

together with improved range of movement at the ankle joint. The present study looked at a relatively small number of patients and compared the outcome with a non-surgically treated group. The patients treated with an early Achilles tenotomy had statistically better functional outcome than the control group. We recommend percutaneous tenotomy of the Achilles tendon to be performed early in the treatment of patients with resistant equines component of the club foot deformity.

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## The usefulness of surgical out-patient follow-up from the perspective of the Patient, their General Practitioner and Surgeon

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### Abstract

To evaluate the usefulness of follow-up, a prospective questionnaire study of 100 consecutive patients who attended a general surgical clinic, with an established policy of selective surgical follow-up was carried out. The consultations were thought to be 'useful' by 95%, 88% and 68% of patients, General Practitioners (GPs) and Surgeons, respectively. Overall, the consultation resulted in a change in management for 44% of patients. Instead of hospital follow-up, 49% of patients preferred to see their GP. Both patients (91%) and GPs (90%) were in favour of a change from pre-planned follow-up to a system of "open access" to the next clinic if deemed necessary. These data would justify a further move towards follow-up in a primary care setting for selected patients, backed up by "open access" to the next surgical out-patient clinic.

### Introduction

In the United Kingdom, follow-up of patients after surgery is usually based in hospital rather than Primary Care.<sup>1,2</sup> However, the routine follow-up of patients in the out-patient clinic may be unnecessary, an inconvenience for the patient and a waste of resources for the hospital trust and indeed the fund holding General Practitioner.<sup>1,7</sup> A reduction in the number of follow-up appointments would also enable more new patients to be seen and reduce the waiting time for out-patient attendance.<sup>5,8,9</sup> We prospectively studied the 'usefulness' of follow-up consultations in a general surgical clinic, from the point of view of the patient, their General Practitioner and the Surgeon. We also determined the acceptability of a change from pre-planned follow-up to a system of "open access" to the next clinic for those patients deemed to require further assessment after discharge.

### Patients and Methods

A prospective questionnaire study was carried out utilising 110 consecutive patients who attended for follow-up in the out-patient clinic of a general surgical firm over 2 months. One hundred patients agreed to take part (91% response rate). We do not arrange routine follow-up after straightforward surgical procedures such as appendicectomy, varicose vein surgery, hernia repair,

cholecystectomy, vasectomy and drainage of abscesses. Follow-up patients are seen by both consultants and surgical trainees (Registrars and Senior house officers).

Each patient was asked to comment on the usefulness of the consultation, how much disruption of their normal activities had occurred in order to attend the clinic and whether they would have preferred to see their General Practitioner instead. A questionnaire was also sent to the General Practitioner of each patient and this was enclosed with the clinic letter. The General Practitioner was asked to comment on the "usefulness" of each individual consultation and the acceptability of moving to follow-up in an 'open access' clinic. 'Open access' clinics were described as access to the next out-patient clinic (ie usually within 3 working days) for patients not given follow-up appointment after surgery or investigations. The response rate was 65% and there were 38 different General Practitioners. For each patient, the Surgeon also made a subjective evaluation of the usefulness of the consultation and this took account of whether the assessment led to a change in treatment, the organisation of further investigations and whether further follow-up was necessary. The response rate was 100% for the Surgeons. The data was analysed using the Chi-square test, with Yates correction.

### Results

The mean age of the 100 patients taking part in the study was 61.5 years (range 22-89 years), with 49 male and 51 females. Fifty one percent of patients (51/100) were seen by the consultant and 49% (49/100) by trainees. Patients were seen in clinic for the following reasons: 43% (43/100) of patients after investigations, 26% (26/100) after surgery, 22% (22/100) for review of symptoms and 9% (9/100) after a change of treatment. The diagnostic groupings were, gastrointestinal (29% of patients), vascular (40% arterial and 7% venous), breast disorders (10%) and others (14%). The consultation resulted in new investigations for 26% (26/100) of patients, a change of treatment for 20% (20/100) and the detection of a clinical deterioration in 23% (23/100). Overall, a change in clinical management was necessary for 44% (44/100) of patients. After the out-patient consultation 47% (47/100) of

patients were discharged, 43% (43/100) were given follow-up appointments, 9% (9/100) were listed for surgery and 1% (1/100) admitted to the ward.

A majority of patients (95%) described the follow-up consultation as "useful", although 49% would have preferred to see their General Practitioner rather than attend the clinic (Table 1). Overall, 39% (39/100) of patients had experienced an inconvenience in attending the clinic. These were transport difficulties (28% of patients), time off work (19%), loss of earnings (5%) and a long wait to see the doctor (2%). Patients also commented that the General Practitioner's surgery was more accessible and familiar. General Practitioners who responded described 12% (8/65) of follow-up consultations as "not useful" (Table 1). The details of these patients are given in Table 2. The most frequent comment from the General Practitioners was the need for a more detailed and prompt discharge letter for those patients discharged without follow-up. Others remarked that many surgical referrals are for specialised investigations such as endoscopy than for a surgical opinion and that follow-up in such cases may be undertaken by the General Practitioner. General Practitioners also recognised that an adequate follow-up of patients in the primary care setting is dependent on the "surgical expertise" of the General Practitioner.

Thirty-two percent (32/100) of follow-up consultations were felt to be "not useful" by the Surgeons. The details of these patients are given in Table 2. Those patients for whom the out-patient follow-up was considered 'not useful' by the Surgeon were more likely to prefer to see their General Practitioner instead of a hospital follow-up (72%; 23 patients out of 32). This contrasts with those patients for whom the out-patient visit was considered 'useful' (38%; 26 out of 68) ( $X^2 = 8.6$ ;  $p=0.003$ ; Chi-squared test).

A substantial majority of patients (91%) and General Practitioners (90%) were in favour of 'open access' clinics (Table 1). Sixty-eight percent (26 out of 38) of General Practitioners preferred that the referral to 'open access' clinics was made by the General Practitioner, 21% (8 out of 38) preferred that the patients refer themselves and 11% (4 out of 38) suggested both options should be available. There was broad agreement between the Surgeons and General Practitioners on the choice for the future care for the patient (ie discharge or follow-up, Kappa value = 0.63;  $p<0.001$ ).

## Discussion

About one third of consultations were deemed to be of little value by the surgical staff and these patients were more likely to prefer to see their General Practitioner for follow-up. Moreover, even with an established policy of selective surgical follow-up, a change in management resulted in no more than 44% of patients in our general surgical clinic. Most patients found the follow-up to be valuable, but about half preferred to see the General Practitioner in the primary care setting instead. The reasons cited were the inconvenience of attending the hospital clinic, compared with the greater familiarity and relative ease of access to their General Practitioner. These findings emphasize that for some general surgical patients routine hospital based follow-up is unnecessary. These observations would also justify a further move towards follow-up in a primary care setting, backed-up by a system of 'open access' to the next out-patient clinic when required.

Although, the sample size of the present study is relatively small, our findings are comparable with similar studies carried out in other specialities.<sup>3,6,7,10,11</sup> Traditionally, almost all surgical in-patients were followed up in the out-patient clinic, for a variety of reasons.<sup>5</sup> The importance of clinical follow-up, however is very much dependent on the disease and the individual circumstances of the patient. For example, intensive follow-up after surgery for colo-rectal cancer may carry a survival advantage in terms

of early detection of recurrences.<sup>12,13</sup> In contrast, such intensive follow-up is of limited value in breast cancer patients.<sup>12,14</sup> Moreover, many common elective and emergency surgical procedures such as appendicectomy, hernia repair, varicose vein excision, surgery for benign breast disease and cholecystectomy carry low post-operative complication rates.<sup>15-19</sup> Routine follow-up after such procedures serves little useful purpose in the majority of cases, and is a waste of valuable resources.<sup>5,16</sup> Likewise, patients with relatively stable and chronic conditions, such as irritable bowel syndrome, diverticulosis and peripheral vascular disease could be discharged for review in the primary care setting.<sup>12,20</sup> In our clinic, a number of patients were followed-up after such conditions. Other reasons put forward for greater follow-up of surgical patients is to support training, audit and research.<sup>5,21</sup> While these are important aspects of clinical care, a busy general surgical out-patient clinic may not be the ideal setting for teaching at both undergraduate and post-graduate levels - dedicated teaching clinics with greater time allocated per patient would be better suited for this purpose.<sup>5</sup> Likewise, data collection for quality assurance (audit) or research could be undertaken in more dedicated clinics, where detailed assessment of the patient, as required for prospective clinical studies could be carried out.<sup>5</sup> Unnecessary follow-up of patients in a general surgical out-patient clinic, may also be related to the seniority of the surgeon reviewing the patients. Consultants are more likely to discharge follow-up patients than surgical trainees.<sup>8,22</sup> Thus, a change in the management of clinics, where new referrals are assessed by the trainee (under supervision) and the follow-up patients by the consultant, may reduce the follow-up rate in subsequent clinics.<sup>8,22</sup>

A reduction in routine follow-up would not only reduce the workload within the out-patient clinic, but it may also improve the service for new patients and dissipate the impact of those who fail to turn up.<sup>5,8,9</sup> Although, this might increase the workload for the General Practitioner, this effect has been reported to be minimal.<sup>3,4,16</sup> Furthermore, General Practitioners were found to be prepared to take over the care of 48% of follow-up patients seen in specialist out-patient clinics in the North of England.<sup>3</sup> Indeed, these General Practitioners did not expect this to increase their workload, as many patients under hospital follow-up were also regularly seen in their practices.<sup>3</sup> Such changes in the management of patients requires good communication and exchange of information between the secondary and primary care.<sup>1-3,23</sup> Thus, on discharge from hospital care, patients need to be provided with adequate instructions (preferably written), an explanation of the likely post-operative course and community services as necessary.<sup>1,2,5,23</sup> The General Practitioner should also receive a prompt and detailed discharge letter from that surgeon.<sup>1,2,5,23</sup> This would prepare both the patient and their General Practitioner for likely post-operative problems and thus allow for contingency planning. It may be more efficient to see patients as and when they develop a post-operative problem, through an 'open access' clinic rather than at a predetermined interval. Indeed, the use of fixed times for follow-up appointments (eg 6 months or 1 year) suggests that these intervals are often determined by habit rather than clinical indication. In our study, both patients and their General Practitioners were in favour of 'open access' clinics. We are currently evaluating the effect of a further reduction in out-patient follow-up, backed-up by "open access" to the next surgical out-patient clinic. Careful selection of patients, and the inclusion of the patient and their General Practitioner in the decision to follow-up or not is likely to be crucial for the success of such a scheme.

## Conclusion

This study further highlights the fact that about one third of follow-up consultations in a general surgical clinic may be unnecessary and that these patients prefer to see their General Practitioner, instead. There was overwhelming support for a change from pre-planned follow-up to a system of 'open access'

to the next surgical clinic. Such a move would be in keeping with Department of Health's policy to shift patient care from the hospital to primary care setting and to create a health service designed around the needs of the patients.<sup>24,25</sup>

	Yes(%)	No (%)
<b>Was the follow-up consultation useful ?</b>		
- Patient (n=100)	95 (95%)	5 (5%)
- General Practitioner (n=65)	57 (88%)	8 (12%)
- Surgeon (n=100)	68 (68%)	32 (32%)
<b>Instead of hospital follow-up, do you prefer to see your General Practitioner if necessary ?</b>		
- Patient's response (n=100)	49 (49%)	51 (51%)
<b>Do you favour 'open access clinics' ?</b>		
- Patients (n=100)	91 (91%)	9 (9%)
- General Practitioners (n=38)	34 (90%)	4 (10%)

**Table1.** Patient's, General Practitioner's and Surgeon's responses to the questionnaire

Surgeons	N
Dyspepsia	4
Chronic pancreatitis	3
Diverticulosis	3
Irritable Bowel syndrome	3
Minor ano-rectal surgery	4
Varicose vein surgery	3
'Stable' peripheral vascular disease	6
Uncomplicated hernia repairs	2
Drainage of breast abscess	2
Other	2

General Practitioners	N
Dyspepsia	2
Diverticulosis	1
Irritable Bowel syndrome	1
Varicose vein surgery	2
'Stable' peripheral vascular disease	1
Uncomplicated hernia repairs	1

**Table 2.** Details of follow-up consultations considered "not useful" by the Surgeon (32%; 32 out of 100 patients) or the General Practitioner (12%; 8 out of 65 patients).

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