General practitioners as providers of minor surgery — a success story?

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SUMMARY

Background. *It is now recognized that many minor surgical procedures can be appropriately performed in a general practitioner setting; the government has introduced a list of minor operations, for which it is prepared to pay a limited fee, and it is now time to see whether this service can be expanded.*

Aim. *To demonstrate that a group of general practitioners (GPs) with a particular interest in minor surgery can offer an expanded service both to their own patients and also to the patients of neighbouring colleagues, whether fundholding or non-fundholding, within a health authority area.*

Method. *The West Kent Health Authority awarded a contract for 500 minor operations to a group practice of five GPs. At the end of the first year, 511 operations had been performed, and the results and implications are discussed.*

Results. *The target of 500 minor operations was met and passed in the first year. Thirty-five neighbouring GPs referred their patients directly. All were offered an initial appointment within one week and had their operation performed within one month, unless they had expressed a preference for an alternative date. Several unsuspected malignancies were discovered — no complications were recorded, patients' and referring doctors' satisfaction was high and the scheme was judged to have been a success in their eyes.*

Conclusion. *GPs can provide an efficient, cost-effective minor surgery service, which is popular with patients and referring colleagues. Whether this is the way we wish to organize minor surgery in the future needs further discussion.*

Keywords: minor surgery.

Introduction

In 1979, it was shown that one GP undertaking just four minor operations each week could save the local health authority £15 000.[1] The scope and variety of such operations is shown in Table 1. Many GPs had been offering minor surgery to their patients long before the start of the National Health Service (NHS), working in cottage hospitals or in their own premises.[3-8] With the introduction of the NHS, many GPs ceased doing their own minor surgery, preferring instead to refer all patients to consultant surgeons at their local hospital. This eventually resulted in ever-increasing waiting lists for relatively minor conditions,[9] and when the patient eventually reached the top of the list and was admitted, it was frequently the house surgeon who performed the operation.

Furthermore, there were active disincentives for any GP to perform any minor surgical procedures on his or her patients — the doctor had to purchase all equipment, instruments, sutures, local anaesthetics and dressings with no mechanism for reimbursement or any additional fee, so it was understandable that the majority of GPs preferred not to embark on minor surgery. The only way to recoup any costs at that time was by treating patients privately, and by using paragraph 44 of the Terms of Service,[2] whereby some of the costs of injections and anaesthetics could be reimbursed — a cumbersome and inefficient system.

In the 1990 Contract for General Practitioners, for the first time a list of minor operations was produced for which a fee would be payable (currently £21) (Table 2). A ceiling of five operations per month was imposed, so that, if more than this maximum was done, no additional fee could be claimed. Thus, a doctor performing the maximum permitted number of five operations per month could receive approximately £1260 annually. It established the precedent that it was now considered reasonable for GPs to undertake minor surgery. Also, with the parallel introduction of fundholding, GPs could offer this service to colleagues who could 'purchase' minor surgery for their patients. In addition, fundholding GPs could perform certain procedures on their own patients and receive a fee. The list of admissible procedures, however, did not equate with the same list of payments under the minor surgery scheme.

Over the ensuing years, training courses in minor surgery were organized, and several textbooks on minor surgery were published.[10-18]

In 1992, Cox and colleagues[19] analysed skin biopsy specimens from GPs before and after the 1990 contract, and expressed concern about increased laboratory workload, excision of too many benign skin lesions, the inappropriateness of biopsy of skin rashes, and inadequate excision of certain skin malignancies.

Subsequently, in 1993, Lowry and colleagues[20] studied minor surgery workload in four English family health services authorities to assess whether GP minor surgery actually reduced hospital workloads. They concluded that GPs had not appeared to shift towards treating more trivial cases and felt that the overall increase in minor surgical activity might reflect an improvement in the accessibility of care, or changes in patients' perceptions and attitudes, or both.

Certainly, around this time, there appeared to be a worldwide increase in the incidence of melanoma and an awareness of pigmented moles by the general public, which has brought many more 'suspicious' moles to the GP.

Method

Initially, our practice offered to perform minor surgery for two neighbouring fundholding practices; a list of procedures and a scale of fees was produced, and patients were referred directly to us. This was immediately seen to offer several advantages to all parties. First, patients could be seen very quickly, normally within one week of referral. They could then have their operation per-

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Table 1. Analysis of all minor operations performed at Thornhills Surgery over a consecutive five- year period.

Minor operations performed at Larkfield					
Category Operation	Year 1	Year 2	Year 3	Year 4	Year 5
Injections					
Tennis elbow	52	56	45	45	54
Intra-articular	23	38	38	41	41
Carpal tunnel	22	18	23	42	53
Piles	26	27	48	22	36
Hormone implant	37	30	47	51	68
Others	6	2	9	21	29
Aspirations					
Cysts and bursae	24	23	48	33	25
Hydrocele	5	6	5	8	15
Abdominal paracentesis	1	4	2	3	3
Breast cysts	10	18	19	13	27
Bartholin's cysts	3	3	3	3	2
Aspirate and sclerose ganglion	14	22	22	16	16
Others	5	5	2	3	8
Incisions					
Abscesses	39	38	32	30	37
Meibomian cysts	11	16	13	25	19
Thrombosed external piles	33	29	17	9	20
Others	2	2	7	9	5
Excisions					
Suture lacerations	58	50	41	31	27
Sebaceous cysts	44	51	68	76	69
Intradermal naevi	93	67	97	131	165
Lipoma	6	6	9	13	20
Basal cell carcinoma	14	6	17	12	10
Others	15	12	25	15	17
Curette					
Warts and verrucae	115	136	90	81	93
Others	66	48	35	29	17
Toes					
Ingrowing toe-nails	45	34	48	57	42
Removal of toe-nails	9	5	6	12	2
Others	2	4	2	16	3
Tourniquet					
Decompression carpal tunnel	2	3	12	22	21
Release trigger finger	0	2	2	1	0
Others	0	2	0	0	0
Diagnostic					
Proctoscopy	98	137	192	187	259
Sigmoidoscopy	85	77	154	137	172
Needle biopsy	6	7	3	6	20
Skin biopsy	14	4	8	17	14
Rectal biopsy	3	3	5	3	2
Others	1	1	2	8	12
Miscellaneous					
Pinch graft to ulcer	3	3	2	2	3
Varicose veins	11	8	24	42	44
Cervical erosions	7	4	1	7	8
Cryocautery	280	216	416	428	604
Others	5	21	25	14	26
Totals for the year	1295	1244	1664	1721	2108
Private minor operations	3	4	122	178	77

formed within one month of seeing the doctor, often at a time that was convenient to both. The fundholding practices were happy with the arrangement, as our prices were considerably cheaper than the hospitals, and the health authority was happy with the arrangement as money was being saved. Local hospital waiting lists would gradually decrease for minor surgery, enabling them to concentrate on the more major procedures, and finally, our practice was happy with the arrangements as they brought additional income into the practice, and increased job satisfaction and skills.

Charges were based on the formula of the British Medical Association (BMA) recommended hourly rate of £140 pro rata, plus administrative costs, materials and histology. Thus, excision of a sebaceous cyst taking 20 minutes would cost about £100 in

total. The more complex procedures of decompression of carpal tunnel and stab avulsion varicose veins were costed at £250 and £300 respectively.

Various alternative schemes were introduced throughout the country, offering payments to GPs in return for undertaking minor surgical procedures, but these were on a local basis and as pilot schemes. One of the obvious prerequisites is to have comprehensive facilities to offer minor surgery, and this must include guaranteed methods of sterilization, adequate illumination, histology, good surgical technique and good administration, with good nursing assistance and adequate means of resuscitation.

Table 2. The list of minor operations for which a general practitioner may claim a fee under the 1990 Minor Surgery Contract.

Minor surgery procedures (SFA 42.1–42.6)
Injections
Intra-articular
Periarticular
Varicose veins
Haemorrhoid
Aspiration
Joints
Cysts
Bursae
Hydrocele
Incisions
Abscesses
Cysts
Thrombosed piles
Excisions
Sebaceous cysts
Lipoma
Skin lesions for histology
Intradermal naevi, papilloma, dermatofibroma and similar conditions
Removal of toenails (partial and complete)
Curette, cautery and cryocautery
Warts and verrucae
Other skin lesions (e.g. molluscum contagiosum)
Other
Removal of foreign bodies
Nasal cautery

In 1994, the West Kent Health Authority suggested an innovative scheme and offered to contract 500 minor surgical operations in one year to our practice, at an overall cost of £40 000. This sum was calculated by selecting 13 specific operations, costing each, estimating the approximate numbers of each that might be performed, and then averaging out the cost, i.e. £76 per operation (Table 3). This 'case mix' seems to be a realistic costing and matches other estimates from other schemes in the country. The operations chosen on the initial list were those that could reasonably have been expected to have been referred to the local hospital had this scheme not been in operation.

For those colleagues unfamiliar with general practice, the fees for any surgical procedure have to take into account the fact that GPs, unlike their hospital counterparts, have to purchase all their own instruments and equipment and are responsible for their maintenance, as well as paying their secretaries, practice nurses and cleaners. With the current minor surgery fees, a GP who performs the maximum allowed 15 operations per quarter can expect to receive about £1260 per year; unfortunately, this will not buy even an autoclave to sterilize instruments, and is actually a disincentive from purchasing additional instruments and equipment that would ultimately offer a better standard of care (e.g. radiosurgical units £2000, cryosurgical units £600–£5000 or good illumination £500–£5000).

Liquid nitrogen cryosurgery and radiosurgery were subsequently added to the original list, making a total of 15 selected minor surgical procedures that we were happy to offer. Subsequently, neighbouring non-fundholding practices were contacted and the list of 15 surgical procedures circulated, together with details as to how they could make appointments. All patients were to be offered an initial appointment within one week and have their operation within one month. Surgical colleagues were approached to ensure that they had no misgivings about the scheme, and all expressed support, which was much appreciated.

As well as routine minor operations, such as removal of ingrowing toenails and sebaceous cysts, we offered surgical decompression of the carpal tunnel, stab avulsion of varicose veins, and radiosurgery. We are now able to offer an identical service to both fundholding and non-fundholding practices, the only difference being that the fundholders pay directly and the

Table 3. Calculation of costs of each operation.

Calculation of costs of various minor operations. (Based on work carried out during the previous years)

Operation	Cost	Number done	Total Cost
Injection carpal tunnel	£30	150	£4500
Hormone implant	£40	150	£6000
Sclerose ganglion	£40	70	£2800
Incision meibomian cyst	£40	70	£2800
Excision sebaceous cyst	£50 + £30	120	£9600
Excision lipoma	£50 + £30	70	£5600
Ingrowing toe-nails	£70	100	£7000
Removal of toe-nails	£70	55	£3850
Decompression carpal tunnel	£250	40	£10 000
Release of trigger finger	£250	7	£1750
Injection varicose veins	£100	30	£3000
Stab avulsion varicose veins	£250	50	£12 500
Intradermal naevi	£50 + £30	250	£20 000
Total		1172	£89 400

Average cost per operation (89400 / 1172) = £76.28; the £30 charge shown in column 3 refers to histology fees.

non-fundholders have the fee paid by the health authority.

Appointments are made in response to the initial referral letter and, at the first consultation, the diagnosis is confirmed, the procedure explained to the patient and an information leaflet given. Any risks or probable complications are explained and advice given about eating and driving home afterwards. A date for the operation is then chosen at this first visit, and a letter written to the patient's GP. Immediately after the operation, a letter is again sent to the patient's GP, followed subsequently by any histology reports.

Results

In the first year, 511 patients were treated; this included referrals from 35 neighbouring GPs. The breakdown of different operations is shown in Table 4. Several skin malignancies were diagnosed, including five malignant melanomas, six squamous cell carcinomas and 10 basal cell carcinomas plus one fibrosarcoma. This highlighted the value of seeing patients promptly and obtaining a histological diagnosis within a maximum of four weeks. Where appropriate, these patients were referred to a consultant plastic surgeon for wider excision. There were no complications, no reported wound infections and the workload was shared among four partners (JSB, TJC, DFC and RHY).

The criteria for carpal tunnel decompression were based on a typical history, confirmatory physical signs and temporary relief of symptoms by a previous steroid injection. Where there was any doubt about the diagnosis, the patient was referred for nerve conduction studies — in our series we needed to refer one patient, and in this case the diagnosis was confirmed and relief obtained by decompression.

The projected workload and the actual operations performed are shown in the graph in Figure 1, from which it can be seen that the target was, in fact, not only met, but exceeded.

The total minor surgery workload of the practice during 1995 is shown in Table 5; this shows the work done for our own patients, for two neighbouring fundholding practices and the contracted work for 35 neighbouring non-fundholding practices.

Discussion

The immediate advantages of this scheme are a rapid, simple referral system for the patient, and a guarantee that the doctor who sees the patient will be the same doctor who performs the operation. Consultations and operations are conducted in a small, friendly environment and are cost-effective. There are financial savings to both the local hospital and the health authority, and additional income generation for the practice. There is also increased job satisfaction for the doctor, increased skill levels and release of hospital time for more major procedures. The only slight disadvantage is that additional doctor, secretarial and nursing time has to be found.

In each health authority, there are practices that specialize and enjoy minor surgery, and that would be willing to offer this service to neighbouring colleagues. There is no reason why this successful scheme cannot be extended to other areas, but it does depend on being realistically funded. It improves the quality of care offered to patients and, compared with hospital budgets, involves relatively small funds.

It might also be time to review the minor surgery list in general practice to see whether improvements can be made. Under the present regulations, there is no differentiation between cryotherapy for warts, injection for tennis elbow, or excision of sebaceous cysts. There are, however, certain changes that would encourage more GPs to expand their minor surgical skills, and ultimately reduce hospital waiting lists.

For example, it would be helpful to increase the variety of surgical procedures on 'the list' and to price the scheme realistically. (Twenty pounds for a minor surgical operation to include all overheads is not a realistic fee.) It would be advantageous to have a 'sliding scale' of fees, depending on the complexity and skill required. It would also be helpful to remove the 'ceiling' of five operations per month for which a doctor is actually paid, and

Table 4. Breakdown of numbers of operations performed during the first year.

Minor surgery contract (for the year ending 31 March 1996).

Code	Operation	Number done
01	Ingrowing toenails	44
02	Excision sebaceous cysts	42
03	Excision of lipoma	09
04	Incision and curette meibomian cysts (Chalazion)	11
05	Injection of the carpal tunnel with steroid	04
06	Surgical decompression of carpal tunnel	19
07	Release of trigger finger	02
08	Aspiration and sclerose ganglion	15
09	Joint and soft-tissue steroid injections	24
10	Oestradiol implants	50
11	Varicose veins below the knee	18
12	Liquid nitrogen cryosurgery	18
13	Excision of skin lesions	62
14	Radiowave surgical excision skin lesions	93
15	Miscellaneous minor surgical procedures	68
16	Advice only given	16
00	Patient cancelled or did not attend	16
Total		511

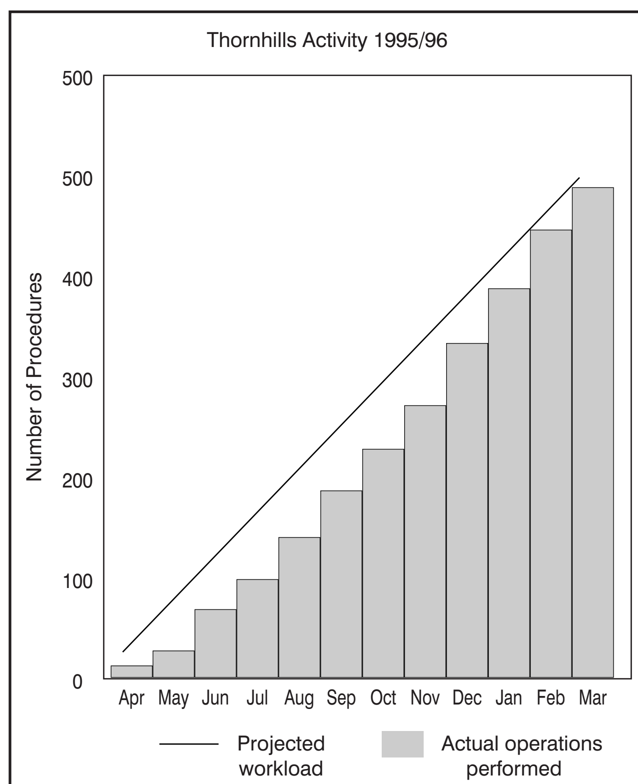

Figure 1. Projected workload and actual operations performed in 1st year.

Table 5. Total minor surgery workload of the practice during 1995

Operation	Code	Contract	Fundholders	Others	Total
Injections					
Joint and soft-tissue injections	(9)	24	–	66	80
Hormone implants	(10)	50	–	64	99
Injections haemorrhoids		–	02	24	26
Carpal tunnel	(05)	04	01	21	24
Others		–	–	21	21
Aspirations					
Cysts and bursae		–	–	42	42
Paracentesis		–	–	04	04
Aspirate and sclerose ganglion	(08)	15	02	31	40
Others		–	–	09	09
Incisions					
Abscesses		–	–	22	22
Meibomian cysts (Chalazion)	(04)	11	07	11	25
Others		–	–	09	09
Excisions					
Suturing wounds		–	–	18	18
Excision sebaceous cysts	(02)	42	05	44	74
Excision lipoma	(03)	09	01	17	25
Excision skin lesions	(13)	42	15	51	108
Others	(15)	10	01	23	24
Curette and Cautery					
Warts		–	–	217	217
Others	(15)	20	–	19	19
Toes					
Ingrowing toenails	(01)	42	03	57	96
Total ablation nail-bed	(01)	02	01	06	09
Radiowave surgery					
Radiowave surgical excision	(14)	93	07	153	223
Tourniquet					
Decompression carpal tunnel	(06)	19	11	09	31
Release trigger finger	(07)	02	–	03	04
Varicose veins					
Sclerotherapy	(11)	02	01	08	11
Stabavulsions	(11)	16	07	14	33
Cryosurgery	(12)	18	03	595	611
Diagnostic					
Proctoscopy		–	–	153	153
Sigmoidoscopy		–	05	134	139
Biopsy skin lesions	(13)	20	01	23	33
Others	(15)	04	–	18	18
Miscellaneous	(15)	34	–	27	61
TOTALS (1995)		479	73	1913	2308
(1994)		(0)	(77)	2031	2108

Column 3 figures in brackets refers to WKHA coding for minor operations.

pay for work actually done. Reimbursement (partial or whole) for items of equipment and instruments, e.g. autoclaves, electrocautery, radiosurgery, liquid nitrogen cryosurgery sets, shadowless illumination and operating tables or couches, would encourage many more doctors to invest in facilities for minor surgery.

The future

At this stage, it is pertinent to ask: 'Is this the way we wish general practice and minor surgery to proceed for the future?' Is the new contract that enables GPs to be 'providers' a success story, or will it fragment the service still further? As far as the patients in this study are concerned, they judged it to be a success because they could be seen promptly and have their treatment within four weeks. If the same short waiting times existed in the hospital, it is very likely that most would have been referred there rather than to a neighbouring GP's surgery. However, for the patients of the practices that offer minor surgery, they would undoubtedly prefer to be treated in their own surgeries by their own GPs.

Thus, if more GPs can offer minor surgery in their own premises, and can be given realistic incentives and remuneration to do so, the system will be a success.

As far as our own practice is concerned, following the first year's pilot scheme, the West Kent Health Authority have now offered us another contract for the year ending 31 March 1997, to perform 575 minor operations at a total cost of £47 731. As the service becomes more widely known locally, we expect to reach and pass this target.

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