis. The patients have no obvious signs of heart disease; their blood pressures are not excessively high; their pulses are of a normal rate and rhythm.

Lewis divides "attacks of fainting" into:

Postural faintness: temporary giddiness or transient loss of consciousness on rising, usually in middle-aged or elderly people, especially on rising from a chair after a full meal in an overheated room.

Vasovagal attack: seen especially in the young in poor health, fatigued or fasting. It is a brief attack causing a sinking feeling in the abdomen, nausea, loss of consciousness, pallor and imperceptible /

imperceptible pulse. A similar attack occurs in those with aortic regurgitation.

Cardiac syncope: rare compared with the other causes of fainting. Lewis considers that most are cases of chronic heart block; a few are due to temporary heart block; and there are a few rare cases in which the whole heart stops beating for a few seconds. Sudden death is probably due to fibrillation of the ventricles.

In the differential diagnosis of fainting Lewis writes: "Postural giddiness and vaso-vagal attacks in middle-aged or elderly people are apt to be attributed to cerebral arterial disease and regarded as attacks premonitory to apoplexy; such cases are differentiated by the absence of profound pallor or heavy sweating, the unaltered pulse, and the association of loss of memory, paresis or aphasia.

Walshe states that the term vaso-vagal was originally coined by Gowers for attacks (described to him by patients) of a growing sense of precordial and abdominal discomfort and a feeling of impending death; the extremities and the face grow pale but consciousness is not lost. Nothing is known of the heart action in these attacks which develop slowly and pass off slowly, lasting as long as half an hour.

Pickering (1951) writes that he finds it particularly difficult to accept the idea of cerebral arterial spasm to explain attacks of transient paralysis in patients with essential hypertension. There is usually no precipitating factor and consciousness is not lost. He has seen similar attacks in patients with mitral stenosis /

stenosis and auricular fibrillation, which may be attributed to blockage by an embolus; therefore similar attacks in hypertension may also be due to organic occlusion of a cerebral artery - by thrombosis, or haemorrhage into the wall, or by sudden expansion of the wall (arteriolar necrosis).

Further investigation is obviously necessary.

Difficulties of Rehabilitation.Falls in the Elderly.

There are many causes of falls in the elderly and the results of even a very minor fall can be serious. Some complain that they could "trip over a pin": this may be due to inco-ordination, weakness, or shuffling gait, but the inability to recover balance quickly, - as a younger person would, - is the real disability. Slippery or uneven ground and poor vision may also add to their troubles so that they feel very unsure of themselves, and the exclamations of well-wishers to "watch" and "take care" only add to their anxiety. Quite frequently a patient, when questioned after a fall, will admit to having felt off colour and shivery all day, and is found to have pneumonia - the cause, not the result, of the fall. Some find that their unsteadiness increases in confined spaces, as in Parkinsonism, or after prolonged sitting or in unfamiliar surroundings. Sheldon¹⁸⁵ found vertigo an important and distressing symptom; it was present in one form or another in 51.6 per cent. of his cases. He suggests as causes, changes in blood pressure and diseases of the ear, but considers that "senile degeneration of the labyrinth" is most likely, especially as the incidence increases with age. This vertigo may be severe enough to make standing impossible, and is often induced by looking up. This is also noted by Critchley (1948). Alcohol and sedatives naturally increase any tendency to unsteadiness. Platt (1950) finds that dizziness is present only in some hypertensives; /

hypertensives; it is not rotatory as in labyrinthine upset, but is more a lightheadedness after stooping. Sudden extreme weakness, with or without unconsciousness, usually occurs at rest but may result in the patient's falling off his chair. Similar attacks are common where the stool type of commode is used; the fall may be due to loss of balance, or to a sudden cerebral anaemia caused by straining or sudden defaecation. Another cause of falling is sudden weakness of the legs, similar to that at the onset of cerebral thrombosis but affecting the legs only and of very brief duration. Though remaining fully conscious, the patient may be completely helpless and quite unable to rise. Sheldon³ suggests that the whole central mechanism subserving postural tone is liable to sudden failure. More definite causes of falling are the sudden onset of cerebral haemorrhage or thrombosis with immediate onset of paralysis and in some, a complete loss of consciousness. A substantial proportion of such attacks pass off in a few days. Five per cent. of the patients at Foresthall complained of dizziness or unsteadiness. Sheldon found a liability to fall in one third of his cases, that it increased with age and was commoner in women, and that the younger age groups complained of a feeling that they might fall.

The result of even a simple fall may be disastrous for the elderly patient. When rehabilitation was begun at Foresthall, a few patients objected to getting up on the ground that they might fall; but it was usually found that some relatives or nurses had advised staying in bed. Such excessive caution is partly due to humane motives, partly because of that fear of responsibility which has been /

been alluded to before. Sheldon found a liability to fall in over a third of his cases: what a disaster it would be if fear of falling were regarded as a good reason for keeping so many people in bed. Often a fall, especially in the street, results in admission to hospital; this was the original reason for admission in 8 per cent. of the females and 6 per cent. of the males in Foresthall Hospital at the time of the Survey. (McEwan and Lavery¹⁵⁸ found falls to be the cause of admission in 6 per cent. of their cases and a liability to falls in a further 4 per cent.) Only a few of these patients were found to have some definite lesion such as hemiplegia or fractured femur; but all except a very few were apparently destined to languish in bed for the rest of their lives. Certainly, as Sheldon remarks, a fall may precede a general break-up. But that is a terminal condition; and it is only too common to find a patient who fell ten years ago, and who has no demonstrable lesion as the cause or result of the fall, still confined to his bed.

Treatment of Mental State.

The treatment of the mentally abnormal may take the form of 1) stimulating the apathetic, or of 2) quietening the restless and noisy patient.

1. Stimulating the apathetic patient.

Many people have observed that elderly patients who are kept in a hospital bed and abandoned by their friends and relatives quickly become apathetic. Contributory factors are the death of contemporaries, the depressing feeling of growing old and feeble, failing vision and the onset of deafness. Very apathetic elderly patients tempt one to wonder if they were ever at any time very intelligent and alert, if they ever even in their youth found pleasure in reading, if they are simply those people of low mental calibre who have fewest reserves when old. Not all of them see well enough to read, which may account for apparent dullness in some cases, for there was little amusement to be had in Foresthall Hospital apart from reading, prior to 1950.

a). Getting them out of bed.

The easiest and most effective method of rousing patients from their apathetic state has been found to be - to get them out of bed, clothe them, seat them in comfortable chairs around a bright coal fire, and encourage them to talk to one another. The effect is truly amazing and in some cases is practically instantaneous; in others months may pass before the first attempts at spontaneous conversation /

conversation are noticed. Old patients in bed find it extremely difficult to get to know one another, especially if their nearest neighbours are either deaf or confused. Once they are up and having meals at a table conversation is easier. The nurses can do a great deal to dispel apathy by joining in their talks, taking an interest in their families, or relating some of their own experiences. The assistant nurses usually excel in this art of creating interest and animation. Some encourage the patients to help in the ward, to help each other to dress, or persuade them to sing or to give a recitation. e.g. Mrs. McL. aged 65, used to lie in bed taking no interest in her surroundings. Even when she had been re-educated to walk, she remained extremely apathetic. A year later, at a Christmas party, it was discovered that she could sing humorous songs with great expression. Since then she has been much more alert, and is often called upon to entertain the other patients.

b) Rehabilitation.

Even the fact of being got out of bed is, in itself, a stimulating experience for any person previously bedridden, but rehabilitation carries the process a great deal further. When the patient sees signs of activity in his ward instead of two rows of occupied beds, he begins to feel that the future may hold some hope for him. Even if he himself is not yet being taught to walk, he becomes interested in the progress of the others, calling out encouraging remarks as they pass. When he himself begins to be treated his first feelings may be of depression and hopelessness, because he finds that he is much weaker than he imagined, and cannot believe that /

that he will ever walk again. Progress may be very slow for months, and then suddenly he feels his powers returning and becomes much more interested. Some do better in a gymnasium, when competing with other patients. Stallybrass (1949) states that social and psychological factors affecting old people are as important as physical factors; and that physical treatment carried out in an inspiring atmosphere can do much for the mind as well as the joints; for the old, like the young, respond to enthusiasm and profit by team work. In the process of rehabilitation, enthusiastic doctors and nurses are essential to inspire the patients with hope and confidence and to listen to detailed accounts of their exploits. The brisk, kind, encouraging manner of the physiotherapy students who from 1950 have been doing voluntary work at Foresthall, has not only improved the patients' morale, but has given the staff (both nursing and medical) a lesson on how much can be done by persuasion. Their very presence does the patients good: how could they go on thinking themselves forgotten and abandoned when so many kind people from outside are taking such an interest in them?

c) Entertainment.

Personal visiting by their own relatives, or by members of the Hospitals' Auxiliary Association who talk to the patients individually and take an interest in their joys and sorrows, is far more stimulating than a general address and distribution of cakes. Gramophones with records chosen by the patients and bought with the savings from their own weekly 5/- are much more entertaining than

a wireless loudspeaker over which they have no control. Those who can read are much enlivened by a supply of suitable magazines and books. Others are stirred to alertness by a little occupational therapy: even the task of sewing tapes on the ward linen makes them feel useful again. In the hands of a skilled teacher, occupational therapy can work wonders. In one Foresthall ward, which has enjoyed such tuition for a very brief time, the effect is already marked: instead of conversing with the doctor about their latest aches and pains they eagerly show what they have made. "I made it yesterday, and I'm making one for my sister too because she admired it so much." The atmosphere of the ward, a readiness to laugh, the occurrence of little amusing episodes, can do much to bring the patients to life: the busy general hospital might frown upon the nurse who attempts a little dance with a patient or the maid who encourages the kitten to chase her brush, but in the geriatric unit these are valuable people, for they make the patients feel at home. As for organised entertainments - visual, not merely auditory - they are exceedingly popular with elderly patients; but at Foresthall unfortunately they are rare events. They can give days of pleasure; - the pleasurable anticipation, the preparations in the ward, the mounting excitement as the equipment arrives, then the food, then the entertainers themselves. Scottish songs and dance music are much enjoyed, and singing and dancing performed by children in Highland costume never fail to please. Then after the show is all over they continue to enjoy it in retrospect, discussing with each other the rival merits of their favourite items. When film shows were first proposed for the Foresthall patients, it was categorically stated by the officials that the patients /

patients neither required nor would care for such entertainments: after four months' struggle the first film show took place. (A report prepared for Professor Alstead by the present investigator on the effect of the first film show on the Foresthall Hospital patients will be found in Appendix 23). After a further interval, fortnightly shows were instituted, to take place during the winter months. These have proved to be extremely popular; but there are so many wards to visit that no patient is likely to see more than one show a year; and there cannot be film shows in the West Wards, because the pillars there would interfere with the projector.

d) Medical treatment.

Sometimes patients who come into hospital suffering from general malnutrition and neglect improve not only physically but also mentally with general care and attention. Many anaemic patients are not only weak but very apathetic, and some become much brighter as the haemoglobin level rises under treatment (see under Treatment of anaemias). Myxoedema is a recognised cause of apathy, and the feeling of coldness which is one of its symptoms makes an elderly person reluctant to get out of bed. Thyroid can be very effective in definite cases of myxoedema; but when given to those who were not suffering from myxoedema, but were listless and complained of cold, no effect was apparent. Asher (1949) found that of fourteen patients with myxoedema and psychotic changes only three did not improve mentally on thyroid.

Amphetamine has been suggested by various people as a means of stimulating the elderly apathetic patient into some purposeful activity; /

activity; for example Bett (1946) states that amphetamine is useful in mild depression, including the persistent characteristic depression of old age. Arnett and Harris (1948) gave 10 to 20 mgm. of amphetamine daily after the morning and noon meals to 18 cases (average age 78.4 years); cardiac decompensation was considered a contra-indication but not hypertension; ambulant subjects with moderately well-preserved mentality were chosen. The pulse and blood pressure were unchanged by the amphetamine; some experienced an increase in energy but the change was by no means striking; no untoward results were noted.

In Foresthall amphetamine was given to 24 apathetic female patients over the age of 60, in initial doses of 5 mgm. before breakfast and dinner, increasing to 15 mgm. before breakfast and 10 mgm. before dinner. Seven of the patients chosen were sensible but apathetic, 10 were rather dull, 7 simply vegetated. In no case was amphetamine found to be of any benefit.

- 1 of the "vegetable" type died 3 days after treatment was begun.
- 7 showed no change.
- 4 became aggressive.
- 2 complained of dizziness.
- 3 complained of anorexia.
- 3 became restless.
- 3 became noisy.
- 1 became very euphoric.

It might be claimed that such results were due to the fact that the cerebral cortex of these patients had degenerated and was incapable of being stimulated; but 17 of them were later roused from their apathy by being got out of bed.

Another possible use for amphetamine is to rouse a patient still /

still suffering from the effects of an overnight sedative. But if the correct dose of sedative for each particular patient is carefully estimated (and those who are up all day require very little) it is seldom necessary to try to combat morning drowsiness by means of cerebral stimulants. In the few cases where amphetamine was tried, some showed no change and the others were much noisier the following night.

(Amphetamine is also recommended by some authorities in the treatment of obesity. As noted in chapter II, sensible patients who have been bedridden for many years tend to become very obese and frequently it is this obesity which is the chief obstacle to their rehabilitation. A few such patients in this hospital were tried with amphetamine, but its only effect was to make them sleepless and bad-tempered. A reducing diet is unobtainable at Foresthall and most of the food is of a carbohydrate nature. A very low diet causes a feeling of extreme weakness and even collapse. In the case of three very heavy patients, who at first each required four people to lift them out of bed, gradual mobilisation has been found to reduce their weight considerably, and of these two can now walk unaided).

2. Quietening the restless and noisy.

a) Insomnia.

It is doubtful whether insomnia should properly be regarded as a "mental state", but as it involves the use of sedatives it is included here. When a patient persistently complains of sleeplessness /

sleeplessness, and there is no evidence for it, he may be honestly mistaken, or may hope to gain permission to stay in bed all next day. In both cases a cure is often effected by waking the grumbler once each night, to ask him why he is not yet asleep. When the patient is in fact very wakeful, it is a mistake to have recourse at once to the use of drugs. Insomnia may be caused by the strangeness of his surroundings, if he is a new patient, and that little extra attention in which some nurses are so expert - a hot drink, an extra blanket or hot water bottle, a rearrangement of the pillows - may be sufficient. Sometimes an inert tablet induces sleep; and tab. codein. co. and phenobarbitone (even as little as gr. $\frac{1}{2}$) have a good effect in some cases. Short-acting barbiturates are useful too, though gr. $1\frac{1}{2}$ is frequently too large a dose and causes a feeling of dizziness the following morning. Drugs supplied in capsules have this advantage that the contents of the capsule can be removed while the patient supposes that he still is getting his sedative. It is usually best in resistant cases to try one sedative for a few nights and then change to another, until the sedative and the dose best suited to the patient is found; there is considerable individual variation. Bromides are contra-indicated in the elderly: their action is uncertain, the duration of the action is often too prolonged, and is frequently accompanied by a degree of pathological depression. Chloral hydrate, though usually effective, is not popular with the patients who complain of insomnia; they usually prefer a tablet. Paraldehyde should if possible be avoided because of its unpleasant taste and smell and its excretion in the breath. When possible those who complain of insomnia should be up for a large part of the day, and /

and encouraged to walk about, especially in the open air, and to read and occupy themselves in some way; anything is preferable to lying back in a chair or remaining in bed dozing all day. The hospital ward should be as quiet as possible at night and noisy or restless patients should be housed elsewhere. Sometimes it is found effective to put screens round the patient's bed, so that he is not disturbed by movements in the ward or by the night light.

If there is some pathological cause for the insomnia the treatment is naturally different. Pain should be relieved with analgesics or by the local application of heat. Coughing should be treated with syrup of codeine phosphate, or a hot drink, or more pillows. In respiratory infections, especially among the asthmatic, or where vomiting makes oral medication useless, an intramuscular injection of paraldehyde (2 to 5 ml.) is of value. Patients with Parkinsonian rigidity often suffer from insomnia because they find turning in bed extremely difficult, and they should be helped to turn several times each night.

b) Restlessness or noisiness.

There are various types and degrees of the restlessness or noisiness which cause sleeplessness. This sort of insomnia is seldom complained of by the patient himself, but rather by the nurses, and the patients whom he disturbs. The sufferer may do no more than sit up in bed all night looking around him, or toss about from side to side. He may go much further, and undo his bed right down to the springs, or proceed to tear up the sheets; he may arise and prowl round /

round the ward, waking the other patients, searching in their lockers, collecting all the bed mats and towels; or he may vanish from the ward like a ghost, and speed through the grounds clad only in his night attire. There are those who moan and groan, sing or shriek, and those who sit up and express themselves in violent and abusive language. Some are both restless and noisy. The treatment of these cases depends on the origin of their behaviour, and therefore the various causes of restlessness and noisiness are considered here. Unfamiliar surroundings may cause confusion, real or apparent, when a patient wakes up through the night; and often a few soothing words will quieten him, and elicit a reasonable explanation for the disturbance he is causing. Warren (1950)²¹⁸ states that elderly people often become confused and irrational when in strange surroundings. Some patients get up to go to the toilet and lose their way: it has been known for a man found wandering out of doors at night to be labelled "confused", when he had simply taken the wrong turning. A blind woman who stands up on her bed-rail at night and gropes at the wall, is not necessarily confused; it will probably be discovered that she is merely trying to put out the gas, as she always did at home. Some are made restless, noisy or abusive by the (real or imagined) loss of some money, or by the lack of snuff or tobacco, or even by hunger, - which is not surprising, when the last meal is at 4 p.m.

Apparent confusion in a previously sensible patient should always be the occasion for a thorough physical examination. Often the patient can give no indication of what is wrong. The onset of pneumonia or any acute infection, cardiac failure, cerebral thrombosis recent /

recent or imminent, often cause restlessness and abnormal behaviour as the first clinical sign. Severe pain, a feeling of choking as in coronary thrombosis or cardiac asthma, the agony of retention of urine even before the onset of uraemia, can cause extreme restlessness and even violent behaviour if anyone is foolish enough to try to keep the patient lying still and flat in bed. The imminence of death has been found to cause restlessness in previously weak and immobile patients. An instinctive but unvoiced desire to go to the toilet makes many get out of bed, and any attempt to put them back may cause them to become aggressive; the frequent desire to micturate which often occurs at the onset of cerebral thrombosis, and the distress of those who have recently become incontinent also impels many to get up. In some cases however no cause for the restlessness can be found.

Restlessness usually occurs at night. Perhaps it is not so much noticed during the day when it is less likely to disturb the other patients; but it does seem to be more pronounced at night. The cause cannot merely be prolonged darkness, for it occurs even during short summer nights. In some patients there does appear to be a definite relationship between restlessness and the full moon, whether it is visible to the patient or not. (The increased restlessness of mentally confused patients at full moon was first mentioned to me by the nurses when I was a newly qualified resident. I received the information with derision and incredulity. But later observation has convinced me that there is some truth in it.) Some long-term hospital patients have bouts of noisiness, lasting for /

for several nights, and followed by quietness for weeks or months, without any apparent change in the patient's physical condition. Some otherwise quiet patients are of course reposed by the restlessness or noisiness of others.

In cases of restlessness the cause must be discovered if possible, and treated (e.g. retention of urine, or pneumonia). To prevent restlessness at night, the patient should be got out of bed during the day, even if he is only fit enough to sit in a chair; he should be kept awake all day, and should not be put to bed too early at night. As noted by Asher (1947) insomnia and nocturnal restlessness are frequently caused by the patient taking "cat naps" all day; this state of half sleeping and dozing is less beneficial than deep sleep, and encourages a certain confusion of mind. And Cosin (1947)⁵¹ writing on the advantages of segregating the mentally confused, states that many more of such patients should be ambulant, and deplors the frequent use of cot beds and narcotics. He points out that cerebral oedema accompanying periodic ischaemic cerebro-vascular disease, a high serum bromide and a desire to empty the bladder and bowels out of bed, combine to cause restlessness. He continues: "Get such patients up in a suit of clothes, sit them up to the table at meals; take them to the lavatory at frequent intervals: the nocturnal quiet of a ward under such conditions must be seen to be appreciated."

In dealing with the noisy and restless patient, sedatives should be avoided as long as possible. Attention should be paid to his physical comfort; if he is mentally disturbed by some long past domestic worry, he should not be told that he is talking nonsense, but /

but soothed by promises to lock the front door oneself, to put out the gas, or to put the children to bed. An excited patient is often calmed by the tact and tolerance of a good and patient nurse - e.g. "Why shouldn't he wash his face at 2 a.m. if he wants to?" It has been found very advantageous to segregate the habitually restless, for then the clever nurse can allow them to prowl about the ward and so dissipate their restlessness, without fear of their disturbing or alarming sensible and quiet patients. For minor degrees of restlessness Dr. Warren advises cot beds. In some cases the presence of the sides sufficiently awakens the arising patient to make him realise that he is in bed; in others he is made more confused by the strangeness of the bed and may bruise himself against the bars, or by attempting to clamber over the sides may fall and injure himself. In the case of some noisy patients it is found useful to put screens round the bed, especially when the noise is merely an expression of extreme bad temper.

Most authorities (e.g. Dr. Warren and Lord Amulreeⁿ) advocate that constantly noisy and aggressive patients should be transferred to mental institutions. At Foresthall this is difficult to negotiate and it is often found easier to treat troublesome patients already present than to cope with those who are received in exchange. It has been found that 4 grains of phenobarbitone per 24 hours plus some injections of paraldehyde are usually sufficient after a few days to keep even the noisiest and most aggressive of patients very drowsy; and if after two weeks the drugs are stopped and the patient is got out of bed even if drowsy and unsteady, he may be found to be quiet and /

and fairly rational again. Patients transferred to Foresthall from mental wards in an incontinent, confused and drowsy condition, are frequently found to require no sedative at all, once they have been put on their feet again. Good nurses soon get to know the best way of soothing and quietening individual patients, and usually consider the use of sedatives a confession of failure.

Reduction in the use of sedatives is difficult at Foresthall in view of the shortage of nurses, the complaints of those nurses who are unskilled in dealing with the vagaries of elderly patients, the distress caused to sensible patients in the same ward, the lack of cot beds, the numerous dangerous stairs down which a wandering patient may fall when he has eluded the notice of the one nurse on duty alone for several wards. A too liberal use of sedatives is to be deplored, for it sets up a vicious circle: the patient becomes more unsteady and more liable to fall, and next day is liable to be too drowsy to exercise himself and so ensure a better sleep. He is sometimes too drowsy to take his meals properly, which gives rise to dehydration and malnutrition, and the skin becomes much more liable to break. McEwan and Laverty¹⁵⁸ state that sedatives though procuring deep sleep at night may render a patient inactive in the daytime. When sedatives have to be given, it should not be too late in the night, for as the patient becomes increasingly restless, the drug is found to have less effect. The action of a sedative given at 3 a.m. will probably continue well into the next day. If this happens it is wise to get the patient up in the afternoon and administer the sedative at 9 p.m. before the restlessness begins. Thereafter the patient /

patient may resume a normal sleep rhythm.

The effects of various sedatives now used in Foresthall are noted below.

Barbiturates: The long-acting barbiturates are of little use for the immediate control of noisiness. Phenobarbitone gr. $\frac{1}{2}$ thrice daily up to gr. 1 four times daily is sometimes effective in the habitually noisy, but several days must elapse before the action is apparent. The orthodox view is that phenobarbitone is a poor hypnotic but has its place in the management of motor excitability, (fully demonstrated in its special use in epilepsy), and to produce a mild sustained sedative effect in the neuroses accompanied by manifestations of anxiety. With the short-acting barbiturates, usually 3 grains is required, but there is great individual variation: sometimes one barbiturate is found to have a specific effect on a particular patient.

They may have too short an action, but are sometimes sufficient to tide over a brief period of, presumably, excessive cerebral stimulation. All the barbiturates have a tendency to increase mental confusion, and to cause drowsiness and unsteadiness. A short acting barbiturate (gr. $1\frac{1}{2}$) plus chloral hydrate (gr. 30) is sometimes very effective. If the patient will not swallow the capsule, the powder can be removed and given in water; if he is very excited he does not complain of the taste, though most nurses add a little cough mixture such as "mist. camph. co." as the most readily available flavouring.

Chloral hydrate: This sedative has the advantage of safety.

Alstead (1936) records that many writers consider that chloral /

chloral hydrate has to be used with great caution in patients with heart disease. He investigated the effects of chloral hydrate on 55 patients, of whom 33 had clinical evidence of heart disease; he found that in therapeutic doses chloral hydrate has no harmful effect upon the heart.

It has a good action in most noisy or restless patients, but doses of less than 30 grains have usually a poor effect. It is taken as readily as any of the oral sedatives. If the patient is very excited, the drug may have no action or take so long to act that sleep may be due merely to exhaustion. Combined with $1\frac{1}{2}$ grains of quinal barbital (seconal) or pento barbitone (nembutal) it has a more rapid effect. In a few cases it has absolutely no effect at all; but only on rare occasions do the nurses report increased activity in the patient following its administration. "Mist. pot. brom. et chlor." has been banned: it is usually slow to act; the patient may not fall asleep until early morning; he then sleeps all next day and is unable to take food or fluids; the following night he is noisy again and the dose has to be repeated; this treatment continued for several nights leads to gradual dehydration and mental deterioration. Even in fairly normal people bromides may cause morbid depression, not to mention other serious disadvantages.

Paraldehyde: This again is a safe drug but unpleasant to take by mouth, though it can be flavoured as suggested above. It has the added disadvantage of making the place smell like a mental ward and so suggesting to "mental-trained" nurses that all the patients are confused. It has a rapid effect in some cases, a too prolonged effect /

effect in others; and in a few no effect at all in spite of very large doses. Often half a fluid ounce by mouth is required though in a few cases a dose of 60 minims is sufficient. Occasionally it causes diarrhoea but this can be controlled by giving kaolin powder with the paraldehyde. It is useful on occasion as one of the few sedatives which can be injected in a restless patient; 4 ml. intramuscularly seldom fails to act, but in a few the drug may have absolutely no effect. These failures appear to be due to a state of insusceptibility in the individual patient; proof of absorption is provided by the excretion of the drug in the breath. The question of its use as an intravenous injection does not arise in patients who are resisting treatment. It is not suitable for routine use in a geriatric ward.

Sometimes if a drug is given nightly for some time it loses its effect completely and another drug has to be substituted temporarily. But when ordinary sedatives have no effect at all, even in repeated large doses, when the patient refuses to take anything by mouth, or when immediate restraint is urgently necessary, then recourse must be had to the more powerful alkaloidal salts.

Morphine and hyoscine: In such cases morphine gr. $\frac{1}{4}$ plus hyoscine gr. $\frac{1}{100}$ as a hypodermic injection rarely fails; it acts usually in ten to fifteen minutes; but should be given only as a last resort. Often its action is too prolonged; it depresses respiration in rate and depth; the morphine may cause vomiting. Alone, morphine has often little effect; alone, hyoscine may cause excitement. Less than $\frac{1}{4}$ gr. of morphine and $\frac{1}{100}$ gr. of hyoscine has frequently /

frequently no effect at once and has to be repeated. Occasionally a very wild patient remains uncontrolled with such a dose, especially if he is accustomed to it. When the necessity arises for repeated doses, the patient may not regain consciousness, and dies either of cerebral thrombosis causing first excitement and then death, or of too much sedative causing respiratory failure (though in such cases the respiratory rate may be unaffected).

Results of the above treatment of noisiness and restlessness:

Formerly, when the Foresthall patients were kept in bed, sedatives were essential for the purpose, and most case-sheets showed at least one sedative left "S.O.S." The effect of getting the patients up has been that very few sedatives are required; the effect of segregating the noisy female patients has been that sometimes for weeks on end not one of the 22 requires a sedative.

The following are examples of the action of the sedatives used in general and in two particular cases:

Of 50 unselected patients requiring sedatives on occasion

- 37 settled on chloral hydrate grs. 30.
- 3 " " " " " " " + phenobarbitone gr. 1 t.i.d.
- 6 did not respond to chloral hydrate;
 - of these, 4 did best on quinalbarbitone (seconal) grs. 3,
 - and 2 " " " pentobarbitone (nembutal) grs. 3.
- 4 refused to swallow medicines ordered;
 - of these 3 settled on paraldehyde 4 ml. intramuscularly;
 - and 1 did not, and required morphine gr. $\frac{1}{4}$ + hyoscine gr. 1/100.

Mrs. L. aged 80, was kept in bed because she wandered; every night she received mist. pot. brom. 120 minims at least once; she /

she was drowsy every day and did not eat; every night she was very restless again and sometimes, - when she threw the mist. pot. brom. at the nurse, - required morphine and hyoscine. At first when she was got out of bed, she was rather unsteady; for some weeks she required paraldehyde half an ounce every night, as chloral hydrate had no effect and she would not stay in the ward. Gradually the dose of paraldehyde was reduced and finally stopped. She remains confused, but in the "zoo" she does not disturb anyone when she prowls about during the day; and very rarely does she require any sedative at night.

Mrs. K. aged 75, was transferred to Foresthall from a mental observation ward, on a dose of phenobarbitone grs. 2 t.i.d. plus injections of paraldehyde as required. At first she spent her time sitting up in bed, quietly pulling at the blankets and laughing occasionally. Her habits were very dirty and she was unable to stand. Sedatives were stopped altogether. She was rather restless for three nights, but was got up in a chair every day. After one week she was walking with help; after two weeks she was walking unaided, was able to go to the toilet unprompted, and is now incontinent only of urine at night. She has not received any sedative since admission.

Admittedly it is not easy to withhold sedatives in a general ward where sensible patients are distressed by noisy behaviour; and acutely ill patients need quiet and all available attention.

A general impression has been gained that the female patients are more liable to long-persisting but milder degrees of confusion which do not shorten life; and that the males are more liable /

liable to acute and extreme noisiness and restlessness accompanied by violent* behaviour, - a phase which often turns out to be the herald of death. But this impression cannot be regarded as a definite finding until the equivalent of the female "zoo" has been set up for the male patients, and its effect observed.

The Treatment of Incontinence.

As with many other conditions it is easier to prevent incontinence than to cure it once it has become habitual. A patient who finds his incontinence accepted by the nurses comes to consider it inevitable, and ceases to try to prevent it. For that reason a patient should never be told that he is necessarily incontinent because he has had a stroke. Though Thomson (1949)²⁰¹ states that there is general agreement that incontinence cannot be avoided by bedpan rounds at frequent intervals, there are, in the experience of the nurses at Foresthall, some patients who do remain continent if given a bedpan at frequent regular intervals or immediately on asking. If the patient is incontinent at night, he should be wakened some time before the incontinence has occurred and encouraged to pass urine. It is always worth while to try the effect of reducing the fluid intake in the later part of the day; though not always effective, this expedient makes all the difference in some cases. Some patients would benefit if a bedpan were offered not only after meals but before meals. An adequate number of bedpans and urinals is essential as some cannot pass urine to order. Male patients can often be kept continent if there is a urinal within easy reach and if care is taken to empty it frequently. The urinal holder described by Dr. Ingham (1951) (see chapter V) should be more widely used. For patients of both sexes, the use of the bedside commode may be found to be easier than the use of the bedpan, even if the patient has to be lifted bodily out of bed. It is recognised that the bedpan is difficult to /

to use in bed and it has been proved that patients expend more energy on it than on the bedside commode (J.A.M.A.1950¹⁹). Malcolm Donaldson (1948) noting that his own device of a bedpan below the bed with a special mattress and drawsheet is considered too elaborate, feels that the bedpan should be redesigned to make it deeper and more stable.

A rubber bedpan seems ideal but is not popular with nurses because of the difficulty of cleaning rubber and its perishable qualities. The use of a bedside commode is condemned by some as being aesthetically unpleasant. But where there are feeble patients with frequency and precipitancy, the presence at the bedside of a commode, which they can manage to use unaided, without having to attract the attention of a nurse or make their way to the toilet, prevents much incontinence, especially at night, in understaffed wards; and also allows the patients to preserve some feeling of independence. For those who are feeble and slow at walking, the thought of having to walk some distance to the toilet, perhaps along a cold passage or up or downstairs, as in the West Wards, makes them delay going until it is too late. Many are admitted incontinent from Part III accommodation because of this, though they are perfectly continent in hospital. For this reason toilets should be easy of access, warm, and there should be sufficient handrails on the way. The use of commodes for semi-ambulant patients during the day should if possible be avoided; they should be walked to the toilet with help, or wheeled in the Bohmansson toilet chair (Lancet 1947)²⁷. Ideally all commodes should be permanently screened, but this arrangement would bewilder many of the frail elderly, and some would trip over the feet of the ordinary ward screens or try to support themselves by holding on to them. Nevertheless /

Nevertheless it may be a fact that certain patients are deterred from using commodes because of the lack of privacy.

In patients with faecal incontinence, examination may reveal a loaded rectum, and repeated enemata should be given for this retention with overflow, until the bowel is clear. (Cosin, 1947;⁵¹ Warren, 1950)²¹⁹. For those who are regularly incontinent of faeces, some ward sisters find that a regular weekly enema is useful (advised also by Adams, 1949; and Amulree, 1951)¹³; apart from one day there is little soiling; it may however be several weeks before the benefit is apparent. The weak and frail have to be excluded as a certain number of them become cold and collapsed after an enema. For those who, in spite of routine enemata, have filthy habits and who cannot be got out of bed, sedatives may be the only possible form of treatment; patients of this type who are up and about should be kept in the ward if possible as their habits are often better in public than in the privacy of the toilets. There are also those who have no reason to be incontinent and appear perfectly sensible: they sometimes improve after a serious talk during which extreme disgust is shown and the question of their sanity raised. It is important that such patients should not be mixed with the very degenerate as they seem to take the view that they have as much right to be incontinent as the others. (noted also by McEwan and Laverty)¹⁵⁸.

In the case of those patients who suddenly become incontinent of urine, they should be examined to see if the bladder is distended or if they have a urinary infection. Though in some the treatment of a urinary infection does not alter the incontinence, there are many /

many in whom the incontinence is simply a result of frequency and precipitancy and the pain caused by trying to suppress the desire to micturate. In some patients a week's course of a sulphonamide is sufficient to stop the incontinence even although the infection microscopically and bacteriologically persists.

Those who become incontinent as a result of a general infection or cerebral thrombosis or cardiac insufficiency, should not be relegated to incontinent wards, as the condition is frequently only temporary; and in fact the cessation of incontinence usually gives an indication of general improvement.

Wilson (1948) found that many cases improved as a result of gradual distension of the bladder with fluid and inhibitory re-education training. This however requires a co-operative interested patient, anxious to overcome the distressing disability. Wilson quotes Allen as writing in 1733 that "in old persons incontinence is altogether incurable unless hot baths relieve them."

Many expedients devised to cope with the problem of incontinence are purely palliative and do not constitute a cure. They accept and in fact condone the patients' failure to remain continent and are intended to make things easier both for the patient and for the nurse. (see later for Brocklehurst bed and Arnott gown.)

In the male patient, the urinal can be strapped between the thighs. This may lead to excoriation, if the skin is not washed frequently. Amulree (1951)¹³ recommends condom drainage in men, either in bed or up in a chair. Chapel (1951) describes a modification /

modification of this as the "Simplic" bed incontinence appliance. Incontinence appliances such as the "frequency bag" for ambulant male patients can be of value if the patient is intelligent and of clean habits.

Incontinence appliances for women are usually unsuccessful, and cause pressure sores and areas of excoriated skin. Some who have merely a little dribbling benefit from a napkin arrangement, but if there is too much the skin again suffers. Amulree (1951)¹³ advises sitting on a commode chair on a rubber ring; again there is the difficulty of giving the skin adequate attention.

Many drugs have been tried for the relief of incontinence - usually of the belladonna, ephedrine or muscle relaxant type, but without consistently good results (see Brocklehurst).

Fortunately it has been discovered that getting the incontinent patient out of bed usually stops the incontinence. Amulree (1951)¹³ comments that it is the universal custom to keep incontinent patients in bed; yet the simple measure of getting them up suffices to remedy the incontinence. Cosin (1947)⁵¹ remarks: Get them up in a suit of clothes, sit them up to the table at meals, take them to the lavatory at frequent intervals; - and they will relearn the habits of childhood. Adams (1949) states that most respond when up, even if only in a chair, though the incontinence often recurs at night. Crockett and Exton-Smith (1949) found that incontinence largely disappeared with the awakening of the patients from a state of mental apathy. Thomson (1949)²⁰¹ noticed that incontinence ceased if the patient was got up, but this could be done only if there was an adequate staff. Asher (1947) observes that getting a patient out of bed may turn him from /

from an incontinent person to a clean one.

At Foresthall these findings have been confirmed. Only a few are occasionally incontinent when up, and most of these are unable to walk; and instead of being very wet as in bed, are merely a little damp. A few are incontinent when they are assisted to rise from a chair or when they fail to get to the toilet in time. Those who forget should be taken frequently and regularly in spite of protests. Incontinence in bed at night usually persists for a longer time, but with increasing mobility and lessening of apathy this too disappears.

At first the idea of getting incontinent patients up appears absurd in an old-fashioned hospital and the few "accidents" that occur in the initial stages of rehabilitation are apt to discourage the nurses. But soon they become accustomed to the new routine of assisting the patients to the commode or w.c. instead of leaving them to be incontinent in bed, and forgetting this initial prejudice, begin to tell the doctor that of course such and such a patient is not incontinent when up. Victory may be regarded as won when a nurse volunteers the information that "We were so short of staff at the weekend and the clean linen was almost finished, so we just had to get the patients up." In one ward where formerly 48 drawsheets and 48 short gowns had to be sent to the laundry every day, only 11 drawsheets and 5 short gowns were used daily after four months' rehabilitation of the patients.

Results of getting the patients up: /

Results of getting the patients up:

Of 58 female patients who were always incontinent (31 doubly) in bed and who are now up in chairs or walking about, 52 (89 per cent.) are never incontinent when up (11 per cent. being occasionally incontinent of urine when up); 23 (39 per cent) are completely continent even in bed and asleep.

	Before rehabilitation.		After rehabilitation.					
	Incontinent.	Continent.	When up.		In bed or asleep.			
			Incontinent.	Some- times.	Continent.	Dou- bly.	of urine	Some- times
Urine only 27		26	-	1	15	-	11	1
Doubly 31		26	-	5	8	2	21	-

It has been found that it is usually those who are unable to walk who are incontinent when up; and a good nurse will often blame herself and say that she was too busy to assist the patient at the right time. Those who remain incontinent in bed, have either not been ambulant for very long or are of the bawine apathetic type.

Examples of patients:

Mrs. M. aged 66 was doubly incontinent on admission following a stroke one month before and was still very distressed about it. She was got up in a chair and during the first week she was slightly incontinent of urine when up (but unable to walk); thereafter she was never incontinent when up. She remained doubly incontinent at night until she received an enema; thereafter she was never incontinent of faeces and required no further enemata. For two weeks she remained incontinent of urine at night until it was decided to rouse her /

her once each night before the incontinence occurred. The patient co-operated well and has not wet her bed since; now, four months later, she does not even require to pass urine during the night.

Mrs. C. aged 83, used to be doubly incontinent in bed and had dirty habits. She ceased to be incontinent when got out of bed and re-educated to walk; she could then make her own way to the toilet with the help of a stick. She remained incontinent of urine at night. She fell one day and dislocated her shoulder; the dislocation could not be reduced and since then she has tended to be incontinent of urine when up in a chair, just because she is reluctant to walk to the toilet.

The Brocklehurst bed.

The Brocklehurst bed is designed to cope with the problem of incontinence in bedridden, inert and apathetic patients. By its nature it accepts the incontinence as incurable, and makes a virtue of immobility. To be a suitable subject, the patient must be able to lie flat on his back and must be sufficiently helpless or apathetic not to roll or turn from side to side or shift his position up or down; he must not have more than a slight degree of contracture of the lower limbs. Once the principle of rehabilitation has been accepted in wards of elderly people it is found that there are remarkably few patients with the above qualifications: most of those who are regarded as irremediably bedridden and incontinent have contracted knees, and these will become fewer as the teaching of geriatrics advances.

For suitable patients the procedure is as follows:-

The patient lies on his back on a Dunlopillo mattress placed on three adjustable wooden sections which have a concavity made to suit the curves of the body. The perineal region lies over a hole in the rubber mattress, and all excretions pass through this hole by a funnel to a receptacle placed on a rack below. If the patient remains in position there should be no soiling of the rubber surrounding the hole, and the patient's skin should never be in contact with his excreta. Thus the use of the drawsheet is obviated and the slunging of the soiled linen; but the patient's back has to receive the usual four hourly attention from the nurses, and the funnel has to be cleaned. If the patient does alter his position, the rubber may have to be washed each time. Some apparently completely helpless patients even succeed in getting their hands soiled, and their habits make necessary a complete change of linen and the washing of the whole mattress.

The Arnott gown.

The problem of coping with the elderly bedridden patient who constantly and repeatedly contaminates the hands with faeces is of serious moment to nurses. Many such patients appear to be perfectly sensible and agree when remonstrated with that their habits are foul. In some hospitals the device is used of making them keep their arms outside the bedclothes, but it is seldom warm enough for this in the wards at Foresthall, and moreover there has to be sufficient staff to enforce the rule. Occupational therapy is of benefit for patients who are sensible enough as a means of keeping their hands /

hands employed. Some nurses apply a drawsheet like a baby's napkin, but the persistent patient can circumvent any such barricade, and it has the further disadvantage of acting like a kind of faecal poultice, causing the skin of the back to deteriorate. The use of sedatives is effective and justifiable in the insanelly filthy, but the doses have to be high; in fairly sensible patients sedatives do more harm than good and by causing mental confusion give them some excuse for their habits. The weekly enema is found to be of great benefit and prevents constant soiling, in those who are well enough to stand it.

At Forest Hall in recent months many methods of preventing the access of the patient's hands to the perineum have been considered and abandoned because of the complexity of the apparatus, the need for individual fittings and the difficulty of attaching it in a simple secure fashion to the bed. Success has at last been attained by Sister Arnott of this hospital, who has devised a modification of the ordinary hospital nightgown, which can be used in an ordinary bed or with the Brocklehurst bed and has been completely successful. It is easy to make, easy to fix, can be laundered with the rest of the bed linen, keeps the patient warmer than the short gown usually worn by incontinent subjects, and it does not alter the appearance of the bed. It does not restrict the movements of the patient's arms and it allows the patient to be propped up in bed when necessary. The object is not to restrain bodily movement but to prevent access of the patient's hands to the perineum.

A very large and strong long gown, with long sleeves, is opened completely down the front and the edges hemmed. Tapes are attached /

attached to tie at the neck and at three points on each side of this new opening. It is then put on, back to front, over the usual short gown, the tapes tied behind the neck and the rest of the gown spread out around the patient and tied by tapes to the bedstead on each side. The lower edge should extend well below the knees. The patient is then covered by sheet and blankets in the usual way. No difficulties have been encountered in its use, the patient feels much warmer and her hands remain clean.

The Prevention of Smell.

Another aspect of incontinence which perhaps does not receive sufficient attention is the disagreeable smell which it causes in the ward. Some of the people who live or work in the ward may become accustomed to it, but not all do; and certainly visitors to the wards are bound to be disgusted if measures are not taken to deodarise the atmosphere.

A great deal can be done by the regular, frequent, and complete changing of linen and washing of the skin which is carried out in a well-run ward. But even so there are bound to be times when some smell is unavoidable; and it is at its worst just after a medicine (i.e. purgative) night or an enema day, when the bowels of many patients move about the same time.

The odour of faeces appears to vary considerably. The nurses report that some patients have always extremely malodorous stools; in others it is only following some digestive upset or when the stools are loose. Attempts to overpower the smell by spraying the /

the ward with some strongly scented liquid are not as a rule very effective. On the contrary, the combination of an offensive odour with a perfume is often particularly sickening. Adequate ventilation is important but sensible elderly patients seem to have a curious dislike of open windows. The use of the Bohmansson toilet chair cannot solve the problem in the incontinent vegetable type of patient, or in very contracted or very heavy patients who cannot easily be got out of bed. The real solution appears to be to fix the malodorous gas, as with Professor Alstead's deodorising device, - the charcoal blanket (Lancet, 1942⁷); but that unfortunately is not suitable where there is such danger of its being soiled. Further, the offensiveness of faecal odours is largely attributable to the presence of sulphuretted hydrogen. Gases such as this, with a low molecular weight and high degree of volatility are not readily adsorbed on activated carbon. This is easily proved by using a war-time respirator in an atmosphere charged with sulphuretted hydrogen; the gas is immediately perceptible in the inspired air. Similarly ammoniacal odours easily penetrate a screen of activated carbon, and the charcoal blanket is therefore of no value in minimising the nuisance of this particular kind of smell from incontinent patients. The chlorophyll ("amplex") tablets taken by mouth, and which are said to destroy the smell before it reaches the open air, seemed to be the answer to the problem.

These chlorophyll tablets were first tried in a ward where it was the custom to give 15 bedridden incontinent patients an enema every Monday. These patients were each given one "amplex" tablet every morning for a week preceding the enema. The results were extraordinarily /

extraordinarily good. Instead of being acutely aware on entering the ward that it was enema day, the outsider was uncertain; there was a vague smell in the air, not unpleasant and definitely not faecal.

On closer investigation, it was found to be difficult to tell, without actually looking into the bedpan on which the patient was seated, whether or not the enema had produced a faecal result. The linen awaiting slunging was the same, emitting a faint but not offensive odour. Altogether the nurses reported a good result with thirteen patients, and little change in smell with two. Since then the tablets have been used successfully in many other incontinent patients. There appears to be no advantage when the dose is increased to two tablets per day.

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... justify more positive statements.
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... in another hospital. She was ...
... a uterine fibroid was removed at ...
... operation. From the time of her operation until ...
... two weeks later, she was quite unable to ...

The Treatment of Retention of Urine.

In males: see section on surgical treatment.

In females:

Retention of urine in the female is not often found outside the maternity and gynaecological wards; but occasionally it occurs in the elderly female following hemiplegia, any abdominal operation or merely confinement to bed. Repeated catheterisation is usually carried out, with resulting urinary infection. One successful method of treatment is to prescribe a large fluid intake, an alkaline mixture and to give 1 c.c. injections of carbachol, followed immediately by the transfer of the patient to a bedside commode. The first few injections may be unsuccessful but thereafter there is usually no difficulty with micturition and the injections can as a rule be stopped twenty-four hours later, when the patient has regained confidence in her ability to pass urine naturally. Incontinence may occur for some days especially at night, but in some cases clears up on treatment for the urinary infection. (The series of cases studied was too small to justify more positive statements).

Case history: Mrs. M. aged 65, had a slight hemiplegia three months before admission to a surgical ward in another hospital. She was admitted with abdominal pain; a uterine fibroid was removed at operation. From the time of her operation until her transfer to Foresthall two weeks later, she was quite unable to pass urine and was catheterised every 8 hours. When she was admitted to Foresthall her urine was found to be heavily infected. A large fluid intake and /

and potassium citrate and sodium bicarbonate (30 grains of each 4 hourly) were ordered; she was tried on the commode without success; one ml. of carbachol was then injected and the patient promptly transferred to a commode again. On the first two occasions there was no result and the patient had again to be catheterised. Half an hour after the third injection the patient succeeded in passing some urine. Only one further injection was given; thereafter the patient had no difficulty, but complained of frequency and was usually incontinent. A seven day course of sulphamezathine was given and the infection disappeared. The incontinence also disappeared when she was got up in clothes but persisted at night. This was cured by waking her once through the night and getting her up to a commode; even this was not necessary five months later.

The Treatment of Skin Conditions

The treatment of skin conditions not peculiar to the elderly need not be mentioned here. It should be noted, however, that the elderly, even when sensible, dislike too many dressings and bandages; and that, if they are at all confused, it is inadvisable to insert stitches or apply dressings to wounds or skin lesions (unless absolutely necessary), as such patients appear to be quite unable to resist touching them, - often with soiled hands, - thus causing secondary infection. Euflavine for small wounds, reinforced if necessary by penicillin injections, has a remarkably good effect, especially in small scalp wounds where the bleeding can be controlled without sutures. If a few stitches are necessary, an application of tinct. benzoin. co. without a dressing gives good results. It is strange that more skin lesions are not found on the hands of the incontinent patient with dirty habits; but sometimes ulcerated or septic areas appear, which respond to bathing with eusol followed by the application of 1% gentian violet, (and if necessary, penicillin injections). It is worth while treating any atypical itchy conditions as scabies, first with a three day course of benzyl benzoate, then, if the itching persists, with sulphur ointment. Scratching in the absence of any visible lesion is fairly common and may be reduced by applying calamine lotion, especially at night. A surgical opinion should be sought on any doubtful skin tumour, even if the patient says that it has been present, unchanged, for years. Adhesive dressings should be avoided when possible, especially on the legs, as the skin is apt to break when the dressing is removed; skin traction should be prohibited/

/prohibited. It is extremely important that the skin should not be treated at the expense of the whole patient. It is undoubtedly true that skin lesions of the lower limbs heal more readily if the patient is kept in bed; but even a few weeks spent continuously in bed may render an elderly person bedridden for life. It is interesting to see so many patients with intact but heavily pigmented legs, which, they report, were ulcerated for many years in middle life but healed without any long period of confinement to bed.

The treatment of Bedsores.

In the ordinary general hospital, the treatment of bedsores is considered to be purely a nursing measure, and outwith the doctor's jurisdiction. It often happens that the doctor who signs the transfer form of an elderly patient sent to Foresthall, is (apparently) quite unaware of the presence of even large and foul-smelling sores. It would perhaps be better for such patients if the doctor did take more interest, and did not merely make a point of agreeing sympathetically with the nursing staff that such sores "are not preventible", and that their occurrence is not a reflection on nursing skill. At all events in the "chronic" hospital, the doctor will find himself compelled to take more than a passing interest in the condition of the patient's skin. He will be asked by the nurses to look at the back of a new admission in case anyone should have the effrontery to suggest that such a sore appeared after admission; and having seen it, he will be expected to/

/to advise on its treatment. Thereafter it will be not only tactful but expedient to inspect it at regular intervals and praise the nurses for its progress: he will glean thereby various useful items of information about the treatment of bedsores from the members of the nursing staff most experienced in these matters, and will be able to see for himself which methods give the best results in different types of lesion. After some months he should be sufficiently experienced to instruct nurses unaccustomed to such work, when they appeal to him for guidance.

The bedridden (continent) : Most nurses are taught to give treatment to the pressure points of even short-term bedridden patients, but the effects of omitting this care are seldom so obvious as in the care of the elderly. While many remember the importance of frequent attention to the skin of the buttocks, the heels and elbows are often allowed to develop deep sores, which, especially on the heels get better extremely slowly. Abnormal areas of pressure, for example between the knees when there is strong adductor spasm, on the lateral aspect of the foot where there is external rotation of the leg, between the thighs and below the breasts of very obese patients, and over the scapulae and the thoracic spine in very thin or kyphotic patients, should also be remembered. General irritation should be avoided by keeping the sheets smooth and free from crumbs and other débris. If the patient scratches, calamine lotion should be applied, the nails kept short, and if necessary the hands put into gloves. Sometimes the quality of the rubber mackintosh appears to cause irritation with/

/with blistering; on the other hand plastic ones tend to become hard in the presence of urinary incontinence. The skin should be kept well washed (even in continent patients) and a proper weekly bath rather than a bed bath, is extremely desirable. (In Foresthall Hospital, all but the acutely ill, the very feeble, the very obese and a few with rheumatoid arthritis, are bathed weekly, and the excellent state of their skin testifies to the wisdom of this procedure). Attempts should be made to avoid pressure on one particular area. Frequent turning of the elderly patient is seldom very effective; because of their previous habit or their present disability, most find it extremely uncomfortable to lie in any position but their accustomed one and moan loudly until returned to it. Water beds are too heavy for easy handling; air beds are helpful, but in this Hospital they usually leak, and as a rule the only means of re-inflating them is by the nurse's own breath; they do however increase the difficulty of moving the patient in bed, because of their resilience. An air-ring is useful if the patient will stay on it but is of little advantage if the patient lies on one side. Rings made of gauze and cotton wool for the heels and elbows are usually far too large and are readily displaced. Cotton wool pads bandaged on to pressure areas are sometimes effective but tend to make the skin soft or scaly and may interfere with movement of the joints. Some patients' elbows after years in bed develop a fibrous pad like a small rubber cushion. A pillow lying across the bed below the calves so that the heels are hanging over the edge, is good in a co-operative patient (Dr. Warren). Seating the patient in a chair/

/chair during the day alters the pressure areas of the back, but regular treatment of the skin is then apt to be neglected while the patient is up. The patient should not be allowed to lie too long on a bedpan; a bedside commode or the Bohmansson chair causes much less localised pressure. Opinions vary about the best applications to the skin itself. As with the incontinent, frequency of treatment appears to be more important than the actual medicament. Some rub in spirit only, others add a little soap or talcum powder. Some favour various brands of back ointment, usually containing zinc and castor oil cream with some other ingredient like tinct. benz. co., but others consider that the use of an ointment is contraindicated as it tends to make the skin waterlogged.

Bedridden - incontinent: Incontinent patients are nursed in short gowns (tying down the back), which are easier and less unpleasant to remove than soiled or soaked long gowns would be, and obviate the discomfort of lying closely wrapped in wet and wrinkled linen, - which is also the objection to the use of a napkin arrangement for incontinent patients.

When the skin is unbroken the recommendations in general are the same as for the bedridden continent patients. Again frequency of treatment is important and thorough washing with soap and water every time to remove all traces of urine and faeces from the skin. Some then apply spirit only, to harden the skin, and object to ointments as subsequent washing is made more difficult. Others complain that spirit alone increases the tendency for the skin to crack/

/crack and prefer the protective water-proofing action of the ointment. Some skins are amazingly smooth after years of incontinence, though the neglect of one night can readily be seen the next day; some become thickened, water-logged and fissured and readily crack and bleed; others become pigmented and tough. Naturally every effort should be made to keep the patient continent and bedpans should still be offered though the patient is invariably incontinent. Many nurses find the weekly enema of great assistance in keeping the "backs" intact. Some patients are very liable to urine rashes and it is found that even a few doses of a potassium citrate and sodium bicarbonate mixture, not even sufficient to make the urine alkaline to litmus, are of great benefit. It has been noticed by nurses that patients on bromides are liable to develop a rash in the typical urine rash area. The proper hydration and nutrition of the patient are very important. Patients too ill or apathetic or drugged to eat much, soon develop pressure sores. The appearance of pressure sores in a long-bedridden patient frequently heralds a terminal illness before any other signs of deterioration are apparent.

Bedsore: The treatment naturally depends to some extent on the size of the area denuded of skin. Very small areas of ulceration can readily be closed by the application of gentian violet or euflavine or "back ointment" and increased preventive measures. The small blisters that appear in some can be healed in a similar fashion. For larger but clean and superficial sores, euflavine plus liquid paraffin or jelonet with or without penicillin cream (or Zinc oxide powder if the area is very moist) are effective. Some/

/Some such sores, if neglected, may penetrate more and more deeply. But the worst type seen in hospital appear to come from beneath the skin, - like a carbuncle: the first sign is the appearance of a hot, purple, indurated area of intact skin; this gradually breaks down and a large and deep sore with a black or grey slough is seen. Sometimes smaller satellites appear with communicating sinuses. Such sores frequently appear in the terminal stages of a progressive central nervous system lesion (such as disseminated sclerosis) and though a surprising amount of healing can take place with vigorous treatment, the patient usually fails to recover. Some old people are admitted from their own homes with enormous pressure sores pouring pus, and with severe constitutional upset. The pain felt seldom seems to be proportionate to the extent of the lesion, though often the patient is doubly incontinent for the sole reason that the use of a bedpan causes too much discomfort. The initial treatment consists of giving penicillin parenterally and frequent packing with eusol soaks locally; some prefer hot boracic fomentations or magnesium sulphate and glycerin if the lesion is not too large. These measures usually reduce the inflammation and the pus formation, and the patient's appetite improves. A nutritious diet with adequate protein and vitamins is advisable; supplements of "casilan" are of value and ascorbic acid is given empirically. If pain is severe when the dressing is being changed, pethidine should be given half an hour beforehand. Some advise charcoal poultices to separate the slough; both eusol and charcoal have the additional advantage that they tend to deodorise the area. Once the slough has separated (and sometimes this can be hastened by the/

/the use of forceps) the problem arises of filling a large gaping ulcer, lined by clean granulation tissue. Some prefer steady perseverance with one method; others find that frequent changes of treatment give the best results. In general the wound is firmly packed with gauze soaks, so that healing takes place from below. Euflavine, jelonet, penicillin cream, Hay's wash, saline and Bovril alternated with saline are all advised by expert nurses. Sometimes pus reappears and eusol has to be applied again. It is usually wise to continue parenteral injections of penicillin in one of the long-acting forms twice a day. Some apply the dressings under a binder or napkin arrangement to keep the patient's hands away; others use adhesive strapping where the surrounding skin is in good condition.

Crockett and Exton-Smith (1950) advise treatment with the infra-red lamp to dilate local vessels and bring back the much needed blood supply; they also state that ultra-violet radiation has a sterilising effect on a superficial ulcer.

Feldman (1950) also mentions the treatment of indolent ulcers of the skin, including bedsores, with infra-red and ultra-violet light with recovery.

Nagamatsu et al. (1949) describe the use of one of the quarternary ammonium compounds known as diaparene (paradiiso butyl-cresoxyethoxyethyl dimethyl benzyl ammonium chloride monohydrate) in skin excoriation. Dry or wet dressings were used (1 in 5,000 solution) or an ointment when ulceration was present - with excellent/

/
excellent results.

Treatment may have to be prolonged for healing is usually slow. While this is progressing, the general treatment of the patient should not be neglected. It is probably preferable to keep the patient in bed until the slough has separated because of the constitutional upset and the difficulty of frequent attention to the back of an up-patient. Exercises in bed should be instituted, for bedsores appear to improve as the patient's spirits rise, - perhaps because of an increase in appetite. Once the infective phase has passed, there is no reason why the patient should remain in bed; pressure when sitting in a chair, is on the ischial tuberosities and overlying tissues, not on the sacrum where these sores are usually situated. It is of interest and encouragement both to the nurses and the patient to keep a weekly record of the measurements of the area, once healing is progressing satisfactorily. Sometimes the patient is walking unaided before healing is complete; but unless home conditions are exceptionally good and regular follow-up can be ensured, the patient should not be discharged until the skin is soundly healed. Strangely enough some of the most difficult sores to heal are small sacral ones appearing in a continent patient during an acute illness. The edges become hard and thickened and though the area remains clean and superficial, healing is very slow and the patient complains of a considerable amount of pain. Small sores on the heels are also very slow to close in. There are many pressure sores which should never have been allowed to occur, and all too frequently patients are/

The Treatment of Deafness.Deafness due to wax:

Sixty deaf female patients were investigated as noted in chapter II.

Wax was present in the ears of	51
No wax " " " " " "	6
It was impossible to examine	3
	<u>60</u>

In only 29 of these 51 was it possible to obtain the patient's consent and co-operation in removing the wax. Some patients refused further examination, others declined treatment or were so restless that syringing was impossible. The best method of softening the wax was found to be the use of a saturated solution of sodium bicarbonate instilled into the ear at bedtime for at least three successive nights. Olive oil, glycerin and boracic or glycerin and bicarbonate drops were not nearly so effective. The ear was then syringed with a warm solution of sodium bicarbonate. In a few cases syringing with hydrogen peroxide helped to loosen the wax. Sometimes syringing had to be repeated on several occasions, for few of the elderly patients would tolerate syringing for more than a quarter of an hour at a time. In a few cases a small hard plug of wax was removed with forceps.

Results.

Wax removed in	29	= 62% of those treated, or 30% of deaf female patients.
Hearing improved	18	
" not improved	10	
Improvement doubtful	1	

Twenty-seven per cent. of the female patients had some degree /

degree of deafness and of these 30 per cent. had their hearing improved by the removal of wax.

Other types of deafness:

The waiting list for deaf aids is very long and moves slowly, - and it has been possible to study in detail only a few patients so equipped. Many of the elderly have not the patience and perseverance to become accustomed to their use. Some find the fine adjustment by means of a small wheel too difficult; others, perhaps annoyed because they can no longer find refuge from awkward questions, deliberately increase the volume until a humming noise is heard, and then complain that the instrument is not working. But those able to master the technique often seem to have been given a new lease of life, - a dismal apathetic patient may become the most animated person in the ward. A few patients have been encountered with speaking trumpets which were extremely satisfactory; wider use of these should perhaps be made.

The Treatment of Anaemias.

In chapter II the investigation was described of 76 female patients over the age of 60, with some degree of pallor of the mucosae. Thirty-eight of these 76 patients were found to have a haemoglobin level of less than 12G per cent. (Sahli), and it was decided to study the effect firstly of iron by mouth, and if there was no response, of intravenous injection of saccharated iron on these patients.

Twenty-nine were treated with iron (25 with oral iron alone)

(details in appendix 24).

- { 27 successfully.
- { 1 died of gastric carcinoma after some improvement.
- { 1, with rheumatoid arthritis, improved to some extent; but oral medication had to be stopped because of incessant vomiting and the fact that her veins were too friable. made intravenous injection impossible.
- { 3 refused treatment.
- { 5 died before treatment was completed.
- { 1 was discharged before treatment was completed.

Ferrous sulphate (3 grain tablets) one tablet (increased after three days to two tablets) thrice daily was given as the standard treatment, because the tablet form ensured accuracy of dosage. A careful watch had to be kept, as some of the patients rejected them as soon as the nurse had left them. In such cases, and in two patients who developed vomiting, and in two more who developed vomiting and diarrhoea, iron and ammonium citrate, grains 10 increased gradually to grains 30 thrice daily, was given instead. It caused diarrhoea in only one, and this was successfully controlled with kaolin powder; and vomiting in one which could not be controlled. (No.27). One /

(No.27). One patient (No.7) with symptoms of peptic ulcer refused any form of oral iron because of the gastric discomfort which it caused.

"Ferrivenin" was given to 5 patients (2ml. as the first dose, followed by 5ml. = 100mgm. two to three times per week). In one (No.27), with rheumatoid arthritis, the veins were too friable to retain the injected fluid; she had been unable to tolerate oral iron. Another (No.7) had refused oral iron because of gastric discomfort. The other three (Nos. 11, 12 and 17) after an initial response to oral iron, had shown no progress for at least six weeks. Only one (No.7) had any adverse reaction to ferrivenin; she complained of backache after four of the injections. (She was in the habit of complaining of generalised fibrositic pains.) The pain may have been a reaction to the ferrivenin, but there was no evidence of haematuria.

During treatment the haemoglobin level was estimated if possible every week. In several cases, some weeks elapsed before there was any response to oral iron (in one case there was no response for twelve weeks); thereafter there was a steady rise. (except in Nos. 11, 12 and 17). In many there was a definite clinical improvement before any increase in the haemoglobin content of the blood was detected. If intravenous injections had been better tolerated, many more would have received ferrivenin because of this initial delay in response; as it was, oral iron was the only possible form of treatment in these particular patients. There was of course no extreme urgency to complete the treatment as discharge from hospital was in most cases impossible. The speed of response was noticed to be much slower than in younger patients where one expects a rise of 1G per cent. /

cent. per week. The initial delay has already been noted. In the 27 who responded completely (rise to 14 G per cent. or over), the average rise was of 0.5G per cent. per week; in only 4 was the rise of 1G per cent. or over.

Rate of response.	<u>Ages.</u>	<u>G. per cent. per week.</u>	
	60-69	0.65	6 patients.
	70-79	0.47	10 patients.
	80 and over.	0.52	11 patients.

Once the level of 14G per cent. was reached, therapy was stopped and haemoglobin estimations repeated monthly. Up to a minimum of three months there were no relapses (in the 27 successful cases). Clinical improvement was striking in three, very good in nine, and moderate in seventeen. (2 of these only temporary - nos. 27 and 29).

Improvement took the form of increased appetite, increased interest and energy, fewer complaints about the cold, fewer dizzy and "fainting" attacks, and in two, disappearance of "spots before the eyes."

Examples of patients:

Mrs. G. aged 82, (No.5) was extremely pale, was always going back to bed, had several brief periods of unconsciousness when up, and was very disgruntled and unco-operative. Since her anaemia has been treated, she is first up in the morning, bright, alert, humorous in her own particular manner, and has had no further "turns"; she insists on going to the Foresthall shop herself to buy tobacco for her little clay pipe, though the journey involves climbing two flights of stairs and a steep hill.

Mrs. McA. aged 69 (No.10) had been in bed for 10 years with

a fractured femur, and was very pale and depressed, and had a poor appetite. On attempting even to sit up in bed she felt very dizzy and weak, and once when she was tried on her feet she "felt as if she were going to die." With treatment her appetite improved, she felt much stronger, became quite pink in colour and is now walking with minimal assistance.

This small series of cases rather suggests that the popular lay idea that the blood of the elderly is thin and that nothing can be done about it - an idea unfortunately shared by many members of the medical profession - is completely and utterly wrong. Admittedly elderly patients with aplastic anaemias may be encountered in the acute medical wards of a general hospital; but such rare blood conditions can be found at any age. This series certainly shows that in the elderly, apathy and weakness may be due to an iron deficiency anaemia, in most cases probably because of an inadequate iron intake. With the minimum of investigation and simple replacement therapy with oral iron, it is possible in many cases to give them a new lease of life; and if this was generally practised would prevent many unnecessary admissions to hospital.

McIntosh and Morris (1941) used iron and ammonium citrate in the treatment of the anaemic poor in Glasgow; the dose was increased from 15 grains thrice daily to 60 grains thrice daily if necessary. They record that age did not appear to influence the therapeutic response to iron and that the duration of therapy was six to sixteen weeks. Few complained of symptoms when untreated but after a few weeks on treatment many volunteered that they felt a sense of well-being and enjoyment of meals etc. A few had digestive symptoms when /

when they had been on iron for a few days but they passed off. They found that the lower the initial level of haemoglobin the greater must be the maximum dose of iron to obtain an adequate response in a reasonable time.

Sinclair and Duthie (1949 and 1950) writing on the subject of intravenous iron in the treatment of hypochromic anaemia associated with rheumatoid arthritis, found 51 cases resistant to oral iron and a satisfactory rise in 38 cases with intravenous iron. They noted a delay of two to three months in some before the haemoglobin level began to rise appreciably.

The Treatment of Diseases of the Muscles and Joints.

The treatment of diseases of the muscles and joints does on the whole require some special training and apparatus. Frequent passive movements, the encouragement of active exercises, and the rubbing of particularly tender areas with methyl salicylate or the application of Scott's dressing can help considerably; but the pain-relieving qualities of massage by an expert, radiant heat, wax baths, short wave diathermy etc. do much for the patient both physically and mentally. The use of adrenaline cream is recommended by Howell (1950)¹¹³ but other writers (for example Bywaters, 1951) find no difference between the action of adrenaline and non-medicated creams. With an intelligent patient, much can be done by allowing him to lie, suitably clothed, on the top of his bed, to exercise individual limbs suspended in slings from a Balkan beam, or by suspending the whole patient from a Guthrie-Smith frame. But it is essential that the arthritic patient should unknowingly continue his physiotherapy throughout the day. It is senseless to ask a physiotherapist to give a patient half an hour's treatment every day, if at other times he is tucked into bed and even fed at every meal (Warren), - yet this is frequently done. The patient should do everything possible for himself without help, no matter how long he takes: feeding himself, brushing his dentures, brushing and combing his hair, putting on his own clothes and shoes, and finally getting out of bed by himself into a wheel chair (with a brake), and propelling himself about the ward (without any officious rushing to move chairs and tables or open doors for /

for him), all exercise a considerable number of joints without the patient's being aware of it. The weekly hot bath not only soothes stiff joints but induces a considerable amount of passive movement during the process of drying; a skilled occupational therapist can also make the patient exercise particular joints unwittingly.

Analgesics, usually in the form of compound aspirin tablets, are as a rule consumed in large quantities by arthritic patients. Not surprisingly a considerable number complain of dyspepsia and even have small haematemeses; a change to "soluble aspirin" tablets is not often popular with the patient but sometimes magnesium trisilicate is sufficient to control symptoms. Crockett and Exton-Smith (1950) consider that physiotherapeutic measures in the relief of pain due to stiff muscles and the stretching of joint adhesions are better than analgesics which often cause confusion and delirium.

The general treatment for rheumatoid arthritis has in the past consisted of gold injections, protein shock etc., but most of the long-term patients sent to Foresthall have already had these forms of treatment in other hospitals and state emphatically that they will endure no more. As McEwan and Laverty¹⁵⁸ also found, the previous treatment had seldom been continued for any length of time. Lewin and Wassén's D.O.C.A. and vitamin C treatment (1949) is now considered useless. Howell (1950)¹¹² describes the use of T.E.A.B. in acute exacerbations of rheumatoid arthritis (which are seldom seen in the chronic ankylosed type of patient in "chronic" institutions) and in another article (1948)¹⁰⁵ describes injections of procaine lactic acid into and around the affected joints, followed after a few minutes by manipulation. A few Foresthall patients on whom this was tried complained /

complained bitterly about pain in the joint at night when the local anaesthetic effect disappeared, and refused further treatment. Manipulations under anaesthesia (remembering the fragility of the bones) followed by serial plasters, or operations of arthrodesis may alter position but reduce or eliminate the function of the joint. Law (1948) considers that there is a place for surgery before the disease is burnt out, leaving wasted and fibrotic muscles. He advises a team of a physician, an expert in physical medicine and an orthopaedic surgeon, and in some cases deep X-ray therapy, and a careful balance between rest and active exercise. Crockett and Exton-Smith (1949) consider that there is little scope for orthopaedic surgery for the purpose of enabling arthritic patients to walk again.

Osteoarthritis: Broomhead (1950) describes cup arthroplasty for osteoarthritis of the hip and reports successful cases in the elderly. He emphasises that it should be done early in the disease and that the patient should be physically fit to undertake the strenuous course of physiotherapy required after operation.

The Treatment of Contractures.

The possibility of treatment depends on the state of the contracted limb and the joint. Is it due to muscle spasm, muscle shortening or bony ankylosis? Of a small series examined immediately post mortem, about a quarter could be straightened immediately (contractures of recent origin), half with some force (presumably with muscle shortening), and a quarter were impossible to straighten (usually /

(usually rheumatoid arthritics with, presumably, ankylosis). When an attempt was made to straighten the contracted legs of 47 female patients, it was found that the hamstrings felt taut before the patient complained of pain. Twelve referred this pain to the back of the knee, 9 to the knee generally and 4 to the knee anteriorly; others mentioned pain passing up the thigh, medially or laterally, to the groin. In all these patients, continued extension was obviously painful.

The success of treatment is very difficult to assess in some cases, presumably those in whom muscle spasm plays a large part. Some patients when examined in bed in an unco-operative mood may appear to have irreducibly contracted knees, and yet five minutes later are seen walking erect down the ward. Even those who have true muscle shortening are less contracted at times, noticeably in a warm bath.

Treatment is in general unsatisfactory, and everyone now emphasises the importance of prevention. McEwan and Lavery¹⁵⁸ state that putting the limb through a complete range of movements twice a day appears to prevent muscles from undergoing contracture. It is doubtful whether this is sufficient to prevent contractures in a progressive spinal disease such as disseminated sclerosis, and often patients refuse manipulation if it is at all painful. The use of bed-cages is important to prevent foot drop. Preserving the patient's mobility is of great value, even if he can only sit up in a chair. With contractures of recent origin it is sometimes possible to reduce them by getting the patient out of bed. A patient can seldom curl up as much in a chair as in bed (though a few have been seen with their feet tucked under them on the seat of the chair), and/

and the actual weight of the feet tends to straighten out the knees. Weight bearing - i.e. attempting to stand and walk - has an excellent effect and, as Dr. Warren (1950)²¹⁹ points out, a small degree of flexion deformity is no absolute bar to walking. Other measures - gentle manipulation by physiotherapists, exercises in slings, heat - are of value. (cf. treatment of joint diseases) but have to be continued for a considerable time.

Some of these contractures can be straightened out under an anaesthetic and others can be manipulated to some extent. Difficulties arise in this mode of treatment because of the fragility and decalcification of the bones, not only of those with rheumatoid arthritis, but of all patients who have been long immobile, and "pathological" fractures can readily occur. Such limbs as they are straightened can be enclosed in plaster and the manipulation repeated at some later date. Unfortunately, though the limb may be straighter, the joint is stiffer, the muscles more wasted, the skin frequently broken and the patient more disgruntled. Heron (1950) considers that the less the limbs of the elderly are immobilised by plaster the better, and emphasises the need to conserve and increase all bodily function. The shortening of the blood vessels combined with diminished blood supply and the presence of pressure sores make gangrene a very real danger, - which causes the surgeons to be extremely reluctant to attempt any operative procedure.

Methods of extension are difficult to perfect. If the patient is up all day and the method requires prolonged use, the apparatus should be applied at night. This is often not tolerated by /

by an elderly person, though in those with flexion spasms, considerable relief from pain may be obtained. Many devices, though effective, are difficult to apply and cannot be entrusted to the nursing staff. Skin traction is barred because of the friability of the skin. Dr. Warren avoided this by bandaging a length of webbing up both sides of the leg with crêpe bandages. The webbing was attached to a spreader from which a weighted cord passed over a pulley at the foot of the bed. This device was effective and did not damage the skin; but it was not always well-tolerated, nor was it always correctly applied. Howell (1944) suspends the leg from a Guthrie-Smith frame and applies traction by a spring through a special boot. The use of a knitted shoe tied on the foot and attached to a weight is successful in mild cases but too heavy a weight causes oedema of the foot and pressure on the skin.

Russell and Schuster (1951) describe an apparatus for reducing flexion contractures of the lower limbs due to spinal cord diseases. They claim that considerable force can be used provided that it is applied gradually, that the amount of traction is under control and the force is not applied long enough to endanger skin and other tissues. They use it for half an hour twice daily. The patient lies prone for an hour after treatment to inhibit flexion spasms, or, better still, weight bearing is performed. (A picture of a rather fearsome piece of apparatus is shown; one wonders what effect its appearance would have on the elderly patient).

Another large piece of apparatus is in use in the paraplegic unit at Stoke Mandeville. The patient (usually young) lies on his back and goes through the motion of pedalling a bicycle with both /

both hands and feet. The arms supply the power which automatically straightens the legs.

Warren (1951) describes a smaller piece of apparatus something like a modified Thomas's splint. By turning a small handle the limb can be gradually straightened to a point just short of causing pain. This is also used in half hour doses, combined with other exercises.

Drugs causing muscular relaxation have so far proved to be of little use. Possibly muscles rendered sufficiently relaxed would also be so weak that little active movement could be performed; but the ideal drug may yet be found.

At present prevention, physiotherapy and mobilisation of the patient are the best methods of dealing with this problem.

Examples of patients with contractures:

Mrs. B., age 68, was transferred to Foresthall from another hospital with the report that she had been able to walk until two weeks before transfer, when she refused to get up. She was found to have a mild rheumatoid arthritis; both her knees appeared to be extremely contracted; she was abusive, unco-operative, and doubly incontinent. She was tried up in a chair at the fire, and it was found that her knees were much less contracted than they appeared to be on admission. After three months - with radiant heat and exercises, she was able to walk unaided with slightly bent knees.

Mrs. McL., aged 75, had been confined to bed at home because of a stroke, for four years before admission to Foresthall. She /

She was found to be a very alert woman with a useless left arm but a fairly powerful left leg. The left knee unfortunately was contracted to a right angle. As a result of encouragement and exercises, she is now able to sit up in bed unaided, and to sit erect in a chair; but 4 months treatment has made no impression on the state of her left knee, - the only bar to her walking.

The Treatment of Diseases of the Central Nervous System.

Hemiplegia: Dr. Warren is particularly expert in the rehabilitation of hemiplegics, and the following principles of treatment were all learned at Isleworth. The rehabilitation of the hemiplegic patient should begin immediately, even although the patient is still comatose. All limbs, not merely the paralysed ones, should be put through a full range of movement several times a day. It is not possible at the onset to foretell the outcome; hope should not be abandoned until the patient is actually dead. In a case of any severity, the patient is usually disorientated for several days after regaining consciousness, and it is of value to leave the paralysed arm outside the bedclothes so that he gets accustomed to its lifeless state, does not "lose" it in the bed, and so that returning movement is not hampered by the weight of the bedclothes. Oedema of the paralysed limbs is not uncommon, presumably due to immobility, and can be dispelled by elevating the limb, by massage and exercises. As soon as the patient can co-operate he should be taught to practise lifting his paralysed arm right up above his head to avoid the painful fixed shoulder which occurs in untreated cases. He may seem unco-operative and even aggressive at first and will require tactful handling. Many are very emotional and laugh and cry uncontrollably, to their great embarrassment. Passive movements should continue, to prevent contractures and deformities, and active exercises in bed should be encouraged by suspending the limbs in slings (with a spring attachment to a Balkan beam) and allowing the muscles to act without the /

the hampering effect of gravity. In from one to six weeks following the hemiplegia (depending on its severity) the patient should be got out of bed. A week at least in bed is usually desirable until he recovers from the considerable emotional shock of finding himself incapacitated, and becomes used to his disability; he should not be allowed to become despondent and at this stage an ambulant hemiplegic patient should be introduced to him. Once he can stay up for a few hours in a chair, he should practise rising to a standing position using Dr. Warren's bed-end board and holding on to the bedrail. When he can do that alone, he can try putting his weight first on one foot, then on the other; then walking sideways at the end of the bed. When he has mastered that, he is ready to attempt walking with support, preferably leaning on a hand-rail and with an assistant on the paralysed side. He can then try walking with a three or four-legged stick and will gradually require less and less human assistance. At this stage the desirability of a below-knee/^{iron} and a toe-spring attached to the shoe of the paralysed leg, will have to be considered. In some patients with a degree of foot-drop and inversion this contrivance permits them to walk unaided and reduces their liability to catch the toe on raised objects on the ground. Sometimes it can be dispensed with after further treatment. Some may succeed eventually in walking completely unaided, some with a walking stick, and some may get no further than the three-legged stick; the aim however, is to make them as independent of other people as possible. If they cannot tie their shoe laces (though a few hemiplegics can) their shoes /

shoes should fasten with buckles; and a contraption has even been devised to enable a hemiplegic woman to put on her stockings without assistance. For those with very complete paralysis of the leg, only a wheel chair existence may be possible; some have enough power in the hand to propel both wheels; some manage to move the wheels alternately with the one hand; but recently a wheel chair has been devised with a double wheel on one side which the patient can move and guide with his good arm.

Parkinsonism: A considerable amount can be done for patients afflicted with rigidity and tremor by gradual mobilisation with exercises as described under Rehabilitation. Many drugs are still under trial and reports are conflicting. In an editorial in the Lancet (1950)¹⁴⁰ a brief account is given of various types of drugs used. The symptomatic relief with drugs of the belladonna group has been recognised for many years; more recently many other drugs have been tried: curare which has to be injected and paralyses voluntary movement; myanesin which given intravenously has a transient effect and may cause respiratory paralysis or intra-vascular haemolysis, and if given orally has less consistent results; parpanit (related to trasentin and dolantin), diparcol, benadryl and artane. In general rigidity is more readily relieved than tremor. Such drugs by facilitating even slightly the patient's movements may yield dramatic results by giving him new confidence and enthusiasm.

Other disorders of the central nervous system: It should be remembered /

remembered that patients with inco-ordination (as in disseminated sclerosis) may be able to propel themselves successfully in wheel chairs in spite of considerable ataxia of the arms, and therefore need not be kept in bed just because there is little likelihood of their being able to walk again. In many cases it appears that the disease, having reached a certain stage, progresses no further, and therefore the patient, who is often quite young when sent to a chronic institution, may have many years of life ahead. Patients with other conditions causing paraplegia can lead very active and even useful lives in wheel chairs, as anyone who has visited the paraplegic unit at Stoke - Mandeville knows.

For disorders of speech, particularly those accompanying hemiplegia, the services of a trained speech therapist are ideal, but failing that considerable improvement can be obtained by ordinary talking in the ward, by getting the patient to practise words and phrases and by encouraging him to sing. It is often found that articulation is greatly improved by attention to loose artificial teeth.

The Treatment of Respiratory Diseases.

Cough: When an elderly patient complains of cough, sometimes propping him up in bed and giving him a hot drink are sufficient to ease him. There are many cough mixtures, of both the sedative and "expectorant" type, favoured by the elderly - each patient as a rule having his own particular preference. In general they prefer liquids with a definite colour, slightly syrupy but not too sweet: they have no faith in codeine tablets though in the form of syrup of codeine phosphate the drug is acceptable. The nurses usually find that the addition of hot water makes these mixtures more effective.

Alstead (1939) found that there were considerable fluctuations in sputum output in patients not receiving treatment; when potassium iodide or ipecacuanha, (or ammonium carbonate or ammonium chloride) was given there was no increase in the sputum output and the quality of the sputum was unchanged. The frequency of coughing before and with treatment was not noted. He considers that the clinical improvement of these patients was not due to the cough mixtures but to spontaneous recovery and general measures of nursing.

Breathlessness in the elderly patient with chronic bronchitis is often due to bronchospasm, and is usually improved, as in the younger patient, by ephedrine gr. $\frac{1}{2}$ to 1 thrice daily, with neoepinene sublingually for acute episodes. (The prescribing of adrenaline /

adrenaline injections is inadvisable at Foresthall where a trained nurse may not always be immediately available to give them). Those who do not respond are often best treated as acute infections and given penicillin injections, even though there is no rise of temperature or obvious constitutional upset. For severe breathlessness and distress during acute infections, these patients respond to oxygen and injections of paraldehyde (as morphine is obviously contra-indicated).

Lister (1949) states that asthma is an essential element of all the group of non-suppurative chronic bronchitis and advises treatment with antispasmodics and with breathing exercises.

Evans (1950) considers that depression of cough, removal of irritants, prompt treatment of bronchitis by antibiotics and antispasmodics is necessary in these patients before the lung is damaged still further.

Pulmonary tuberculosis: No conclusions can be made about the treatment of pulmonary tuberculosis in the elderly from observations made at Foresthall. At the time of the survey (early 1950) no treatment was being given apart from rest in bed. The patients were mostly deteriorating; a few who improved clinically with rest hastily took their own discharge from their gloomy and depressing environment.

Ross (1947) advises that elderly people with pulmonary tuberculosis and a positive sputum should be housed in accommodation in the proposed geriatric service, but under the care of tuberculosis officers. /

McEwan and Lavery¹⁵⁸ state that in chronic institutions the segregation of patients with pulmonary tuberculosis is essential.

Paul (1951)¹⁷¹ observes that treatment in the elderly is difficult. There are many contra-indications to closing cavities by collapse therapy; there are no contra-indications to giving P.A.S but as it gives symptomatic relief, the patient often insists on taking his own discharge. Streptomycin has special dangers in geriatric practice because of the development of resistant strains of M. tuberculosis. It is difficult to train the sputum positive elderly patient in hygienic habits. Elderly tuberculous patients block beds in sanatoria, yet they are a menace if discharged. What they need is to be segregated - voluntarily - in hostels without rigid discipline. In another article¹⁷⁰ Paul writes of 107 tuberculous patients over the age of 45, (86 males and 21 females) in a sanatorium. Of 74 who completed their treatment only 53 improved clinically, 21 radiologically, and sputum conversion occurred in only one case. Twenty-two took their own discharge; they were unable to adapt themselves to the discipline of a sanatorium. His conclusion is that the use of sanatorium beds for this type of patient is not justified at the present time.

Pneumonia: In Foresthall Hospital there is the usual increase in respiratory infections expected in winter in an industrial city. Many of the patients, especially the males, have chronic bronchitis which becomes worse in cold or foggy weather. But pneumonia can occur all the year round in the elderly, - especially as a terminal illness in the bedridden or after hemiplegia or fractured femur, and often /

often fails to respond to sulphonamides or penicillin.

In the winter of 1950-51 there was a severe epidemic of an influenza-like illness followed often by signs and symptoms of pulmonary infection. During December 1950 and January 1951 there was a considerable outbreak of pneumonia chiefly among the hospital patients, but also in Part III accommodation. The disease appeared to spread round the wards one after the other. Among the most feeble the incidence was not particularly great; the mentally deranged seemed most immune, though this may have been due to their lack of visitors and the few transfers from other wards. The nursing staff were severely attacked too, and the sudden need for acute nursing in rehabilitation wards with a depleted staff brought re-education in walking almost to a standstill. The female assistant nurses, though untrained in acute nursing, readily learned the routine; injections were given by a Sister or staff-nurse, but the assistant nurses and orderlies played a large part in the recovery of these patients, especially by their care in preventing the onset of that serious complication - dehydration.

Sixty female patients with pneumonia were investigated. Eleven were admitted from Part III accommodation with pneumonia; the others were already in Hospital. Only 12 were bedridden. Five were under 60, nine between 80 and 90 and two over 90. Pneumonia was diagnosed on clinical grounds only, as it was impossible to confirm radiologically without transporting the patient to a general hospital. No attempt was made to culture the organism from the sputum; the depleted nursing staff was more usefully employed giving the /

the patients fluids than in persuading them to produce specimens, which they would have to carry to the office, thence to be despatched to a bacteriological laboratory more than a mile away. In 31 cases there was an acute onset with a high temperature; 12 vomited. The others felt "less well", with vague pains, shivering and loss of appetite. Three became unsteady as the first sign. The more apathetic patients were noticed to be eating nothing but did not complain of illness. A few had a cough for several days which gradually became painful. In view of the vague onset in so many cases it became increasingly obvious that any complaint from the patient called for careful examination of the chest. Delay in starting treatment greatly increased the duration of the illness.

Temperature: Thirty-one had an acute onset with a high temperature; the others had temperatures of 97 to 98°F. at the onset with a subsequent rise. In three, the temperature did not rise above 98°F. and of these, two died.

Pulse: The pulse was usually very rapid; many with pulses previously regular developed extrasystoles; two developed auricular fibrillation and died.

Respiration: The respiratory rate was often not markedly increased - seldom exceeding 30/min. The respirations were often short and painful with an expiratory grunt.

Signs in chest: There was seldom dullness on percussion, or bronchial breathing. The signs usually present were fine or coarse crepitations at one or both bases; or, in some acute or terminal phases, diffusely /

diffusely throughout both lungs. (Though such crepitations are said normally to occur in those long bedridden, this was not found to be the case at Foresthall; and crepitations were accepted as a sign of fresh infection.) In some there was only diminished air entry at one base, and crepitations did not appear for 24 to 48 hours.

Treatment: The treatment carried out was as follows:-

In general: The patients were propped up in bed as well as possible (there was a shortage of pillows and back rests). Some preferred to lie fairly flat in spite of breathlessness; this sign generally spelt a poor prognosis. Four-hourly temperature, pulse and respirations were charted. It was difficult to ensure adequate intake of fluid; merely to place a feeder of fluid on the locker was useless - they had to be fed hourly, - and often would drink only after great persuasion. They tended to become apathetic, poorer mentally, incontinent (even when previously continent) and unco-operative. Few could take more than fluids. There was no orange squash except that brought in by visitors and syrup of lemon had to be used, or, in some cases, "baby" orange juice. Glucose was added and this in most cases supplied the only available nourishment that the patient could tolerate.

Specific therapy: Penicillin was most frequently used, as a rule as the crystalline variety and given in an initial dose of 200,000 units, followed by 100,000 units four-hourly. This treatment was generally continued for at least a week, as a relapse occurred in four cases when it was stopped sooner. Where resolution was not quite /

quite complete "prolophen" or "seclophen" 1 ml. daily or twice daily was given for a second week. The results of using a daily injection of procaine penicillin from the onset of the illness were not satisfactory except in two mild cases. Sulphonamides were used in 17 patients only, in 5 alone, in 4 combined with penicillin, in one followed by penicillin: in 8 the drug had to be abandoned on the second day of treatment because of severe nausea or repeated vomiting; of the others, many were not drinking enough, and the urine output was difficult to estimate because of the lack of nursing staff and the incontinence of the patients. Sulphatriad was used in all but 3 (of the 17) when sulphamezathine was given. These three vomited repeatedly and the drug was discontinued. Oxygen was tried in five patients - three with chronic bronchitis, emphysema and asthma; only two tolerated the Tudor -Edward spectacle frame; none would keep on a B.L.B. mask. Syrup of codeine phosphate 2 drams four-hourly was popular to relieve the cough; also hot drinks of tea, orange juice etc. Pethidine was given to relieve pain in the chest and had usually a good effect in doses of 100mgm.; morphine was avoided if possible and given only in small doses (gr.1/8 - 1/6). Kaolin poultices were also used to relieve chest pain, and were much liked by the patients. In only four was a friction rub heard. Chloral hydrate gr.30 was found to be the best sedative, but if vomiting or extreme restlessness were present, paraldehyde 3ml. intramuscularly was given.

The prognosis seldom could be estimated at the onset of the illness. Some who were very acutely ill and on the danger list recovered. Those who died lived for at least two days after the onset, /

onset, and one lived for three weeks. Often in those who died the temperature fell but the pulse remained extremely rapid. Auricular fibrillation, increasing dehydration, the rapid appearance of bed-sores and blueness of the extremities were all found to be signs of a poor prognosis. (When there was only one qualified doctor for the whole institution, patients were frequently admitted from Part III accommodation in a state of peripheral circulatory failure as a result of delay in diagnosing pneumonia, but since 1950 few patients have been seen in this condition.)

Results: Of 60 patients with pneumonia

54 were treated and of these 10 died.

6 were untreated and of these 4 died. (Those untreated were leading a vegetable existence and had severe contractures; morphine was given to relieve distress.)

Of the 10 who died in spite of treatment:

2 were under the age of 60 but had chronic bronchitis and emphysema.

4 were contracted "vegetables."

2 were over the age of 80.

1 died (when almost recovered from her pneumonia) with signs of internal bleeding.

1 developed cerebral thrombosis during treatment.

Course of the illness: The temperature usually fell on treatment within 24 hours but the pulse remained rapid for at least five days. The patient did not begin to feel inclined for food until the temperature was 97°F. (Howell, 1947,¹⁰⁰ states that the temperature is definitely lower in the elderly.) Withdrawal of penicillin in less than a week led to relapse in four cases. The rapidity of convalescence appeared to depend on the prompt beginning of treatment. Five who /

who did not complain for four days after the onset of symptoms were still unwell three weeks later, though they had never been very acutely ill. It is important not to keep the elderly patient in bed too long after an acute illness, and as soon as the patient appears well enough, judging by the pulse rate, state of the tongue and returning appetite, convalescence should be completed sitting in an arm-chair, well wrapped up, for increasing periods each day. Those who were mentally confused insisted (as such patients always do) on getting up as soon as the temperature had reached 97°F., and as it would have required sedatives to keep them in bed, they were allowed to remain up, properly dressed, - without ill effects. Getting out of bed may aid the respiratory excursion; it certainly prevents the joints from becoming stiff and painful, and increases the appetite. Sometimes however, though the chest infection was cured, the patient was found to have deteriorated mentally and/or physically; this happened with ten of these patients, two of whom have led a vegetable existence since their illness last winter.

Examples of patients treated:

1). Mrs. I., aged 78, was a hemiplegic patient who was being re-educated to walk. Her pneumonia had a sudden onset with a temperature of 103°F., pulse 120/min., respirations 32/min.; she was acutely ill, cyanosed, with cold blue extremities and was almost comatose. Coarse crepitations were heard all over both lungs. Treatment with crystalline penicillin (200,000 units followed by 100,000 units 4'hourly) was begun. It was very difficult to get her to swallow anything at first. Twenty-four hours later, her temperature was 98°F.; she was fully conscious, but weak, doubly incontinent, /

incontinent, and with a small pressure sore on her back. There was great difficulty in keeping her propped up and in feeding her with fluids. The penicillin was continued for two weeks before the temperature settled at 97°F.; the chest was then almost clear, but the patient was apathetic and weak and could tolerate only up to quarter of an hour out of bed. Two months later she was able to sit in a chair for several hours but was still rather apathetic.

2). Miss J., aged 80, was found to be unsteady on her feet one morning and was put back to bed (in Part III accommodation). She then admitted that she had felt shivery and "off her food" for four days, with a cough which had now become painful. Her temperature was 98°F., pulse 100/min., respirations 28/min.; there were coarse crepitations at the base of the left lung. She was known to hate injections, so sulphatriad (2G followed by 1G 4'hourly) was begun. After two doses however she vomited repeatedly and complained of constant nausea. The sulphatriad was stopped and penicillin given four-hourly. The temperature rose to 100°F. the following day, then rapidly returned to 98°F. The patient refused further injections after five days, but twenty-four hours after they were stopped her temperature rose again to 100°F.; four-hourly penicillin injections were resumed and continued for another week; followed by "prolophen" 1ml. daily for the third week. Convalescence was slow; two months later she had almost recovered but easily became breathless.

3). Mrs. McC., aged 76, was a mentally deranged patient able to walk without help. One day she was noticed to be eating nothing. She /

She herself made no complaint. Her temperature was 99°F., pulse 90/min., respirations 28/min. Her breathing was very noisy and there were coarse crepitations all over both lungs. She could not swallow very well. Penicillin was begun; the temperature was 98°F. the following day and the chest much clearer. After five days on treatment the temperature was 97°F. and though there were still crepitations at the lung bases, the patient insisted on getting up and wandering round the ward in her night-gown. As it seemed preferable to allow her to stay up, properly clothed, rather than to give her sedatives to keep her in bed, she was allowed to complete her convalescence on her feet; "seclophen" 1ml. daily was continued for another week. By that time the chest was clear and the patient had returned to her previous state.

4). Mrs. D., aged 83, complained of a painful cough and pain in the right side of her chest. Her temperature was 98°F., pulse 90/min., respirations 24/min. The air entry was diminished at the base of the right lung but no crepitations were heard. Penicillin was begun immediately. Four hours later the temperature rose to 101°F., but fell during the following 24 hours to 98°F. Fine crepitations could then be heard at the base of the right lung. Penicillin was continued 4 hourly for one week; "seclophen" 1ml. was given twice daily for a further week. The patient was then allowed up gradually; convalescence was uninterrupted.

Conclusions about the treatment of pneumonias:

From observations made among the patients at Foresthall,
it /

it was clear that there were several important points in the treatment of pneumonia in the elderly.

- a). Early diagnosis is essential. Those in charge of elderly people, whether in hospital or in Homes, hostels or Part III accommodation, should know that anyone complaining of shivering or pains in the chest, or who seems "off-colour", off his food or unsteady should be examined by a doctor. The doctor should remember that an elderly patient who falls and complains of a pain in his back may have fallen because he was unwell and that the pain in the back is not caused by the fall but by the pneumonia and that it was the toxæmia of pneumonia which made him giddy and caused him to fall.
- b). Prompt treatment is essential. Any of the above symptoms combined with diminished air entry into one area of the lung should be a sufficient indication of the necessity for immediate treatment. Treatment should not be delayed until the onset of crepitations or pyrexia.
- c). An adequate fluid intake is very important. This involves feeding the patient very frequently as he is usually too feeble to help himself.
- d). Crystalline penicillin injections 4'hourly give the best results; most patients tolerate the injections well. The injections should be continued until the temperature settles at 97°F.
- e). /

- e). Sedatives which depress the respiratory centre should be avoided. Chloral hydrate and paraldehyde are the best.
- f). Oxygen should be given if the patient is very breathless and if it is tolerated.
- g). Pain should be relieved by pethidine and kaolin poultices, and coughing relieved by codeine.
- h). Antispasmodics should be given to those with an asthmatic tendency; the prognosis in such patients is poorer.
- i). It is important to get the patient up again, as soon as the temperature has settled. The elderly person will not get stronger if left lying in bed, but will become stiff and contracted, and may be found still in bed years after the original infection.

The Treatment of Diseases of the Cardiovascular System.

Cardiac insufficiency: It is essential not to diagnose cardiac insufficiency on too little evidence and condemn an elderly person to weeks in bed because of a complaint of breathlessness (frequently due to a mild degree of asthma), or the presence of oedema (often due to varicose veins or immobility). Even if the heart is proved to be at fault, a surprising number of these patients become symptom-free with up to a week's complete rest propped up in bed, a week sitting in a chair, and thereafter an ambulant but less exacting mode of life than before admission. Rest should always be tried before any drugs at all are given, except in the very acutely ill; a four-hourly pulse chart is often the best guide in assessing progress.

Digitalis often fails to produce any improvement at all; some can only tolerate very small doses; nausea is very readily induced and may last for days after the drug has been stopped. Even though the classic indication for giving digitalis - congestive failure - may be absent, it has been found that when auricular fibrillation is accompanied by a rapid ventricular rate and palpitation, the drug gives relief of symptoms. This has also been observed by Evans (1951) who prefers it to quinidine therapy.

Mersalyl - 2ml. intramuscularly two to three times per week, gives most benefit to those with oedema from cardiac failure, and may be continued for months without any adverse effect. Such patients are often rendered ambulant and symptom-free without any other drugs. Ammonium chloride either continuously or before the mersalyl improves the effect but is not always tolerated. Intake and /

and output charts are usually unreliable: when the patient is very ill, he is incontinent; when he is better, he insists on disposing of the output in the lavatory. The amount of oedema and the general well-being of the patient are far better guides. If the oedema is very chronic, a salt-free diet (plus a salt substitute) and massage can cause considerable improvement and reduce the feeling of heaviness and stiffness of the legs.

The administration of aminophylline does not appear to benefit many, (either orally or intravenously); when given orally it frequently causes nausea and vomiting.

Morphine may be necessary in the acutely distressed breathless patient; it is best given in small doses (gr. 1/8 to 1/6); often it is necessary in order to make the patient tolerate the administration of oxygen.

It is sometimes extremely difficult to keep an elderly patient propped up in bed; many are too weak to stay up, but others decidedly prefer to lie flat although it induces breathlessness.

Gavey (1949) reports that although digitalis is commonly thought to be less effective in the aged than in younger patients, he found that 5 out of 9 patients aged between 65 and 70 responded; he considers that it may control a rapid heart rate in auricular fibrillation and that smaller doses are required than in younger patients. Mercurial diuretics are as powerful in the aged as in the young; but care has to be taken in old men where there is a danger of retention of urine. Aminophylline by mouth has a place, but its continued use causes gastro-intestinal disturbances; intra-venous /

intravenous aminophylline is useful for abolishing Cheyne-Stokes respiration. He states that patients who are allowed up show less oedema and he considers that rest in bed can be overdone.

Crockett and Exton-Smith (1949) report that in left ventricular failure a good response is often seen with digitalis, but in general the results are better with mercurial diuretics. (especially in cases with normal rhythm).

Gibson (1950) reports that the elderly are usually more sensitive to drugs, perhaps because of renal insufficiency.

Cardiac asthma: Sometimes this occurs as an isolated episode in an apparently healthy ambulant patient. Morphine gr. 1/6 to 1/4 (depending on the size and general physique of the patient) is usually effective - the smaller dose being preferable because of the danger of overdepression of respiration. Oxygen may be necessary in severe cases.

Crockett and Exton-Smith (1949) state that a weekly or twice weekly injection of mersalyl usually prevents previously frequent attacks of cardiac asthma.

Gavey (1949) remarks that a major difficulty arises in distinguishing cardiac from bronchial asthma; in fact he believes that in the aged especially, they may sometimes co-incide, and it requires fine judgement to decide which predominates; he recommends that morphine gr. 1/4 and atropine gr. 1/75 plus oxygen should be the first treatment.

In a few doubtful cases seen at Foresthall, of only moderate severity, phenobarbitone orally or intramuscularly, stopped the breathlessness.

Coronary thrombosis: /

Coronary thrombosis: In many cases the diagnosis is uncertain, for the pain is seldom typical as judged by textbook descriptions and it is confused by the presence of fibrositic areas between the ribs. The journey to Stobhill Hospital for a confirmatory E.C.G. would probably do the patient more harm than good. Bain (1950) considers three weeks in bed long enough for the average case of coronary thrombosis in the elderly patient. It is found at Forest-hall that if the patient was previously ambulant, he usually insists on getting up before that. The complaint of angina of effort was not common at Foresthall, possibly because of the limited activities of the patients.

In general: Bain (1950) considers that the same heart conditions occur in those over 70 as in younger patients; that the methods of treatment are not affected by age; that it is essential to keep the patients in bed for as short a time as possible. Sheldon (1951) states that unnecessary restraint of the activities of elderly patients with cardio-vascular disease is to be avoided, particularly if the diagnosis is based on a single physical sign. A surprising number of elderly patients are labelled as suffering from myocarditis or say that "the doctor said it was the heart," when the only symptom appears to be one of general weakness. It seems unnecessary to give these patients a feeling of impending death when they may in fact live for years, their limited activities not overtaking their diminishing cardiac reserve.

Peripheral vascular disease: /

Peripheral vascular disease: The dangers of gangrene of the lower limbs of elderly patients are well known and the importance of avoiding pressure and trauma. For those who have signs of peripheral vascular occlusion such as cold, bluish feet, or symptoms such as tingling, or pain in the calf or anywhere in the leg coming on with exercise and disappearing with rest, several drugs have been tried. Nicotinic acid has been found valuable in some patients in a dose short of that required to produce general flushing. Priscol (2 benzyl 4.5. imidazoline hydrochloride) has been tried in a few patients at Foresthall with some benefit, and reports in the journals are promising.

Rogers (1949) reports good results in arteriosclerotic patients complaining of intermittent claudication, and notes the advantage of being able to give the drug orally.

Douthwaite and Finnegan (1950) writing of the importance of obstructive disorders of the peripheral arteries and arterioles in the elderly, record the poor effects of nitrites, thiocyanates and nicotinic acid and their unpleasant side effects. They found that many elderly patients with intermittent claudication showed improved walking capacity and loss of night pain when given priscol.

Lynn (1950) however does not confirm the above good results.

Goodwin and Kaplan (1951) found the most satisfactory results with priscol in patients in whom vasodilatation of the collateral vessels is possible, but also definite though limited objective and subjective improvement in patients with advanced occlusive disease.

The Treatment of Disorders of the Gastro-intestinal System.

The treatment of disorders of the alimentary tract need not be discussed in detail as the same disorders are common to all adults, not particularly the elderly.

Nausea or vomiting, if not part of a general sytemic infection or caused by some drug being taken by the patient without the doctor's orders, are best treated by limiting the patient to fluids only or a very light diet, and magnesium trisilicate. The sedative effect of pethidine (100mgm. intramuscularly) is often useful.

Diarrhoea is sometimes self-induced by large doses of purgatives, taken perhaps as an excuse to stay in bed. Mild diarrhoea is usually controlled by a diet of boiled milk only and kaolin powder (half an ounce three times daily). Severe diarrhoea often responds to phthalylsulphathiazole, even in the presence of a negative culture for pathogens. There is no place for castor-oil in the treatment of the elderly: its severe action may cause collapse, severe dehydration, or precipitate a cerebral thrombosis. A rectal examination should always be made to exclude (1) a rectal carcinoma (2) a loaded rectum causing "retention with overflow".

Some patients are obsessed with the state of their bowels and demand enormous doses of purgatives, which often cause diarrhoea. In general liquid paraffin emulsion (without phenolphthalein) reinforced if necessary with 60 minims of liquid extract of cascara is adequate.

Loss of appetite (in the absence of acute infection) can often /

often be combated by the provision of small amounts of daintily served, colourful and appetising food. If that is not feasible, compound tincture of gentian before meals or better still, a small glass of sherry has a good effect.

Colicky abdominal pain, often of unknown origin, is usually relieved by the application of heat and by pethidine 100mgm. orally; it is often worth while to administer an enema.

Peptic ulcer symptoms or haematemesis should not be presumed to be due to gastric carcinoma because the patient is elderly; often he has in fact an acute peptic ulcer which responds to rest, milk and magnesium trisilicate.

The Care of the Irremediable.

The term irremediable is rather ill-defined. In this survey it has been used to mean the irremediably bedridden (or up in a chair) who are considered unlikely, in the present state of therapeutic knowledge, to be enabled to walk again. Many people seem to imagine that the elderly incurable bedridden patient is slowly dying from some deadly and painful disease. But most of these patients are suffering from central nervous system or joint disorders which are not necessarily progressive or killing diseases. Such patients require, however, more attention than is available in an acute ward, and though the active bustle around them may interest them at times, they are best cared for in special long-stay annexes of thirty to fifty patients, in small rooms with up to six beds in each; when these are not available, wards in large institutions should be set aside for their use. The irremediability of the patient should not be the only reason for admission to such a ward; the mental state should be examined and patients of similar alertness grouped together. Some of the sensible irremediable patients will be found to be incontinent, but if the atmosphere of the ward can be kept fresh they need not be excluded and put among the "vegetables" and the demented. From some points of view it is advisable to have a few up-patients in the ward, for they can help the bedridden to get their belongings out of the lockers and run little errands for them; but this service is liable to be abused, and some up-patients tend to drift back to bed if they see others always in bed.

Ill patients should never be transferred to the irremediable ward just because they are dying. Some advise private rooms for the very ill and dying; but apart from the difficulty for the nurses of keeping a constant watch on small separate rooms, old inhabitants of the ward would soon learn the function of such an apartment, and transfer to it would cause distress both to the sufferer, if conscious, and to his fellow patients. Such a room would be useful, however, for the noisily breathing unconscious patient who distresses those around him. Carcinomata are frequently slow-growing in the elderly and often are not the immediate cause of death (e.g. breast). Painful conditions can be alleviated and the patient made obviously euphoric by the use of heroin or a cocaine and brandy mixture. To collect into one ward patients of all ages with inoperable carcinomata is unspeakably cruel.

A large proportion of the irremediable, however, are sensible, alert and not necessarily ill, and have usually decided to accept their disability with as good grace as possible. Cosin (1947)⁵² states that deterioration inevitably accompanied certain irremediable diseases and a time must come when patients will have to remain in bed - but it is surprising how long this point can be postponed. Thus they should be kept up in chairs, - self-propelled when possible, unless weakness or extreme contractures prevent it. The environment should be hopeful and no suggestion made that nothing can be done for them. McEwan and Laverty¹⁵⁸ comment that hopeless and terminal states can be made not unhappy if the environment is pleasant and if personal interest and time can be spared to them. Wards on the ground floor are /

are ideal so that they can see what is going on outside; but in the absence of lifts such accommodation is usually filled by the frail ambulant. All possible comforts and amenities should be provided - back-rests, air-beds, bed-tables, book-rests, head-phones, pillow-phones, a visiting shop and library, regular and interested visitors, communal entertainments in the form of the gramophone, film shows, concert parties etc. Warren (1946)²¹⁴ considers that the long-stay patient when bedridden should not be kept in one bed in one position in the ward for too long. But other conditions such as incontinence, or restlessness, or close friendship with other patients make frequent rearrangement difficult.

Some treatment should always be carried out for the benefit or comfort of the irremediable patients. Radiant heat or infra-red light not only relieves joint pain but also confers psychological benefits. Occupational therapy is essential. Some of these patients make very good and willing subjects for minor experimental work and refer to the various tests as "my treatment." Even a course of vitamin tablets is of benefit, demonstrating once again the importance of suggestion in therapeutics. The general condition of patients with inoperable tumours frequently improves surprisingly with an attractive diet and iron therapy; though they were previously deteriorating, they begin to feel much better, and eventually death may come quite suddenly and unexpectedly.

All patients labelled irremediable should be reviewed completely at regular intervals: some patients previously abandoned may have improved, or the doctor may have become more hopeful or have learned /

learned some new methods of treatment. Unfortunately such patients have often endured so many forms of drug therapy and of physiotherapy, and have suffered so many orthopaedic operations, that they prefer to be "left in peace." But there are always a few who can be rescued from their beds, and therefore, long-stay annexes for the bedridden should never be filled by patients who have not passed through an acute or rehabilitation ward in the geriatric unit.

Surgical Treatment in the Elderly.

Surgeons, like physicians, tend to consider that patients over the age of sixty are too old for active treatment, - perhaps with slightly more justification than the physician, whose elderly patients can die quietly in bed without the official inquiry called for after "death on the table". But many progressive surgeons are coming to hold the view that elderly people do in fact stand operations remarkably well; and that in any case an enlightened view recognizes that the risk of operation in some conditions is preferable to years of misery in bed and a slow and sometimes painful end. (e.g. fractured femur, suprapubic cystostomy).

Childs and Mason (1949) consider that age alone is not a contra-indication to surgery of any magnitude; an increasing percentage of old people are being submitted to major surgery. They advise that when the patient has been confined to bed for a period, the operation should be delayed if possible while he is made ambulant, and that he should be sat out of bed immediately on recovery from the anaesthetic. Premedication of 1/6 gr. morphine and 1/100 gr. atropine is given, hyoscine being avoided because of its tendency in old people to produce disorientation and restlessness.

Cosin (1947)⁵¹ emphasises the need for a good general surgical service for the elderly with urological surgeon, orthopaedic surgeon and ophthalmologist.

Carp (1950) states that most of the elderly patients in a New York municipal hospital are substandard risks, but that they do not hesitate to meet surgical indications if there is a chance to save /

save life or to prevent invalidism. He advises early out of bed care and ambulation; adequate chemical balance; food in preference to parenteral therapy; a high calorie, high protein, vitamin-rich diet with added potassium; and the proper psychological approach.

Chute (1952) stresses the importance of correcting anaemia, avitaminosis, low plasma protein, reduced blood volume and the electrolyte balance if possible before operation; in his opinion a transfusion of whole blood is the therapy of choice. He also advises getting the patient up the day after operation.

The two commonest conditions in the elderly which call for surgical treatment are fractured neck of femur, and retention of urine (in the male); though some procedures enable the patient to return quickly to his previous mode of existence, they are frequently not employed because it is considered that the patient is too old.

Fractures.

Flemming (1951) states that the rules governing the treatment of fractures in the old do not differ from those universally applicable to the treatment of injuries in people of all ages. Too often it is found that a lower standard of treatment is given to the old than to the young, because it is not thought worth while to restore imperfect function. The object of the surgeon however is to restore to the patients that degree of activity which they enjoyed before the accident, and not some measure of activity which they enjoyed many years earlier. It is wrong to assume that, because they cannot be made fit to walk three or four miles, there is no point in enabling them to potter about their room and do an occasional bit of /

of shopping. There is no justification for fobbing off the elderly with second-rate therapy. If before the accident the patient enjoyed only a very limited range of activity, he cannot afford to lose any of it. On the other hand, the plan of treatment must not be too academic; for example, in general it is a sound rule not to allow weight bearing in a fractured femur after pinning, until the bone has united; but this delay can render an old person bedridden. Two other reasons are often given for refusing proper treatment.

(1) The patients occupy much needed beds for a long time, and may never recover sufficiently to leave. Yet if they are left untreated, they take a very long time to die. They are not, as is so often stated, overwhelmed by hypostatic pneumonia; they linger on for months in a state of suspended but noisy animation. Of the last fifty inpatients (over the age of 75) whom Flemming has treated for fractures, only two failed to return home. (2) The other argument, that they do not stand an anaesthetic, is completely unfounded. A patient has to be far tougher to lead a useful life with a painful unreduced fracture than if the fracture were properly reduced and immobilised, for example patients with dislocated shoulders and Colles' fractures left untreated develop nerve palsies. The commonest fractures in the aged are inter-trochanteric and pertrochanteric fractures of the neck of the femur. Flemming advises skeletal traction with a Steinmann's pin through the crest of the tibia; or as an alternative a tri-flanged nail with vertical plate; this second operation is moderately severe and he reports that the results are no better than with traction, except that the patient can be got out of bed sooner.

But /

But he considers that each case has to be judged on its own merits. He emphasises that it is very important to make every effort to return old people to their homes; in general hospital wards, they become noisy and deteriorate mentally and physically. Because fractures of the femoral neck are common in the elderly and because they often fail to unite, it has been quite wrongly assumed that fractures of long bones in the old will not join.

Cosin (1947)⁵¹ considers that an operation for a fractured femur produces less shock than being bounced on and off a bedpan several times daily and having the bed linen frequently changed. He states that immobilisation is a waste of the nurses' time, and causes an increase in joint stiffness, respiratory complications and venous thrombosis.

Many other references are available advising operation and discussing details of technical procedure.

Examples of fractures in patients in Foresthall Hospital.

Mrs. A. aged 80, fractured her femur two years ago; no treatment was carried out. Now both her knees are contracted; she is doubly incontinent and apathetic though she remains sensible; she frequently declares that she wishes she were dead.

Mrs. McA. aged 70, fractured her femur ten years ago; no treatment was given and she was bedridden until 1950. She has no contractures but there is two inches of shortening of the affected leg. She has been gradually mobilised and supplied with a patten to correct the shortening. Now, after one year's hard work, she is walking with assistance.

Mrs. E. /

Mrs. E. aged 78, fractured her femur two months ago; the fracture was plated at once. She already insists on walking with a stick, stiffly but unaided.

Mr. B. aged 80, was able to walk short distances in the ward and put on his own clothes. He fell and sustained a Colles' fracture of his right wrist. The fracture was not reduced and he is now unable to do anything for himself and is so disgusted with life that he prefers to remain in bed.

Retention of Urine.

In the treatment of retention of urine in the male patient a few of the more domestic procedures should be carried out before catheterisation is attempted or the patient transferred to hospital. Getting the patient out of bed, hot applications to the lower abdomen, hot drinks, hot baths, the reduction of a hernia and the administration of an enema should all be tried. Carbachol has sometimes an effect but is considered inadvisable when the distension is marked and the prostate is enlarged. The treatment, when these measures have failed, depends on the ease of getting the patient into hospital and the type of treatment advised by the surgeons there. Unfortunately at Foresthall there is no close link with a urological surgeon, and when emergency admission is impossible, catheterisation has to be carried out to relieve the patient's symptoms. Once he has been admitted to a surgical ward, he returns only too often with a suprapubic cystostomy. But many different curative methods of treatment are /

are advised in the journals.

Wilson Hey (1946) considers that the suprapubic tube should be relegated to the museum of medieval prostatectomy. In another article (1945) he advocates primary suprapubic prostatectomy as being the only clean approach to the prostate. He considers that slow decompression is not only harmful but also unnecessary and that post-operative uraemia is due to infection. He advises that the patient should be out of bed every day after the operation even if only for a few minutes.

Walters (1948) advises immediate prostatectomy for urinary retention. He states that there is no need for gradual decompression with its dangers of infection, either by catheter or suprapubic tube.

Riches (1949) advises gradual decompression to avoid intrarenal haemorrhage. (This is difficult in a restless patient, confused by pain; he frequently disconnects or removes the catheter). He considers suprapubic catheterisation to be better than cystostomy and prefers a two stage operation to a one stage. He states that the mortality should not exceed 5 per cent.

Stewart (1949) reports on 1960 prostatectomies with a 3.01 per cent. mortality. He considers the best procedure in acute retention is to give morphine gr. 1/6 and transfer the patient to hospital immediately. He describes catheterisation after injecting a sterile water-soluble lubricant or suggests suprapubic aspiration. He considers that repeated catheterisation has no place in modern treatment. He remarks that prostatectomy in those suffering from cerebral softening is apt to cause further mental deterioration.

(But /

(But to this statement I can add that suprapubic cystostomy also undoubtedly leads to mental deterioration).

Jacobs (1948) considers that the establishment of permanent suprapubic drainage as a method of relieving prostatic obstruction is highly undesirable and indeed must be regarded as a confession of failure. It may be used as a temporary measure while the effects of renal impairment are treated. He describes the numerous methods of prostatectomy - suprapubic, retropubic (Millin), Wilson Hey's immediate prostatectomy and the transurethral route. In a review^{us} of 500 cases of retropubic prostatectomy he found a 6 per cent. mortality; of the 80 (16 per cent.) patients over the age of 75 the mortality was 8.7 per cent. He reports an excellent functional result with ease of micturition, clear urine, complete control, absence of residual urine and little nocturnal disturbance.

Many more references with details of technique and results may be found in the urological and surgical journals and textbooks. These give some idea of the number of methods that can be employed with excellent results without resorting to the suprapubic cystostomy. Admittedly these patients with cystostomies do not figure as operative deaths: they are discarded to chronic institutions, still attached to the bed by means of tube and bottle; they endure a wretched existence with the debilitating effects of a chronic urinary infection and the repeated pain of bladder wash-outs and changing of tubes, in an everlasting smell of heavily infected urine and rubber tubing. Their whole life becomes centred on the wound and the tube; their habits /

habits deteriorate; they gradually curl up, often under the sheet and usually die within a year of operation. Surely it would be preferable to give such patients a chance of survival, even if it were only a slight one. It is possible with a few patients to get them up soon after operation with a special belt and bag and train them to look after it themselves in a hygienic manner. They may even go home for a time and have the tube changed by a district nurse; but they usually return with symptoms of ascending infection and uraemia.

For example:

Mr. J.B. aged 69, in Part III accommodation, found difficulty in passing urine one morning but did not mention it to anyone as he was very anxious to go out on pass. It was a very cold day and he had several drinks "to warm himself up". He returned at night with acute retention of urine. A hot bath and an enema gave no result and he was transferred that night to a surgical ward in another hospital. Five weeks later he was returned to Foresthall Hospital with a suprapubic cystostomy. He was kept in bed to allow the tube to drain continuously. His habits deteriorated. When seen six months later his knees were contracted, his urine heavily infected, and bladder wash-outs and the changing of the catheter were causing him much pain. He died nine months after the operation with signs of uraemia.

IV.

Recommendations for Foresthall.

Foresthall Hospital, where the practice of geriatrics is already established, is obviously indicated as the place where the active geriatric service for Glasgow should be centred, both because of the standing of its coming consultant and the enormous number of its patients.

But in order to ensure the maximum efficiency in this service, there should also be an acute geriatric unit, consisting of one male and one female ward, at Stobhill Hospital, under the wing of the University medical unit. Patients (necessarily over the age of 60) would be admitted to this unit either direct from outside, or from Foresthall, or from other wards at Stobhill, after examination by the doctors of the geriatric unit. The only patients to be accommodated in this unit would be those who required investigation and treatment not obtainable at Foresthall.

Foresthall Hospital would act mainly as a rehabilitation centre, a long-stay annexe for the irremediably bedridden, and a Home for those of the frail ambulant type not fit for the usual Homes and Hostels; it would also have male and female wards for elderly people liable to be disturbing to other patients, but not certifiable.

The Part III accommodation should come under Hospital authority, and serve as a Hostel for the more able-bodied elderly: conditions, of course, would have to be enormously improved, and it would be desirable to have a trained nurse in charge, or at least some /

some nursing supervision. All the younger chronics, mental defectives and able-bodied at present housed there would be removed elsewhere.

In addition, there would be numerous small Homes in various parts of the city and its environs, all under the jurisdiction of the general geriatric service, which would arrange all admissions to them, ensure prompt transfer to Hospital when necessary, and also ensure the patient's return to his "Home" when cured. For the use of those more accustomed to roughing it, and unsuited for the quieter and more civilised life in Homes and Hostels, the scheme might include some improved versions of the common lodging-houses.

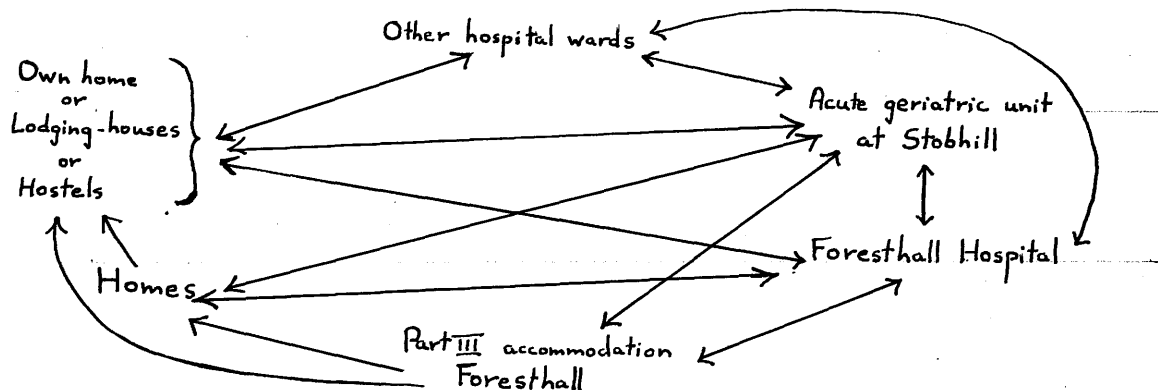
There should be a proper out-patient department, situated at Foresthall, to follow up discharged patients, to examine applicants for admission, and to give treatment and advice to out-patients from their own homes. A domiciliary visiting service, - consisting of a doctor, an almoner, and a nurse from the parent hospital, - would do valuable work in the assessment of applicants for admission or for treatment, and in the follow-up of discharged patients.

Foresthall's full-time geriatric consultant would be in charge of the whole service, the acute unit at Stobhill, the main unit at Foresthall, and the domiciliary visiting. He would be assisted by an adequate and interested medical staff, who would take turns of working either in the acute unit at Stobhill, or at rehabilitation at Foresthall; they would all take a share in the care of the patients in the long-stay annexes, and in out-patient and district work. The nurses would do the same, and could be supplemented by S.R.N. /

S.R.N. nurses in training from Stobhill. (In London, the student nurses from University College Hospital work for three months of their training in the geriatric unit at St. Pancras Hospital).¹¹ Some nurses (when doing out-patient and district work) might usefully run a district nurse geriatric service from Foresthall, bring back reports about home conditions and difficulties, and when necessary call upon one of the geriatric doctors to arrange for the patient's admission to hospital.

New admissions would not necessarily go to the acute unit at Stobhill; some would be suitable for going straight into the rehabilitation wards at Foresthall; but none would ever go direct to the long-stay annexe wards at Foresthall Hospital, or to Part III accommodation, or to hostels outside.

By these arrangements continuity of treatment by the same medical staff would be assured. Easy transfer could be arranged from one category to another. The geriatric medical staff would be encouraged to take an interest in acute medical work; medical students and nurses could be trained in the care of the elderly. The geriatric unit would not accept transfers from other wards and hospitals, while further specialised treatment could be undertaken there, and would arrange its own admissions and discharges.



The above recommendations apply to the future of geriatrics/

geriatrics in Glasgow. The improvements gained by Foresthall, up to the end of 1951, are summarised below.

Medical: The appointment of three J.H.M.Os. instead of one (often newly qualified) doctor.

Frequent visits by a medical professor and other physicians (all honorary).

The appointment of a full-time consultant physician for the care of the elderly, to be in charge of Foresthall Hospital from April 1952.

The formation of the medical staff association; recommendations sent monthly to the House Committee via the medical superintendent have had some results.

Nursing: Some increase in female nursing staff; ever-increasing interest in treatment and rehabilitation; increased respect for medical opinion.

Voluntary work in the wards: Physiotherapy students 8 hours a week for two female and one male ward.

Chiropodist plus student one day per week.

Occupational therapist half a day per week in one female ward.

Administration: Increased interest of hospital committees.

Improved type of case-sheet.

Revised transfer form giving more information about patients admitted.

Retirement of lay governor in office since 1929.

Some improvement in the attitude of the officials.

Extra officials to supervise the "casuals."

Ward equipment etc: /

Ward equipment etc: Linoleum in a few wards left unpolished.

Fires in all fireplaces, including cottage 5.
 Food trolleys, one for almost every ward.
 Soiled linen bag trolleys, one per ward.
 40 bed tables.
 12 self-propelled wheel chairs.
 6 Bohmansson toilet chairs.
 24 arm chairs.
 Walking sticks and 2 "Warral" sticks.
 More dressing-gowns, frocks, suits, socks and stockings,
 slippers and outdoor shoes.
 1 Balkan beam, and some slings and springs.
 4 infra-red lamps and 2 ultra-violet lamps.
 Ramp at one end of each Cottage.

Other equipment: 1 microscope.

Haemoglobinometers and haemocytometers.
 Centrifuge.
 Reagents for side-room work in Surgery and "labour room."
 3 new sphygmomanometers (only 2 before, for whole hospital)

Food: More employed porters.

Improved supply of cups to male wards.
 New insulated food containers.
 Light diets permitted in West Wards.
 Slight improvement in quantity of food - something
 sweet or savoury for tea every day.
 (For Part III inmates, an extra meal of soup or
 cocoa at 7 p.m.)

Patients: Rearrangement of female patients.

Acceptance of the fact that the allocation of patients
 to particular wards is the responsibility of the
 medical staff.

Rehabilitation and acceptance of up-patients in
 hospital wards.

Greater attempt at rehabilitation being made in other
 hospitals before transferring patients to Foresthall.

Entertainment: Entertainments less often refused.

Film show every two weeks in hospital wards
 during the winter months. (Y.M.C.A.)

From the Hospitals' Auxiliary Association:- visiting; gramophon-
 es and records; armchairs; foot-stools; pillow-
 phones; ash-trays; aprons; summer hats; book-rests.

V. Recommendations for the Care of the Elderly

Many recommendations for the care of the elderly have been made in the journals and surveys. The aim of the writers is not always identical : for some it is to "add life to years" and make longevity a blessing instead of a curse; for others it is to care for the elderly with as little trouble as possible to the rest of the population. But at any rate, in both British and American journals there is evidence of widespread determination that social and medical comfort shall accompany age.

McKeown and Lowe (1950)¹⁵⁵ state that the problem of the care of the elderly is neither new nor more urgent than it has been for many years under the administration of the Poor Law or local authorities, but that it is more conspicuous because the new authorities who have taken over the hospitals have terms of reference very different from the old.

In an editorial in the Lancet (1947)¹³¹ reference is made to a series of articles in that journal, showing what is being done up and down the country, to get rid of shoddy standards of treatment, to replace carelessness by attention to the welfare of old people, and to restore bodily function and zest for living in those who must depend, to a greater or less degree, on strangers for care in their later years. One vivid lesson (it is stated) springs from all this : wherever they are placed and whatever their disabilities, old people can be content and cheerful if they are given the chance; and whether or not they get the chance depends on the character, insight/

/insight and determination of those in charge of them. These are people of many sorts, medical officers of health, general practitioners, housing managers, masters, matrons, nurses, orderlies even ward maids. But a uniformly happy atmosphere in wards, institutions, and homes is achieved only when the people at the top are keen and interested, and inspire a like enthusiasm in the rest of the staff. Nurses are conditioned (the article goes on) by their training to follow the lead of the doctor; and a bored and apathetic doctor who thinks the old and infirm not worth treating usually makes his nurses bored and casual too. The nursing of the old is skilled, exacting, and absorbing work, as nurses at the West Middlesex Hospital have shown, but it can only be done properly when there are enough people to do it. Dr. Warren, Dr. Cosin and Dr. Howell have shown the revolution in atmosphere and tempo which active medical and surgical treatment bring to infirmary wards. Patients no longer wake to sluggish day, when meal times make the only breaks, and their boredom and ill-humour infect the hard-pressed nursing staff. They are eager, expectant, keen to get on.

Rudd (1950) states that the advances that have been made have come through the following changes in the attitude to the chronic sick:-

- 1) Grouping of the chronic sick should be based on age, and not on chronicity. A ward of old people is depressing for the young, and young are a source of irritation to their elders.

- 2) An active approach has taken the place of a passive one.

Getting patients up makes more work for the attendants, but the

reward/

/reward is more lively patients, a greater degree of continence, and a larger proportion of "cures".

3) The attitude to the patient's problems: The old approach was that the patient's problems (or those of his relatives) were solved the moment he entered hospital. Nothing further remained except nursing him on his bed to his life's end. The modern approach is that the patient's problems come into hospital with him. Sometimes they are emotional ones, or the threat to mental and physical integrity which comes with advancing years. Sometimes the problems are economic. The human approach has altered too. No longer do we say to the relatives, "We shall have to send him to the Institution"; we now say to the patient himself, "I will try to get you into the Old People's Unit."

4) The team spirit in treatment: Treating the elderly sick requires such a broad approach that it is far beyond the capability of any single person. A team of doctors, nurses, and medical auxiliaries is necessary. The leader of the team should always be the geriatrician who is trained in co-ordinating the efforts of all who have to deal with sick people in old age. The team in full should be :

- (a) the geriatrician, plus departmental specialists in medicine, surgery, gynaecology, ophthalmology, etc.,
- (b) the nursing staff;
- (c) medical auxiliaries - physiotherapists, occupational therapists, chiropodist;
- (d) the social worker.

Rehabilitation is the cardinal aim in geriatrics, that is, the/

V. (continued)

/the re-abling of the patient to take his place in society. Its scope is the entire personality in all its facets, physical and pschical. Not only is the patient's present complaint investigated and treated, but every defect which has a bearing on his future happiness and usefulness in life is considered. While treatment is progressing and the patient's strength is returning, his mind and if possible his hands are occupied with suitable books and pastimes. Throughout his recovery stage, he is encouraged to do the maximum for himself, relying as little as possible on the nursing staff. Arising from the full physical examination which he receives on admission any discovered defects - bad vision, hearing, painful feet and ill-fitting dentures are dealt with. Painful feet may cause him to take insufficient exercise for health. Bad eyesight will deprive him of the tranquillity and solace of reading, and may thus produce anxiety and restlessness. Special workers such as the physiotherapists will of course take a prominent part in rehabilitation, but they are in short supply, and we have to rely on the nursing staff to keep the patient on the right lines when the physiotherapist is absent. Sooner or later, continues Dr. Rudd, the geriatric physician will find himself baulked by his lack of contact with the patient's home surroundings. He then realises that he cannot do without a social worker. . She will make the earliest contact with the home background and will endeavour to maintain the home situation, firmly contradicting the feeling that once the elderly relative has gone to hospital he will/

/will never return home again; but at the same time offering help for the future, - meals on wheels, home helps etc. and admission to hospital for a fortnight in the summer to give the family a holiday. The prime call in geriatric work, states Dr. Rudd, is for adaptable people, - adaptable doctors, nurses, physiotherapists, social workers and even lay committees. If this is realised there will be fewer people waiting for their wards to be modernised before they begin to practise geriatrics. Many wards are unsuitable, but economic conditions make many improvements impossible. So we are thrown back on to the human factor if any advances are to be made. Co-operation with other medical services in the area is likely to be fruitful; for example, the transfer of surgical patients will be easier if it is realised that the patient will not be left on the surgeon's hands indefinitely. Geriatrics is one of the most personal and least experimental branches of medical service. It is essentially clinical and not administrative. Good buildings and adequate apparatus are very important, but nothing here is as important as the courage and enthusiasm of the human team who take upon themselves the task of reablement among sick old people.

Those who are interested in the care of the elderly must agree wholeheartedly with most of the recommendations of Dr. Rudd, even if they regard some of them as a counsel of perfection not easily attainable. But though there may be little difference of opinion among the enlightened on the matter of active treatment for the elderly, there is strongly marked disagreement as to where and by whom they shall be treated. Some doctors, - and by no means the

V. (continued)

/the least anxious for the welfare of the aged - are strongly against the idea of geriatrics as a specialty. Probably because they have been so much grieved by the callous neglect of the old "chronic" hospitals, they recommend strongly that old people shall not be isolated in units of their own : they obviously fear that the institution hospital, decked out in a new name, will soon lapse into the apathy of former days, and that the leisured and indifferent doctor, dignified by the title of geriatrician, will continue to batten on the neglected patients. They consider that it is much safer for old people to be cared for in general medical wards, where, under the benevolent supervision of first-class clinicians, some modern remedial therapy can be carried out. Geriatrics, that is to say, is to be a sort of side-line. Those who recommend such a policy have obviously never worked in a first-class geriatric unit, and are not aware that the geriatrician is one of the most fully occupied of doctors. To them the alternatives for the aged are still two, - beds in acute general wards, or beds in chronic hospitals (call them what you will).

Fuld (1947) while granting that students and young doctors need a better training in looking after old people, states that there is no need for the creation of a new specialty so far as old people are concerned; a hospital for old people might be a gloomy place because of the high mortality among the patients.

(In actual fact not half so gloomy as those odd corners of acute wards where elderly people lie unwanted among the acutely ill who are nearly all in process of being cured and will soon go /

V. (continued)

/go back to their normal lives.)

Todd (1951) states that the justification for geriatrics is far less than for paediatrics; few if any diseases are peculiar to old people; strokes can occur in the fifties; it is far better for old men with acute and recoverable conditions to share wards with the young. He adds that it may be depressing to deal with none but the old, and the physician who has patients of all ages is likely to handle his old patients better than the specialist geriatrician.

(The final statement seems to be subjective and arbitrary. One of the leading geriatricians of the country is herself one of the least depressed and depressing of people; how her old patients are handled is a matter of common knowledge to most people who are interested in the care of the elderly. As for the fact that there are few diseases peculiar to old people, the treatment required often differs from that advisable in younger patients, for example, pneumonias - see chapter III.)

Thomson (1949)²⁰² remarks that the virtual exclusion of the aged and chronic sick from the wards of the teaching hospitals is responsible for serious defects in the training of medical students. (But the medical students could visit Geriatric Units : they visit even an embryo one like Foresthall.)

Elliott (1947) complains that if we are to turn all our establishments into specialist chronic sick units as at the West Middlesex/

V. (continued)

/Middlesex Hospital, leaving those cases clearly not able to benefit therefrom to shift as best they may, then we are well on the way to a deterioration of ethics.

(This is most unjust: Dr. Warren never rejects a patient because he seems to be irremediable; she rather welcomes him as a challenge to her powers. In the survey of Foresthall the present writer classed as irremediable a patient with bilateral mid-thigh amputations, but was well aware from personal recollection that Dr. Warren would have had him walking with a special type of artificial limb. The only patients whom she refuses at Isleworth are those who do not need hospital care, but merely require some social service. Of course the limitations of space prevent her from accepting immediately all patients offered to her by other units.)

Alstead (1949) comments that in general the interest of doctors and students in their patients is proportionate to the acuteness and gravity of the disease; the voluntary hospitals selected their patients and justified themselves with reference to tradition, expediency, staffing arrangements, accommodation and equipment. He remarks on the adverse effect of the care of the senile and incurable on medical and nursing staffs and suggests that this is one reason for not segregating such patients. He observes that the growing realisation of the need to investigate and treat the disabilities of old people has led to the creation of yet another specialty - geriatrics, but doubts the wisdom of this development, for he cannot accept the implication that the ordinary care of the aged calls for the services of a specialist. Their care, he states, is as much the responsibility of the general/

V. (continued)

/general practitioner and general consultant as is the care of any other type of patient; and medical teaching and research should not be completely dissociated from it; the aged and chronic sick should be accommodated in the general medical wards and not segregated. To segregate them, he admits, may have some administrative advantages, but he does not see how it can be other than bad for patient, nurse and doctor.

(It is doubtful if Professor Alstead is still of the same opinion : if anyone devotes so much time to the cause of the elderly he can hardly escape becoming un peu gériatricien malgré lui.)

In a more recent publication (in press) Professor Alstead makes the following statement:-

"It is generally agreed that the medical care of old people should fall within the scope of every practitioner; but it must also be conceded that as the great majority of general physicians find it irksome to look after the aged and the long-term sick, there is much to be said for segregating the aged in our hospitals so that they may benefit from the attention of doctors who display a sustained and lively interest in their welfare."

Lowe and McKeown (1949) declare that the suggestion that the chronic sick should in future be cared for in the wards of general hospitals is supported by the difficulty of attracting medical and nursing staff to hospitals catering exclusively for this class of patient. They state that all nurses and doctors should have the/

V. (continued)

/the opportunity of experience in the care of the elderly chronic sick, and that many patients require the type of investigation and treatment which can only be provided with certainty in a general hospital. They add that unless we accept as inevitable the state of apathy and resignation which has characterised institution hospitals in the past, it is important that the chronic sick should no longer be isolated from the acute sick. (This is to write as if geriatric units did not exist, and there were no alternative to damping the elderly in old-style institution hospitals where there is no doctor able or willing to treat them, except to induce acute wards in general hospitals to admit them.).

Bluestone (1947) states that the independent hospital for chronic disease is an anachronism in modern society, and should either be decentralised by a judicious redistribution of its patients among general hospitals, from which they should never have been transferred, or it should respond to modern requirements and evolve into a "true medical center" which provides an integrated plan of cure on a continuing basis as long as the need for a hospital bed can be proved.

(Whatever may be happening in America, there are in Britain a considerable number of "hospitals for chronic disease" which have responded to modern requirements, and evolved as Dr. Bluestone recommends.)

The Journal of the American Medical Association (1947)¹¹⁹ takes up the theme again, and insists that the care of the chronically ill is/
is/

V. (continued)

/is inseparable from general medical care; and while it presents certain special aspects, it cannot be medically isolated without running serious dangers of deterioration of quality of care and medical stagnation.

(Would it not be true to say that the expression "chronically ill" is an anachronism if it is applied indiscriminately to the bedridden elderly?)

Bluestone (1949) seems to differentiate more clearly between the geriatrician and the traditional indifferent institution doctor, when he writes that the institutional method of separation of the aged within the community has been a palpable failure in most situations, that it may be acceptable to many who hold that beggars can't be choosers, but that it is an uncharitable solution. Institutions, he says, mingle sick with near-sick, and he recommends extra and intra mural care, presumably in general hospitals. He adds : "We have been misled into believing that geriatrics is a medical specialty rather than a social one, an independent geriatric clinic can be justified only if it is integrated in a closely woven pattern with the medical and surgical specialties and with the social service department."

(Which is, of course, exactly what the geriatricians want. The ideal arrangement is to have a geriatric unit in a general hospital. But the progressive doctors who have brought the active and enthusiastic practice of geriatrics into old institution hospitals have proved that the elderly get on better there than in the acute medical wards of general hospitals.)

V. (continued)

/ The journals contain many recommendations by writers in favour of geriatrics as a specialty.

Warren (1943) predicts that until geriatrics is recognised as a special branch of medicine, it will not receive the sympathy and attention which it deserves. It is only recently, she writes, that paediatrics was recognised ; too often in the past junior medical and nursing staff were considered all that was necessary for the care of children: the attitude towards the elderly has been the same. Dr. Warren insists that the proper care of the elderly requires knowledge and sympathy with their particular requirements; and that it is quite as unsuitable to treat them in wards for acute cases as to relegate them, often unsegregated, to institutions for the chronic, where facilities for diagnosis, research and treatment are unobtainable. Warren (1946)²¹⁴ continues to write in support of the establishment of geriatrics as a specialty. She declares that it would stimulate those with a leaning to this type of work and raise the standard of the work done. She recommends that it should form part of the curriculum of medical students, and student and assistant nurses: it is not enough that medical students should be shown "chronic patients" ; they should see them under treatment and watch their seniors manage them from the beginning to the end. Without such tuition, Dr. Warren maintains, there is no hope that future generations will be any more knowledgeable in the care of these patients than is the average doctor to-day; and that the case for the training of nurses is equally indisputable, for the skill required in /

V. (continued)

/in nursing such cases really well can only be learned under supervision at the bedside. She recommends the inclusion of a geriatric unit in general hospitals, with access to radiology, pathology, consultants, almoners, physiotherapists and occupational therapists; and advises those who feel that such work must inevitably lack interest, to give it a trial under as ideal conditions as possible for not less than a year. Warren (1948)²¹⁷ notes that there is growing up a greater tendency to acknowledge that the so-called "chronic" elderly patients will probably do better in the atmosphere of a geriatric unit.

Affleck (1948) comments on proposals that some chronic sick should be accommodated in each large general hospital, the aim being to widen the experience of students of medicine and nursing and to spread the burden of the chronic sick more evenly. He questions whether this is a good solution from the patient's point of view, for the average hospital wards are large unfeeling places free from all homely extra furnishings, and maintained on a system designed for the acute case for whom the entertainments and visitors required for the true chronic group would be a disturbance.

(A patient came to Foresthall Hospital from an acute medical ward at Stobhill Hospital with the bad reputation of being "given to singing": a Foresthall nurse, when questioned about the new patient, reported that "she seems so happy; she is singing away to herself.")

Howell (1949)²¹⁸ expresses an interesting point of view. He says/

V. (continued)

/He says that geriatrics is more a state of mind than a branch of medicine or a mode of treatment: it is a reaction against the belief that after sixty a patient is too old to be medically interesting or therapeutically rewarding; the ordinary methods of medicine and surgery can be applied successfully to elderly patients. But, he adds, old age has its problems of degeneration and decay which do not yield to routine methods : segregation and study of patients is required, in order to collect cases for comparison, and then get down to thought and experiment, trial and error. Once the doctor has become enthusiastic, the nursing staff cannot help becoming infected. In other articles¹⁰³ Dr. Howell stresses the need to train more doctors in the technique evolved in special geriatric units, and asks why the Ministry of Health take no steps to make this special knowledge available throughout the country. Mr. Greenwood⁸⁸ is reported to have said in Parliament that every hospital ought to be encouraged by the Ministry of Health to set up a geriatric department.

Cosin (1947)⁵¹ declares that the medical profession has for too long cast its less pleasant responsibilities upon an uncomplaining nursing staff. He recommends active geriatric wards under a general physician experienced in geriatrics, without making any plea for a new specialty or a new status. He thinks that geriatrics differs in no wise from general medicine except that greater attention must be paid to multiple pathologies and their effect on the vascular system as a whole.

(So many critics of the old chronic hospitals state that apathetic/

V. (continued)

/apathetic doctors make apathetic nurses; but in my own experience the nurses of the medically neglected elderly could not be accused of apathy. They could not lead their patients to a promised land of remedial therapy if no one showed them the way: but they bivouacked most competently in the wilderness, and took as much care of their charges as they could.)

Cosin (1947)⁵¹ recommends that available hospital accommodation for the elderly should be reorganised to provide:-

- 1) Acute geriatric wards.
- 2) Long-stay annexes for the permanently bedfast.
- 3) Long-stay annexes for the frail ambulant.
- 4) Resident home type of accommodation for the more robust.

He insists that it is essential to provide a geriatric service, for a good medical, surgical and nursing service alone will not restore old people to activity. Most public assistance institutions, he considers, can be utilised temporarily with different wards like the four types mentioned above; the wards will require different numbers of nurses, and for the rehabilitation and permanently bedfast wards one nurse to four patients is the minimum.

Affleck (1948) recommends that :

- 1) The younger chronic sick should go to separate chronic sick accommodation.
- 2) Patients over an agreed age should be admitted to special selection and treatment wards closely associated with all the facilities of an acute hospital.
- 3) In both groups there should be classification and segregation of/

V. (continued)

- / of cases with predominantly psychiatric symptoms.
- 4) There should be increased medical, auxiliary, and specialist staff.
- 5) The staffs of the treatment unit should provide out-patient consultation and treatment.
- 6) The aged should have access to convalescent homes.

Greenwood (1949) advises :

- 1) Active geriatric units attached to general hospitals, plus accommodation for long-stay patients.
- 2) Outpatient units for treatment and follow-up.
- 3) Domiciliary teams, to see the patient at home and bring treatment there if necessary.

In an article in the British Medical Journal (1950)³⁵ the functions of a geriatric department are defined as follows:-

- 1) To accept new geriatric patients whether acute or chronic, and those transferred from other wards.
- 2) To provide facilities for the investigation and treatment of geriatric patients.
- 3) To provide observation wards for the primary investigation of all elderly psychiatric patients and the medical treatment of such patients in suitable cases.
- 4) To afford earlier rehabilitation of the elderly, by more adequate and prolonged use of physiotherapy and occupational therapy.
- 5) To discharge all rehabilitated patients from its wards and resettle/

V. (continued)

/resettle them where necessary in residential homes.

- 6) To arrange prompt transfer to long-stay annexes of all irremediable patients.
- 7) To assess and periodically to review the suitability of all patients recommended for long-stay annexes so as to ensure that no patient shall be regarded as irremediable while still capable of further improvement.
- 8) To assist generally in the co-ordination of medical and medico-social work for the elderly sick.
- 9) To provide on request, for general practitioners, under the domiciliary health services, special advice about their elderly patients at home or in consultative clinics.
- 10) To afford facilities for expert advice on the medical aspects of welfare or housing schemes for the aged.
- 11) In selected departments to provide teaching in the geriatric aspects of medicine, nursing and physiotherapy.
- 12) To encourage research in geriatrics and gerontology.

Amulree (1951)¹⁵ states that if the problem of the elderly were properly dealt with, the country would not require the 6000 hospital beds for the chronic sick now unused through lack of nursing staff. Only in very exceptional cases should a patient remain in hospital for as long as thirty-two months (the average for Amulree's inherited patients); the average length for his new patients is ten weeks. The quick turn-over in the ex-municipal infirmary, he adds, has changed the attitude of prospective patients in the district to admission: they no longer feel that entry here will be

V. (continued)

/be the beginning of their way to dusty death. To achieve a quick turn-over he recommends :-

- 1) Domiciliary and out-patient treatment with selection of patients for admission to hospital.
- 2) Ward treatment, which differs from that of the acute general wards in one important way - the patient is not kept in bed as a routine.
- 3) Discharge from hospital should be arranged for the patient, whether it is home or to a hostel or long-stay annexe.

The Journal of the American Medical Association (1947)¹¹⁹ comments that the general hospital is often unsuited to the care of long-term patients. The average patient requires less costly care than that provided in acute general hospitals. Hospitals for the elderly should be built in the very closest relation to teaching centres and general hospitals, and should not be remote and isolated. They should provide consultation and teaching visits to general hospitals. The elderly are best cared for in a unit of a general hospital specially designed to meet their needs; they should not be intermingled with all the other patients.

Many authorities are agreed that there should be special units for the elderly; the above quotations are only a few typical specimens from a great mass of material from the journals. The treatment recommended in such units is described in detail in a great number of articles. The general physician is interested in the /

V. (continued)

/the problem of the elderly; but the geriatrician is concerned with the elderly patient as an individual, and with all the difficulties of his life, - not only when he is need of hospital treatment, but when a little timely care could prevent his coming into hospital, and after he leaves hospital, and is still in need of help and supervision.

Warren (1950)²¹⁹ advises that (a) a detailed history of the illness and earliest symptoms and signs should be obtained from the patient himself or his relatives and friends; (b) a full clinical examination should be carried out. Treatment should be given by a team - at home by the general practitioner, domiciliary services, relatives and friends; in hospital by the medical staff, nurses, physiotherapists, occupational therapists, almoner and dietitian. She emphasises the following points:

- 1) the patient should be encouraged to retain full independence for his personal needs; nothing that he can do for himself should be done for him;
- 2) if his medical condition has diminished his ~~independence~~, full treatment must be arranged to overcome his disabilities - physiotherapy, occupational therapy and speech therapy;
- 3) he must be encouraged to persevere, to keep active, and to interest himself in his recovery and his surroundings;
- 4) exercise should be frequent and for short periods;
- 5) the time allowed up and for exercise should be laid down in detail;
- 6) the conditions in the ward must be good - flooring, sanitation, temperature and light; clothes should be warm but not heavy, shoes

V. (continued)

/shoes must be well-fitting; appliances should be correct;

7) adequate equipment should be available - overhead and bed-end pulleys, arm chairs, wheel chairs, self-propelled chairs;

8) all medical conditions must be treated.

She stresses that well-planned treatment does not depend on elaborate apparatus and both physiotherapists and assistant nurses should carry out exercises.

Cosin (1947)⁵¹ notes that active geriatric wards, in which rehabilitation can be successfully achieved for 50 per cent. of the patients in from 6 months to one year, require the services of -

(a) a general physician experienced in geriatrics, with pathological, radiological and electrocardiographic departments available;

(b) a physician experienced in physical medicine;

(c) a psychiatrist. (He comments (1947)⁵⁰ that it is unfortunate that the psychological difficulties of the elderly are so little appreciated, as many senile confusional states rapidly respond to treatment.)

(d) A good general surgical service, including ophthalmology;

(e) a urological surgeon, skilled in primary prostatectomy;

(f) an orthopaedic surgeon, to deal specially with fractures at the upper end of femur.

The nursing staff, he considers, cannot accurately assess when/^{an}old patient is fit to start rehabilitation; rehabilitation is best carried out by the physiotherapist and her orderlies. (In many units a surprising amount of rehabilitation is successfully carried out/

V. (continued)

/out by the nursing staff under the direction and with the assistance of the doctor.) The medical profession must change its attitude towards these patients from that of resignation to the inevitability of endless months in bed, to active investigation, ensuring that each patient has the optimum chance of enjoying even limited activity and independence. Dr. Cosin (1947)⁶² insists that every patient of whatever age and disease needs a hopeful environment for well-being or recovery. The chief factor, he says, in geriatric rehabilitation is the visible improvement of other patients similarly incapacitated. Rehabilitation must begin on admission. The aim is to restore the maximum degree of painless movement by means of active physiotherapy and remedial exercises, resulting in a maximum of personal independence. We can no longer be satisfied with merely relieving pain. No longer do we label our patients irremediable, incurable, chronic, or senile.

Rudd (1951) states that rehabilitation is only successful if based on a sound and complete diagnosis of the case, - a task for the experienced geriatric clinician. He recommends the establishment of geriatric out-patient departments, and special physiotherapists with their methods geared down to the needs of the elderly.

Howell (1949)¹⁰⁹ sums up the aims of the geriatrician when he says: The geriatric unit has wiped out the motto of "Keep them in bed and keep them quiet," substituting "Get them up and keep them interested;" and he adds that the motto for the future should be: "Catch them quick and treat them early." /

/ The geriatrician lays great stress on occupational therapy. It is very beneficial to the elderly patient to have something constructive to do. In the B.M.J. (1949)¹⁹⁵ occupational therapy is defined as any activity mental or physical, medically prescribed and professionally guided, to help a patient to recover from disease or injury. It shortens convalescence and improves the degree of recovery through techniques which attack inactivity and idleness on the part of the patient.

Crockett and Exton-Smith (1949) state that a carefully chosen programme of occupation can renew interest in life, allay mental deterioration, disguise progressive failure of mental and physical powers to the patient and help to treat specific conditions in which there is muscle inco-ordination or the risk of losing the mobility of joints. This applies particularly to those who must obviously remain bedridden. Patients are often hesitant in starting this form of treatment and occupations showing quick results for little labour are most suitable at first. The patient must not only feel a sense of achievement in being able to make things but must know that what he makes is being put to some use.

It is essential that the occupational therapist should not be too much interested in the finished article. Much material is inevitably spoiled in first attempts. The elderly, especially males, are slow to start but become very keen; men tend to make a bigger article each time. Women tend to object to sewing and knitting which, they say, they have been doing all their lives. /

Detailed recommendations for the equipping of the geriatric unit are repeatedly given by well-known geriatricians.

Warren (1946)²¹⁴: The walls of the wards should be painted cream; the floors should not be highly polished. Affleck (1948): There should be well-heated day-rooms. Veritas (1949): One finds the peculiarly foolish practice of polishing floors everywhere in hospitals and institutions for aged and infirm persons. The sight of shining floors gives great satisfaction to medical superintendents, matrons, and members of committees. One of these said recently, "Oh, but unpolished linoleum looks so dreadful." (Which looks the more dreadful, - an unpolished floor or a patient with a fractured femur? At Foresthall a former lay governor said that if the floors were left unpolished the place would look like a poor-house.) On the subject of beds for the geriatric unit, Witts (1949) states that hospital beds are as a rule too high, too mobile, and are commonly placed on well-polished floors. He recommends simple beds that could be raised or lowered as required. Warren (1948)²¹⁷ recommends low beds (20 inches high) for up-patients and cot beds for restless ones. (At Foresthall, so understaffed compared with Dr. Warren's wards, the nurses dislike cot beds on the ground that if the restless patient should succeed in falling out the fall is all the worse from the higher level.) The wards of the old institution hospitals can be greatly improved by redecoration and good lighting. Warren (1946²¹⁴ and 1948²¹⁷) recommends suitable lighting to allow the patient to read in bed, plenty of arm-chairs of varying types, ear-phones, cushions, hand-rails, sticks with rubber ferrules/

/extra linen for incontinents, specially prepared food for the edentulous, a modern locker for each patient, tables for games, wheel chairs, crutches, etc.

The geriatricians all lay stress on bright decoration, bed - lights, hand rails and no polished floors. It is added (e.g. in the Aged and the Nation)¹⁴⁸ that a great deal of the meticulous order and neatness insisted upon in general hospital wards will have to be dispensed with in geriatric units. The type of locker is important to the elderly patient, and to the nurses, for many types of poor design are conducive to repulsively slovenly habits, and to excessive strain on the patient in trying to reach his possessions. In an editorial in the Lancet (1949)¹³⁶ it is stated that the locker is especially important to the long-stay patient; it should be a sizable cupboard with an easy door, and well raised from the floor, with shelves to separate clothes and food, and with drawers rather than pigeon-holes. There should also be somewhere to put the urinal.

It is desirable that the patient should have a shallow drawer, easy of access for his small possessions, and share of a wardrobe to hang his clothes. The urinal holder of the type described by Dr. Ingham (1951) minimises spilling by accident, makes the urinal readily accessible, yet hidden from view.

Benton, Brown and Rush (1950) found that the energy expenditure in terms of oxygen consumption above resting levels was consistently higher/

V. (continued)

/higher on the bedpan than on the commode. The increases were 50.7 per cent. for a cardiac group of patients and 48.4 per cent. for a non-cardiac group, - results which are objectively and statistically highly significant.

Bohmansson and Malmros (1947) recommend a wheel-chair designed to fit over the w.c. Its advantages, they claim, are as follows : (1) defaecation can be carried out in a sitting position in privacy ; (2) the offensive odour in the ward is avoided ; (3) the duty of cleansing the bedpan is obviated.

(This chair has been found very useful at Foresthall, and popular both with patients and nurses. It can also be used in the ward as a commode with a bedpan in the rack below the seat. In addition it makes an excellent bath chair, and is another means of transporting patients to the day-room, - which is a very useful function in a ward where there is only one dilapidated wheel-chair.)

Curran (1946) recommends that the type of bath should be short, three-quarter length as at Crookston Homes, with two fixed handles to aid the patient in getting in and out.

The first-class geriatric unit has much special equipment in addition to the ordinary improved facilities recommended above; and is provided with Guthrie-Smith frames, Balkan beams, three and four-legged walking sticks and everything that can be devised for the practice of remedial therapy.

There are not nearly enough beds in geriatric units for those who/

V. (continued)

/who desire admission and would benefit by it; and there are long waiting lists of old people, lying at home neglected. Dr. Brooke's (1949)³⁸ priorities for admission to hospital (though he tries to keep going as many people as possible in their own homes) are as follows:-

- (1) Those with a reasonable chance of reablement which would not be available to them except by admission.
- (2) Those who require added comfort in the terminal stages of an illness.
- (3) Those whose admission is necessary for the benefit of the younger generation.
- (4) Those elderly who are entirely alone at night.
- (5) The doubly incontinent.
- (6) The restless and confused.

Amulree (1951)¹³ advises home visits by the hospital doctor for those on the waiting list. Howell (1948)¹⁰⁷ writes that every physician and surgeon treating elderly patients echoes the same cry, "Why didn't we get these sooner?" A relatively trivial illness develops into a major disease when neglected, for example a small injury to the foot becomes gangrene of the leg. It is possible to reduce the death rate by admitting the elderly to hospital at an early stage of their illness.

Kropach (1951) recommends the following criteria for admission to hospital:

- (1) acute illness requiring treatment in hospital
- (2) Chronic illness requiring regular nursing by day and night, poor home conditions, lack of proper care and attention, or too great a burden on the relatives.

V. (continued)

(3) Infirmity due to old age with bedfastness and lack of attention.

(4) Chronic illness which is likely to improve appreciably under treatment in hospital, irrespective of home conditions.

He adds that the turnover of aged and chronic sick in hospitals is lagging behind the number found to require admission, especially females; the sex distribution of hospital beds does not conform with the morbidity figures outside. Many await admission to the chronic sick wards from other (mainly teaching) hospitals, and from L.C.C. welfare homes; and the chronic sick wards provide a better service than is needed by a good number of their occupants while acutely ill elderly people lie at home.

Lowe and McKeown (1949) found that the main diagnoses and needs of those requiring hospital care were acute illness, cardiac failure, recent hemiplegia, acute bronchitis, dressings for gangrene, ulceration, bedsores, etc., injections (advanced carcinoma, pernicious anaemia, etc.) and the need for investigation.

Lowe (1950) writes of 393 applications for admission to a chronic hospital, of whom 335 were seen. The suggested disposal was:

40% to general hospital)	under the
10% to mental institution)	Regional Board.
24% to long-stay annexe)	under the
26% to remain at home)	Local Authority.

(But should any patients be admitted direct to a long-stay annexe?)

Of those destined for the general hospital 53 per cent. were acutely ill/

V. (continued)

/ill, 29 per cent. required investigation, and 18 per cent. were in the terminal stages of malignant disease. Of those destined for the long-stay annexe 54 per cent. were bedfast and 29 per cent. incontinent. Home circumstances had a bearing on the disposal of the waiting list. Of those destined for the mental hospital, more than half were bedfast and incontinent.

In the Lancet (1950)¹³⁹ it is observed that many old people suffering from relatively mild degrees of mental infirmity have of recent years been admitted to mental hospitals under certificate, largely because there was no-where else to send them when they were sick. In the Lancet (1949) Colonel Stoddart Scott is quoted as saying in Parliament : "In the terminal stages of life there is very often muddledness, and it is quite easy to certify people in order to find accommodation for them. Previously they would never have been certified because there was accommodation available provided by the local authority." (That, is, they were mingled indiscriminately with the completely sane in Institution hospitals and workhouses.) McEwan and Laverty¹⁵³ recommend that certification should be avoided if possible , as it casts an unjustifiable slur on the family history. These confused old patients should be cared for in the "chronic sick hospital", but segregated from the mentally normal. Many of the mental cases die within a short period of admission to the wards. (That is not true of the female mental patients at Foresthall; their death rate is very low and they are remarkably active and nimble. While they were scattered through all the wards they were distressing to the other patients/

V. (continued)

/patients and troublesome to the nurses; but now that they are collected into one ward and are up, they cause little trouble, and their eccentricities are somehow endearing.)

A Ministry of Health circular (1950)³⁵, relating to the arrangements for the care of persons suffering from mental infirmity arising from old age, recommends that there should be :

(a) Short stay psychiatric units forming part of a complete geriatric department. Of the patients who come here some may return home, some die, some go to mental hospitals and some to a long-stay annexe. The accommodation should be in the proportion of two men to three women. There should not be more than twenty-five patients per ward; and the accommodation should be subdivided to enable the patients to be classified in small groups.

(b) Long-stay annexes for patients without marked behaviour disorders as distinct from disturbed types. These annexes may be associated with mental hospitals, or with general or chronic sick hospitals. If they are in the grounds of a mental hospital a separate entrance should be provided. The stigma of certification should be avoided .

In the Nuffield survey, "Old People", the need is stressed for treating senile demented apart from the sensible infirm, provided they are examined at frequent intervals and that there is certainty of their removal from "mental" wards if they should recover.

The aim of the geriatric units is to make their patients fit to be discharged from hospital and as far as possible to live normal lives/

V. (continued)

The Medical Society for the Care of the Elderly (1950) agreed that beds for old people are not wanted in hospital so much as beds outside; and that the chief functions of the physician to the elderly are to keep patients on their feet, keep them in their homes and help the relatives in devising the best care. In the journals and surveys it is strongly recommended that elderly people should be encouraged to work after retiral age is reached, and interesting details of what can be done have been given by Sheldon,¹⁸⁶ Bickerton, Wilson,²²¹ Curran and others in the Lancet and British Medical Journal, and especially in the Nuffield Survey, "Old People". It must be pointed out, however, that those who present the greatest problem among the aged in their own homes are not those who are strong enough to carry out work of some kind, but those in need of considerable care and attention, who are the greatest problem when not in hospital. All active geriatric units insist on an adequate follow-up of their patients after discharge from hospital, whether to their own homes or to long-stay annexes or to hostels. Almoners, district nurses, home helps, and the general practitioner all can help by supplying information to the geriatric unit. The ex-patient should be asked to attend at the hospital from time to time in order that the geriatrician who has treated him may estimate his progress; if necessary the patient should be brought by car or ambulance, and the relative who is looking after him should be encouraged to accompany him, in order to learn the best ways of dealing with her problems. A good out-patient department is very helpful; but some advocate the holding of small outpatient sessions in the side-rooms of wards, and receiving/

V. (continued)

/receiving the ex-patient beside the ward from which he was discharged. There he meets his former fellow patients and the familiar nurses; he enjoys his outing and the interest of the doctor; the patients enjoy seeing one of themselves who is now in the outside world, and are encouraged to hope for their own discharge. It is possible by such aftercare to correct any deterioration early by advice to patient or relative, by arranging for out-patient treatment or extra social service (through the almoner) or if necessary readmission to hospital.

Thomson and Curran (1948) in discussing the after-care of the aged note that at present many patients are discharged from hospital and are forgotten until they become ill again. This, they observe, may be satisfactory enough with the ordinary adult, but in the elderly some after-care and general supervision are necessary. They attempted to follow up all men over the age of 65 and women over 60 discharged from two Glasgow municipal hospitals during the winter months. Only 161 out^{of} 500 had been in hospital for a month or less, and only 24 for more than 199 days. 318 were seen in their own homes : 62 were living alone, 30 were being cared for by relatives, 5 by neighbours, and 221 by both. 24 were confined to bed though up when discharged, - often owing to misguided sympathy at home. One hundred and seventy-nine were capable of looking after themselves; 49 should have been readmitted to hospital. 166 could have done with more attention at home and of these 139 required visits by a doctor. Only 76 out of the 318 appeared to have regressed, and of these 53 had been more than nine/

V. (continued)

/nine months out of hospital.

Difficulties of caring for the elderly at home are often due to the fact that their female relatives of the next generation are already overburdened with work, and the old person is not strong enough to live alone. The Department of Health for Scotland issued instructions (in November 1950) on how to use the Health Service and the National Assistance Act to enable elderly people to go on leading independent lives in their own homes; local authorities were urged to collaborate with Regional Hospital Boards, and the Hospital Boards to take advantage of the experience gained in the operation of special units already established in a number of hospitals.

The difficulty is sometimes one of housing; - too little or unsuitable accommodation. Curran (1946) remarks that the majority of old people want to stay in their present homes, and recommends that these should be made more habitable; and that provision for a new generation of old people should be made in the new housing estates (10 to 15 per cent. of the total). He considers that segregation of the aged is to be avoided, and that young people, especially two generations removed from them, have a brightening effect on the aged. Dr. Curran recommends small houses for the elderly, just one or two apartments with modern conveniences, provided this does not involve change of locality. (Granny-plus flats are an excellent idea, giving the freedom of a separate life to the elderly person, while easing her daughter's problem of keeping an eye on her).

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V. (continued)

/ The Nuffield Survey, "Old People", repeats this advice. Their houses should be in a locality familiar to them and within easy reach of relatives and friends. There should be convenient access to the communal institutions of modern life - shops, post office, bus stop, library, places of worship and recreation. They should not be segregated in large colonies. Small and convenient houses are recommended : the floors should not be slippery, the stairs should be shallow and there should be plenty of hand rails. The Liverpool Old People's Welfare Committee (1943)²³ makes similar recommendations, - suitable accommodation in all new housing schemes, no segregation, conversion of old houses into flats or bed-sitting rooms; and for those less able to be independent, municipal hostels with communal meals, and a resident welfare worker.

Warren (1950)²¹⁸ remarks that the majority of the healthy and infirm elderly remain independent or receive the assistance they require from relatives and friends; but that in the case of the others, aid should be taken to the home in preference to removing the old person from his familiar surroundings. The cause of the long waiting lists for hospitals is partly the failure to take patients home when they are well, and partly the tendency to seek hospital accommodation when it is not really necessary. She recommends the wide use of domiciliary services of all sorts, from home helps and home visitors, to physiotherapists.

The closest collaboration between the medical staff of the geriatric/

V. (continued)

/geriatric unit and the almoner is required during the whole of a patient's stay in hospital and even after his discharge home, or even if he has got no further than the waiting list. The doctor should take a real interest in the patient's social circumstances, - the state of his relatives' health, their disposition, the situation of his bedroom and bathroom will be as important factors in keeping him well and active as the amount of his cardiac reserve. The almoner has special knowledge of where extra funds can be got and the methods of obtaining social services, but she requires to be kept up to date with the patient's medical condition. A weekly conference with the almoner (as at Isleworth) has much to recommend it.

Thomson (1949)²⁰¹ points out that at least 95 per cent. of the aged never go into an institution and considers that it is wise to preserve as far as possible a sense of family responsibility, both for the sake of the human personality and because it is more economical. All the commentators are agreed that many old people could continue in their own homes, and that the dangers of neglect and malnutrition could be avoided by the provision of meals on wheels, a little domestic assistance, the regular visits of almoners, and arrangements for a fortnight's relief for the relatives in the summer.

Brooke (1949)³⁸ is pessimistic about the realisation of the geriatrician's ideal for the provision of long-stay annexes, for at present it is impossible to get enough of them. The alternative which he recommends is home care backed by every support a hospital could/

V. (continued)

could afford, short of admission to its beds, - home helps, night home help, the "popper-in". And again Brooke (1949)³⁷ writes of the problem of the long waiting lists at hospitals. He describes his scheme for helping the elderly : the geriatric social worker is sent to visit people on the waiting list to determine priority for admission ; then the problem is discussed with the general practitioner concerned; meals on wheels and laundry service are provided if necessary, and transport to bring the patients to hospital for out-patient examination and physiotherapy; contact is made with the district nurses, the home help service, the Red Cross, W.V.S., occupational therapy teachers and people willing to visit or shop. Dr. Brooke's motto is - do everything possible short of admission to hospital; and he claims that the service given by this system, however imperfect, is better than allowing patients to remain at home without such assistance, or putting their names on a meaningless waiting list.

Warren (1946)²¹⁴ states that whenever possible the elderly should be returned to their own homes, provided there is sufficient help for their comfort and welfare; but that many of the elderly will have to remain in hospital or go to a Home. She recommends that a patient should be admitted to a Home only after all possible treatment has been given and the social background carefully studied. Such Homes should in every case be attached to general hospitals, and should be carefully chosen in the best interests of each patient with due regard not only to the physical but to the mental capacity; patients should not be admitted to Homes except through/

V. (continued)

/through hospital units.

Howell (1949)¹⁰⁹ observes that in solving a medical problem, a new medico-social problem is disclosed, as many of the patients made fit to leave have no homes to go to. One great necessity, he says, is a half-way house for the accommodation of old people who are not well enough for independent life in their own homes and not ill enough for hospital. Formerly many such patients would have had to enter public assistance institutions of which reasonably they had a great dread. Lowe and McKeown (1949) also note what the return home of hospital patients is often impossible; and that existing institutions should not survive in their present form. The Nuffield Survey, "Old People", comments on the neglect of the elderly in private Homes run for profit, and recommends that they should be registered and visited. Hastings (1951) recommends in every area a single all-purpose health authority for the elderly, which should preferably be responsible for all welfare functions as well. He makes the suggestion that hospital and local authorities should share the expense of running half-way houses for frail ambulant who must be kept under medical supervision. All writers agree that proper treatment is possible only if there are enough residential Homes.

Grant and Thomas (1951) consider that the complete separation of Part III accommodation from the other hospital services is to be deplored. The inmates dislike being uprooted, and the same doctor treating them when they go to hospital is a comforting and familiar link./

V. (continued)

Large country houses in beautiful surroundings would seem very suitable for Homes for the elderly, but many authorities point out the disadvantages, e.g. Warren (1946)²¹⁴; and Amulree (1946) who reports that the Chelsea pensioners were evacuated to the country during the war and were miserable. The Nuffield survey, "Old People", declares that small houses are preferable for Homes and Hostels to large institutions, but that as an interim measure there is merit in highly classified Institutions. Thomson (1949)²⁰¹ recommends small separate rooms, and states that many would clean their own rooms where they would refuse to clean part of a dormitory.

Amulree (1946) recommends that in hostels each person should have the possibility of as much privacy as he desires; small rooms are ideal, but if wards are necessary they should have not more than six beds, where the skilful use of screens gives some measure of privacy. He considers that it is a mistake to collect old people together unless the Homes are situated in the middle of towns, and unless there is complete freedom to leave whenever they like and to receive visitors at any reasonable hour. The rooms should be on the ground floor or at least no higher than the first floor, with an easy well-lighted staircase provided with a handrail on each side. The stair carpet should be good and not loose and the floors should be of non-slip material. A hand chain should be provided over the bath, which may be of the sitz type. A living room with a curtained bed-recess, a bathroom and a kitchen are sufficient for each inmate. He considers the Crookston Homes a good example of what is needed. The person's own furniture and belongings should be/

/should be used where possible . In the Royal Hospital at Chelsea for Army Pensioners (which is 350 years old) each man has a cubicle of his own, a bed, a chest of drawers and a chair. There is a large open coal fire, and there are comfortable arm chairs, and facilities for cooking in addition to meals. The pensioner can leave the building as he pleases and gets a beer and tobacco allowance. Too often, comments Lord Amulree, an atmosphere of quite unnecessary restriction surrounds such institutions; any attempt to indulge in mild human weaknesses or pleasures is regarded as improper, and the unfortunate inmate is treated as if his poverty and helplessness were crimes. There is an infirmary attached where the Chelsea pensioners can go if they are sick.

(There are many ideal features in this description. In some more elaborate Homes there is no such security and freedom. If the old person has a slight temporary illness and becomes for the time being incontinent, (as the elderly so easily do in illness), he may lose his "home"; if he goes out and drinks more than an elderly person can stand, that is an unforgivable sin, and he is evicted. Even the poor comfort of Part III accommodation has been known to be forfeited, if Mr. Bumble finds that an inmate has returned from a day's outing in a state of intoxication. The elderly become intoxicated so much more easily than Mr. Bumble, and even if they had the eloquence of Edie Ochiltree on the subject, they would not be given time to utter his defence of drinking.)

In an editorial in the Lancet (1949)¹³² it is stated that it is never easy and always unwise and unnecessary to remove the elderly to hospital/

V. (continued)

/to hospital for minor diseases. The Ministry of Health encourages Homes and Hostels to have a sick bay. Douglas (1949) states that it is very important to give them a sense of security; they should not be removed from one establishment to another except on strong medical grounds.

The Nuffield Survey "Old People", among numerous admirable recommendations, stresses the need for a homely atmosphere in Hostels for the elderly and describes a sort of revolutionised Part III accommodation. There should be, ideally, single bedrooms, but if that is not practicable there should be no more than six in a room with screens for privacy. There should be plenty of small sitting rooms, brightly decorated, with small tables, and books and newspapers. The inmate should have his own belongings and furniture in his room if he wishes, and should wear his own clothes; if replacements are needed and have to be provided by the local authority, they should not be of institution type and should be under the inmate's own control. The time-table should not be too rigid; there should be liberty to get up and lie down as the inmate pleases, to have breakfast in bed if desired, and the last meal should not be too early. The inmates should occupy themselves in light household tasks. The master and matron play an enormous part in the contentment of an institution. The Nuffield Survey goes on to recommend that the house committee should visit the institution once a fortnight, sometimes without notice.

In 1947 the Lancet published a series of articles on geriatric units/

V. (continued)

/units and homes, hostels and long-stay annexes. The units are discussed in 1,760 - the West Middlesex Hospital; 1,840 - Orsett Hospital and St. Helier's Hospital; 2,66 - St. John's Hospital; and the Homes etc. in 1,800 - the Hill Homes, Highgate; 1,879 - the Crookston Homes, Glasgow; 1,921 - homes at Trowbridge, Wiltshire; 2,30 - municipal institutions in Birmingham.

The most attractive Homes for the elderly known to the present writer - they seem to be an epitome of all the virtues advocated by the experts - are the Whiteley Homes at Walton-on-Thames. The old people live in self-contained cottages, of which there are eight groups, arranged in an octagonal plan, and standing in extensive grounds. In charge of each group is a nurse who visits weekly, and can be summoned at any time by bells above the bed and above the bath. There is a long waiting list for these Homes, so there has to be strict selection: there are definite age and income limits;^{and} before selection the candidates for admission are interviewed at their own homes.

The old people who live in the Whiteley Homes are called the villagers. They have a shop and a post-office, a library and a church, and their own bus to take them into Walton-on-Thames, so that objections to living in the country, which many investigators have found, are obviated. The villagers live alone or in couples, - married people or two sisters. Each one (or each pair) has a self-contained house consisting of one room with bedroom annexe, a bathroom, a kitchen, and an indoor coal cellar. They use their own furniture if they have any and keep their little/

V. (continued)

/little houses clean themselves. They can obtain one cooked meal a day at the communal kitchen, and carry it "home". When the villagers can no longer manage on their own, they go to the Home of Rest, a hostel in the same "village". There they continue to have a room of their own and their own possessions, but they go to a communal dining-room for meals, and are given help with the cleaning of their rooms, washing, dressing etc. If anyone turns really ill, he goes into hospital for treatment, with the certainty of returning to his own room when he recovers. The inmates appeared happy and carefree, and took great pride in keeping their rooms spotless, even one old man of 92, living alone. The matron in charge was ideal for the position, quiet, efficient, ladylike and humorous, with no taint of Bumble or the work-house manner.

To sum up, there are thus five categories of elderly people whose problems are all the concern of the geriatrician:-

- (1) The elderly able-bodied living at home who should be kept interested in life by their occupation, or by interest devised for them by their relatives, or by voluntary workers and old people's clubs.
- (2) The frail ambulant who cannot live alone, and should receive every possible help from the social services to enable them to remain at home; and who, if that proves inadequate, should be housed in suitable Homes and should have easy access to medical treatment.
- (3) The elderly who require medical care, and should receive prompt treatment, if possible at home or as outpatients, but who should/

V. (continued)

/should if necessary be admitted to a properly equipped and staffed geriatric unit.

(4) The elderly who after a proper trial in a geriatric unit are pronounced to be irremediably bedridden, and should be housed in a long-stay annexe under the wing of the main geriatric unit.

(5) The elderly who are mentally deranged and should be segregated either in special long-stay annexes or in special wards of large institutions.

VI.

CONCLUSION

The outlook for Foresthall Hospital, - that former dumping ground for those of whom nothing more was expected but their decease, - is better than the most optimistic dreamer could have expected in 1949. Glasgow's numerous unwanted elderly have become important, for it is their new consultant who is to be the chief authority for the west of Scotland on the diseases and disabilities of old age. Surely it is not fanciful to foresee that one day geriatricians will travel to Glasgow, as they do at present to Isleworth, to admire and learn from our great achievements.

But even now we have something to show, and the visiting geriatrician would have no cause to look upon Glasgow as a barbarous city a hundred years behind the times. Hickey (1950) declares that a nation deserves to be judged by the treatment that it accords to its old people : we no longer deserve to be utterly damned. The wards have ceased to be strongholds of apathy and gloom; there are 160 women out of bed where formerly there were ten; that sacrosanct pathway of shining linoleum is a busy thoroughfare for shuffling feet. There is Mrs. A., an old woman of 87 and nearly blind, who used to be kept in bed and was very despondent; now she is cheerfully helping a much younger 'rheumatoid' to dress. Here comes Miss.B. - a long-bedridden disseminated sclerosis - bowling along happily in her wheel-chair, to show the doctor the marvellous tea-cosy she has just finished. And Miss X. that enormous and in every way difficult woman, who required/

/continued.

required four nurses to move her, is pottering round the ward with two "Warral" sticks, lamenting her six lost years in bed. In the "Zoo" there bustles and trots about a light-hearted and light-headed throng, no respecters of persons, calling out to everyone who appears, never still but always happy, - and not a sedative in one of them.

"There where the long street roars hath been
The stillness of the central sea."

The central sea, - a "tideless, dolorous, midland sea" : our Glasgow Hospital for the Elderly still requires many improvements, but at all events it is no longer that.

Are the old people in Foresthall Hospital at last secure? So many have no homes; can they be ousted from their haven? Officially the correct place for those who can get about and look after themselves is the Part III accommodation, the "Body of the House." What is it like after two years of Hospital reform? Some faint eddies of improvement have reached it from that great upheaval, and there are always some patients of the rougher sort who prefer to return there as soon as they are well; but it is still no place for quiet respectable old people of superior type. To compare it with Dickens's Bumble establishments may arouse in some readers a feeling of scepticism, a disbelief in the truth of a picture where the colours are so strong and crude; but no doubt /

/continued.

doubt of sincerity can be aroused by this passage found by chance in a book of reminiscences, (Haply I may remember : by Lady Cynthia Asquith), which includes a great variety of themes and memories, and has no sociological axe to grind.

"Another duty that punctuated the years of my childhood with horror was my monthly visit to a Dickensian workhouse, where, conducted the ghastly round by the matron, I dispensed tea, sugar or snuff among the "paupers", as all those unfortunate enough to "Come on to the Parish" were then invidiously called. The grimness of this hideous God-denying institution was indescribable. In bare, scrubbed, carbolic-breathing rooms furnished only with backless wooden benches, huddled, - dehumanisingly garbed, men in one ward, women in another, - the incongruous, mutually anti-pathetic inmates, some the victims of mere mischance, others of their own follies. Self-respecting hard-working citizens, there only because they were no longer strong enough to work and had no relatives willing or able to support them, rubbing shoulders with life-long wastrels who had been in and out of prison until no longer physically fit to break the law. Imbeciles too! The blankness of the bare walls was broken only by framed regulations.."

That is no picture of some "old unhappy far-off thing", but a very recognisable portrait of the "Body of the House".

APPENDIX I.

Homeless casuals.
Family structure.

1st December, 1950.

	<u>Mother</u>	<u>Girls</u>	<u>AGES.</u>	
			<u>Boys</u> <u>over 5.</u>	<u>Boys</u> <u>under 5.</u>
I.	37	15 5 4 <u>10</u> 12	14 12 9 8 7	1
II.	33	12 8 4 1	13	
III.	39	9 7 5	14 11	
IV.	30	10 3 2	8	1
V.	27	1		
VI.	41	12 ⁸ 12		
VII.	26	5 1		3 2
VIII.	29	3	5	5 12
IX.	36	12 11 5 4 2	9	
X.	36			2
XI.	29			2 1
XII.	37	10 7 2	14	
XIII.	39		11 8 5	

Homeless casuals. (continued).

	<u>Mothers</u>	<u>Girls</u>	<u>AGES.</u>	
			<u>Boys over 5</u>	<u>Boys under 5.</u>
XIV.	33	10	12 8	
XV.	39	8 2		
XVI.	37	13 10	7 6	4
XVII.	35	6 4 9 <u>12</u>	10	
XVIII.	21			4
XIX.	45			1
XX.	32	4	11 9	
XXI.	33			2 $\frac{11}{12}$
XXII.	25	3		4
XXIII.	21			1
XXIV.	27	$\frac{7}{12}$		
XXV.	27			4
XXVI.	50	8		
XXVII.	35		5	1
XXVIII.	30			1
XXIX.	23	2		3
XXX.	39			$\frac{11}{12}$
XXXI.	34	10 4 2	15 12	
TOTAL NUMBERS.	31	44	25	20

120

Children/

Girls. Boys.

Children of 13 and over 2 5

Children of under 5 22 20

Babies of under 1 year 7

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APPENDIX 2.Homeless casuals.December 1st 1950, to February
28th 1951.

1. Children transferred direct from casual ward to other hospitals.

<u>Name.</u>	<u>Age.</u>	<u>Date.</u>	<u>Disease.</u>
R.K.	4	Dec. 8th	Sonne dysentary
C.A.	2	" 15th	Sonne dysentary
TK.	9	" 19th	Acute bronchitis
A.A.	5	" 22nd	Sonne dysentary
T.C.	16	" 22nd	Chickenpox
G.C.	12	" 23rd	Whooping cough
O.C.	4	" 26th	Chickenpox
A.McD.	5	" 29th	Gastro-enteritis
J.C.	13	" 31st	Pneumonia
I.S.	12	Jan. 7th	Scarlet fever
R.M.	1	" 13th	Rubella
J.F.	1	" 13th	Rubella
L.I.	10	" 13th	Rubella
G.M.	5	" 14th	Chickenpox
S.McB.	4	" 16th	Scarlet fever
M.S.	9	" 26th	Measles
E.D.	4	Feb. 4th	Mastoid
J.C.	4	" 5th	Whooping cough
A.C.	3	" 5th	??
+ R.M.	18	" 11th	Tonsillitis
+ J.McL.	12	" 22nd	Measles
+ J.C.	3	" 22nd	Bronchopneumonia

2. Children transferred from casual ward to Foresthall (female)
hospital.

<u>Name.</u>	<u>Age.</u>	<u>Time in ward.</u>	<u>Disease.</u>
C.A.	16	Dec. 18th-28th	Abandoned
J.McL.	12	" 23rd-28th	Upper respiratory infection.
H.M.	4	" 23rd-27th	Pneumonia
H.McD.	2	" 24th-24th	Gastroenteritis
J.K.	2	Jan. 1st-3rd	Tonsillitis
B.McL.	5	" 6th-6th	Pyrexia of unknown origin.
J.W.	4	" 9th-15th	Bronchitis
E.I.	10	" 8th-15th	Bronchitis
B.McL.	5	" 22nd-27th	Pneumonia
N.O'B.	1	" 26th-27th	Rubella
J.C./			

Appendix 2. (continued).

	<u>Name.</u>	<u>Age.</u>	<u>Time in ward.</u>	<u>Disease.</u>
✕	J.C.	12	Jan. 27th-Feb. 6th.	Pneumonia
✕	J.M.	2	Feb. 2nd-	Measles, Dermatitis
	H.M.	$\frac{6}{12}$	" 4th-8th	Measles
	A.C.	3	" 5th-5th	Measles.
✕ +	G.C.	$\frac{9}{12}$	" 6th-24th	Measles.
✕ +	T.C.	1	" 18th-	Tonsillitis
+	R.R.	1	" 19th-19th	Otitis media

✕ completed treatment in ward.
+ 2nd time on list.

3. Children not transferred out of casual ward.

2 with rubella
3 with chickenpox

1. Casual ward to other hospital 22
2. Casual ward to Foresthall Hospital 17 (of these 13 transferred sooner or later to another hospital).
3. Left in casual ward. 5

44 children in 3 months.
(6 appear twice on list).

During this time only one child (aged 4) died - in another hospital, of whooping cough.

Appendix 3Symbols used in classification

- B Bedridden
- C Up in a chair
- FA Frail Ambulant
- + with
- without human assistance.
- A Ambulant like a normal person.
- M suitable for Mental ward (deciding factor being disturbing quality).
- E Epileptic.
- N amount of Nursing required for that patient.
- }
--- } degree of helpfulness in ward : able to look after
-- } himself and of positive assistance to others.
- }
- + ordinary care, food, baths, etc., able to go to toilet unprompted and unaided; suitable for hostel accommodation, but not able to live alone.
- ++ requiring to be led to toilet for physical or mental reasons.
- +++ usually bedridden, not incontinent, requiring bed pans, etc.
- ++++ bedridden plus incontinence or difficulty in moving or inability to feed himself, etc.

(leg ulcer, colostomy, cystostomy etc. would add one + to patient's total).

In general, +++ and ++++ would require nurses trained in caring for such patients.

R and IR Remediable and irremediable, applied to classes B and C as regards their chance of becoming FA- or A e.g. patients with severe contractures, late disseminated sclerosis, no legs - classed as IR.

Symbols for suggested redistribution of patients:-

- A a) Ambulant, with or without help, mentally normal
- A b) " " " " " , less good mentally than A a)
- B a) /

Appendix 3 (continued)

- B a) Bedridden, mentally normal.
- B b) " , less good mentally than B a)
- B c) " , "vegetable" class (taking no interest in anything).
- MA Ambulant)
- MB Bedridden) noisy or objectionable patients or mental defectives.
- R Remediable, for ward equipped and staffed for rehabilitation.

Visitors: less frequently than one in 3 months considered as NONE

Means: Most receive 5/-d per week from their Old Age pension; but it may be

- (a) given to the patient in the ward
- (b) collected by a relative at the office
- (c) converted into a weekly parcel of cake, biscuits, and sweets from the shop, which usually happens if the patient is confused.

Appendix 4Case-sheet Summary (for symbols used see Appendix 3)

Date
(of examination) Ward number Nursing required Classification

Name Married, Widowed, Single. Registered number as Bedridden
(from bed card) or Ambulant

Age Occupation.

Date of admission to Foresthall Hospital. Remediable
or Irremediable

Diagnosis on admission Mental

Admitted from - Epileptic.

Reason for admission Further requirements

Immediate family e.g. Eyes)

Relatives alive Ears) examined.

Visitors. How often. blood)

Possible home (from patient only) or wheelchair.

Previous history - only if relevant.

Condition on admission (from case sheet)

Incontinence) often no notes made on admission or
Mentally) mental and physical state not mentioned.
Physically)

Present condition

Diagnosis - as a disability, not purely a clinical finding like a
high blood pressure.

Incontinence

Mentally

Physically

Cardiovascular system: pulse rate, rhythm; blood-pressure;
quality of heart sounds, murmurs; position of apex beat ;

Blood: pallor of mucosae; haemoglobin (if available)

Respiratory system. Chest. Cough. Sputum. Chest X-ray
(if available)

Gastro-intestinal system: Tongue. Abdomen.

Central nervous system: Pupils size, equality, reaction to light.

Reflexes - biceps, knee, ankle, plantars.

Muscle power /

Appendix 4 (continued)

Muscle power - grip of hands and flexion of knees.

Speech - any notable abnormality.

Sight - ability to read ; possession of glasses.

Hearing - good or deaf +, ++, +++, +++++

Teeth - bad, none or false.

Joints - deformity, stiffness or contractures.

Skin - any obvious lesion, pigmentation, pressure sores.

Present complaints of patient - pains, weakness, giddiness, etc.

Spends time - e.g. reading, doing nothing.

Patient's comments - usually spontaneous, about his present state
etc.

Means - 5/-d from old age pension or other sources of income.
(from patient only ; no other inquiries made)

Classification for Redistribution.

The above is the summarised case-sheet drawn up and used for the Survey. For each of the 622 patients, one such case-sheet was completed. Ten cases have been chosen as examples of the patients examined, and will be found in the following pages.

Case sheet summary

Date of examination: 8. 2. 50 Ward 104. Nursing required ++

Frail
Ambulant
without
help.

Miss A.F. Single. Reg.No.(Bedcard torn by patient)

Mental.

Age : 87 Occupation -

Date of Admission : 27. 2. 46

Diagnosis on Admission : Senility

Admitted from : Part III (admitted there in 1945)

Reason for admission : }

Family : }

Unknown

Relatives : }

Visitors : None

Possible Home : None

Previous History : admitted from Police Office; nothing else known.

Incontinence : :

Mentally : Noisy

Physically: Unable to walk; failing.

Present condition:

Diagnosis : Mental confusion

Incontinence: None when up; occasionally of urine in bed.

Mentally: Very aggressive at times; yells for police; impossible to examine in detail.

Physically: Walks without assistance.

Pulse: ? B.P. ? Impossible to examine chest.

Hb 11.0 G% (Sahli)(8.10.49) ; refuses treatment.

Chest :-

Tongue:clean.

Pupils /

Case sheet summary (continued)Miss A.F.

Pupils: -

Reflexes: -

Muscle Power : fair

Speech : normal

Sight : fair, reads the papers.

Hearing: slightly deaf (+)

Teeth : none

Joints: -

Skin : wrinkled

Present complaints : resents interference.

Spends time : in bed or in chair at the fire; reads occasionally

Patient's comments : all very rude.

Prognosis. mental condition will probably not improve; no need to
 keep patient in bed; should not be beside sensible
 patients.

Redistribution: MA

Case sheet summary (cont'd)Mrs. J. C.

Hb. 12.6G% (Sahli)

Basal crepitations.

Tongue clean. Abdomen obese. Slight incisional hernia
(Appendicectomy and ovarion cystectomy)

Pupils: equal; medium size; react to light.

Reflexes: Biceps present; knees present; ankles absent; plantars
flexor.

Muscle power: good in all limbs ; slight tremor when excited.

Speech: normal

Sight: good; can see to read with glasses.

Hearing: good.

Teeth: none; had upper false ones which were left at home.

Joints: no contractures; arthritis of hands; shoulders stiff.

Skin: thin and wrinkled; intact.

Present complaints: dizziness on sitting up in bed; old age;
incontinence; feels the cold;
distance from relatives.

Spends time: reading books and newspapers, and sleeping.

Patient's comments: I feel that I am near the end.

Means: 5/-d per week from Old Age Pension.

Prognosis: No reason at all why she should not be able to walk;
deformity of feet present from birth.

Redistribution:- R

Case sheet summary.

Nursing required+++ Bedridden

Date of examination: 11. 2. 50. Ward 105. ?Irremediable.

Miss J.C. Single. Reg. No. 1837.

Further requirements

Age: 76 Occupation -

Wheel chair

Date of admission : 17. 6. 46.

Back rest

Diagnosis on admission: Rheumatoid arthritis

Bed table

Exercises

Admitted from : Stobhill Hospital (admitted there in 1942)

Reason for admission: Neighbours could no longer carry her to
air raid shelter.

Immediate family : Sister - dead.

Relatives alive : none - except cousins.

Visitors: many friends, weekly.

Possible Home : in Rutherglen Road; a couple keeping it for her.

Previous history: disease began in 1937; in Duke St. Hospital
for 6 months; home for 6 months; Stobhill for
4 years.Condition on admission:

Incontinence : none.

Mentally : Good

Physically : bedridden

Present condition:

Diagnosis : Rheumatoid arthritis

Incontinence : None

Mentally : excellent

Physically : bedridden

Pulse 76/min regular; B.P. $\frac{120}{70}$; A.B. N.P. ; apical systolic
murmur.

Hb 8.4 G% (Sahli)

Chest clear

Tongue clean; abdomen thin.

Pupils/

Case sheet summary (continued)Miss J.C.

Pupils equal, circular, react to light.

Reflexes : arms weak; legs absent; plantars flexor.

Muscle power: poor

Speech : normal

Sight : good; can see to read without glasses

Hearing: slightly deaf (+)

Teeth: false - upper and lower

Joints: contracted knees and elbows; limited and painful movement
of other joints.

Skin: Thin and shiny.

Present complaints: pain in joints; requiring constant attention;
flatulence.

Spends time: reading; listening to wireless.

Patient's comments: would like to be home; would like a choice
of wireless programme.

Means: 5/-d per week old age pension

Prognosis: could sit in a wheel chair; ? could manage a self-
propelled one; ? further benefit from physiotherapy.

Redistribution Ba)

Case sheet summaryBedridden
Remediable

Date of examination: 24. 2. 50. Ward 107.

Miss A.D. Single Reg. No. 1102

Age: 82 Occupation -

Further requirements
clothes
Practice in walking
Return home

Date of admission: 24. 1. 49.

Diagnosis on admission : Senility and myocardial degeneration.

Admitted from : Part III (admitted there for one day)

Reason for admission: Not keeping own home clean

Immediate family: 2 brothers and one sister

Relatives alive: One brother - whereabouts unknown

Visitors: None

Possible Home : where she was living.

Previous history : removed forcibly from own home (where she was living alone) because she would not keep it clean. Refused to allow neighbour in. (confirmed by Welfare Department).

Condition on admission I

No record

Present Condition:

Diagnosis : debility

Incontinence : Urine, occasionally

Mentally : good, but rude and aggressive at times.

Physically : good; able to walk almost unaided, but is kept in bed.

Pulse 68/min. regular; B.P. $\frac{140}{90}$; A.B. N.P.; apical systolic murmur

Pale; Hb 13G% (Sahli)

Chest clear

Tongue clean Abdomen N.A.D.

Pupils equal and react to light.

Reflexes /

Case sheet summary (continued)Miss A.D.

Reflexes: all increased; plantars flexor.

Muscle power: good

Speech: normal

Sight: good; can see to read with glasses.

Hearing: good.

Teeth: upper and lower false.

Joints: full range of movement.

Skin: no lesions.

Present complaints: being in here; hates the place and the people in it; no one sensible near her; wants to go home.

Spends time: reads; listens to wireless.

Patient's comments: rude ones about being removed from her own home.

Means: 5/-d per week; has something in the bank

Prognosis: no reason for keeping her in bed. Why should she not be tried at home; welfare authorities still paying her rent.

Redistribution A a)

Case sheet summary

499.

Date of examination: 16. 3. 50. Ward Nursing required
Cottage 6. +++++ Bedridden
Irremediable.

Mrs. S. S. Widow Reg. No. 1598.

Age: 80 Occupation - Further requirements
? wheel chair

Date of admission: 22. 4. 47.

Diagnosis on admission : Senility; old fracture of femur.

Admitted from : Stobhill Hospital (admitted there in 1940)

Reason for admission: living alone ; unable to walk.

Immediate family: Son.

Relatives alive : Son.

Visitors : son, rarely.

Possible home: none.

Previous history: Fell 10 years ago; fractured neck of left femur;
told that she would never walk again; in bed
ever since; was living alone in 3 rooms and
kitchen.

Condition on admission:

No record

Present condition:

Diagnosis: Old fractured left femur; contracted knees.

Incontinence: doubly.

Mentally : good.

Physically: Fair; extremely obese; bedridden.

Pulse 76/min. regular; B.P. $\frac{140}{70}$; AB.NP. Heart sounds distant.

No pallor

Chest clear

Tongue clean; abdomen obese.

Pupils equal and react.

Reflexes /

Case sheet summary (continued)Mrs. S. S.

Reflexes : arms present; knees and ankles absent. Plantars flexor.

Muscle power : good

Speech : normal

Sight ; can see to read without glasses if holds print near.

Hearing : good.

Teeth : 3, all bad.

Joints : both knees contracted; other joints normal

Skin : normal.

Present complaints: inability to walk; incontinence.

Spends time : reads and listens to wireless.

Patient's comments: I was told that I would never walk again.

Means: 5/-d per week.

Prognosis : Obesity and contracted knees very much against her walking. It takes 4 or 5 nurses even to move her into a wheel chair.

Redistribution B a)

Case sheet summary

Nursing required

Chair
Remediable.

+++

Date of examination: 28.4.50. Ward 94.

Mr. W. McK. Single. Reg. No. 1303.

Age : 71. Occupation - none.

Further requirements
assistance to walk

Date of admission : 27. 2. 50.

Diagnosis on admission : Chronic bronchitis; ? birth injury.

Admitted from : outside.

Reason for admission : death of brother.

Immediate family : 7 brothers and sisters.

Relatives alive : one brother and his family

Visitors : Sister-in-law.

Possible home : with brother.

Previous history : Small and deformed from birth; unable to walk until operation to straighten knees at age of 13. Lived with brother until last November; left him after a quarrel; in here for one night; then went to other brother who has now died.

Condition on admission:

Incontinence :

Mentally :

physically : walks with crutches.

PRESENT CONDITION:

Diagnosis : deformed since birth.

Incontinence : None.

Mentally : very alert, very independent.

Physically : small, thin, very deformed; sits up in a chair.

Pulse 80/min. regular. B.P. ? A.B. 3½" from mid line. Sounds clear.

Blood :

Chest : /

Mr. W. McK.

Chest : scattered rhonchi.

Tongue : clean. Abdomen: slight lower abdominal hernia on coughing

Pupils: equal and react.

Reflexes: all absent; plantars ?

Muscle power: very poor; difficult to assess because of deformities.

Speech: normal

Sight : failing; cannot see to read much (early bilateral cataracts)

Hearing: good

Teeth : none

Joints : elbows flexed; shoulders stiff; fingers and knees extended;
very deformed feet.

Skin : intact.

Present complaints : cough; inability to walk because of fear of
slipping on polished floor.

Spends time : reads a little.

Patient's comments : They would not even let me keep my special
boots at first; I cannot walk in anything else
My brother might take me home.

Means: 5/-d (Old Age Pension)

Prognosis: In spite of his deformities could dress himself (with the
help of a button hook) and walk with crutches, swinging
himself from side to side. Must be taught to walk
again on unpolished floor.

Redistribution R

Case sheet summary

Nursing required

+++

Ambulant.

Date of examination : 2. 6. 50. Ward : West 6

Mr. R. McC. Married. Reg. No. 1691

Age : 56 Occupation : Motor mechanic

Date of admission : 19. 7. 49.

Diagnosis on admission : Head injury

Admitted from : outside (homeless and unfit for Part III)

Reason for admission : Discharging wound

Immediate family : married but separated from wife.

Relatives alive : wife ; 2 sons.

Visitors : none.

Possible Home : none.

Previous history : Burn of scalp 6 years ago; wound keeps breaking down; keeps leaving hospital O.R. ; Stobhill refuses further treatment. Living in lodgings but could not pay for them when out of work.

Condition on admission :

Incontinence :)	
Mentally :)	No record
Physically :)	

Present Condition :

Diagnosis : Ulcer of scalp.

Incontinence : None.

Mentally : Alert.

Physically : Up and about.

Pulse 68/min.regular. B.P. $\frac{120}{80}$ AB. 5" from mid line. Sounds clear.

No pallor.

Chest : clear.

Tongue : clean. Abdomen : N.A.D.

Pupils : equal and react.

Reflexes /

Case sheet summary (continued)Mr. R. McC.

Reflexes : all present and normal.

Muscle power : good.

Speech : normal

Sight : can see to read without glasses

Hearing : Good.

Teeth : none

Joints : normal

Skin : ulcer of scalp - healing at present

Present complaints : Nothing to do here ; must get out. Feels well.

Spends time : reads; wanders about.

Patient's comments : I don't believe my head will ever heal.

Means : None at present.

Prognosis : no prospect of head healing if he goes out of hospital at this stage and returns to his job of motor mechanic. Cannot be refused admission to Part III and once in Part III has to be admitted to hospital.

Redistribution A a)

Case sheet summary

505.

Nursing required Bedridden
++++ Irremediable

Date of examination: 27.4.50 Ward 94.

Mr. L. B. Single Reg. No. 1494.

Age : 31 Occupation : Toolmaker.

Further requirements

Wheel chair
Occupational
therapy.

Date of Admission : 27. 4. 50.

Diagnosis on admission : Disseminated sclerosis.

Admitted from : Southern General Hospital (admitted there in 1949)

Reason for admission : Bedridden; no one to look after him.

Immediate family : Parents dead.

Relatives alive : 2 brothers and 2 sisters.

Visitors : Sisters (when he was in S. General)

Possible home : with sister.

Previous history : Weakness of legs began at age of 27; gradually became worse; a few remissions; diplopia several times; ambulant until admitted to hospital; ward in S. General closing.

Condition on admission:

Incontinence : doubly.

mentally :

Physically : Bedridden

Present Condition :

Diagnosis : Disseminated sclerosis

Incontinence : doubly

Mentally : very alert, intelligent and observant. Rather euphoric.

Physically : good, except for C.N.S. lesion.

Pulse 80/min. regular; B.P. $\frac{130}{80}$; A.B. 4" from mid line; sounds clear.

Blood :

Chest : clear

Tongue : clean. Abdomen : muscles rigid.

Pupils /

Case sheet summary (continued)Mr. L. B.

Pupils : large, equal, react. Nystagmus.

Reflexes : arms normal; knees weak; ankles increased; plantars
extensor

Muscle power : arms excellent, legs weak; intention tremor of arms.

Speech : some slurring.

Sight : good

Hearing : good.

Teeth : good.

Joints : Both knees contracted to 90°

Skin : small superficial sores on back.

Present complaints : Being here; helplessness; incontinence.

Spends time : reads.

Patient's comments : Would not be fair to his sister to ask to
go home. Would like to try a wheel chair.

Means : None.

Prognosis : Might be able to get about in self-propelled wheel chair.
Should not be in a ward with apathetic old men.

Redistribution B a) wheel chair.

Case sheet summary

Nursing required

++++

Bedridden
? Remediable.

Date of examination : 18. 5. 50 Ward 52.

Mr. J. R. Widower. Reg. No. 1483.

Age : 85 Occupation : Engine-driver.

Further requirements

blood examination
? further operation
suprapubic bag
and belt.

Date of admission : 5. 4. 48.

Exercises

Diagnosis on admission : enlarged prostate

Admitted from : Oakbank Hospital (admitted there in 1947)

Reason for Admission : not clear.

Self-propelled
wheel-chair

Immediate family : 6 children

Relatives alive : 4 children

Visitors : 2 daughters, nearly every week.

Possible home : ? with daughter

Previous history : Suprapubic cystostomy performed in Stobhill in
1945. Admitted to Oakbank because catheter
was blocked. Was living with a daughter who is
out working all day.Condition on Admission :

Incontinence : No record

Mentally : " "

Physically : Up to bathroom.

Present condition :

Diagnosis : Suprapubic cystostomy; contracted knees.

Incontinence : of faeces.

Mentally : Alert; rather depressed and emotional

Physically : Bedridden

Pulse 64/min. regular; B.P. $\frac{180}{90}$ AB.N.P. Heart sounds - distant.

Blood : rather pale mucosae.

Chest : numerous rhonchi

Tongue clean but dry; abdomen - suprapubic wound fairly clean.

Pupils /

Case sheet summary (continued)Mr. J. R.

Pupils : equal and react.

Reflexes : all present; plantars flexor

Muscle power : hands good; legs fair.

Speech : normal

Sight : can see to read with glasses

Hearing: good

Teeth : none

Joints : both knees contracted.

Skin : intact.

Present complaints : Being in here, in bed, instead of being at home.

Spends time : reads, talks.

Patient's comments : I was "running about" at Oakbank but have not been allowed up since I came here.

Means : 5/-d per week (Old Age Pension)

prognosis : should never have been allowed to become bedridden and contracted. Prognosis poor but could at least use a wheel chair.

Redistribution R

Case sheet summary

Nursing required

+++

Chair
Remediable

Date of examination : 28.4.50

Ward 94.

Mr. W. C.

Single

Reg. No.1709

Age : 73

Occupation : Railway man.

Further requirements
attention to
artificial leg
crutches
exercises

Date of admission : 20. 5. 46.

Diagnosis on admission : Senility ; hemiplegia

Admitted from : Stobhill Hospital (after 3 months there)

Reason for Admission : hemiplegia

Immediate family : sister

Relatives alive : sister and relatives in America.

Visitors : Sister - every 2 weeks.

Possible home : ?

Previous history : Lost right leg and injured left leg in accident
40 years ago. Supplied with artificial leg.
Had ulcer on left leg for some years. Living
in lodgings and took a stroke.

Condition on Admission:

No record

Present Condition :

Diagnosis : left hemiparesis; amputated right leg.

Incontinence : None

Mentally : alert.

Physically : good; sits up in a chair; able to stand but not able
to walk

Pulse 72/min. regular. B.P. $\frac{200}{100}$ A.B. 5" from mid line. 1st
apical sound re-
duplicated.

Blood :

Chest:clear ;

Tongue : clean Abdomen : right inguinal hernia.

Pupils : equal and react.

Reflexes : /

Case sheet summary (continued)Mr. W. C.

Reflexes : increased on L. side. L. plantar extensor.

Muscle power : right arm excellent. L. side only slightly weak.

Speech : slight dysarthria.

Sight : good, can see to read with glasses.

Hearing : good.

Teeth : upper and lower false.

Joints : L. shoulder stiff; no contractures.

Skin : L. leg heavily pigmented. Large lipoma on L. shoulder.

Present complaints : inability to walk.

Spends time : reads a little. Practises standing up, holding on to locker and chair.

Patient's comments : Could you do something to make me walk?

Means : 5/-d (Old Age Pension)

Prognosis : Requires better fitting artificial limb. Should be able to walk, even if only with crutches. Hemiplegia not severe.

Redistribution R

207 Females

	Total	WARD NUMBERS										
		103	104	105	106	107	108	109	110	111	C5	C6
Degree of activity												
B	99	6	4	4	-	14	16	3	7	15	14	16
C	4	-	2	-	-	1	-	-	-	-	-	1
FA+	25	5	5	-	-	2	4	1	-	4	1	3
FA-	75	12	12	4	9	6	3	5	2	4	11	7.
A	4	-	-	2	-	-	-	1	1	-	-	-
M	32	5	7	-	1	6	4	-	1	3	3	2
of B & C R	35	1	2	1	-	8	4	-	4	2	6	7
Ages. under 60	33	1	3	3	3	5	4	5	2	4	1	2
60 - 69	44	5	6	2	3	4	5	3	3	3	7	3
70 - 79	64	8	6	3	2	6	9	2	4	5	5	14
80 - 89	59	8	7	1	-	7	4	-	1	11	12	8
90 +	7	1	1	1	1	1	1	-	-	-	1	-
Marital Status												
Married.	9	-	2	-	-	1	3	-	-	1	1	1
Widowed.	126	17	12	6	6	16	9	4	4	16	19	17
Single.	70	5	9	4	3	6	11	6	6	6	6	8
Nursing required												
----	2	-	-	1	-	-	-	1	-	-	-	-
----	1	-	-	1	-	-	-	-	-	-	-	-
--	7	2	-	1	2	-	-	1	-	-	1	-
-	9	-	-	1	3	-	-	1	-	-	1	-
+	33	4	3	2	3	3	1	2	3	-	8	4
++	39	8	13	-	1	5	4	-	-	2	4	2
+++	57	5	4	4	-	5	6	5	5	7	3	13
++++	59	4	3	-	-	10	12	-	2	14	8	6
In Part III Foresthall												
less than 1 yr.	52	9	5	1	4	13	5	3	1	3	7	1
1 - 2 yrs.	4	-	-	-	1	-	-	-	1	-	1	1
2 - 3 "	5	-	-	-	1	-	1	-	-	1	-	2
3 - 4 "	3	1	-	1	-	-	-	1	-	-	-	-
4 - 5 "	6	1	-	2	-	-	2	-	-	-	1	-
over 5 years	17	2	2	2	3	-	-	2	-	5	1	-
Admitted from												
Part III	59	7	6	6	3	13	4	5	-	4	9	2
Stobhill	66	3	9	3	3	5	10	2	3	9	5	14
S.General	19	2	3	1	1	1	2	1	2	4	1	1
Duke St.	15	2	1	-	-	-	2	1	1	2	1	5
Oakbank	15	2	1	-	-	2	4	-	2	1	2	1
Ex-voluntary	3	-	1	-	-	-	-	-	-	-	1	1
Crookston	7	2	1	-	-	-	-	1	1	1	-	1

/cont'd.

	Total	WARD NUMBERS										
		103	104	105	106	107	108	109	110	111	C5	C6
In Foresthall Hospital												
less than 1 yr.	63	8	9	4	3	4	6	4	-	7	8	10
1 - 2 yrs.	37	4	3	1	1	7	5	1	-	5	3	7
2 - 3 yrs.	17	2	1	-	2	2	2	-	1	2	3	2
3 - 4 yrs.	32	2	3	4	3	4	4	2	-	2	6	2
4 - 5 yrs	12	-	2	-	-	3	-	1	1	-	2	3
over 5 years	46	7	5	1	-	3	6	2	8	7	4	3
Visitors None	83	11	8	4	7	9	9	6	4	5	12	8
Some	124	12	15	6	2	14	14	4	6	18	14	19
Weekly	98	9	11	6	-	8	10	3	6	16	11	18
Before admission living alone	40	6	4	2	3	4	5	3	2	2	6	3
in lodgings or lodging house	16	2	3	-	3	2	-	-	2	-	1	3
with relatives	55	5	5	3	4	6	5	1	3	8	6	9
Ward stock of												
Armchairs	27	9	7	-	2	-	4	-	2	-	-	3
Frocks	61	10	6	-	14	-	4	-	6	-	9	12

415 males

		WARD NUMBERS											
		Total	94,95	96,97	98,99	100,101	W1 (a)	W1 (b)	W2	W3	W4	W5/ 6	W7
Degree of activity	B	264	14	17	19	20	21	23	61	41	5	3	40
	C	6	4	-	1	-	-	-	1	-	-	-	-
	FA+	-	-	-	-	-	-	-	-	-	-	-	-
	FA-	128	11	14	11	9	11	9	13	8	12	18	12
	A	17	2	-	-	-	1	-	2	-	10	2	-
	M	33	1	-	1	2	3	2	5	5	3	1	10
Of B & C	R	176	14	10	8	8	15	15	43	28	4	2	29
Ages	Under 60	60	4	5	8	3	6	1	10	4	10	3	6
	60 - 69	104	7	11	10	9	6	11	15	10	10	5	10
	70 - 79	174	18	11	10	13	12	13	33	27	5	10	22
	80 - 89	74	2	4	3	4	9	7	16	8	2	5	14
	90 and over	3	-	-	-	-	-	-	2	1	-	-	-
Marital Status	married	67	8	6	7	5	3	3	12	10	2	3	8
	widowed	136	7	11	11	5	15	12	22	21	5	6	21
	single	206	13	14	13	19	15	17	42	18	20	14	21
Nursing required	----	-	-	-	-	-	-	-	-	-	-	-	-
	---	1	1	-	-	-	-	-	-	-	-	-	-
	--	8	1	1	-	1	1	1	1	-	2	-	-
	-	9	3	1	1	-	-	2	2	-	-	-	-
	+	108	7	10	8	8	7	12	8	7	20	11	10
	++	50	1	2	2	3	9	3	7	9	-	5	9
	+++	133	8	10	12	10	9	7	32	19	4	7	15
	++++	106	10	7	8	7	7	7	26	15	1	-	18
In part III Foresthall													
less than 1 yr		55	8	1	4	5	4	5	13	6	3	3	3
1 - 2 yrs		4	-	1	-	1	-	-	2	-	-	-	-
2 - 3 "		6	-	-	1	-	3	-	-	-	2	-	-
3 - 4 "		5	-	1	-	2	-	-	-	-	1	1	-
4 - 5 "		5	1	-	-	-	-	3	-	-	-	1	-
over 5 years		34	3	3	3	2	4	3	7	1	3	2	3
Admitted from													
Part III		75	8	5	6	6	8	10	12	6	4	5	5
Stobhill		144	12	12	9	14	11	6	26	21	9	10	14
S.General		70	2	7	8	3	2	5	9	7	7	-	20
Duke St.		23	-	4	-	-	1	2	8	2	2	1	3
Oakbank		16	1	-	2	1	2	1	4	2	1	-	2
Ex-voluntary		4	1	-	-	1	-	-	-	1	1	-	1
Crookston		9	1	-	1	-	1	2	2	-	-	-	2

/cont'd.

Males (cont'd)

	Total	W A R D NUMBERS										
		94. 95	96. 97	98. 99	100. 101	W1 (a)	W1 (b)	W2	W3	W4	W5 W6	W7
In Foresthall Hospital												
Less than 1 yr.	191	26	14	7	13	19	24	32	20	7	12	17
1 - 2 yrs.	65	2	7	8	5	4	3	11	8	2	2	13
2 - 3 "	49	-	5	4	3	4	1	9	9	2	4	8
3 - 4 "	38	1	3	3	1	4	2	5	3	2	3	11
4 - 5 "	10	-	-	1	2	-	-	4	1	1	-	1
Over 5 years	62	2	2	8	5	2	2	15	9	13	2	2
Visitors												
None	166	10	7	10	14	12	12	42	17	9	17	16
Some	198	21	20	20	9	14	16	23	29	17	6	23
Before admission living alone	47	4	5	3	5	3	4	8	7	-	2	6
in lodging house	88	4	2	2	9	5	8	22	11	7	10	8
in lodgings with relatives	59	3	3	8	3	4	3	12	5	3	4	11
	125	12	15	14	6	10	7	16	18	9	1	17
Ward stock of armchairs	33	3	6	-	1	2	2	-	-	11	8	-
suits	176	15	15	12	6	13	12	18	17	24	28	16

Degree of activity	No. of patients		Percentages		--
	Female	Male	Female	Male	
B	99	264	50%	65%	Bedridden (or up in chair)
C	4	6			
FA+	25	-	50%	35%	Ambulant
FA-	75	128			
A	4	17			
Ages under 60	33	60	84%	85%	over the age of 60
60 - 69	44	104			
70 - 79	64	174			
80 - 89	59	74			
90 and over	7	3	63%	60%	over the age of 70
Condition					
Married	9	67	34%	50%	unmarried
widowed	126	136			
single	70	206			
Nursing required					
-----	2	-	9%	4%	give some help in ward.
----	1	1			
--	7	8			
-	9	9			
+	33	108	56%	58%	require trained nursing care. are heavy nursing cases
++	39	50			
+++	57	133			
++++	59	106			
In Part III					
less than 1 yr.	52	55	60%	50%	of those who have been in Part III
1-2 yrs.	4	4	20%	31%	of those who have been in Part III of total patients have been in Part III
2-3 "	5	6			
3-4 "	3	5			
4-5 "	6	5			
over 5 years	17	34			
Total	87	109	42%	26%	

/cont'd.

	No. of patients		Percentages			
	Female	Male	Female	Male		
Admitted from						
Part III	59	75	28%	18%	admitted direct from Part III from Stobhill from Glasgow's general hospitals.	
Stobhill	66	144	}	30%		
S. General	19	70				
Duke St.	15	23	}	57%		
Oakbank	15	16				
Ex-voluntary	3	4				
In Foresthall Hospital						
less than 1 yr	63	191	30%	46%	in Foresthall Hospital for less than 1 yr.	
1 - 2 yrs	37	65				
2 - 3 "	17	49				
3 - 4 "	32	38				
4 - 5 "	12	10				
over 5 years	46	62	22%	15%	in Foresthall Hospital for more than 5 yrs.	
Visitors						
None	83	166	40%	40%	have no visitors	
Some	124	198				
Before admission						
living alone	40	47				
in lodgings						
or lodging house	16	147				
with relatives	55	125	27%	30%	living with relatives before admission	
Ward stock of						
Armchairs	27	33	1:4	1:4	armchairs : ambulant patients	
Frocks or suits	61	176	1:1.7	1:0.8	clothes: ambulant patients	
Reclassification						
A a)	49	122	}	39%	35%	can be reclassified as ambulant
A b)	31	24				
B a)	33	49	}	30%	20%	can be reclassified as bedridden
B b)	21	25				
B c)	8	10	}	11%	8%	can be reclassified as suitable for mental ward.
MA	17	18				
MB	7	15				
R	41	153	20%	37%	can be reclassified as suitable for rehabilitation ward	

Appendix 6

Diagnosis of Foresthall patients

207 Females.

Diagnosis	A G E S							Total
	30-39	40-49	50-59	60-69	70-79	80-89	90-	
Central Nervous system diseases	--	--	--	--	--	--	--	89
Hemiplegia	--	1	7	10	5	3	--	26
Parkinsonism	--	1	1	--	1	2	--	5
Disseminated sclerosis	1	--	3	2	--	--	--	6
Paraplegia	--	--	--	2	--	--	--	2
Cerebellar Ataxia	--	--	1	--	--	--	--	1
Other C.N.S. lesions	--	1	2	4	1	--	--	8
Mental and physical degeneration	--	--	1	2,	6	2	--	11
Mental deterioration	--	--	--	3	10	6	2	21
Mental deficiency	--	2	2	1	--	--	--	5
Epilepsy	1	2	--	1	--	--	--	4
Apathy	--	--	1	4	6	5	--	16
Debility	--	--	1	2	12	19	3	37
Joint diseases								37
Rheumatoid arthritis	--	--	--	5	6	2	--	13
Osteoarthritis	--	--	--	1	4	6	--	11
Contracted Knees (cause unknown)	--	--	--	--	3	3	1	7
Fractured neck of femur	--	--	--	1	--	2	--	3
Other leg fractures (with contractures)	--	--	--	--	--	1	1	2
Tuberculous disease of ankle	--	--	--	--	1	--	--	1
Cardiovascular diseases								6
Cardiac insufficiency	--	--	--	--	3	--	--	3
Congestive cardiac failure	--	--	--	--	1	1	--	2
Hypertension with vertigo	--	--	--	--	--	1	--	1
Pulmonary diseases								5
Chronic bronchitis	--	1	1	1	--	--	--	3
Pulmonary T.B.	2	--	--	--	--	--	--	2
Skin diseases								3
Ulcer of leg	--	--	--	2	--	--	--	2
lupus vulgaris	--	1	--	--	--	--	--	1

/cont'd.

Females:

Diagnosis	A G E S							Total
	30-39	40-49	50-59	60-69	70-79	80-89	90-	
Defective vision								7
almost blind	-	-	-	-	-	2	-	2
totally blind	-	-	-	1	2	2	-	5
Deafness	-	-	-	1	1	-	-	2
Neoplasms. Pituitary tumour	-	-	-	-	1	-	-	1
Loss of leg or legs								
One leg	-	-	-	-	1	1	-	2
Miscellaneous								
Short leg	-	-	-	-	-	1	-	1
Amputated toes	-	-	-	1	-	-	-	1

415 males

Diagnosis	A G E S								Total
	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-	
Central nervous system diseases									173
Hemiplegia	-	1	1	3	20	25	7	-	57
Parkinsonism	-	2	1	-	2	6	1	-	12
Disseminated sclerosis	1	2	6	2	2	-	-	-	13
Paraplegia	-	-	-	-	-	-	-	1	1
Friedreich's Ataxia	-	-	1	-	-	-	-	-	1
Progressive muscular atrophy	-	-	1	-	1	-	-	-	2
Congenital lesions	-	-	2	-	2	1	-	-	5
'Specific' lesions	-	1	-	1	1	-	-	-	3
Other CNS lesions	-	1	-	2	2	1	-	-	6
Mental and physical degeneration	-	-	-	2	4	8	2	-	16
Mental deterioration	-	-	-	2	8	18	4	1	33
Mental deficiency	1	1	3	-	1	1	-	-	7
Epilepsy	-	1	4	3	7	2	-	-	17
Apathy	-	-	1	1	6	10	3	-	21
Debility	-	-	-	1	12	30	21	1	65
Shakiness, unsteadiness	-	-	-	-	-	3	1	-	4
Joint diseases									47
Rheumatoid arthritis	-	1	-	1	3	3	-	-	8
Osteoarthritis	-	-	-	-	2	10	9	-	21
Contracted knees	-	-	-	-	1	2	2	-	5
Fractured neck of femur	-	-	-	-	-	3	2	-	5
Other fractures of leg	-	-	-	-	-	1	1	-	2
Chronic osteomyelitis	-	-	-	-	-	1	1	-	2
Rachitic deformities	-	-	-	-	1	1	-	-	2
Deformed feet	-	-	-	-	2	-	-	-	2
Cardiovascular diseases									22
Cardiac insufficiency	-	-	-	2	5	10	2	-	19
Hypertension with vertigo	-	-	-	-	-	1	1	-	2
Gangrene of leg	-	-	-	-	-	1	-	-	1
Pulmonary diseases									17
Chronic bronchitis	-	-	-	2	3	2	-	-	7
Pulmonary T.B.	-	-	1	1	4	3	1	-	10

/cont'd.

Appendix 6

Males (cont'd)

Diagnosis	A G E S								Total
	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-	
Skin diseases									8
ulcer of leg	-	-	-	-	1	1	2	-	4
ulcer of scalp	-	-	-	1	-	-	-	-	1
post-irradiation ulcer	-	-	-	-	1	-	-	-	1
scabies	-	-	-	-	1	1	-	-	2
Defective vision									14
almost blind	-	-	-	-	-	2	1	-	3
totally blind	-	-	-	-	2	4	5	-	11
Deafness	-	-	-	-	1	2	3	-	6
Deaf and dumb	-	-	-	-	1	-	-	-	1
Neoplasms									13
colon or rectum	-	-	-	1	1	2	-	-	4
oesophageal	-	-	-	-	-	1	-	-	1
gastric	-	-	-	-	-	2	-	-	2
epithelioma	-	-	-	-	1	3	-	-	4
brain tumour	1	-	-	1	-	-	-	-	2
Loss of leg or legs									7
one leg	-	-	-	-	2	2	1	-	5
no legs	-	-	-	-	-	2	-	-	2
Suprapubic cystostomy	-	-	-	-	1	3	1	-	5
Painful feet	-	-	-	-	1	5	1	-	7
Miscellaneous									5
incontinence	-	-	-	-	-	3	-	-	3
fibrositis	-	-	-	-	-	-	1	-	1
old injury to arm	-	-	-	-	1	-	-	-	1

Diagnosis	A G E S													
	Under 60		60-69		70-79		80-89		90--		Total		Irremediable	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M
Hemiplegia	6	2	9	19	5	21	2	6	-	-	22	48	11	12
Parkinsonism	1	-	-	1	1	5	2	1	-	-	4	7	1	2
Disseminated sclerosis	4	11	2	2	-	-	-	-	-	-	6	13	6	13
Paraplegia	-	-	2	-	-	-	-	-	-	1	2	1	2	1
Cerebellar ataxias	1	1	-	-	-	-	-	-	-	-	1	1	1	1
Progressive muscular atrophy	-	1	-	1	-	-	-	-	-	-	-	2	-	1
Congenital C.N.S. lesions	-	2	-	2	-	1	-	-	-	-	-	5	-	2
'Specific' C.N.S. lesions	-	2	-	1	-	-	-	-	-	-	-	3	-	2
Other C.N.S. lesions	4	2	2	2	1	1	-	-	-	-	7	5	5	3
C.N.S. degeneration	-	2	3	10	4	24	3	6	1	1	11	43	10	19
Mental deficiency	-	1	-	-	-	1	-	-	-	-	-	2	-	1
epilepsy	-	1	-	1	-	1	-	-	-	-	-	3	-	-
Apathy or weakness	-	1	1	10	5	25	8	14	1	1	15	51	3	3
Unsteadiness	-	-	-	-	-	1	-	2	-	-	-	3	-	-
Rheumatoid arthritis	-	2	4	3	4	2	2	-	-	-	10	7	8	5
Osteoarthritis	-	-	-	-	-	5	-	4	-	-	-	9	-	1
Contracted knees	-	-	-	1	7	2	7	2	2	-	16	5	14	5
Fractured neck of femur	-	-	1	-	-	2	3	2	-	-	4	4	2	-
Other leg fractures	-	-	-	-	-	1	-	1	-	-	-	2	-	-
Osteomyelitis	-	-	-	-	-	1	-	1	-	-	-	2	-	1
Cardiac insufficiency	-	-	-	2	2	2	-	-	-	-	2	4	2	1
Chronic bronchitis	-	-	-	1	-	1	-	-	-	-	-	2	-	1
Pulmonary T.B.	1	2	-	2	-	-	-	1	-	-	1	5	1	5
Scabies	-	-	-	1	-	-	-	-	-	-	-	2	-	-
Blindness	-	-	-	2	-	1	-	6	-	-	-	13	-	1
Deafness	-	-	-	-	-	1	-	2	-	-	-	3	-	1
Neoplasms	-	2	-	2	1	6	-	-	-	-	1	10	1	8
Loss of one or both legs	-	-	-	2	-	4	1	1	-	-	1	7	1	5
Suprapubic cystostomy	-	-	-	1	-	2	-	1	-	-	-	4	-	-
Deformed or painful feet	-	-	-	1	-	1	-	-	-	-	-	2	-	-
Incontinence	-	-	-	-	-	2	-	-	-	-	-	2	-	-
Totals	17	32	24	67	30	118	28	50	4	3	103	270		
Irremediable	12	26	17	25	21	31	15	11	3	1			68	94
" % of each age group			41%	28%	21%		20%	40%						

Appendix 8Central Nervous System findingsA G E SPupils

	60 - 69		70-79		80 and over	
	F	M	F	M	F	M
Equal	36	88	47	143	49	64
Unequal	6	6	11	14	8	5
Irregular	3	1	3	5	2	1
Small	1	2	3	12	9	6
Reacting to light	31	74	40	117	36	46
Not reacting to light	10	24	13	46	19	23

Tendon reflexes and
plantar responsesA G E S

	60 - 69		70-79		80 and over		
	F	M	F	M	F	M	
<u>Tendon reflexes.</u>							
Biceps.	exaggerated	8	12	11	17	10	1
	normal	19	66	42	124	43	67
	absent	1	2	-	4	1	2
Knee	exaggerated	8	13	8	18	10	3
	normal	18	58	39	118	38	58
	absent	2	9	5	10	8	8
Ankle	exaggerated	8	11	8	18	8	3
	normal	17	59	38	118	33	58
	absent	4	17	8	31	15	19
<u>Plantar responses</u>							
Flexor	19	69	48	132	53	64	
Extensor	6	4	2	6	1	3	
Doubtful	3	5	3	3	2	-	

* mild = + moderate = ++
 severe = +++
 very severe = ++++

HEMIPLEGIA30 Females

Present age	Side	Duration	Age at onset	Disorder of speech	Mental State	Contractures	Mobility A or B	R or IR	Severity *	Incontinence	Remarks.
74	R	<u>Yrs</u> ?	?	-	Confused	-	FA-		+	-	
57	L	2	55	-	apathetic	L.arm L.knee	C	R	++	-	Previous stroke 11 years ago
80	R	?	?	-	very apathetic	-	FA+		+	at times	
63	L	6	57	-	good	L.arm	FA+		++	-	
62	L	2	60	mono- tonous	good	L.arm	FA+		++	-	+ Parkinsonism
76	L	10	66	slow	stupid	L.arm	B	R	++	doubly	
62	L	10	52	-	good	-	C	R	++	doubly	W.R. + ve
58	L	4	54	slow	good	L.arm Both knees		B IR	+++	doubly	W.R. - ve
56	R	?	?	dys- arthria	good emotional	-	B	R	+++	doubly	
81	R	1	80	-	good emotional	-	B	R	**	doubly	
59	L	6	53	-	good	-	B	R	+++	-	
72	R	?	?	dys- arthria	fair emotional	Both knees	B	IR	++	doubly	Has to be fed
65	R	?	?	aphasic	very poor	R.Arm both knees	B	IR	+++	doubly	Has to be fed
66	R	?	?	aphasic	fair	R.Arm both knees	++B	IR	++++	doubly	has to be fed
83	R	?10	?73	slow	confused	R.arm	B	IR	+++	doubly	Has to be fed
71	L	?3	?68	dys- arthria	confused	L.hand	FA-		++	rarely	Rt.handed
52	L	1	51	-	good	-	FA-		+	-	Embolic
52	R	?	?	dys- arthria	good emotional	R.arm	FA+		++	-	
62	L	?9	?53	dys- arthria	queer	-	B	?R	++	-	
66	R	?4	?62	dys- arthria	fair	Both knees	B	IR	++	doubly	Has to be fed

/cont'd

HEMIPLEGIA30 females

Present age	Side	Duration	Age at onset	Disorder of speech	Mental State	Contractures	Mobility A or B	R or IR	Severity *	Incontinence	Remarks.
82	R	Yrs. ?	? ?	Aphasic	very dull	R.Arm both knees	B	IR	+++	doubly	Has to be fed
51	L	?34	?17	fair	noisy	L.arm L.leg	B	IR	+++	doubly	Has to be fed
49	L	8	41	-	very poor	-	B	?IR	++++	doubly	
67	R	?6	?61	aphasic	good emotional	L.Hand	B	?R	++++	at times	
69	L	?20	?49	-	fair euphoric	-	B	?R	++	doubly	
76	R	1	75	-	good	R.Knee	B	IR	++++	-	Blind, obese.
71	R	4	67	-	good	R.knee	B	?R	++	-	faints when up
78	R	7	71	dys- arthria	good	-	B	R	++		
67	L	?	?	aphasic	noisy	L.arm L.leg	B	IR	+++	doubly	Rt.handed has to be fed
62	R	?	?	aphasic	good	R.knee	B	?IR	++++	doubly	

* mild = + moderate = ++
 severe = +++ very severe = ++++

HEMIPLEGIA65 Males

Present age	Side	Duration	Age at onset	Disorder of speech	Mental state	Contractures	Mobility A or B	R or IR	Severity *	Incontinence	Remarks.
63	L	7	56	-	good	L.arm	B	IR	+++	doubly	blind.
69	R	4	65	aphasic	good	R.arm	B	?IR	+++	faeces	obese.
75	L	2	73	sl.dys-arthria	fair	L.arm	B	R	++	-	
65	R	6	59	dysarthria	good	R.arm	B	R	++	-	
42	R	22	20	aphasic	alert	-	FA-		++	-	
61	R	2	59	-	good	R.knee	B	IR	+++	-	+ osteomyelitis fractured femur.
80	R	2	78	dysarthria	good	R.toes	B	?R	++	-	Obese
77	R	10	67	dysarthria	good	-	B	R	++	-	
76	R	1	75	-	apathetic	-	B	R	+	doubly	
71	R	?	?	aphasia	looks alert	R.arm	B	?IR	+++	doubly	no contact made
65	R	?	?	sl.dys-arthria	fair	R.arm	B	R	++	doubly	
69	L	1	68	sl.dys-arthria	good	-	B	R	++	-	
72	L	?	?	-	very poor	left side					
						R.knee	B	IR	+++	doubly	very weak
79	R	25	54	-	good	-	C	R	++	-	
73	L	4	69	sl.dys-arthria	good	-	C	R	+	-	amputated right leg.
73	L	2	71	-	good	L.arm	B	R	++	urine	
57	R	2	55	aphasic	good	R.arm	FA-	-	++	-	
34	R	2	32	Sl.dyse arthria	good	R.knee	FA-		+		W.R.+ ve cystostomy
77	R	?	?	dysarthria	fair	-	FA-		++		
66	L	7	59	-	good	R.knee	B	?IR	+++	doubly	very weak
81	L	7	74	-	good	-	B	IR	++	doubly	Amputated left leg.
63	L	6	57	dysarthria	good	L.arm					2nd stroke 3 yrs.ago
68	L	4	64	-	good	Rt.knee	B	?R	+++	doubly	
						-	B	R	++		

* mild = + Moderate = ++ Severe = +++ Very severe = ++++ /cont'd.

Present age	Side	Duration	age at onset	Disorder of speech	Mental State	Contractures	Mobility A or B	R or IR	Severity	Incontinence	Remarks
		Yrs									
72	R	2	70	Sl.dys-arthria	poor	-	B	R	+	doubly	
71	R	1	70	-	good	-	FA		+	-	
81	L	4	77	-	good	L.Arm L.knee	B	?R	+++	doubly	Has to be fed.
73	R	5	68	dysarthria	good	-	B	R	++	urine	
80	L	5	75	-	good	L.arm	B	R	++	-	
69	L	?	?	aphasic	very poor	L.Arm					
68	L	?	?	dysarthria	fair	Both knees	B	IR	+++	doubly	
74	R	1	73	dysarthria	good	-	B	R	++	doubly	
73	L	4	69	dysarthria	fair	L.arm	B	R	+	doubly	
74	L	3	71	Sl.dys-arthria	fair	L.arm L.knee	B	?R	++	doubly	Recently a 2nd stroke.
76	L	1	75	Sl.dys-arthria	good	L.arm	B	R	++	doubly	
74	R	1	73	Sl.dys-arthria	fair	R.arm	B	R	++	doubly	
50	R	11	39	aphasic	good	R.arm R.foot	B	IR	+++	-	
75	R	?	?	-	poor	-	B	R	+	doubly	Epithelioma of nose
73	L	?	?	-	fair	L.arm L.leg	B	IR	+++	doubly	
57	L	5	52	Sl.dys-arthria	alert	L.arm	B	R	++		
72	R	?	?	dysarthria	fair	-	B	?R	++		+ paralysis agitans
68	R	4	64	-	good	-	B	R	++		
68	R	?	?	indistinct	very poor	R.Arm R.leg	B	IR	+++	doubly	very weak
78	L	1	77	-	good	L.arm	B	R	++		
65	L	?	?	-	good	Both knees	B	R	+	-	
77	R	5	72	dysarthria	good	-	B	R	+	-	
55	R	7	48	aphasic	good	-	B	R	++		brain tumour
67	L	?	?	-	poor	-	B	R	+		

* Mild = + Severe = +++
Moderate = ++ Very Severe = ++++

/cont'd.

Present age	Side	Duration	Age at onset	Disorder of speech	Mental State	Contractures	Mobility A or B	R or IR	Severity *	Incontinence	Remarks
75	L	1	74	-	good		B	R	+		
82	R	3	79	Sl. Dysarthria	good	R. Arm R. leg	B	IR	++		
76	L	1	75	-	poor		B	R	+		
70	L	?	?	dysarthria	poor		B	?R	+	urine	colostomy
87	L	19	68	-	good		B	R	+		
67	L	?	?	-	good		FA-		+		
41	L	?41	0	dysarthria	good	L. arm	FA-		++		epileptic
45	R	?	?	-	good	R. arm	FA-		+++		epileptic
81	L	?	?	Sl. dysarthria	fair	-	FA-		++		ataxia l. side
70	L	3	67	-	good		FA-		+		
70	R	1	69	Sl. dysarthria	fair	R. leg	B	R	+	doubly	Short L. leg.
67	R	1	66	-	good		B	R	+		
63	R	?	?	-	good		B	R	+		Stone deaf.
43	L	?	?	?	complete apathy	L. arm	B	IR	+++	doubly	amputated L. leg
65	L	?	?	-	fair	Both knees	B	?R	++	doubly	
76	R	2	74	dysarthria	fair	R. arm	B	R	++	urine	
69	L	1	68	-	good		B	R	+		
79	L	1	78	-	good		B	R	+	doubly	

* Severity + = mild +++ = severe
 ++ = moderate ++++ = very severe

Appendix 10

Mental state related to activity

Mental state	Sex	Ages:		60 - 69		70 - 79		80 and over	
		Under 60							
		A	B	A	B	A	B	A	B
Good	F	8	11	12	14	14	12	16	11
	M	13	13	23	28	42	36	21	19
Fair	F	4	1	5	3	11	7	12	9
	M	10	8	12	22	14	59	3	21
Poor	F	4	5	3	7	9	11	6	12
	M	5	11	2	17	-	23	-	13

A = Ambulant
B = Bedridden

Spontaneous complaints made by the patients during clinical examination.

	<u>No. of patients</u>	
	F	M
No sensible answer	77	96
No complaints	14	20
Social conditions. Not being at home	15	27
Being in the Poor House	1	18
Loneliness, no visitors, no one sensible to talk to	7	7
Bad food	2	8
Imminent transfer to Body of the House	4	0
Lack of treatment	1	2
Noise	2	2
No clothes	-	11
Not having own clothes	1	-
Boredom or depression	3	10
Coldness of wards	7	14
Slippery floors	1	2
Pain. General pains	3	3
Pain in joints	8	14
in legs	7	13
in feet	-	19
in shoulders	1	4
in chest	3	12
in head	2	6
in abdomen	3	4
Weakness etc. Weakness	6	77
Dizziness, shakiness, unsteadiness	9	20
Tremor	2	-
Stiffness	3	20
Being bedridden or being kept in bed	26	62
Cough	2	33
Breathlessness	5	17
Eye or ear defects. Poor vision	5	14
Watering eyes	1	1
Blindness	5	1
Deafness	5	3
Alimentary disorders. "Wind"	3	1
Nausea	1	-
Diarrhoea	-	1
Constipation	2	7
Thirst	-	1
Piles	-	1
Urinary function. Incontinence	3	7
Difficulty in micturition	-	3
Frequency	4	2
Miscellaneous/		

Appendix 11 (cont'd)

		<u>No. of patients</u>	
		<u>F</u>	<u>M</u>
Miscellaneous.	General grumbles	4	2
	Old age	2	-
	Feeling unwell	1	1
	Loss of appetite	-	2
	Swollen feet	-	9
	Loss of speech	1	-
	Being emotional	-	1
	Loss of memory	1	6
	Insomnia	1	-
	Itching of skin	2	2
	Not getting pension	3	2
	Being moved in bed	3	-
	Epileptic fits	-	4
	Hernia	-	1
	Sweating	-	1
	"Blood pressure"	-	3
	Flexor spasms	-	4
	Leg ulcer	-	2
Total of those who complained		56%	72%

Appendix 12

Diseases of Joints and Muscles
(excluding spastic disorders of the
central nervous system)

	Ages:								Total:		
	Under 60		60-69		70-79		80 +		F	M	
	F	M	F	M	F	M	F	M			
Generalised stiffness	-	1	4	-	8	2	7	-	19	3	
Osteoarthritis - general	-	-	-	-	-	-	2	3	2	3	
- whole leg	-	-	1	1	4	6	1	1	6	8	7 with fractured femur
- hip joint	-	-	-	1	3	5	4	2	7	8	5 " " "
- knees	-	1	3	2	4	16	7	9	14	28	2 following injury; one rickets.
- shoulder	-	-	2	1	2	1	3	-	7	2	4 either fracture or dislocation
									36	49	
Rheumatoid arthritis	-	1	5	3	6	4	2	-	13	8	
Drop foot	1	1	-	1	1	-	2	1	4	3	2 following poliomyelitis; 1 congenital 8 caused by hemiplegia not included.
Fixed flexed head	-	-	-	-	1	-	-	-	1	-	blind patient.
Ankylosed ankle joint	-	-	-	-	2	1	-	1	2	2	2 Pott's fracture; 1 T.B., 1 osteomyelitis.
Unstable knee	-	-	-	2	-	-	-	-	-	2	1 Chareot joint; 1 following operation for rachitic deformity.

Appendix 13

Causes of bedfastness - not as a medical diagnosis but as a primary physical disability. (compare with appendix 7).

	No. of patients		% of bedfast	
	F	M	F	M
Contracted knees	47	48	46	18
Weakness of leg or legs	19	42	18	16
Spasticity	3	6	3	2
Ataxia	6	7	6	2
Shakiness, unsteadiness	2	13	2	5
Stiffness	5	13	5	5
Short leg	2	2	2	1
One leg or no legs	1	8	1	3
Breathlessness on exertion	3	6	3	2
General weakness	1	24	1	9
Mental deterioration	14	46	13	17
Painful feet or legs	-	4	-	1
Insufficient reason	-	51	-	19
Total	103	270		

Appendix 14

Contractures (excluding those with rheumatoid arthritis)

	Ages: Under 60		60-69		70-79		80 +		Total		Cause
	F	M	F	M	F	M	F	M	F	M	
	Hand alone	-	4	2	6	4	7	-	2	6	
Arm	5	10	5	8	2	12	3	3	15	33	M.3 injury 16 Dupuytren F.15 hemiplegia M.26 hemiplegia; 7 other lesions of CNS.
One leg	2	4	3	7	3	5	3	3	11	19	F.8 hemiplegia. 3 unknown. M.8 hemiplegia 3 other CNS lesion. 8 unknown.
Both legs	3	6	7	7	9	6	8	6	27	25	F.10 CNS lesion; M.13 CNS lesion
4 limbs				1							M. congenital

22 of those with contracted arms had also contracted leg or legs.

Contracted hands - in females usually due to hemiplegia
in males to injury or Dupuytren's contracture

Contracted arms - in the elderly, due to hemiplegia

Contracted knees -

Cause	Unilateral		Bilateral		Total	
	F	M	F	M	F	M
Hemiplegia	8	8	5	5	13	13
Other CNS lesion	-	3	5	8	5	11
Osteoarthritis or fractured femur	-	-	3	2	3	2
No real cause found	3	8	14	10	17	18
Total	11	19	27	25	38	44

<u>Females:</u>			effect of			Position of apex beat	Other abnorm- ality	B.P.	Thick- ening of vessels
Age	Quality	Propagation	Posture	Respir- ation	Exercise				
82	Short, blowing	-	Nil	nil	nil	N.D.	-	180/100	++
61	blowing	round apex	Nil	U	Nil	N.D.	-	140/86	+
92	Short blowing	-	Nil	nil	D	N.D.	Extra- systoles	130/90	++
82	Short, blowing	-	Nil	nil	D	N.D.	-	140/90	+
75	Short, blowing	-	Nil	nil	nil	N.D.	Extra- systoles	160/90	+
72	rough	all over precordium	Nil	nil	U	N.D.	Oedema++	130/80	+
73	loud, blowing	round apex	Nil	U	U	5"	-	160/100	+
67	rough	short way into axilla	Nil	nil	nil	4"	-	140/90	+
74	rough		Nil	U	nil	N.D.	Short diastolic murmur at apex	170/80	++
82	blowing	round apex	Nil	U	U	5"	-	210/120	+++
89	Loud, blowing	all over precordium	Nil	nil	nil	N.D.	-	100/?	+
72	Short, blowing	-	Nil	U	U	N.D.	-	170/90	++
80	Soft, blowing	round apex	Nil	nil	D	N.D.	soft diastolic at apex	170/90	++
80	Short, soft	round apex	Nil	U	D	4"	-	200/120	+++
80	Long, blowing	into axilla	Nil	nil	nil	N.D.	-	180/100	++
81	Loud, harsh	all over left side of chest	Nil	nil	nil	N.D.	-	200/90	++

Males:

71	Short, soft	-	Nil	nil	D	N.D.	-	140/70	+
69	blowing	into axilla	Nil	nil	nil	5"	Pulse rate 60	200/130	++
61	Short, harsh	-	Nil	nil	nil	N.D.	-	120/80	-

/cont'd.

Males:

Age	Quality	Propagation	Posture	Respir- ation	Exercise	Position of apex beat	Other abnorm- ality	B.P.	Thick- ening of vessels
79	blowing	round apex	D	D	D	5"		200/110	+++
75	soft		Nil	nil	D	5"		210/100	++
72	soft	-	Nil	nil	D	N.D.	Pulse rhythm 4-1-4-1-	180/110	+
63	Short, blowing	-	Nil	nil	nil	N.D.		150/100	++
69	rough	round apex	Nil	nil	nil	N.D.	-	130/80	+
76	Soft blowing	-	D	nil	nil	N.D.	-	150/100	++
80	short, soft	-	D	D	D	5"	-	100/80	+
74	Short, soft		Nil	nil	D	5"	-	150/90	++
78	blowing	into axilla	Nil	nil	nil	N.D.	-	150/80	++
68	Loud blowing	into axilla	Nil	nil	nil	5"		210/110	++
71	Soft, blowing	-	D	nil	D	N.D.	Pulse rate 100	130/90	++
69	rough	round apex	Nil	nil	nil	N.D.	Extra- systoles	150/90	+
68	Loud, blowing	into axilla	Nil	nil	nil	5"	-	200/90	+
73	Short, blowing	-	Nil	nil	D	N.D.	-	130/80	+++
82	Soft	-	Nil	nil	nil	N.D.	-	150/80	+
78	Squeaking	-	Nil	nil	nil	N.D.	-	180/100	+
81	blowing	into axilla	Nil	nil	D	N.D.	-	160/100	+
74	rough	round apex	Nil	nil	nil	6"	Short diastolic murmur	210/160	+++
81	Squeaking	round apex	Nil	nil	nil	N.D.	-	170/100	++
85	blowing	-	Nil	nil	D.	N.D.	-	160/90	+
72	Soft	-	D	nil	D	5"		180/120	+
76	blowing	round apex	Nil	nil	nil	N.D.		160/100	++
86	Squeaking	round apex	Nil	nil	nil	N.D.		160/90	+
68	Squeaking	all over precordium	Nil	nil	nil	5"	-	120/90	++
65	Short, blowing	-	D	D	D	N.D.	-	160/90	++

D = disappeared. U = unco-operative. N.D. = not definable.
Posture i.e. sitting up. Respiration i.e. holding breath.

Clinical findings	Age: Under 60		60 - 69				70 - 79				80 and over						
	F		M		F		M		F		M		F			M	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B		A	B
Clear	13	14	23	24	17	21	16	44	27	25	35	77	27	22	16	23	
Bronchial asthma	2	-	1	-	2	-	4	4	1	1	1	5	-	-	1	2	+ gross emphysema
Bronchiectasis	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tuberculosis	-	1	-	2	-	-	2	2	-	-	3	-	-	-	-	1	8 with positive sputum
Pleural effusion	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	cause unknown
Rhonchi	-	1	4	3	1	1	12	9	5	1	13	28	3	5	4	20	
Basal crepitations	-	-	-	2	-	1	2	7	-	3	4	6	2	3	1	3	

A = Ambulant

B = Bedridden.

Appendix 17Possible causes of incontinence

Types of incontinence	total		C.N.S. lesion		Mental state		Other reasons		No apparent reason	
	F	M	F	M	F	M	F	M	F	M
Doubly	53	74	33	35	13	27	2	1	5	11
Urine or faeces	2	10	-	3	1	1	-	3	1	3
Sometimes	22	24	3	8	14	5	-	-	5	11
Total	77	108	36	46	28	33	2	4	11	25
% of all patients	37	26	17	11	14	8	1	1	5	6

Site of fracture	Sex	Present age	Durat- ion of fracture Years	Ambul- ant or bedridden	
1. Pelvis	M	71	10	A	Walking becoming difficult
2. Neck of femur	M	83	5	B	
3.	M	62	3	B	
4.	M	70	3	B	leg later amputated for gangrene
5.	M	75	3	A	
6.	M	80	?	B	
7.	M	72	10	B	
8.	M	81	3	B	
9.	M	70	3	B	
10.	F	82	4	B	
11.	F	85	3	B	
12.	F	67	10	B	
13.	F	84	2	B	
14. Pathological fracture of femur	F	64	less than 1	B	rheumatoid arthritis
15. Patella	M	81	less than 1	B	still in plaster
16. Tibia	M	60	?	A	ankylosed knee.
17.	M	83	35	A	ankle becoming painful
18.	M	76	3	B	unstable ankle
19.	M	70	10	A	painful knee
20.	M	71	2	B	Pott's fracture
21.	M	75	?	A	
22.	F	81	2	B	plus fractured fibula
23.	F	92	2	B	
24.	F	47	1	A	Pott's fracture
25. Humerus	M	60	less than 1	B	
26.	F	71	5	A	
27. Colles fracture	M	75	less than 1	B	bilateral - both in plaster
28.	M	72	less than 1	B	in plaster
29.	M	70	less than 1	B	untreated
30. Thumb	M	75	less than 1	B	
31. Ribs	M	76	less than 1	B	
32.	M	81	less than 1	B	

	<u>No. of patients</u>	
	<u>F</u>	<u>M</u>
Not examined in detail	1	7
No gross abnormality	67	272
Thin wrinkled skin	77	12
Thin shiny skin	12	6
Rough or scaly skin	6	9
Generalised brown pigmentation	8	4
Pigmented legs (not erythema ab igne)	13	26
Leukoderma	-	2
Scars injury	9	13
burns	2	5
Bruising	1	2
Scratch marks without cause	5	7
Urine rash	2	-
Pressure sores	3	9
Ulcers - scalp	-	1
leg	2	6
Scabies	-	3
Lupus vulgaris	2	-
Patchy dermatitis	4	6
Epithelioma	1	4
Simple tumours	2	5

Appendix 20.

Reasons for leaving home.

	<u>No. of patients.</u>	
	<u>F.</u>	<u>M.</u>
<u>Social reasons.</u>		
Illness or death of Parent.	3	1
Husband or wife.	5	11
Daughter.	2	-
Sibling.	5	8
Others including landlady.	2	2
Marriage of sister or daughter.	1	1
Loss of lodgings or home (e.g. house condemned, landlady giving up or going to live elsewhere, etc.).	3	8
Too little money and unable to get work.	-	4
Domestic quarrel.	<u>6</u>	<u>5</u>
	<u>27</u>	<u>40</u>

Medico-social reasons.

Incontinence.	8	4
Leaking suprapubic cystostomy.	-	1
Frequent epileptic fits.	2	14
Confusion.	1	4
Lupus of face with unsightly scarring.	<u>1</u>	<u>-</u>
	<u>12</u>	<u>23</u>

Medical reasons. (* = those leaving home for hospital treatment),

Conditions of sudden onset.

* Accident.	6	10
* Fall or collapse.	17	25
Hemiplegia.	14	31
Loss of memory.	1	1
* Chest infection.	4	14
* Herpes zoster.	2	-
* Cellulitis.	1	1
* Diarrhoea.	-	1
* Retention of urine.	-	4
* Lumbago.	-	2
* Haematemesis.	<u>-</u>	<u>1</u>
	<u>45</u>	<u>90</u>

Conditions of gradual onset. /

	<u>F.</u>	<u>M.</u>
Conditions of gradual onset.		
Shakiness, weakness, dizziness etc.	29	48
Stiffness.	12	19
Failing vision.	4	8
Bedfastness.	-	13
Breathlessness.	1	8
Painful legs or feet.	1	12
* Leg ulcer.	2	2
* Gangrene.	-	6
Varicose veins.	-	1
* Indigestion and constipation.	-	5
* 'Nerves', headaches, noises in the head.	-	4
* Deafness.	-	1
* Frequency of micturition.	-	1
* Scabies.	-	2
* Neoplasms.	<u>1</u>	<u>11</u>
	<u>50</u>	<u>141</u>

Appendix 21.

Redistribution.

Composition of female wards.

1). After redistribution:

	Ambulant		Up in a Chair		Bedridden.		Mental.
	with help.	without help.	R	IR	R	IR Mentally Good. Poor	
Mental ward 103	1	17				4	22
Rehabilitation 104 and 105	12	5	9		3	1	1
(Vegetable 107 (106		10				22	
Rehabilitation 108 and 109	12	6	8		1	1	2
Sensible bedridden 110 and 111						32	
Less sensible ambulant C5	3	25					3
Sensible ambulant C6		27		1			
<u>TOTALS.</u>	28	90	17	1	4	33	27

2). Six months later:

103	5	17						22
104 and 105	17	4	7	1	1	1		1
106 and 107	1	17					14	5
108 and 109	16	6	1	2	1	2		
110 and 111		7	1			22	2	
C5	3	23				1		2
C6	3	23		2				
<u>TOTALS.</u>	45	97	9	5	2	26	16	30

R = Remediable.

I R = Irremediable.

November, 1949.

There are 33 female patients in these wards, 23 in 104 and 10 in 105. These patients were not in any way selected. Their average age is 71 years; 20 of them are over 70. Fourteen have been three years or more in the hospital part of Foresthall; nineteen were admitted from other hospitals.

At the beginning of September 1949 one of these patients got up every day and all day. Of the others, 13 were able to get out of bed for toilet purposes; 15 were more or less incontinent. There was little talking among the patients, except by the confused ones. At least 10 required sedatives at night to keep them quiet; 5 required sedatives during the day to keep them in bed.

On clinical examination it was found that only 12 of the patients had physical lesions of a degree sufficient to keep them from walking. The patients were gradually got out of bed, encouraged to talk to each other, and to walk with assistance. Progress has been amazingly rapid in spite of the lack of chairs, dressing-gowns, and slippers, because of the great interest and co-operation shown by Sister Smith and her nursing staff. Incontinence has disappeared completely among the patients who get up; about four of them remain incontinent while in bed; the others are now completely continent. (Even patients with cerebellar ataxia and disseminated sclerosis, who are doubly incontinent in bed, are perfectly clean when sitting in a chair.) Seventeen patients are now able to get up and walk without assistance; six more/

Appendix 22 (continued)

/more can walk with assistance (usually the help of one person is sufficient); 4 others sit up in chairs, and of these 2 should eventually be able to walk. Six patients have not yet been out of bed - 3 with severe rheumatoid arthritis, one with disseminated sclerosis, one with a very contracted leg, and one with an enormous rectal prolapse.

These 27 patients get up nearly every day and sit around the fire in the smaller ward. They are beginning to know each other and converse much more. They are up all day and have their meals at table. They sleep very well at night and only 5 occasionally require a sedative at night. The nurses find that their work is more interesting and much easier; once the patients are up and the beds made, there is no more bed-making that day, and no 4-hourly beds to change and backs to do. The patients themselves say how much they like the change. There is, of course, a great saving in bed linen.

The Effects of the First Film Show on
the Foresthall Hospital Patients.

5th January, 1950. Ward 105. (33 unselected female patients)

Films shown: Silver Wedding.
Heir to the Throne.
Circus.
Gold Coast.
Aqua Frolics.

Time taken : 4 p.m. to 5.15 p.m. (only two short interruptions).

Two patients (out of 33) were not present; one was bad tempered and hysterical, the other was bedridden and rather ill.

All 31 patients were put in ward 105; 6 were in bed, the others sitting on chairs.

Three window blinds and one electric plug were the only extra fittings required.

Only two patients said that they could not see it very well. One, who is completely blind, said that she heard everything. All kept their eyes on the screen, except the blind woman, and one who appeared to go to sleep.

These 31 patients can be divided roughly into:-

- (a) 17 more or less sensible.
- (b) 10 rather dull or slightly confused
- (c) 4 very dull or very confused.

One patient at least had never seen a film before; several had never heard "talkies" before.

Of Group (a) all but one (who could not see very well) were extremely enthusiastic; they said they "loved" it, it was "lovely", "beautiful", "marvellous". One very quiet woman, who speaks very little, became quite flushed and excited the following day when/

Appendix 23 (continued)

/when asked how she liked it. She said it was beautiful and was able to describe the Gold Coast film very well. All of this group remembered it perfectly the following day; all were pleased and grateful; some could express no preference; of the ten who did so seven most preferred the films of the Royal Family.

Of Group (b) all but two (one blind) kept their eyes on the screen. Four enjoyed it very much - one making a running commentary - and were able to say something about it next day. One appeared to go to sleep and remembered nothing about it next day. Three others apparently enjoyed it at the time but had forgotten about it by the next day. One remembered but could make no comment and another said very little.

Of Group (c) all watched the screen very closely. Two were very excited - one waved as the Royal Family ^{waved} from a balcony. Two were unable to give an account of it the following day. One said it was thrilling. One - a mental defective - remembered about it and said that she saw ladies.

Result.

Only one out of thirty-one appeared to take no interest during the show; only five could say nothing about it the following day.

At least twenty out of the thirty-one enjoyed it immensely and are hoping that it will be repeated. This shows that films will provide first class entertainment for these patients.

Case No.	Age	F.O.B.	HbG%		Treatment	Duration of treatment	Clinical improvement	Cause of anaemia if known	Comments.
			Initial	Final					
1	66	+++ve	9.8	14.3	Ferrous sulphate	4	+	Dietary deficiency in hospital	Spastic paraplegia W.R.+ve
2	74	+++ve	11.9	14.0	" "	3	++	Peptic ulcer	
3	78	+++ve	9.8	13.7	" "	12	++	Peptic ulcer	
4	80	+++ve	6.4	14.0	Ferrous sulphate refused Ferri et ammon.cit.	16	++	Dietary deficiency before admission	diarrhoea with Ferri et ammon. cit.
5	82	unobtainable	7.0	14.0	Ferrous Sulphate	12	+++		Fainting attacks before treatment
6	86	+ve	9.8	14.2	" "	6	++	Peptic ulcer	
7	78	+++ve	9.0	14.0	Ferrous sulphate refused Ferri et ammon.cit refused Ferrivenin 1.2G	10	++	Peptic ulcer	Oral iron caused gastric discomfort
8	65	+++ve	5.0	14.0	Ferrous sulphate	6	++	Traumatic haemorrhage	Pale before injury
9	80	+++ve	10.5	14.2	" "	4	+		
10	69	+++ve	6.3	13.9	Ferrous sulphate caused diarrhoea & vomiting Ferri et Ammon.cit.	12	+++	?peptic ulcer	Previous history of haematemesis
11	87	+ve	10.5	14.4	Ferrous sulphate caused alimentary upset. Ferri et ammon.cit. gave some response Ferrivenin 140 mgm.	11	++		

/cont'd.

Case No.	Age	F.O.B.	HbG%		Treatment	Duration of treatment	Clinical improvement	Cause of anaemia if known	Comments.
			Initial	Final					
12	81	+++	10.5	13.9	Ferrous Sulphate - some response Ferrivenin 440mgm	8	+		History of blood transfusion.
13	86	+++	10.2	14.0	Ferrous Sulphate	9	+		
14	76	+++	11.9	14.0	" "	10	+		
15	88	+++	11.6	13.9	Ferrous Sulphate refused Ferri et ammon.cit.	8	+		
16	80	+++	11.2	14.0	Ferrous Sulphate	4	+++		
17	80	+++	11.0	14.0	Ferrous Sulphate refused Ferri et ammon.cit Ferrivenin 840mgm	6	++		
18	77	+++	11.9	14.0	Ferrous Sulphate	4	+		
19	61	+++	11.9	14.2	" "	8	+		
20	73	+++	11.6	14.5	" "	3	+		On anahaemin for pernicious anaemia.
21	72	+++	11.2	14.0	" "	8	+		
22	77	+++	9.1	13.9	Ferrous Sulphate caused vomiting Ferri et ammon.cit.	12	+		
23	68	+++	11.2	14.0	Ferrous Sulphate	12	+		Rheumatoid arthritis Internal bleeding 6 months previously.
24	73	+++	11.2	13.7	" "	8	+		Rheumatoid arthritis.
25	81	+++	11.9	14.0	" "	6	+		

/cont'd.

Case No.	Age	F.O.B.	HbG%		Treatment	Duration of treatment	clinical improvement	Cause of anaemia	Comments.
			Initial	Final					
26	76	+++	11.9	14.2	Ferrous Sulphate	6	+		
27	76	+++	8.4	12.0	Oral iron caused vomiting. Ferri- venin impossible to give	20	+		Rheumatoid Arthritis. Veins too fragile.
28	62	+++	11.2	14.0	Ferrous Sulphate	8	+		
29	77	+++	8.4	11.6	" "	8	++	Gastric neoplasm	Died.

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