Barriers to Managing Patients with Asthma: A Multidisciplinary View

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Background

Asthma is estimated to affect over 21 million people within the United States.[1]

Even with the availability of clinical practice guidelines and new agents designed for treatment, asthma remains a frequently misdiagnosed and suboptimally-managed disease.[2] Barriers to optimal management of asthma may contribute to these gaps in care.

The purpose of this study was to aggregate several group sessions with pulmonologists, allergists, and allergy/asthma nurses in order to identify key barriers these specialists face when managing patients with asthma in order to identify approaches that may help overcome these challenges.

Methods

In order to gather comprehensive and prioritized lists of barriers, we conducted nominal group technique (NGT) sessions with United States-practicing asthma specialists. The NGT is a faciliated systematic and structured group approach to elicit and prioritize the responses of a panel addressing complex issues,[3,4] and has been applied to analysis of continuing medical education (CME).[5] The sessions involve the following steps:

1) silent written generation of responses to a question;
2) round-robin recording of responses;
3) discussion for clarification and aggregation;
4) prioritization of responses.

Two NGT sessions for each of the specialty groups (6 panels in all) were conducted with a combined total of 52 participants. The panels were asked to generate a list of barriers that they and their collegues face when diagnosing and managing asthma, followed by prioritization of the barriers with the greatest impact on management and barriers best addressed by CME. The prioritization allowed each panelist to weight the most important responses with a score -- the response perceived as top priority is awarded 3 points; second priority, 2 points; third, 1.

These barriers were aggregated from all 6 sessions and classified into categories[6] and subcategories. Each category was weighted based on the accumulated prioritization scores of each barrier response to show key areas of concern for asthma specialists, including top overall barriers and those that can best be addressed by CME.

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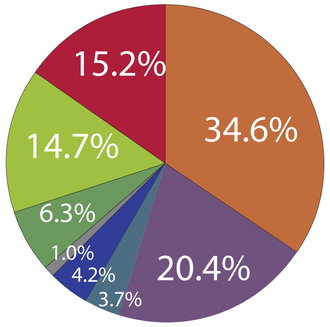
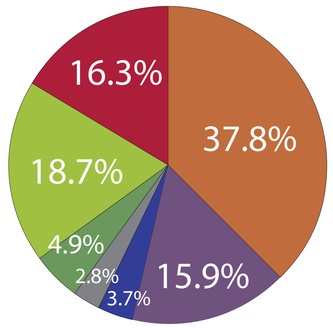
Results

Proportion of Elicited Barriers



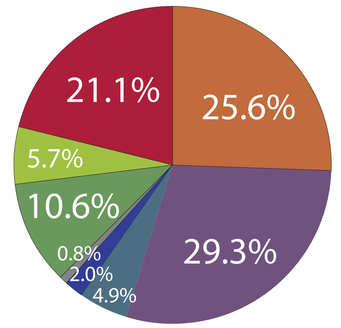
191 barriers were elicited from the 52 clinician participants.

Weighted Proportion of Barriers

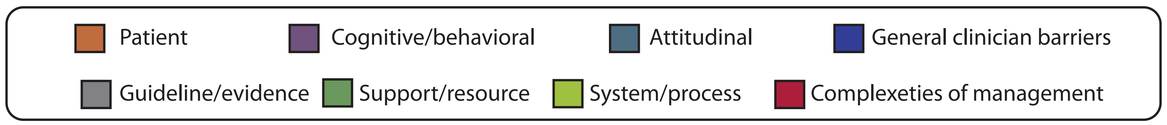


246 points were attributed to identifying top barriers; patient and system/process barriers were viewed as the most important when managing asthma.

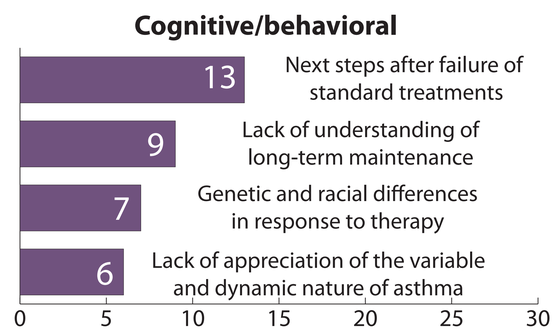
Weighted Barriers To Address By Education

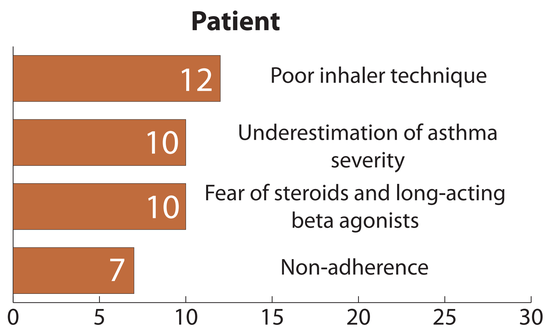


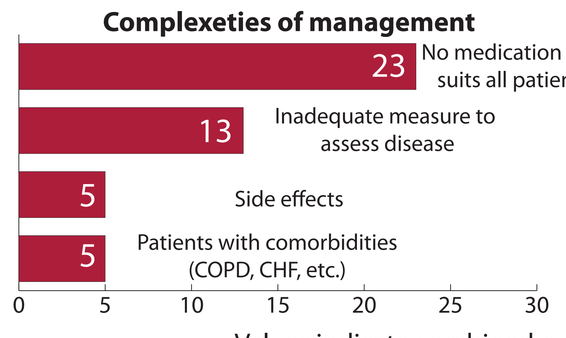
Out of 246 points attributed to identifying top barriers to address by education, more emphasis was placed on cognitive/behavioral and management complexeties.

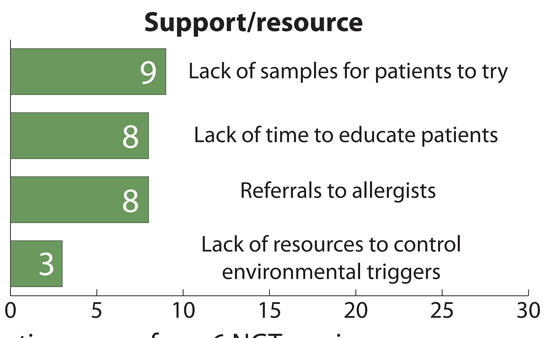


Top Barriers To Address By Education









Values indicate combined prioritization scores from 6 NGT sessions

Conclusions

Top barriers, when weighted, have a similar distribution to the list of total barriers elicited from the participants. However, these barriers may not be seen as appropriate for education to target.

Patient and system/process barriers were viewed as most important, but only some components of each were seen as viable for educational topics. Barriers dealing with cognitive/behavioral, complexeties of asthma management, and support/resource issues were seen as important, but more appropriate for education to address.

Nurses were twice as likely to cite patient barriers (53.1% of elicited responses) than allergists and pulmonologists (25.2%). Allergists (21.7%) and pulmonologists (26.9%) were more likely than nurses (12.5%) to cite cognitive/behavioral barriers. As nurses deal more directly with patients, they are more attuned with the patient barriers involved in managing asthma, such as poor inhaler technique and adherence to prescribed regimens. However, nurses are less likely to recognize knowledge gaps as a major contributer to asthma care than physicians. Conversely, physicians may need to increase awareness of the role of the patient in asthma managment.

Educational Implications

The asthma specialists perceived that educational interventions were best suited to cover complexeties of asthma management, cognitive/behavioral, and certain patient barriers. Within these categories, top barriers to address by education include how to handle the heterogeneity of asthma, inadequate measures for asthma assessment, and next steps after failure of standard treatment.

Indicated patient barriers might be good targets for patient education, or possibly, clinician topics on best approaches to teach key points such as proper inhaler technique and convey significance of symptom severity and proper adherence.

References

1. National Health Interview Survey (NHIS) data, 2006, available at http://www.cdc.gov/asthma/nhis/06/data.htm
2. Finkelstein JA et al. (2000) *Pediatrics* 106: 886-896.
3. Frankel S. (1997) *J Applied Behav Sci* 33: 543-551.
4. Gallagher M et al. (1993) *Fam Pract* 10: 76-81.
5. Kristofco, R et al. (2005) *J Contin Educ Health Prof* 25: 221-228.
6. Cochrane LJ et al. (2007) *J Contin Educ Health Prof* 27: 94-102.

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