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A paediatric otolaryngology pre-admission assessment clinic audited

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Abstract

Pre-admission clinics are becoming increasingly popular for surgical specialties with a quick turnover as they aid waiting list management and reduce non-attender rates for surgery. As paediatric patients have a high rate of non-attendance, we performed a retrospective audit of otolaryngology paediatric pre-admission assessment clinic notes for June to October 1998 ($n = 363$). The attendance rate for the clinic was 97 per cent. Of the children who attended the clinic, 90 per cent had their operation as planned, complications occurred in 2.9 per cent. The operation date was delayed in 20 patients, in 11 patients no cause for the delay was given in the case notes. As a result of this audit, the Senior House Officer sees the patient on the day of admission rather than in the pre-admission clinic, which is staffed by nurses.

Key words: Paediatrics; Out-patient Clinics; Hospital; Otolaryngology

Introduction

To aid the management of surgical waiting lists, pre-admission clinics are recommended by The Royal College of Surgeons of England.[1] The fact that all investigations and assessments are performed in a pre-admission clinic significantly reduces the time it takes to admit patients to the ward and prepare them for theatre. Usually, pre-admission clinics are staffed by a specially trained nurse and a doctor – who is often the most junior member of the medical team, i.e. Pre-registration House Officer or Senior House Officer (SHO).[2]

More recently, nurse-led pre-admission clinics run by nurse practitioners have been established.[3,4] The nurse-led pre-admission assessment clinic for adult patients in our department has been a thriving success for several years now. However, the paediatric pre-admission assessment clinic is still staffed with a nurse and SHO.

A review of the ENT history is important, particularly in paediatric patients, as not uncommonly the condition which should be remedied by surgery has improved spontaneously (e.g. glue ear, recurrent tonsillitis). This is especially the case with long waiting lists. The aim of this study was to audit the paediatric pre-admission assessment clinic in terms of cancellations, avoidable complications and notekeeping.

Materials and methods

The paediatric otolaryngology pre-admission assessment clinic at the Sunderland Royal Hospital was audited retrospectively for a period of 5 months (1 June–30 October 1998). This clinic is nurse-led but the patient will also be seen by an Otolaryngology SHO. The nurses are trained to do tympanometry and the results of this, along with any history of improvement of the disease, is taken into account as to whether the child still needs surgery for otitis media with effusion. For each patient, a time slot of ca. one hour is allocated so that four to five patients are seen in a half-day session. Per week, eight to nine half-day sessions are held. The patients are seen one to four weeks before the planned admission date.

The junior doctor is on duty for the wards as well as for the pre-admission clinic and will be called in by the nurse after the proforma has been completed. This is filled in by the nurse to increase its reliability, as patients do tend to miss out sections. Usually the consent form was already signed by a parent and a senior member of the surgical team when the patient was put on the waiting list at the time of the outpatient consultation.

Results

A total of 363 notes out of 369 (98 per cent retrieval rate) were retrieved and reviewed. The age distribution of the patients seen is illustrated in Figure 1.

Twelve patients failed to attend the pre-admission clinic (97 per cent attendance). Eight of these arrived as scheduled for their operation and were clerked in by the SHO on the day of admission. One patient failed to attend the pre-admission clinic twice and

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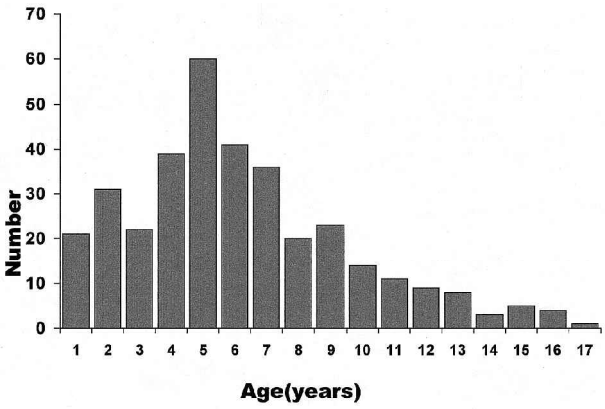

FIG. 1
Age distribution of patients.

was subsequently removed from the waiting list. The remaining three patients did not attend (DNA) for their operation date (0.8 per cent DNA for surgery). Of the 351 patients who attended the pre-admission clinic, 319 had their surgery as planned (90 per cent). The operation date was delayed for various reasons for 20 of these patients: in 11 patients no cause for the delay could be retrieved by scrutinizing the case notes, three patients had an upper respiratory tract infection (URTI) on admission, three patients requested a delay as they would be away on holiday on the proposed date of surgery, one patient had a viral rash on admission, one was nauseated on admission and one patient failed to attend for admission. Twelve patients had their operation cancelled after having attended the pre-admission clinic. Figure 2 shows the breakdown of patients who were scheduled to attend the paediatric pre-admission clinic.

Of the 348 patients who underwent surgery, the types of operations performed are summarized in Figures 3 and 4.

Complications

Only 10 patients had complications (2.9 per cent). Two patients had primary post-tonsillectomy haemorrhage and had to return to the operating theatre for haemostasis. Two patients had secondary post-tonsillectomy haemorrhage, which required re-admission and settled with conservative manage-

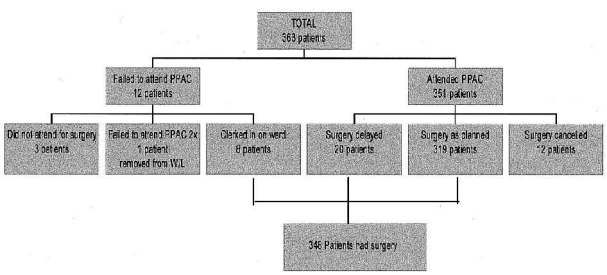

FIG. 2
Breakdown of patients attendance.

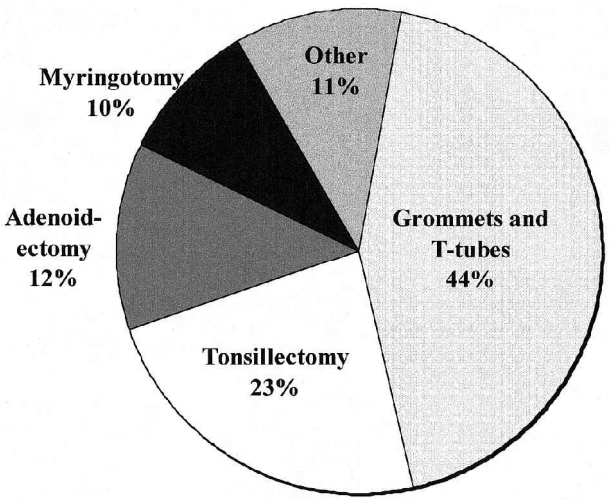

FIG. 3
Main operative procedures.

ment. Two patients had post-operative pyrexia and were given a course of oral antibiotic on discharge. One patient had laryngeal spasm in the recovery room which settled spontaneously. One patient was not fasted for the morning operating list and had surgery the same day on the afternoon operating list. One patient experienced intermittent bleeding from his ears after having bilateral grommets inserted; he attended the clinic and was given eardrops. One patient arrived at the anaesthetic room but was too uncooperative to have a general anaesthetic administered; he was relisted and was to have a premedication but failed to attend for this new surgery date as his condition had improved.

Findings on physical examination

A total of 350 patients were seen by the SHO and, in 10 (2.8 per cent) of these, significant findings were noted. Five patients had an improvement in their

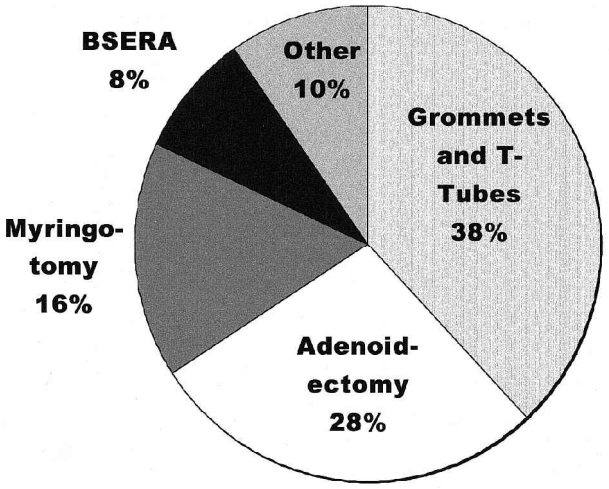

FIG. 4
Additional operative procedures.

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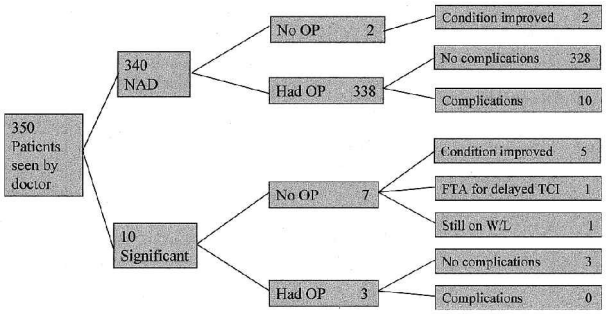

FIG. 5
Physical findings and surgical outcome.

condition and the surgery was cancelled. Two children had an upper respiratory tract infection, which settled by the time they were admitted for their operation. One patient had an acute tonsillitis and the surgery was postponed; he failed to attend for the new operation date. Two patients were found to have a heart murmur: one was previously known and the surgery proceeded as planned, the other child was referred for a paediatric assessment.

Of the 340 children who had a normal physical examination, two had their operation cancelled as their surgery date was delayed and their condition improved in the course of time. Of the other 338 patients who had their surgery, 10 suffered complications (see above). Only two of these complications would have been amenable to better pre-admission clinic care: the one child that was not fasted and the one boy who was too uncooperative in the anaesthestic room to have a safe induction of general anaesthesia. Figure 5 shows the breakdown of physical findings and surgical outcome.

Discussion

Close collaboration between the nursing and the medical staff is a pre-requisite for a nurse-led pre-admission clinic. The reduction of maximum hours in junior doctors' working week implies that trainee surgeons need to be freed of tasks that are limited in their educational value (e.g. clerking patients in a pre-admission clinic) in order to meet the set educational objectives. The option of delegating these tasks to nurse practitioners has to be considered.[3–6]

The active involvement of nursing staff in the pre-operative assessment of patients for day case surgery by using a proforma is encouraged by the guidelines on day case surgery published by The Royal College of Surgeons of England.[7] The great majority of paediatric patients awaiting otolaryngological surgery are in many ways similar to patients suitable for day case surgery. However, the risk of reactionary haemorrhage and/or the presence or nasal packs or head bandages necessitates a post-operative overnight stay.

Our attendance rates for the paediatric pre-admission clinic (97 per cent) are excellent and compare favourably with those cited by Koay[4] (88 per cent attendance and 11 per cent DNA for surgery in an adult ENT pre-admission clinic) and Dingle *et al.*[8] (92.6 per cent attendance rate in a mixed adult and paediatric clinic). Hampel and Flood[9] reported in 1992 that, of all non-attending patients (5.6 per cent), the age group of under 15 year-olds comprises 41 per cent, which makes paediatric patients with biggest group of non-attenders. Howver, their study was done in a pre-admission clinic–free environment and non-attender rates should be lower when a pre-admission clinic is operating. The conditions that are relieved by paediatric otolaryngological surgery can improve spontaneously so that a reassessment of the patient's condition after surgery is advisable. In our clinic this is done by reviewing the patient's history and performing tympanometry for children with otitis media with effusion. Vowles and Jefferis[10] advocate a consultant-led approach with a consultant otolaryngologist, audiologist, paediatric nurse, playleader and pre-assessment nurse present in the pre-admission assessment clinic. With pressures mounting on general outpatient clinic waiting lists and limited resources of manpower available, we are doubtful as to whether this would be a cost-effective set-up.

Of the 10 patients who had complications in our clinic two could have been avoidable: the patient who was not fasted and the uncooperative child in the anaesthetic room. As for delays for the proposed surgery date, unfortunately in the majority of cases no entry in the notes was made. This has been addressed in a departmental audit meeting and notekeeping will hopefully improve as a result.

This audit shows that a nurse-led paediatric pre-admission assessment clinic can run efficiently and safely. As a result of this audit, the Senior House Officer does not now attend the paediatric pre-admission assessment clinic. If an improvement in the patient's condition (e.g. hearing improved/normal tympanogram, recurrent tonsillitis resolved) is detected, the pre-admission clinic nurse can contact the consultant involved (or the registrar) and a decision will be made whether the planned surgery should be deferred. All patients will be examined by a junior doctor on the day of admission to make sure they do not have a respiratory tract infection precluding a general anaesthetic or a previously undetected heart murmur.

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