ORIGINAL ARTICLE

ASTHMA CARE PERCEPTIONS AND PRACTICES AMONG GENERAL PRACTITIONERS AT BAHAWALPUR.

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ABSTRACT:

BACKGROUND: Bronchial asthma is a major health problem in Pakistan and there is a substantial variation among General Practitioners in both their knowledge and management practices, including the assessment of severity of asthma, monitoring of the asthmatic patients and the use of proper medications.

PURPOSE: This study was carried out to characterize the current knowledge, beliefs, and practices of asthma management among general practitioners at Bahawalpur and its suburbs.

METHODS: It was a cross-sectional study involving 109 conveniently selected registered general practitioners in Bahawalpur and its suburbs, carried out from April 2007 to August 2007. The data was collected with the help of a pre tested questionnaire and was analyzed manually.

MAIN RESULTS: The male to female ratio among the GPs was 17:1. The mean age of GPs was 46 years and the mean duration of medical practice was about 14 years. Average number of cases of asthma seen by the GPs was more than two per week. Most of the GPs were found to be prescribing only oral

Beta2 agonists and/or oral Theophyllines. Only a few of the GPs were found educating their patients about the proper technique of using an inhaler device. Knowledge about childhood asthma was poor.

CONCLUSIONS: This study concluded that there is a need for improving the performance of GPs about asthma management.

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INTRODUCTION:

Bronchial asthma appears to be a major health problem in Pakistan, although exact epidemiological data is lacking, its prevalence is estimated to be 5 % of the total population, of which 5% of the sufferers are children according to a recent study conducted in 2002 (1). Three hundred million people across the world are afflicted with the disorder with 180 million deaths annually (1). Previous studies from other countries that have investigated the level of knowledge of bronchial asthma and the competence of primary care physicians in management issues, concluded that there is a substantial variation among General Practitioners (2-3) in both their knowledge and management practices, including the assessment of the severity of asthma, the monitoring of the asthmatic patient and the use of proper medications. Educational programmes based on self – learning in small peer groups, seem to be effective in improving asthma management (4). Similar programmes have not yet been implemented in Pakistan. Childhood asthma is a major public health problem (5, 6). It is one of the most prevalent chronic airway diseases amongst children (7). The percent of physicians prescribing an inhaled corticosteroid has increased over time with consistently greater prescribing among specialists (8). Asthma is a chronic inflammatory disease of the airways that affects nearly 10% of the population, although it is seen in different rates in various communities [9]. Despite the improvements in understanding pathogenesis, prevention and treatment of asthma, there has been a steady increase in the prevalence, morbidity and mortality associated with asthma in the last 20 years [10]. Under diagnosis and

inappropriate treatment are the major factors contributing to morbidity and mortality due to asthma [11]. Physicians who give primary health service continuously face the increasing number of patients with symptoms of asthma (12). The guidelines for asthma recommend that the use of anti-inflammatory therapy should be adapted to the severity of the disease. However, few data is available to assess the adequacy of the use of drugs and its influence on the control of asthma in 'real life' (13). According to Pakistan Chest Society the prevalence of asthma in Pakistan is considered to be around 10%. It is a badly diagnosed and poorly treated disease. Deaths from asthma are of importance in that many occur in young people and the majority of these are preventable. Most deaths occur outside hospitals, underlying the importance of appropriate action by patients, primary care practitioners, community health facilities and physicians.

This study was carried out to characterize the current knowledge, beliefs, and practices of asthma management among general practitioners at Bahawalpur and its suburbs.

METHODS:

A cross sectional survey was conducted on general practitioners. The study was conducted from April 2007 to August 2007 (5 months). A total of one hundred and nine (109) registered general practitioners from Bahawalpur and its suburbs were included in the study. The selection was done by convenience sampling technique. A pre tested questionnaire was used to collect the information regarding asthma management from the

general practitioners. The general practitioners were not given the actual questionnaire but they were indirectly asked about the management of a typical scenario in informal discussions, keeping in view all the components of the questionnaire. This approach was adopted to dig up the actual practices in vogue. We analyzed the data manually; simple percentages were calculated with the help of a calculator. The tables were made with Microsoft Word.

RESULTS:

One hundred and nine (109) practicing general practitioners registered in Bahawalpur, were conveniently selected and questionnaire was filled. The number of male GP's is 103 and female is 06 with male to female ratio of 17:1. The mean age of doctors was 46 years and 3 months (range: 27 years and 1 month to 66 years and 10 months). The mean duration of medical practice was 14 years and 8 months (range: 3 months to 42 years and 9 months). The average number of cases of asthma attended by the GPs was 2.36 a week (range: 0—14 cases). Out of 109 GPs, almost all (89.91%) prescribed oral preparation of a beta-agonist and the details are shown in Table No.1. Preferable inhaler was also a beta-agonist according to more than a half (55.96%) of the GP's, rest of the views is given in Table No.2. Out of the 109 GPs, only 16 (14.68%) were found to be aware of how to educate the patient about the technique of using an inhaler; the details are given in Table No.3. About one half (50.45%) of the GP's advised a life-long treatment for the

asthmatics, the details of opinions are shown in Table No.4. Out of the 109 GP's, only a meager number (12.84%) was aware of the role of Montelukast in the treatment of asthma and the remaining majority was not aware of its role. Only a few (4.59%) of the GP's denied any role of Ketotifen in the treatment of asthma while almost all were either unaware or doubtful about its role. One third (33.94%) of the GPs were of the opinion that Kenacort plays some role in the management of asthma while majority of them (66.06%) denied its role. Out of 109 GPs, a significant proportion (40.37%) advocated the effectiveness of desensitization in the management of asthma while majority of them (59.63%) denied it. A vast majority (81.65%) of the GPs declared asthma as a manageable disease from which a complete cure could not be achieved but a considerable minority (18.35%) were of the view that it was a totally curable disease. Out of 109 GPs, one forth (26.60%) opined that asthma is a communicable disease but majority had a view contrary to it. More than half (56.88%) of the GPs recommended that there should be no dietary restrictions to the asthmatic patients, the details are shown in Table No.5. Out of 109 GPs, majority (64.22%) had absolutely no idea about the management of asthmatic children while the remaining 39 (35.78%) were no better than others in their knowledge about the management of childhood asthma. A majority of the GPs (77.98%) were of the view that asthmatic mothers should be encouraged to breastfeed their infants but remaining one forth opined that the poor infants be deprived of their complete diet and be given immunization if mother was an asthmatic one.

Table No.1: Components of prescriptions for a case of asthma.

S. No.	*Medicine (s)*	*No. of GPs*	*%*
1	Oral Beta2 agonist	98	89.91%
2	Inhaler Beta2 agonist	61	55.96%
3	Oral Steroids	35	32.11%
4	Inhalational Steroids	21	19.26%
5	Oral Theophyllines	39	35.78%
6	Montelukast	16	14.68%
7	Cromolyns	08	7.34%
8	Ketotifen	04	3.67%

Table No. 2: Preferred inhaler for asthma patient.

S. No.	*Inhaler*	*No. of GPs*	*%*

1	Beta2 agonist (short acting)	61	55.96%
2	Beta2 agonist (long acting)	04	3.67%
3	Steroid inhaler	18	16.51%
4	Steroid + Beta2 agonist inhaler	12	11.01%
5	None	14	12.84%

Table No. 3: Patient education about using an inhaler.

S. No.	*Patient education*	*No. of GPs*	*%*
1	Explain the patient & observe the patient using an inhaler	16	14.68%
2	Explain the patient but not observe the patient using an inhaler	23	21.10%
3	None	70	64.22%

Table No. 4: What should be the duration of treatment in asthma?

S. No.	Duration	No. of GPs	%
1	Life long	55	50.46%
2	During attacks	24	22.02%
3	No idea	30	27.52%

Table No. 5: Dietary recommendations to the asthmatics.

S. No.	Dietary recommendations	No. of GPs	%
1	No dietary restrictions	62	56.88%
2	Avoid the food to which patient is allergic	26	23.85%
3	No idea	21	19.27%

DISCUSSION:

Asthma remains a serious global health problem that affects people of all ages. Many asthma management guidelines, both national and international, are available, but they are seldom implemented. The implementation of guidelines remains a challenge worldwide, as barriers exist at several levels. These barriers are generic, such as poverty, inadequate resources and poor infrastructure, or specific, such as organizational, health care provider and patient factors (14).According to a recent research conducted in India awareness about newer trends in childhood asthma management is less among GP's with

no difference based on number of years out in practice (15), a conclusion comparable with results of our study. The preponderance of literature supports the efficacy of specialist care for asthma. Not every patient with asthma needs to be treated by a specialist, however. An optimal health care delivery model for asthma (i.e. one that provides high quality care that is cost effective) requires some mix of primary and specialty services. A tiered model of care in which the primary care physician acts as the first point of contact and decision-maker with regard to referral and that includes asthma specialists, including allergists, pulmonologists, and other health care professionals with expertise in asthma, appears to be a reasonable solution. The number of studies that compare various models for organizing asthma care is limited, however. Thus, further research is needed to determine how best to align the roles of primary care physicians, allied health professionals, and sub specialists in order to ensure seamless communication and cost-effective care that is targeted to individual patient needs (16).

An Australian study agreement was substantial for usage of oral symptomatic medication (17), but less for inhaled symptomatic and preventive medications, which is similar to the results of our study. Doctors often have relatively poor insights into self-management practices, social background or trigger factors, even in high-risk patients (17). Of 10 studies reporting general practitioners' failure to prescribe indicated drugs, eight described under prescribing for asthma, and there is even documentation of death due to under prescribing from asthma (18). Inhalers were most commonly used inadequately by

patients with asthma (18). .

CLINICAL IMPLICATION:

This study provides data for improving the performance of GPs about asthma management.

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