Exploring the Effectiveness of Asthma Action Plans in Long-Term Asthma Management

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Problem Definition

• Asthma is a common condition impacting 10% of adults in the United States
• Self-management is an essential component of achieving adequate asthma control and asthma control predicts exacerbations
• Asthma action plans (AAP) provide patients with the tools to prevent and treat symptoms¹,²
• In adults, there is limited evidence that peak flow guided AAPs improve control or quality of life¹
• There is a need to gather evidence and explore AAP effectiveness in long term asthma management for adults²

Aims For Improvement

• Determine the efficacy of AAP in helping patients feel more confident in their self-management
• Improve asthma control by at least 10% after receiving an Asthma Action Plan

Methods

• 50 asthmatics with moderate to severe asthma were each administered an Asthma Control Test (ACT) and an 8 question Likert Scale survey that inquired about a) awareness of asthma triggers b) knowledge of asthma medications c) confidence regarding management
• An AAP was created and reviewed with each patient – this included training on the use of a peak flow meter
• The same ACT and 8 question Likert Scale survey was administered at a follow-up appointment

Measurement and Results

• Follow-up survey indicated an overall increase in the number of ‘Strongly Agree’ responses with regards to feelings about asthma control

Conclusions

• Asthma Action Plans can improve asthma control and patient confidence in asthma self-management.

Next Steps & Lessons Learned

• Patients without an AAP should be identified prior to their specialist encounter
• Comorbid conditions may impact a patient’s ability to follow an AAP
• The natural history of asthma including seasonal variation likely impacted our results
• Whether AAP decrease the need for frequent follow-up needs to be determined

References


Figure 1: Classification based on asthma type

Intermittent asthma (n=1), mild persistent asthma (n=6), moderate persistent asthma (n=16), severe persistent asthma (n=27)

Figure 2: Classification based on smoking status

Never smokers (n=33), former smokers (n=15), current smoker (n=2)

Figure 3: Mean ACT scores

The mean baseline ACT score (18.7) and mean follow up ACT score (19.8) indicate a 5.7% improvement in ACT scores post AAP administration

Figure 4: Pre & Post Questionnaire Comparison

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