

# EAR, NOSE AND THROAT EMERGENCIES AT THE RLI: AUDIT ANALYSIS

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## INTRODUCTION

The new purpose-built ENT unit at the Royal Lancaster Infirmary (RLI) was opened in February 1996. It is currently a five-day ward, open from Monday 9 am to Friday 5pm. The cover for weekends and bank holidays is provided by the Royal Preston Hospital, twenty miles south of Lancaster. The two consultant ENT surgeons at the RLI share a one in six rota with their colleagues from the Royal Preston Hospital to cover the weekends and bank holidays. The inconvenience caused to patients and their relatives as well as the disruption of continuity of care is yet to be assessed.

The emergency workload of any ENT department is from three sources: in-hospital referrals, referrals from general practitioners and accident & emergency (A&E) departments. The latter account for a large proportion of this emergency workload<sup>(1)</sup>. The most common diagnosis necessitating referral is foreign bodies in the aerodigestive tract, followed by epistaxis and some form of ear sepsis<sup>(2)</sup>. Little work has been done, however, with regard to the ENT conditions seen in the A&E unit.

In our study, we looked at the referrals to the ENT departments at the RLI and the Royal Preston Hospital from the Lancaster A&E department to determine the pattern of patients' referral and their management.

## AIMS

The aims of the study were threefold:

- to look into the number and nature of various ENT conditions seen in the local A&E department
- to study the management of patients presenting with these conditions
- to analyse the number of patients affected by the ENT ward closure at weekends and bank holidays at the RLI.

## METHOD

We studied the casualty records of all patients who presented with ENT conditions to the A&E unit at the RLI in the six-month period between 5th November 1998 and 4th May 1999. The names were obtained from the main computer in the A&E unit at the RLI. The following data were obtained:

- name, unit number, age
- time of presentation, ie whether during or out of the Lancaster ENT cover period
- ear, nose, throat or other conditions

- outcome of patients (including referral to the Royal Preston Hospital).

## RESULTS

Two hundred and twenty out of a total of 16347 patients (1.35%) presented with ENT conditions to the A&E unit at the RLI within the six-month period. The casualty records of all but two patients presenting with ENT conditions were available for analysis.

Figure 1 represents the age distribution of the patients. There were 176 adults (81%) and 42 children (19%). The majority of cases were of nasal conditions (44%). Ear and throat conditions were almost equal at 29% and 24% respectively. The other ENT-related conditions such as facial palsy, facial swellings and infections accounted for 3%.

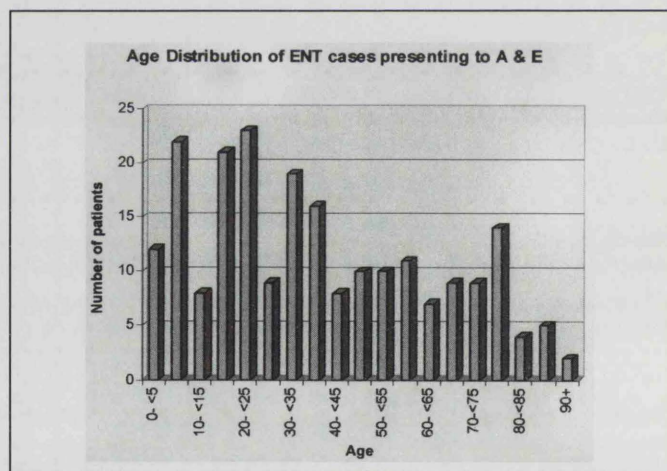


Figure 1 Age distribution of ear, nose and throat conditions presenting to the Royal Lancaster Infirmary A&E department

Table 1 lists the ENT diagnosis/presenting complaints of all patients recorded by the A&E doctors. The four commonest ENT conditions were:

- 1 epistaxis (70 patients)
- 2 throat conditions in 41 patients; infection (laryngitis, tonsillitis, pharyngitis and quinsy) in 22 patients and foreign bodies in the throat in 19 patients
- 3 ear sepsis (otitis externa / media) in 38 patients
- 4 fractured nasal bones in 15 patients.

Others conditions include facial palsy, allergic reactions, hoarseness, salivary glands infections, facial lacerations and earring related problems.

Bleeding	ear	2
	nose	70
	throat	3
Foreign bodies	ear	10
	nose	7
	throat	19
Infections	ear	38
	throat	22
	face	3
Nasal bone fractures		15
Impacted wax		7
Dysphagia (no foreign body)		2
Painful throat (post-op)		2
Normal ear		3
Swelling (no infection)	ear	2
	face	2
Others*		10
<b>Total</b>		<b>218</b>

\*Others include facial palsy, facial lacerations, allergic reactions, salivary gland stones, etc.

Table 1 ENT conditions by diagnosis/presenting complaints

The management of patients with ENT conditions by the Lancaster A&E department is illustrated in Table 2. Due to the ENT ward closure at the RLI over the weekends and bank holidays, it is divided into two periods: the Lancaster ENT cover (Monday 9am to Friday 5pm) and the Preston ENT cover (weekends and holidays).

By analysing Table 2, we can see that there is a statistically significant difference in the pattern of management of the patients with ENT conditions by the A&E department at the RLI during the two periods studied ( $P = 0.0074$  which is  $<0.05$ , two by chi square analysis). Thirty-eight percent were urgently referred to Lancaster as compared to 21% to Preston. This was statistically significant at 0.10%, chi-square test. In addition, during the Preston cover period, the A&E department was satisfied with verbal advice more often than during the Lancaster cover period. This could be due to patients' hesitancy to travel to Preston.

## DISCUSSION

In this retrospective study, a total of 220 out of 16346 patients (1.35%) presented to the A&E department at the RLI with ear,

RLI A&E staff decisions	Monday 9am to Friday 5pm. (Lancaster cover)	Weekends and Bank Holidays (Preston cover)
Total number of patients seen	120	98
Patients treated and discharged	53 (44%)	49 (50%)
Urgent referral to ENT Team	46 (38%)	21 (21%)
Non urgent referral to ENT outpatients at Lancaster	15 (13%)	18 (18%)
Advice from ENT team	2 (1.7%)	7 (7%)
Self discharge	4 (3.3%)	2 (2%)
Referral to general surgery team	0 (0%)	1 (1%)

Table 2 Comparison of management of various ENT conditions by the Royal Lancaster Infirmary A&E doctors

nose and throat (ENT) conditions. Ninety-five out of the 218 patients (44%) presented with nose-related conditions. Seventy out of these 95 patients presented with epistaxis. Thirty-eight out of the 218 patients (17%) presented with ear-related and 22 (10%) with throat-related conditions. Approximately 1.35% of the workload of the A&E department at the RLI was related to the ear, nose and throat conditions. Of these ENT cases, 19% were children and 81% adults. This is different from what was suggested by McShane et al who noted 39% children and 61% adults<sup>(2)</sup>.

The common causes necessitating a hospital visit were epistaxis (70 cases or 32%), followed by throat conditions (41 cases or 19%) and ear infection (38 cases or 17%). This is in contradiction to the findings of O'Driscoll *et al* where otitis externa was found to be the commonest cause, followed by ear wax and epistaxis<sup>(3)</sup>.

It is interesting to note that in the very young age group (less than five years) foreign body was the commonest presenting condition (7 cases out of 12), whilst in the age group 55 years and over, epistaxis was the commonest presenting conditions (42 cases out of 61).

There are significantly more urgent referrals to Lancaster than to Preston (Table 2). One of the main objectives of the Morecambe Bay Hospitals NHS Trust is to provide excellent health care and services to its population. It is reasonable to suppose that the provision of seven-day ENT service at the RLI would minimise the inconvenience to patients, their relatives, the Lancaster A&E staff and GPs. Furthermore, it would promote the continuity of care of patients in one hospital. However, one must not forget that resources are limited and the cost-effectiveness of such service provision must be considered carefully.

From our study, it was noted that 21 patients were referred to Preston during the six-month period (which included 26 weekends plus the Christmas and new year bank holidays). This means that about one patient per weekend was referred to Preston from Lancaster. However, referrals from GPs and the A&E unit of the Westmorland General Hospital during weekends and bank holidays were not included in this study. Also not included in this study are Lancaster inpatients who are not fit for discharge by Friday and who have to be transferred to Preston at weekends. The inclusion of all of this data would undoubtedly change the figures. Hence, a larger and multi-departmental study needs to be carried out to determine the exact number of patients who are affected by the closure of ENT services at the RLI over the weekends and bank holidays.

## REFERENCES

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