Assessment of Physicians Understanding of Asthma Guidelines in a tertiary care hospital

Y. Ahmed (Departments of Pediatrics, Community Health Sciences, Medicine, Ziauddin Medical University, Karachi.)
Qudsia Anjum (Departments of Pediatrics, Community Health Sciences, Medicine, Ziauddin Medical University, Karachi.)
F. Qureshi (Departments of Pediatrics, Community Health Sciences, Medicine, Ziauddin Medical University, Karachi.)
A. F. Qureshi (Departments of Pediatrics, Community Health Sciences, Medicine, Ziauddin Medical University, Karachi.)

Introduction

Asthma is a major cause of chronic morbidity and mortality throughout the world.1 It is a common, costly and chronic inflammatory disease of the airways that affect two million people in Pakistan having a significant impact on children, adults, their families and health care system.2 To improve asthma management, the National Asthma Education and Prevention Program (NAEPP), Expert Panel sponsored by the National Heart Lung and Blood Institute (NHLBI) developed the guidelines for the diagnosis and management of asthma in 1991.2 In 1997, the NHLBI updated their recommendations in the Expert Panel Report 2: Guidelines for the diagnosis and management of asthma.3,4 This report reinforced the previous recommendations and further emphasized the role of airway inflammation in the pathogenesis of asthma. Despite the existence of guidelines for the diagnosis and management of asthma for more than a decade, there is a wide range of practice patterns in asthma management. Deviations from published guidelines of the care of asthmatics have been described in pediatrics5, inner city6 and private Health Management Organization (HMO).7,8 Similar studies have been done to evaluate knowledge regarding asthma in other countries.9,10

The first and essential step every physician needs to follow towards patient care of asthma is a clear understanding and application of the guidelines. The literature search and the observations in medical community led to the assumption that poor physician understanding of the guidelines may play an important role in compliance with the recommendations. The aim of this study was to assess the knowledge of bronchial asthma among internists, family physicians, pediatricians and residents of the above-mentioned faculty in a tertiary care teaching hospital; and to identify the gaps in approach and management.

Methods and Results

A cross sectional study was done in a tertiary care teaching hospital. List of all faculty members was obtained from the prospectus 2002-2003. A total of 25 faculty members were identified from three campuses on the basis of their active involvement in teaching and treatment of asthma cases, whereas non-clinical faculty was excluded from the study. They filled a pre-tested self-administered questionnaire consisting of 31 items. Residents of year 1 to

Table 1. Scores mean and standard deviation..

ScoresMean + Standard deviation	Resident n=28	Faculty n=22	Total n=50
	11.4 + 4.1	15.5 + 5.7	13.2 + 5.2

Significantly less scores of residents as compared to faculty p<0.05

Table 2. Knowledge of residents and faculty regarding asthma.

	Knowledge	Residents	Faculty	p-value
Prevention	Some	14	14	0.33
	No	14	8	
Medicines	Some	28	22	NV
	No	0	0	
Management	Some	10	16	0.009*
	No	18	6	
Pathophysiology	Some	28	22	NV
	No	0	0	
Classification	Some	22	22	NV
	No	6	0	
Investigations	Some	16	16	0.25
	No	12	6	

*Significantly less scores of residents as compared to faculty p<0.05

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4 from departments of Medicine, Pediatrics and Family Medicine were also asked to fill the same questionnaire.

Data entry and analysis was done in Epi-Info, Chi-square test was performed and p-values calculated.

Out of 50 respondents, 22 were faculty members and 28 were residents. Every question was given a score of 1 for correct answer and 0 for incorrect answer. There was a significant difference on comparing the 31 item questionnaire responses of residents and faculty. The mean score of residents was 11.4+4.1 and of faculty was 15.5+5.7 ($p<0.05$) (Tables 1 and 2).

The questions were grouped into prevention and health education; classification; medicines; management; pathophysiology; and investigations. No significant difference was found between knowledge of residents and faculty on grouping the items except for the questions on management ($p=0.009$).

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