For this plan to be implemented fully, three conditions must be met. Firstly, we must foster the establishment and growth in academic hospitals of geriatric units, where experience and research will generate the knowledge and expertise for competent and relevant teaching. Secondly, we need real determination on the part of the appropriate authorities — rather than lip service — to establish these facilities. Lastly, we urgently require a measure of political confidence to be injected into the future, so that those few who are struggling to train doctors in caring for the aged do not continue to find themselves in the unenviable position of expending a great deal of energy in training their best personnel for the export market.

P. de V. Meiring

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Polypharmacy in South Africa

Although the extent of the problem of polypharmacy in South Africa is unknown, there is a close correlation between the number of symptoms and the number of medications that are prescribed for a patient. The number of medicines used typically increases with age,[1-3] although overprescribing is as common in younger patients with chronic illness as in elderly patients.[4] The issue of polypharmacy in South Africa was recently addressed in the Fifth Interim Report of the Commission of Inquiry into Health Services (Browne Commission, 1987). Although multiple drug prescribing is clearly indicated in certain situations, polypharmacy implies the administration of too many medicines at dosages or frequencies higher than therapeutically essential. The use of polycomponent medicines contributes substantially to the problem. The excessive use of medicines was identified by the Browne Commission as being potentially unsafe, inefficient, and unnecessarily expensive.

Polypharmacy is one of a number of manifestations reflecting irrational drug use, and contributes to the national health bill directly and also indirectly through its production of iatrogenic disease. This practice is the result of the widespread mentality among the medical and pharmacy professions, and the lay public, of a need for 'a pill for every ill'.

The factors contributing to polypharmacy are numerous — man's desire to take medicines, the expectation of medication at each consultation, the attraction of novelty, habit, polysymptoms and polyphysicians.[5] Where more than one doctor attends a patient, practitioners are often not fully aware which drugs their patients are taking, and this may contribute to overprescribing or unnecessary duplication.[4] Prescribing for nonspecific ailments inflates the drug regimen. Pressures on both patient and doctor as a result of drug promotion are substantial, and some of the blame for the current inappropriate and excessive use of medicines in developing countries has been levelled at the industry.[6] The number of drugs taken by a patient is frequently increased by over-the-counter preparations, with up to 70% of subjects taking non-prescription medication in overseas surveys.[7,8] Polycomponent preparations further compound the problem: cough and cold remedies are often polycomponent, with irrational combinations.[6]

The outcome of polypharmacy may be poor compliance because of too many pills, drug interactions, side-effects, duplication, and increased cost. In geriatric medicine the multiplicity of disorders, coupled with age-related changes in pharmacokinetic and pharmacodynamic factors, predispose elderly patients to toxic accumulation of drugs and an increased susceptibility to drug interactions.[8,9]

The answers to these problems are not unique to South Africa. They involve a clinical commitment to informed and simple prescribing, and an awareness of the cost of medicines. It has been proposed that considerable financial savings might be made if patients were to bring all their medicines to each consultation.[4,5] Doctors and pharmacists should collectively hold themselves responsible for maintaining an accurate and updated drug list, the drug card remaining in the possession of the patient.[4] Faced with excessive bottles the physician must establish priorities, but a doctor-patient bond must be established before gradually stopping optional, trivial and placebo medication. Patients can be advised against unnecessary self-medication, and the regimen reduced to the fewest drugs and the smallest quantity of pills, with optimal dosage intervals to ensure the desired effect.[5] Non-essential prescribing should be avoided as it may be difficult to stop a drug once commenced.

In South African hospitals consideration should be given to the establishment of computer facilities that permit drug audit, and provide an accurate basis for promoting rational drug therapy. The initiative has already been taken in this regard by several groups, including certain medical aid schemes. If doctors were aware that their prescriptions might be scrutinised by a medical committee they would be more inclined to adhere to sound prescribing habits. Medical schools, and in particular departments of pharmacology, need to co-ordinate forces not only to combat polypharmacy, but also to improve the quality of drug utilisation and implement cost-saving in general.

The availability of the first South African drug formulary[10] should encourage sound prescribing habits. Much more could be achieved in addressing the problems of polypharmacy and uninformed and irrational drug use by a closer liaison between the Department of National Health and Population Development and departments of pharmacology and pharmacy as well as clinical departments in teaching hospitals. Only modest

improvements can be expected until a co-ordinated policy has been established.

I wish to thank my colleagues in the Department of Pharmacology, University of Cape Town, for their various ideas which have been incorporated in this communication.

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Opinion/Opinie

Mediese opleiding — die basiese versus die kliniese wetenskaplike

In Suid-Afrika se mediese skole word daar na die basiese wetenskaplike (prekliniese) en die kliniese wetenskaplike verwys. Die vraag wat ek wil vra is of daar in 1988 werklik nog twee verskillende wetenskaplike rigtings bestaan? Staan hulle teenoor mekaar en is hulle in wedywering met mekaar gewikkel?

Die meeste van ons weet wat met basiese wetenskap in mediese opleiding bedoel word, maar die omvang, aard en uitvoering van kliniese geneeskunde het die afgelope jare sulke dramatiese veranderings ondergaan dat daar verskille tussen ons bestaan met betrekking tot die betekenis van hierdie terme.

Die antieke mite wat tans glad nie meer aanvaar word en wat geen plek meer het nie, moet finaal afgekeur word. Dit is naamlik die M.D.- versus die Ph.D.-gegradueerdes, met die M.D.-gegradueerdes wat die basiese wetenskaplikes sien as mense wat 'n suiwer Ph.D.-graad behaal het, wat in geheimsinnige (verborge) navorsing betrokke is, gebruik maak van ingewikkelde apparaat, wat glad nie gemoeid is met die menslike situasie nie en wat groot bedrae geld kos. Die Ph.D.-gegradueerdes se siening van medici in navorsing is dié van 'n vae entoesiastiese groep oppervlakkig opgeleide navorsers, deeltyds en soms heel amateuragtig, wat totaal behep is met hul poging om iemand anders se waarnemings op die terapie van menslike siektes toe te pas. Hierdie twee sienswyses is verouderd en skadelik tot die status en waardigheid van die mediese wetenskap.

Kliniese wetenskaplikes is myns insiens gewone basiese mediese wetenskaplikes wat net op die probleme rondom menslike siektes en die mensbiologie konsentreer. Hul doelwit verskil nie, dit moet steeds menslike nuuskierigheid bevredig. Die metodes wat aangewend word, intelligensievlakke benodig, fundamentele vereistes van presiesheid, van kwantitatiewe meting, gekontroleerde waarnemings en bo alles van meditering en verbeelding is dieselfde in beide groepe.

Die omvang van geneeskunde verskil van 'n vorige geslag hoofsaaklik deurdat die wetenskaplike inhoud vergroot het. Namate moderne ondersoekmetodes meer bekend geword het, het ons begrip van die fundamentele prosesse van gesondheid en siekte meer noukeurig geword en kan die geneesheer kennis met 'ingeligte raaiwerk' vervang.

Geneeskunde verander net so vinnig en die taak van die geneesheer het in baie opsigte dié van 'n wetenskaplike geword. Navorsing rondom probleme van menslike siektes word in werklikheid basiese navorsing in so 'n mate dat dit nie sin uitmaak om 'n mediese skool in twee dele te verdeel en die een preklinies en die ander klinies te noem nie. Die basiese mediese wetenskaplikes kan nie agtergelaat word die oomblik wanneer studente die saal en kliniek binnegaan nie, want dit is juis dán wanneer hulle die meeste benodig word.

Dramatiese deurbrake in molekulêre biologie wat die afgelope jare behaal is en wat tot omvangryke nuwe kennis oor normale sellulêre struktuur en funksie gelei het, is dikwels deur bestudering van abnormale (patologiese) funksies behaal. Dit bewys die interafhanklikheid van 'basiese' en 'kliniese' wetenskaplikes.

Kliniese departemente ontwikkel tans hul eie basiese wetenskaplike afdelings (laboratoria) in 'n poging om die hele veld te dek. Dit is die mode vandag, maar slegs die grootste en finansieel welvarende kliniese departemente kan sulke breë dekking bekostig. Sal dit nie miskien veroorsaak dat die prekliniese departemente se begrotings skade lei nie? Wie sal vir die belange en die entoesiasme van die mediese studente in hulle prekliniese jare omgee?

Elke jaar verdwyn die rykste poel van jong talent vir beroepe as mediese interns in die land se hoof opleidingshospitale om nooit weer as fakulteitsraadlede gesien te word nie. In die meeste van ons prekliniese departemente is daar te min medies gekwalifiseerde mans, en die getal neem elke jaar af. Dit word dikwels gesê dat dit te wyte is aan die relatief laer inkomste in die prekliniese departemente. Hierdie dispariteit van inkomste is in die meeste mediese skole uit die weg geruim, danksy die vooruitsiendheid en harde werk van sekere dekane.

Ek dink dat met daadwerklike propaganda jong mans sal besef dat die erkenning en beloning van 'n basiese wetenskaplike loopbaan die soetheid van vryheid, tyd om te dink en 'n lewenslange gevoel van avontuur behels. Balans kan verkry word, nie om die een teen die ander af te speel nie maar om gesonde ontwikkeling by beide aan te moedig sodat 'n dinamiese ekwilibrium wat vir beide voordelig is, verkry kan word.