Introduction

- Asthma, allergic rhinitis (AR), chronic obstructive pulmonary disease (COPD) and rhinosinusitis are among the most prevalent respiratory diseases worldwide – and collectively respiratory disease is a significant contributor to global morbidity and mortality. 1

- Prevalence of respiratory diseases is increasing in the Asia-Pacific region. 1,6

- There are no studies in the Asia-Pacific region that explore the burden of care as it relates to asthma, AR, COPD and rhinosinusitis in adults who present to Health Care Practitioners (HCPs) under one standard protocol.

- Cough is the most common symptom for patients presenting in primary care in the US and has a significant impact on quality of life. 4

- Cough is one of the main symptoms for patients presenting with asthma and COPD and is a common symptom associated with AR and rhinosinusitis. 7,9

- Given the importance of cough as a ‘signaling’ symptom in respiratory diseases, it is vital to assess the frequency with which cough is present in patients visiting HCPs.

Objectives

- Estimate the proportion of patients receiving care for asthma, AR, COPD and rhinosinusitis as a proportion of all patients receiving care for a respiratory disease

- Estimate the proportion of adult patients receiving care for asthma, AR, COPD or rhinosinusitis who report cough as a symptom and who report cough as the main reason for their visit.

Methods

- A cross-sectional, observational study, Asia-Pacific Burden of Respiratory Diseases (APBORD), was conducted to examine the burden of disease in adults with respiratory diseases across 6 countries - India, Korea, Malaysia, Singapore, Taiwan, and Thailand.

- Subjects were recruited from a total of 22 sites between 31 October 2012 and 13 October 2013. The study was approved by Ethics Committees in each jurisdiction.

- Consecutive adult patients presenting to each study site were assessed by the physician during a routine consultation. Eligibility criteria included age ≥ 18 years and receiving care for a primary diagnosis of asthma, AR, COPD or rhinosinusitis.

- During the study visit, physicians completed the Screening and Consent Log and the Physician Survey. The Physician survey comprised questions relating to the patient’s respiratory diagnosis.

- Patients completed a survey which included questions relating to general demographics, respiratory symptoms, healthcare resource use and quality of life.

- The percentage and 95% confidence interval of patients with each disease was calculated using the exact (Clopper-Pearson) method via the Binomial Exact option in PROC FREQ.

Results

- A total of 13,902 patients diagnosed with a respiratory disease were screened for inclusion. Of these, 7,030 (50.6%) were diagnosed with asthma, AR, COPD or rhinosinusitis, and therefore, were eligible to enroll in the study. Of the 7,030 eligible patients, 5,250 (74.7%) consented and were enrolled in the study.

- The mean (SD) age of enrolled patients was 48.8 (17.6) years and 53% were females. Chinese was the most frequently reported ethnicity (28%). Seventy percent of patients had never smoked. Of the patients to have ever smoked (30%), 33% were current smokers.

- The highest percentage of patients receiving care for a respiratory disorder had a primary diagnosis of AR (14.0%, 95%CI: 13.4, 14.6), followed by asthma (13.5%, 95%CI: 12.9, 14.1), rhinosinusitis (5.4%, 95%CI: 4.6, 6.3%) and COPD (4.9%, 95%CI: 5.0, 5.7%) (Figure 1).

- The proportion of patients receiving care for asthma, AR, COPD, or rhinosinusitis varied between each country (Table 1).

Figure 1. Adults with primary diagnosis of a respiratory disease as percentage of total enrolled (N=13,902)

Table 1. Adults with primary diagnosis of a respiratory disease by country (N=13,902)

<table>
<thead>
<tr>
<th>Country</th>
<th>Asthma</th>
<th>AR</th>
<th>COPD</th>
<th>Rhinosinusitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>22.4%</td>
<td>20.4%</td>
<td>24.7%</td>
<td>31.7% (28.2, 34.3)%</td>
</tr>
<tr>
<td>Korea</td>
<td>12.5%</td>
<td>11.6%</td>
<td>13.5%</td>
<td>7.2% (4.4, 8.8)%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>9.1%</td>
<td>8.2%</td>
<td>9.7%</td>
<td>24.9% (23.2, 26.7)%</td>
</tr>
<tr>
<td>Singapore</td>
<td>11.5%</td>
<td>10.7%</td>
<td>13.8%</td>
<td>3.9% (2.2, 5.3)%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>11.5%</td>
<td>10.3%</td>
<td>12.7%</td>
<td>9.2% (8.2, 10.4%)</td>
</tr>
<tr>
<td>Thailand</td>
<td>22.2%</td>
<td>21.0%</td>
<td>24.0%</td>
<td>11.9% (10.5, 13.3)%</td>
</tr>
</tbody>
</table>

Conclusion

- This study shows that the four diseases of asthma, AR, COPD and rhinosinusitis represent a significant percentage of all respiratory disorders presenting to HCPs in the Asia Pacific region.

- Cough was a prominent symptom and major driver of medical care not only for patients with COPD and asthma, but also for rhinosinusitis and AR.

- Patients presenting with cough should be investigated more comprehensively for any underlying respiratory disorders to help with appropriate disease management.

References


