Utilizing a Physician Notification System in the EPIC Electronic Medical Record to Improve Asthma Control: A Quality Improvement Project

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Background

• The Asthma Therapy Assessment Questionnaire (ATAQ) is a standardized assessment tool to evaluate asthma control in pediatric asthma patients >12yo. By incorporating its use in our allergy clinic, we would provide better patient care as outlined in the 2007 NHLBI Asthma Guidelines.
• The ATAQ is built into the EPIC EMR and entered by Respiratory Therapist. The score ranges from 0-7. Patients with score above 2 in control domain have poor asthma control and intervention is indicated.
• Better asthma control is linked to decreased ER visits and hospitalizations. When patients have evidence of poor asthma control, prompting the provider to adjust treatment may lead to decreased healthcare utilization and improved patient care.

Objective

• Attain a rate of at least 70% for documented action taken for patients with ATAQ scores of 3 or higher for eligible asthma patients followed in clinic. (Figure 1)

Methods

• %Completion of ATAQ: ACTION for scores> or equal to 3
• ATAQ completed by Respiratory Therapist when patient completing PFTS
• Best Practice Alert (BPA) sent electronically to provider if ATAQ score greater than equal to 3
• BPA gives different options for intervention: Change medication, Review Technique, Further Workup, No Action Necessary, Other (with free text)
• Intervention responses tracked by discrete data elements
• Completion rate tracked through SlicerDicer Component of EPIC

Results (continued)

• Review of Inhaler Technique (65%) was the most common intervention over the 3 month period of observation (Figure 2)
• Next most common was further evaluation (56%) and medication change (55%) but some variability depending on month observed

Results

• There were 439 visits at Allergy Main where the Primary Dx for the encounter contained the word “asthma” between Mar 15-July 24, 2017
• 207 of those visits were return visits and had a completed ATAQ (47%)
• Documented action was taken for scores higher than 3 in 99% (87 / 88) of encounters and at least 74% in those with score of 3 and above
• 74% of those with an elevated ATAQ above 3 had multiple interventions documented, with 57% having a medication change, inhaler technique reviewed, and further evaluation.
• Only 12% had no action required

Conclusions

• Utilizing a physician notification system led to a change in management in the majority of patients who exhibited poor control by ATAQ score.
• While medication change occurred in over half of the patients, checking inhaler technique and further evaluation were more commonly utilized interventions.
• Taking these steps are consistent with asthma guideline recommendations
• Harnessing technology to implement a system wide provider notification system could lead to better clinical outcomes and decreased health utilization for pediatric patients with asthma