# Prevalence of Ear, Nose & Throat diseases and Adequacy of ENT training among General Physicians

Muhammad Farooq\*, Shakeel Ghani\*\* and Sadiq Hussain\*\*\*

\*Department of ENT, AJK Medical College Muzaffarabad, \*\*Department of ENT, Paediatrics\*\*\*, Mohtarma Benazir Bhutto Shaheed (MBBS) Medical College, Mirpur, Azad Kashmir

#### Abstract :

**Background:** Among general physiciens (GPs) consultations, Ear, Nose and Throat (ENT) diseases account for about 25% in adults and up to 50% in children. General physiciens are required to have adequate training to deliver efficient primary health care. This study was aimed to find prevalence of ENT diseases and adequacy of ENT training among GPs in Azad Jammu and Kashmir (AJK).

**Methods:** This prospective study was conducted among hundred (100) GPs; having more than 1 year experience, of major cities of AJK. A performa was designed and distributed. The responses were collected and analysed.

**Results:** Prevalence of ENT diseases in adults was 24% and in children 38%. Majority of GPs (72-96%) stated that there should be improvement in undergraduate training and arrangement of 4–8 weeks ENT house job rotation as well as ENT continuous medical education (CME) programs.

**Conclusion:** There is some competency deficiency in GPs regarding ENT related primary health care; which can be minimized by improving under-graduate, house job and CME training.

Keywords: Incidence, ENT diseases, adequacy of training, General physiciens, House job, CME

## Introduction

As GPs provide about 60-70% of total health care, they are required to have adequate training to deliver efficient primary health care. Among GP consultations Ear, Nose, and Throat (ENT) diseases account for about 25% in adults and up to 50% in children. Using Delphi process, a structured evidence-based ENT undergraduate curriculum can be developed and adopted to produce a high quality training program.<sup>1,2</sup> There is a steady increase in incidence of ENT diseases probably due to increase in health services, awareness, pollution and traffic.<sup>3</sup> The knowledge of magnitude of ENT diseases will help health authorities to implement its management and preventive programs.<sup>4</sup>

Disorders of ENT have significant morbidity and can affect ability to acquire knowledge and skill.<sup>5</sup> For example, severe deafness impairs speech development although speech apparatus is normal and it also badly affects learning. Upper airway obstruction can lead to heart failure, sleep apnoea syndrome and snoring, disturbing also the sleep of persons sharing the same room. Trauma and foreign bodies of aero-digestive tract if not managed properly, can kill the person.<sup>6</sup>

Correspondence Dr. Muhammad Farooq Assistant Professor, AJK Medical College, Muzaffarabad, Azad Kashmir, Pakistan dr.farooqak@gmail.com, Contact #: 0335-0054849 The three opportunities to train GPs are; at undergraduate level, during house job, and by CME programs. An internet social site can be established where ENT problems can be discussed.<sup>7</sup> Improved and frequent interaction between GPs and Otolaryngologists may result in better appreciation of otolaryngology.<sup>8</sup>

The ENT disease burden in community is huge, and a GP must have adequate training to provide due primary care.<sup>9</sup> Proper ENT training of GPs will decrease burden of hospital care, avoid unnecessary ENT referrals, include necessary referrals and improve primary health care.<sup>10</sup>

The objective of this study was to have an insight of prevalence of ENT diseases in Azad Jammu & Kashmir and the level of know-how among the general physicians about the ENT diseases.

## Subjects & Methods

This prospective study was conducted among general physicians of major cities of Azad Jammu and Kashmir (AJK) over a period of 18 months from Jan 2014 to June 2015. Approval from ethical committee was taken prior to the start of study. A performa was designed and distributed personally to 100 GPs (having more than one years of experience) from major cities of AJK, i.e., Muzaffarabad, Mirpur, Kotli, Rawalakot, Bhimber, Bagh, Hattian Bala, and Sudhnoti. All authors went to GPs of nearby areas and distributed the performas. The responses were collected personally by respective authors and analysed on SPSS.

## Results

The overall prevalence of ENT diseases was about 31% while it was 24% in adults and 38% in paediatric patients. Majority (66%) of GPs stated that their undergraduate ENT training was satisfactory and 34% stated that it was inadequate. Most of GPs (80%) stated that they received no ENT training during their house job (Table-1).

Improvement in ENT undergraduate training was suggested by 72% of GPs. Most of GPs (90%) suggested that considering significant bulk of ENT patients and ENT examination now being conducted in 4<sup>th</sup> year; it should be made compulsory to do 4–8 weeks rotation in ENT during house job. Seminars and Workshops for CME programs were suggested by 96% of GPs to improve and update their knowledge and skills about ENT diseases (Table-2). Average ENT referrals rate was 14% and range was 10–18% being more in paediatric patients and less in adults (Table-3).

# Table-1: Level of satisfaction among GPs for ENT training

***************			
Level of Training	Satisfactory	Unsatisfactory	
MBBS	66%	34%	
House Job	20%	80%	
During General	6%	94%	
Practice(CME)	0 /0	94 /0	
Table-2: Opinion of GPs to increase ENT training			
Level of Training	Yes	No	
MBBS	72%	28%	

MBBS	72%	28%
House Job	90%	10%
During General	96%	4%
Practice (CME)		

<b>Table-3: Rate of ENT Specialist referrals</b>	Table-3: Rate	of ENT	Specialist referrals
--	---------------	--------	----------------------

Category of patient	Referral rate
Paediatric	18%
Adults	10%
Average	14%

## Discussion

About 70% of all patients have simple diseases, require only primary care and these patients should be treated by GPs. About 30% of all patients have complicated or serious diseases and these should be referred by GPs, after giving primary care, to concerned specialists for secondary and tertiary care.<sup>10</sup> As GPs provide about 70% of total healthcare, they are required to have adequate training to deliver efficient primary healthcare.

Training in ENT is difficult as compared to other specialties because more time is needed to appreciate signs of a disease or a procedural view in a cavity of ear, nose or throat. Moreover for ENT practice, some equipment and good light source is required which may not be available everywhere.

Results of this study showed that prevalence of ENT diseases among GPs practice in AJK is 24% in adults and 38% in children. These results are comparable to studies in Scotland and Ireland who found incidence to be 20-25% for adults and up to 50% for children.<sup>1,2</sup> Due to this huge prevalence, it is essential that GPs should be trained enough to manage all simple ENT diseases and should identify, stabilize and refer complicated ENT diseases timely and properly. The 14% ENT specialist referrals rate of this study is comparable to a study by Oosthuizen et al in Ireland which showed that among 3.3 million patients seen during 2009, up to 20% patients were referred to ENT specialists.<sup>11</sup> Guidelines or activities which help the GPs to increase the number of appropriate referrals are beneficial. About 50-60% of newly qualified doctors opt to become general physicians. The ENT training of GPs is variable and inadequate in most areas of the world.12

Although 66% of GPs in this study were satisfied with their undergraduate ENT training, 34% were not satisfied at all. This is contradictory to various studies conducted in United Kingdom (UK) who found that majority of GPs had inadequate undergraduate ENT training.<sup>13-15</sup>The probable reason is that in Pakistan 4-6 weeks undergraduate ENT training is compulsory but in most of European countries particularly in England, it is less than 4 weeks and is also optional. In a study by Sharma et al in London it was found that 90% GPs felt that their undergraduate ENT training was directly beneficial to working in accident and emergency department and 75% felt that they did not received enough undergraduate ENT training.16 Amanda H et al in 2012, found that ENT training is not uniform and in most of centres, little time is given during undergraduate and postgraduate training of general physicians.<sup>17</sup>

Majority of GPs (72-96%) in this study suggested undergraduate training improvement in and arrangement of 4-8 weeks ENT house job rotation and CME programs for ENT diseases. These results are almost similar to various studies conducted in United States of America (USA), UK, Canada, Ireland, and India where 70-95% of GPs suggested that there should be more emphasis on ENT training.18,19 In this study the statistical analysis indicated that a significant number of GPs (72-96%) were in favour of improvement in current ENT training. Increased ENT training will lead to successful management of most of simple ENT diseases at primary care level and early detection of difficult

complicated ENT diseases being referred sooner for ENT specialist's care.<sup>20, 21</sup>

This was a unique original study conducted locally in Azad Jammu and Kashmir, Pakistan. No previous such type of study was available from this area. Even in other areas of Pakistan, only few studies were available. Therefore importance of this study is that application of its facts by health authorities can improve overall health care of general public; particularly improving the primary ear, nose and throat care by General Physicians.

### Conclusion

This study indicated some deficiency in ENT training of GPs which is a food for thought for health care authorities. Better undergraduate level training, 4–8 weeks house job, and CME programmes for ENT diseases, would improve the standard of ENT related primary health care by GPs.

### References

- Lloyd S, Tan ZE, Taube MA, Doshi J. Development of an ENT undergraduate curriculum using Delphi survey. Clin Otolaryngol 2014; 39:281–8.
- Hannaford PC, Simpson JA, Bisset AF, Davis A, McKerrow W, Mills R. The prevalence of ear, nose, and throat problems in the community: results from a national crosssectional postal survey in Scotland. Family Practice 2005; 22:227–33.
- 3. Arif Raza Khan, Sunia A Khan, Arif Asad U, Waheed R. Analysis of ENT diseases at Khyber Teaching Hospital Peshawar. J Med Sci 2013; 21(1):7–9.
- Suman SY. Prevalence of ENT disorders in children: A tertiary medical care study. Online J Otolaryngol 2015;5 (3):16.
- 5. Kishve SP, Kumar N, Kishve PS, Syed MMA, Kalakoti P. Ear, Nose and Throat disorders in paediatric patients at rural hospital in India. Aus Med J 2010; 3 (12):786–90.
- Sujata DE, Sue Archbold, Ray Clark. Investigations and management of a deaf child, In: Michael Glesson (Ed). Scott Brown's Otolaryngology, (7th edition). Wdward Arnold 2008;1:844–59.
- Mishra P, Deshmukh S. ENT-HNS education: What undergraduate sstudents want? Eur Arch Otorhinolaryngol 2013; 270:2981–3.

HISTORY		
Date Received:	20-SEP-2016	
Date Sent for Reviewer:	22-SEP-2016	
Date Received Reviewers' Comments:	10-OCT-2016	
Date Received Revised Manuscript:	20-OCT-2016	
Date Accepted:	1-NOV-2016	
VEV FOR CONTRIBUTION OF AUTHORS.		

#### **KEY FOR CONTRIBUTION OF AUTHORS:**

- B. Active Participation in active methodology
- C. Interpretation, analysis and discussion

- Domanski MC, Ashktorab S, Bielamowicz SA. Primary care perceptions of otolaryngology. Otolaryngol Head Neck Surg 2010; 143:337–40.
- 9. Guragain R, Bhatta R. Undergraduate training in ENT Head and Neck surgery in Nepal: Is there any uniformity? Nepalese J ENT Head Neck Surg 2010; (1): 27–9.
- Symvoulakis EK, Klinis S, Alegakis A, Kyrmizakis DE, Drivas EI, Rachiotis G, et al. Epidemiological profile of otolaryngological, Head and Neck disorders in a tertiary hospital unit in Greece. BMC, Ear, Nose and Throat Disord 2006; 6:12–5.
- Oosthuizen JC, McShan D, Kinsella J, Conlon B. General practitioner ENT referral audit. Ir J Med Sci 2015; 184(1):143-6.
- 12. O'Donel CA. Variation in GP referral rates: What can we learn from the literature? Fam Pract 2000; 17(6):462–71.
- Mace AD, Narula AA. Survey of current undergraduate otolaryngology training in the United Kingdom. J Laryngol Otol 2004; 118(3):217–20.
- Clamp PJ, Gunasekaran S, Pothier DD, Saunders MW. ENT in general practice: training, experience and referral rates. J Laryngol Otol 2007; 121:580–3.
- Wong A, Fung K. Otolaryngology in undergraduate medical education. J Otolaryngol Head Neck Surg 2009; 38:38–48.
- Sharma A, Machen K, Clark B and Howard D. Is undergraduate Otorhinolaryngology teaching relevant to junior doctors working in Accident and Emergency Departments? J Laryngol Otol 2006; 120:949–51.
- Amanda Hu, Maya G. Sardesai, Tanya K. Meyer. A need for otolaryngology education among primary care providers. Med Educ Online 2012; 17:17350.
- Lennon P, O'Donovan JP, O'Donghue S, Fenton JE. The Otolaryngology, head and neck training appraisal questionnaire: a national general practice perspective. Ir J Med Sci 2013;182(4):609–14.
- Donnelly MJ, Qurashi MS, McShane DP. ENT and General Practice: A study of paediatric ENT problems seen in general practice and recommendations for general practitioner training in ENT in Ireland. Ir J Med Sci 1995; 164(3):209–11.
- 20. Veitch D, Lewis M, Gibbin K. General practitioner training in ENT in the Trent Region. J Royal Soc Med 1992; 85:156–8.
- Johannes HU, Patrick JB, Francois G, Schellevis, Johannes C. Van Der Wouden. ENT problems in Dutch children: Trends in incidence rates, antibiotic prescribing and referrals 2002–2008. Scand J Primary Health Care 2011; 29:75–9.

CONTRIBUTION OF AUTHORS		
Author	CONTRIBUTION	
* Muhammad Farooq	A - B - C	
** Shakeel Ghani	B – C	
*** Sadiq Hussain	B – C	

A. Conception, Synthesis and Planning of the research