TALKING POINT

Responsible use of resources: day surgery

J M B BURN

In November 1982 the chairman of the Central Committee for Hospital Medical Services recommended to regional committees that in view of the severe financial problems of the NHS consultants should look at ways to increase efficiency and reduce waste.[1] At the head of his list of areas of expenditure capable of direct consultant control came the use of beds: he questioned whether greater use could be made of day care for surgical purposes.

The practice of admitting patients requiring minor surgery into inpatient beds is unnecessary, wasteful, and possibly deleterious to the patient. These beds should be reserved for emergency admissions, patients requiring major surgery, and only those requiring minor surgery whose medical or social conditions make it impossible for the procedure to be performed on a day basis. The inherent waste of using expensive inpatient facilities for minor operations has been recognised for several years,[2 3] and the complete practicability of day surgery as an alternative has been widely accepted.[4 5] Indeed, many hospitals have excellent day surgical units. My proposition, however, is that day surgery should become the normal method of dealing with all minor surgery, and that every hospital should treat all suitable patients requiring minor surgery on this basis. The resultant saving would be enormous and run into millions of pounds.

Even in hospitals committed to day surgery the total potential is never fully exploited. In Southampton, for instance, well organised units have functioned since 1969, and they now treat over 8000 patients annually, a figure that includes paediatric surgery (where it accounts for more than half of the work load), gynaecology, dental, orthopaedic, general, and genitourinary surgery. Yet a recent survey (table I) has shown that the number treated in these units (excluding Lymington and Fenwick hospitals) represents only 40% of the total that could be managed on this basis. Apart from cardiac surgery and neurosurgery, every surgical specialty has a need for day surgery and the table shows that the average proportion of cases suitable (of the total in any specialty) is about half, a figure that lies between those of 40%[6] and 80%[7] quoted by other authors. (An allowance of 10% of all minor cases has been deducted to allow for those cases that might be unsuitable for day care on medical, social, or other grounds.) Some of the figures may be slightly optimistic—for example, many of the thoracic endoscopies are part of the general preoperative workup, and the wisdom of performing oesophagoscopy for suspected carcinoma as a day procedure might be questioned. Even so, the message of these figures is plain: a substantial proportion of all surgical patients could and should be treated as day cases. Paediatric surgery alone shows little room for improvement, but some specialties that already treat a considerable number of patients could undertake even more, while other specialties have not yet begun to explore the possibilities, despite having long waiting lists. If a centre with a reputation for surgical day units has so much untapped potential it is likely that there is even more scope in those hospitals that so far have not embraced the concept wholeheartedly.

Shackleton Department of Anaesthetics, Southampton General Hospital, Southampton SO9 4XY
J M B BURN, MB, FFARCS, consultant anaesthetist

TABLE I—*One month's operating figures*

Specialty	Total No of operations	Current No (%) of day cases*	Total possible No (%) of day cases†	Potential increase in No of day cases†
Paediatric surgery	202	102 (50)	112 (55)	10
Elective orthopaedics	71	22 (31)	40 (56)	18
Ear, nose, and throat	167		86 (51)	86
Dental	78	35 (44)	67 (73)	32
Gynaecology	560	147 (26)	196 (52)	149
General surgery	558	78 (14)	212 (37)	134
Genitourinary surgery	218	31 (14)	90 (41)	59
Thoracic surgery	164		98 (60)	98
Ophthalmic surgery	127		38 (30)	38
Total	2145	415 (19)	1039 (48)	624
Annual extrapolation	25 740	4980 (19)	12 468 (48)	7488

* Day cases actually treated in day units; patients admitted to inpatient beds and discharged the same day are not included.
† Total possible number and potential increase reduced by 10% of total possible number (see text).

Suitable cases for day treatment

The types of procedure considered suitable are listed in table II, which is based on the actual procedures already carried out in Southampton on a day basis and on the operations described in medical literature as being performed in other centres as day cases.[8 9] Misgivings that certain procedures carry too high a risk of haemorrhage postoperatively or are too painful to be managed as day cases are unjustified; they reflect more on the skill of the operator or unawareness of the techniques now available for controlling postoperative pain. In the experience of many surgeons and anaesthetists in this country and the United States of America such procedures are both safe and feasible on a day

TABLE II—*Procedures suitable for day surgery*

Specialty	Procedures	
General surgery	Herniorrhaphy	Removal of swelling
	Varicose vein avulsion	Endoscopy
	Vasectomy	Anal dilatation
Gynaecology	Dilatation and curettage	Cautery to cervix
	Termination of pregnancy	Cervical polypectomy
	Laparoscopic procedures	Cone biopsy
Paediatric surgery	Herniotomy	Endoscopy
	Circumcision	Division of tongue tie
	Orchidopexy	Separation of adhesions (preputial and labial)
Ear, nose, and throat	Myringotomy	Antral washout
	Insertion of grommets	Submucus diathermy
	Endoscopy	Reduction of fractured nose
Orthopaedic surgery	Removal of ganglion	Carpal tunnel decompression
	Epidural injections	Manipulation under anaesthesia
	Release of trigger finger	Exostosis excision
Ophthalmic surgery	Strabismus operation	Nasolacrymal duct probing

basis.[10 11] It is axiomatic that standards of care must not be inferior to those provided for inpatients, and this implies that the procedure will always be carried out by skilled staff and should never be delegated to inexperienced junior doctors.

The charge that day surgery merely transfers the cost and care of the patient to the community medical services is false. In our experience it is rare for a day surgical patient to have to consult his general practitioner about postoperative problems, and it is uncommon for the community nursing service to be called on, except perhaps to remove sutures or occasionally change dressings. Such care would need to be provided whether the patient were treated as an inpatient for two or three days or as a day case.

Removal of most minor surgery from inpatient wards would mean medical students and junior staff having to see these conditions at the initial consultation outpatient clinic or on a teaching round on the day ward. The loss of such cases from inpatient wards has also been criticised on the grounds that the burden of nursing only major surgical cases would be heavier.[12] Most ward sisters recognise, however, that the work of admitting short stay patients, preparing them for and sending them to theatre, and supervising their recovery and return home, is far more disruptive and demanding than managing a ward of major cases, at least half of whom will be ambulant convalescent patients largely able to look after themselves.

The actual savings will be in three main areas.

- The ability to close the ward at night and at weekends and so economise in the salaries of nursing staff (and indeed the need for nurses to work "unsocial" hours).

- The lack of need for "hotel" facilities, including meals, lighting and power, laundry, etc, required for the use of inpatients.

- The shorter time spent by each patient in hospital, thus permitting more patients to be treated in the same facility, provided that theatre time is available.

The average duration of inpatient stay for a minor surgical operation is 48 hours, the patient being admitted on the afternoon before the day of operation and being discharged the morning after the operation. Though some patients are admitted on the morning of the operation and go home the same evening (even these are occupying inpatient beds), others remain in hospital for three to four days, so the average of two days is realistic. On this basis the cost of the 7488 minor surgical cases now treated as inpatients (table I) at £112·59 each per day is £1 686 148. If they were managed on a day case basis, the cost of which is £54·74 each, the total cost would be £409 893, a saving to the health authority of £1 276 955. Multiplied by the number of all the other health authorities in the country, this represents a staggering saving to the NHS. (The figures were provided by the treasurer's department of the Southampton District Health Authority.)

To make the economy actual rather than theoretical it is necessary to reduce the inpatient bed allocation by the number of day beds provided, which must be congregated into a single ward area, capable of being run as a unit and closed down completely when not occupied. This might mean that an inpatient ward would be converted completely to day surgery and the remaining inpatient beds reallocated. Such a reorganisation need present no difficulties, though it tends to be an emotive issue. It merely requires the will to achieve the objective, and the practical problems are readily soluble. The pattern of patient care and design of facilities must, after all, reflect the needs of the patient and the constraints of the resources available rather than the convenience of the hospital and its staff.

There can be little, if any, economy in the theatre and recovery ward facilities, since these need to be the same as the inpatient facilities. In some hospitals patients from the day ward are operated on in specific day surgery operating lists; in other hospitals and departments the day cases are mixed with inpatients on a general list. The former may be preferable in some respects, but such details may be varied according to local circumstances and preferences.

Apart from the substantial economy that results from using day surgery as an alternative to inpatient care, there are several other advantages for patients and hospitals. There is a definite psychological benefit for adults and particularly children[13] in avoiding admission to hospital for surgery. The incidence of cross infection and postoperative thromboembolism is lower after day surgery.[14] The convenience of day surgery, particularly for mothers, has enabled many women to receive surgical treatment that would otherwise have been difficult to arrange.[15] The early ambulation implicit in day surgery accelerates wound healing and general recovery.[16] For all these reasons day surgery must be considered the method of choice for all minor procedures.

Conclusion

About half of all surgery could be managed on a day basis,[17] a fact confirmed by this survey. For the NHS, as the largest employer in the United Kingdom, whose wages bill forms the largest single item of expenditure, measures directed at economy of manpower will yield the biggest savings. By eliminating unnecessary inpatient nursing, day surgery represents a considerable economy in the cost of providing minor surgery. As senior members of hospital staff, consultants have a responsibility to be flexible in their use of resources, even if this requires some modification of traditional practices so as to economise in providing patient care without lowering standards. Complaints of lack of funds are unacceptable unless responsible use is made of those resources already available.

References

1 Anonymous. Using resources efficiently. *Br Med J* 1982;**285**:1590.
2 Nicoll JH. The surgery of infancy. *Br Med J* 1909;ii:753-4.
3 Williams JA. Outpatient operations: the surgeon's views. *Br Med J* 1969; i:174-5.
4 Palumbo LT, Paul RE, Emery FB. Results of primary inguinal herniaplasty. *Arch Surg* 1952;**64**:384-94.
5 Farquharson EL. Early ambulation. *Lancet* 1955;ii:517-9.
6 Ruckley CV. Day care surgery. *Practitioner* 1980;**224**:1083-6.
7 Osterlee J, Dudley HAF. Surgery in outpatients. *Br Med J* 1979;ii: 1459-60.
8 Berrill TH. A year in the life of a surgical day unit. *Br Med J* 1972;ii: 348-9.
9 Brown BR. *Outpatient anaesthesia*. Philadelphia: F A Davies Co, 1978: 8-10.
10 Stephens FO, Dudley HAF. An organisation for outpatient surgery. *Lancet* 1961;i:1042-6.
11 Vermeeren J, Chamberlain RR, Telinde RW. Report on 10 000 minor gynaecological operations performed on an outpatient basis. *Obstet Gynecol* 1975;**9**:139.
12 Atwell JD, Burn JMB, Dewar AK, Freeman NV. Paediatric day case surgery. *Lancet* 1973;ii:895-6.
13 Lawrie R. Operating on children as day cases. *Lancet* 1964;ii:1289-91.
14 Leithauser DJ, Bargo HL. Early rising and ambulatory activity after operation: means of preventing complications. *Arch Surg* 1941;**42**: 1086-93.
15 Burn JMB. Blueprint for day surgery. *Anaesthesia* 1979;**34**:790-805.
16 Blodgett JB, Beattie EJ. Early postoperative rising: a statistical study of hospital complications. *Surgery, Gynecology and Obstetrics with International Abstracts of Surgery* 1946;**82**:485-9.
17 O'Donnovan TR. The dynamics of ambulatory surgery. *Hospital Administration* 1975;**20**:27-39.

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