

## ANALYSIS OF PATIENTS IN OTOLARYNGOLOGY DEPARTMENT AT MUZAFFARABAD HOSPITALS

Khalid Azam Khan, Syed Nadeem Ul Haq\*, Atif Najam\*\*

Military Hospital/ National University of Medical Sciences (NUMS) Rawalpindi Pakistan, \*Combined Military Hospital Muzaffarabad/ National University of Medical Sciences (NUMS) Pakistan, \*\*Combined Military Hospital Chunia/ National University of Medical Sciences (NUMS) Pakistan

### ABSTRACT

**Objective:** To assess the work load of the department in terms of individual disease.

**Study Design:** Descriptive study.

**Place and Duration of Study:** This study was conducted at Ear, Nose and Throat (ENT) Department of Shaikh Khalifa Bin Zayed Al Nahyan, Hospital Combined Military Hospital (CMH) Muzaffarabad from Jan 2011 to Jan 2012.

**Material and Methods:** Total of 710 patients was admitted in ENT ward in one-year duration for various pathologies. For easy analysis, they were divided into groups according to the region involved by disease.

**Results:** Two hundred and eighty-five cases (40.14%) were admitted with pathologies of nose and para nasal sinuses making the highest percentage among the groups. The second major group was otology comprising of one hundred and fifty-six (21.97%) cases. One hundred and three (14.50%) cases were from pathologies in oral cavity. Thirty (4.22%) cases from skull base, thirty (4.22%) pathologies of larynx, trachea and bronchi, forty (5.63%) cases were from hypopharynx and esophagus, twenty-four (3.38%) cases were from salivary gland pathologies. Twenty-one (2.95%) cases were from neck region. Tumors were 4(0.56%) and neurological cases were 11 (1.54%) of the total number of cases.

**Conclusion:** Self-analysis/ audit at departmental level greatly enhances the working efficiency of a department and is essential for betterment of the patient and education of trainees as one gets a fair idea about the prevalence of disease in a community and can thus direct the resources accordingly.

**Keywords:** Analysis, Head and neck surgery.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

### INTRODUCTION

Otolaryngology department of Sheikh Khalifa Bin Zayed Al Nahyan Hospital Combined Military Hospital (CMH) Muzaffarabad possesses state of the art equipment including teaching microscope (Moller Wedel International), fibre optic laryngoscopes (Karl Storz), all sets and types of endoscopes (both adult and paediatric) and equipment for functional endoscopic sinus surgery (Karl Storz). The dept is not only maintaining its data on registers but computerized data is also saved.

Analysis/audits are words which have acquired different meanings over time in relation to health care quality. One definition of departmental audit in the field of medicine is:

“Audit involves systematically looking at the procedures used for admission, diagnosis, care and treatment, examining how associated resources are used and investigating the effect care has on the outcome and quality of life for the patient”.

In brief, audit provides a method for systematically reflecting on and reviewing practice.

The benefits of self audit are<sup>1-3</sup>:

- It can provide information you need to show others that your service is effective (and cost-effective) and thus ensure its development.

**Correspondence:** Dr Khalid Azam Khan, Classified ENT Specialist MH Rawalpindi Pakistan (Email: [sajukhagu@hotmail.com](mailto:sajukhagu@hotmail.com))  
Received: 4 Oct 2012; revised received: 16 Sep 2013; accepted: 19 Sep 2013

- Asses the work load of the department in certain time frame so that available resources can be utilized in a better way.
- Identify and promote good practice to improve in service delivery and outcomes for user.
- Can improve working relationship, communication and liaison among staff, staff and service users (patients), doctors and trainees.

The hospital started its function on 08<sup>th</sup> Oct 2009 after the earthquake of 2005. Average daily sick report of hospital ranges from 1800 to 2200 patients. Ear, Nose and Throat (ENT) department has one of the largest out patient department (OPD) in CMH Muzaffarabad attending approximately 200 patients per OPD day and having four OPD days a week. ENT is considered to be a difficult speciality by virtue of its complex anatomy and is not as simple as the name indicates, with indistinct boundaries merging

**Table-I: Sub groups on the basis of regional anatomy and monthly cases distribution in one year.**

Regions	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Oral cavity	7	25	6	13	3	10	7	6	10	9	4	3
Ear	9	15	12	22	15	17	22	13	14	5	8	4
Nose	5	35	26	10	18	23	30	15	18	11	8	3
Paranasal sinuses	11	8	17	11	9	9	4	3	6	2	2	1
Skull base	4	1	6	2	3	1	3	6	1	2	1	0
Larynx/bronchi	1	3	1	4	5	7	2	1	0	4	1	1
Pharynx/esophagus	1	2	6	8	11	8	2	1	0	0	0	1
Salivary glands	3	3	1	4	2	4	1	1	5	0	0	0
Neck	3	4	2	3	1	0	2	3	1	1	1	0
Tumours	1	0	0	1	0	0	1	0	0	1	0	0
Neurological	3	1	1	0	2	0	1	0	0	2	1	0
Misc	2	1	1	0	0	0	1	0	0	1	0	0
Total	50	88	79	78	69	79	76	49	55	38	26	3

**Table-II: Total no. of individual cases and their percentage.**

Regions	Total no. of individual cases	Percentage %
Oral cavity	103	14.50%
Ear	156	21.97%
Nose	202	28.45%
Paranasal sinuses	83	11.69%
Skull base	30	4.22%
Larynx/ Bronchi	30	4.22%
Pharynx/ Esophagus	40	5.63%
Salivary Gland	24	3.38%
Neck	21	2.95%
Tumours	4	0.56%
Neurological	11	1.54%
Misc	06	0.84%
Total	710	99.95%

Shaikh Khalifa Bin Zayed Al Nahyan Hospital, CMH Muzaffarabad is a state of the art tertiary care hospital providing medical facilities to a vast area of Azad Jammu & Kashmir (AJ&K).

with various specialities like oncology, plastic reconstruction, neurosurgery, paediatric surgery, maxillofacial surgery, ophthalmology, thoracic surgery and general surgery. So an inter

disciplinary approach is often required for the management of the patients and forums like Head and Neck Oncology conferences are held on weekly basis which provides an environment where complex cases can be discussed between different specialties and a consensus is achieved on final management.

Similarly, as already mentioned regarding the merging of the speciality with other discipline, certain diseases also fall in the domain of more than one speciality like facial nerve paralysis which can be seen by a medical specialist as well as ENT specialist. Thyroid can be dealt both medically as well as surgically by a general surgeon and ENT surgeon. Same is the case with vertigo falling in the domain of medicine, ENT and neurology. Diseases of hypopharynx and oesophagus being dealt by thoracic as well as ENT surgeon. Similar is the case with neck masses. So at times the general practitioners find it difficult as far as referral is concerned. But for the rest of the diseases like nasal obstruction, sore throat, otalgias, deafness and tinnitus, the referral is clear.

## MATERIAL AND METHODS

This descriptive study was conducted after approval from the hospital ethical committee. The data were collected retrospectively from the hospital records from Jan 2011 to Jan 2012. All patients irrespective of age and gender were included in study.

Total of 710 cases were admitted in the said period. They were divided into 11 main sub groups on the basis of regional anatomy like oral cavity ear, nose etc (table-I).

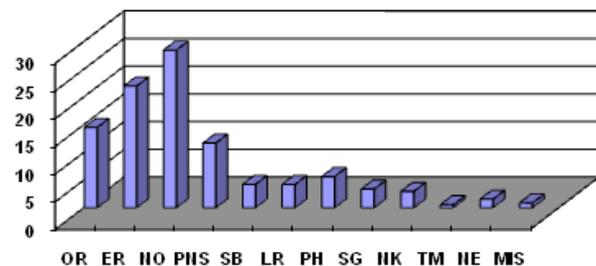
## RESULTS

Two hundred and eighty-five cases (40.14%) were admitted with pathologies of nose and para nasal sinuses making the highest percentage among the groups. The second major group was otology comprising of 156 (21.97%) cases. One hundred and three (14.50%) cases were from pathologies in oral cavity. Thirty (4.22%) cases from skull base, thirty (4.22%) pathologies of larynx, trachea and bronchi, forty (5.63%) cases

were from hypopharynx and esophagus, twenty-four (3.38%) cases were from salivary gland pathologies. Twenty-one (2.95%) cases were from neck region. Tumor were 4 (0.56%) and neurological cases were 11 (1.54%) of the total number of cases (table-II & fig).

## DISCUSSION

Each study and audit carries certain aims and the ultimate goal in medical profession is to bring improvement in quality of life of our patients as far as health is concerned. Our audit made it possible for us to see the prevalence of diseases in our region and to devise a checklist of each individual disease to be filled by medical officer on admission to rule out the causative



**Figure: Graphical presentation of %age of individual cases.**

OR = Oral Cavity, NK = Neck, ER = Ear, TM = Tumor, NO = Nose, NE = Neurological, PNS = Para Nasal Sinuses, MIS = Miscellaneous, SB = Skull Base, LR = Larynx & Bronchi, PH = Pharynx & Esophagus, SG = Salivary Glands

factors. Such checklists are also being used in various ways as a continual self improvement tool in other countries. One such audit was carried out at Queen Elizabeth Hospital Birmingham, UK where a retrospective re-audit of ENT patients undergoing elective or emergency procedures was carried out and data was collected on a predefined audit checklist proforma<sup>4</sup>. It was concluded that despite efforts the checklist proformas were either left blank or incompletely filled leading to discrepancies.

Self analysis in the form of audit is a continual tool for improvement which are nowadays practiced in almost every institute. One such audit was carried out by Prasai and Sayles in 2010 and 2011 which was a prospective

study for 5 months on patients undergoing tonsillectomy<sup>5</sup>. They concluded that higher complication rates were associated with the use of bipolar diathermy in the inferior pole and higher power settings.

Another audit was conducted at District General Hospital by Lakhani, Huggins and Salam to assess and improve compliance to the National prospective tonsillectomy Audit (NPTA) recommendations<sup>6</sup>. They concluded with the help of self audit that mere changes in techniques help to reduce complication rates significantly. They also emphasized on proper documentation of their procedural steps.

Our analysis and audit is the first step towards betterment as we know the prevalence of diseases in this region and can work in future by devising methods to reduce the risk factors which are responsible for a disease process.

One fact evident while going through the documents of patients was the same kind of exposure in a particular disease process which led to the progression of disease<sup>7-9</sup>. So simply identifying such causes, and educating the patients regarding prevention can improve the quality of life of patient and decrease the work load on a hospital<sup>10,11</sup>

## CONCLUSION

Self-analysis/ audit at departmental level greatly enhances the working efficiency of a department and is essential for betterment of the

patient and education of trainees as one gets a fair idea about the prevalence of disease in a community and can thus direct the resources accordingly.

## CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

## REFERENCES

1. Metson, Mardon. The Harvard Medical School guide to healing your sinuses. New york: Mcgraw-Hill, 2000: P. 23-8.
2. Hameedullah KF, Kamal R. Improvement in intraoperative fresh frozen plasma transfusion practice- impact of medical audits and provider education. J Pak Med Assos. 2000; 50(8):253-6.
3. Najmi RS. An audit of cesarean section carried out in a tertiary maternity unit. J Coll Physicians Surg Pak. 2000 Jan; 10(1):24-6
4. Junaid M. Implementing the WHO surgical checklist: Audit of ENT patients. International journal of surgery 23.2015;S15-S134
5. Prasai A, Sayles M, Kelly C, Ahmed A. Does individual prospective post tonsillectomy audit reduces complication rates? Blackwell publishing Ltd. Clinical otolaryngology 2012; 37 (Suppl. 1), 17-72.
6. Lakhani R, Huggins M, Salam M. Are we still following the national prospective tonsillectomy audit recommendations? Blackwell publishing Ltd. Clinical otolaryngology 2012; 37 (Suppl. 1), 17-72.
7. Yousaf R, Baloch SN. An audit of cesarean section. Pak J Med Res 2006;45(2):28-31.
8. Asif SA. Departmental audit of Malaria Control Programme 2001-2005 North West Frontier Province (NWFP). J Ayub Med Coll Abbottabad 2008;20(1):98-102.
9. Ali SA, Soomro AG, Tahir SM, Memon AS. Prospective basic clinical audit using minimal data set. J Ayub Med Coll Abbottabad. 2010;22(1):58-61.
10. Hafeez A, Ali S, Hassan M. An audit of pediatric upper gastrointestinal endoscopies. J Coll Physician Surg Pak 2000; 10(1):13-5
11. Siddiqui FG, Shaikh JM, Memon MM. An audit of informed consent in surgical patients at a university hospital. J Ayub Med Coll Abbottabad. 2010;22(1): 133-5.