Experience of Day-Case ENT Surgery in a Military Hospital

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SUMMARY This paper presents the results of an audit undertaken one year after the introduction of ENT day-case surgery at a military hospital. Day-case surgery was introduced to use spare operating time in order to reduce the ENT waiting list. One year after the introduction of day-case surgery there was no difference in the total operating time (267 vs 268 hours) compared to the previous year. There had been 67 more operations performed and the average number of completed weeks on the waiting list had fallen from 13.76 to 5.67 weeks. The administration of day-case surgery is discussed. The results of a survey of local general practitioners' awareness of day-case surgery is also presented.

Introduction

Admitting patients requiring minor surgery into in-patient beds is unnecessary, wasteful and possibly deleterious to the patient (1). Day-case surgery has been recognised as a practical alternative to overnight admission within the NHS for several years. In 1985 the Royal College of Surgeons estimated that up to 50% of post-operative patients need not stay in hospital overnight (2). Some regional health authorities are planning that day-case surgery will comprise over 20% of the total surgical workload by the year 2000. However there is still widespread variation in the use of day-case surgery in the NHS (3).

In current practice patients admitted for short operations on a routine operating list arrive the afternoon before the day of operation. They are seen by the nursing, surgical and anaesthetic staff at intervals that afternoon. They are discharged the morning after the day of operation. This system costs approximately two whole days of hospital hotel resources and the patient's time in order to spend the short period in the operating theatre. For paediatric cases the whole family may be disrupted and there is the possibility of psychological upset to the child (4,5).

Day-case surgery has been shown to reduce cost per patient by decreasing bed occupancy or to reduce waiting lists by providing additional operating time (6). The convenience of day-case surgery is a significant advantage to children, their parents and working adults.

However the provision of day-case surgery may require the reorganisation of medical and nursing practices and the redistribution of resources. In some hospitals it is practicable to create an independent day-case unit with its own nursing staff and operating facilities which the surgical departments use on a sessional basis. Where the poten-

tial day-case workload is insufficient to require dedicated resources, reorganisation of the working practices of in-patient facilities may enable day-case surgery to be performed.

In order to be successful patients have to be carefully selected for their suitability for day-case surgery. The standards for this have to be agreed between the surgical and anaesthetic departments. The proposed operation, co-existing medical conditions and social circumstances need to be considered by the surgeon during the out-patient consultation. Also there needs to be an established liaison with local primary care services to ensure continuity of medical and nursing care.

This paper reviews the introduction of day-case surgery for ear, nose and throat (ENT) cases at BMH Rinteln. The results of an audit carried out one year after starting are also presented.

The Introduction of Day-Case Surgery

In 1990 the routine waiting time at BMH Rinteln for the operative treatment of chronic secretory otitis media, myringotomy and insertion of grommets, was up to six months. Although short by UK standards this represented a considerable burden for the individual child if the delays associated with recognition, initial medical treatment and referral are also included. The limiting factor was the number of nursing staff for paediatric beds for ENT cases (a total of 4 beds) as all children requiring this short procedure were routinely admitted for two nights.

There was space to increase the routine operating list by four short (less than 15 minute) cases. To utilise this facility the solution seemed to be day-case surgery. This would avoid overnight stay and so reduce the additional nursing workload.

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Extensive discussions were held with interested parties. The Nursing Officer in-charge of the paediatric ward agreed to adjust the nursing rota so two nurses were available to look after the day-cases. An unused side-ward was re-equipped to provide space. A protocol for nursing the day-case children was devised. The junior ENT surgeon and an anaesthetist arranged to see the patients on arrival to the ward at 0800 prior to the start of the operating list. The theatre superintendent agreed to the increased operating list size. Arrangements were made for the use of the 'Red Cross' flats for 'hotel' overnight accommodation for mothers and children who were unable to travel on the day of operation (this avoided ward admission). Importantly a letter was sent to all general practitioners explaining details of the new arrangements. Patient information leaflets were also devised with the help of nursing and anaesthetic staff to explain the pre-admission, admission and post-operative procedures. These were sent to parents with the notification of admission to ensure the family was fully prepared. Table 1 summarises the administrative care of patients for day-case surgery.

Table 1	
Summary of Administration for Day-Case Surgery	
Outpatient Clinic	operation suitable for day-case surgery, no medical contra-indications, no surgical contra-indications, pre-operative investigations as needed explanation consent placed on waiting list
Called for Operation	date sent detailed explanatory letter sent day-cases booked mid-morning on list
Day of Operation	
Prior to arrival	nil to eat or drink from midnight (in patient instructions)
Arrival 0800	seen by nursing staff seen by junior ENT surgeon seen by anaesthetist
Operation	as planned mid morning parents encouraged to accompany child to anaesthetic room
Departure	approx 1600 must be eating and drinking seen by junior ENT surgeon operation explained to parents given post-operative leaflet given discharge note for general practitioner facilities for overnight stay if clinically required review appointment if required

Results of Audit of Day-Case Surgery

An audit was performed one year after the introduction of day-case surgery. It is presented in three parts, a postal

questionnaire of general practitioner attitudes, an analysis of usage of operating time and a pre-day-case and post day-case analysis.

A postal questionnaire was sent to all medical centres for general practitioners to complete. The results are presented in Table 2. Twenty-nine replies were received. It was not possible to determine a response rate as there was no reply from four medical centres and some replies represented a consensus view of several general practitioners working in the same medical centre.

Table 2		
Results Of General Practitioner Survey		
Total replies 29		
Did you know day-case surgery was being performed?	Yes	No
	15	14
Have you experienced difficulty with the following:		
a. contacting patients	3	26
b. arranging time off for father	1	28
c. arranging care for other children	1	28
d. transport to get to hospital by 0800	8	21
e. cancellation due to URTI*	4	25
f. cancellation for pre-existing condition	0	29
g. post-operative anaesthetic problems	0	29
h. post-operative surgical problems	0	29
Are you aware of supportive feedback from patients?	4	25
Are you happy to retain clinical responsibility for your patients after day-case surgery?	29	0

*URTl= upper respiratory tract infection

The operating lists for the year prior to the introduction of day-case surgery (140290-130291) were compared with the operating lists after the introduction of day-case surgery (200291-180292). The results are presented in Table 3. The same consultant ENT surgeon (CRC) was present throughout this period. There was only a difference of one hour in the total operating time available between the two years. There were 67 more operations performed (63 more myringotomies and insertion of grommets) and there was an increase of 0.25 cases per hour of operating time after the introduction of day-case surgery.

Table 3		
Comparison of Utilisation of Operating Time		
	Pre day-case (140290-130291)	Post day-case (20-0291-180292)
Total Operating time	268 hours	267 hours
Total cases	415	482 (67 more)
Total M and G*	96	159 (63 more)
Cases per hour	1.55	1.80 (0.25 more)

* M and G = myringotomies and grommet insertion

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A detailed analysis of case notes for the last thirty myringotomies and grommets for each group was attempted. The results are presented in Table 4. In addition all case notes of patients who underwent day-case surgery were sought. The results are presented in Table 5. Unfortunately not all the notes could be retrieved. There was no difference in number of cancellations and there were no complications or re-admissions as a result of the day-case procedure. However one year after the introduction of day-case surgery children spent an average of 8.09 completed weeks less on the waiting list.

Table 4
Comparison of Last Thirty Cases

	Pre day-case	Post day-case
Total	30	30
Notes reviewed	22	20
Notes in other hospitals	4	3
Notes in other departments	3	4
Notes missing	1	3
Cancellations		
Did not attend	3	3
URTI*	2	2
Time on waiting list		
Average completed weeks	13.76	5.67
Standard deviation	6.98	1.95

*URTI = upper respiratory tract infection

Table 5
Day-Case Notes Review

	Total	Percentage
Cases	159	100
Found	118	74.2
Missing	15	9.4
Other departments	5	3.1
Other hospitals	21	13.2
Cancellations		
Prior to admission	5	3.1
Did not attend	3	1.9
URTI	4	2.5
Ear infection	1	0.6
Total	13	8.2

Day-case operations performed:

- myringotomy and grommet insertion
- suction clearance and examination under anaesthetic of ear
- removal of foreign body from ear
- change of mastoid dressings
- examination under anaesthetic of nose and post-nasal space
- cautery to Little's area
- antral washout
- removal of foreign body from nose

Discussion

Overall the introduction of day-case ENT surgery has been a success. There were more ENT operations and the majority of these were myringotomies and grommet insertion which were performed as day-cases. The project achieved the objective of reducing the time children spent on the waiting list.

The importance of a pre-planned integrated system ensure continuity of care from the out-patient clinic to discharge from hospital is highlighted in the Davis report 'Caring for children in hospital' and has been endorsed by the British Association of Otolaryngologists (7). Much preparatory work is needed to ensure that the administration of day-case surgery runs smoothly. This requires comprehensive discussions between surgeon, anaesthetist, nursing staff, theatre staff, out-patient staff, medical records staff etc. There is less flexibility for administrative error such as missing notes, because the patient's time in hospital is already fully occupied.

The general practitioner survey highlights the problem of keeping general practitioners informed of hospital activities. Almost half of those who replied were unaware that day-case surgery was being performed in spite of a liaison letter being sent to all medical centres prior to introduction. Perhaps general practitioners would benefit from a report of hospital waiting lists and services on a regular basis. The only significant problem identified was that of transport needing to arrive by 0800. However the cost in driver's overtime must be insignificant compared with the hospital costs of providing the same surgical service with overnight admissions.

There was a similar cancellation rate when the two groups were compared. Overall the cancellation rate of 8.2% for day-case surgery compares very favourably with another study of ENT cases (6). As expected on theoretical grounds there were no recorded post-operative complications attributable to day-case surgery nor did any patient require a night in hospital. Careful choice of procedure is necessary. Some general surgical operations may require domiciliary nursing support which is not available in Army primary care (8). This can easily be overcome using practice based nurses and good hospital discharge practices.

We have demonstrated the practicality of day-case surgery in a military hospital and the commensurate advantages for resource management and patient care. It is axiomatic that the appropriate staff are timetabled for the necessary pre-operative assessment of patients in place of the *ad hoc* basis that characterises pre-operative assessment for in-patients. Day-case patients need to be operated on mid-morning in order to allow adequate pre-operative time for preparation and post-operative time for recovery. With these provisos we believe day-case

surgery is a useful adjunct to in-patient surgery that is possible in all military hospitals.

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