Implementation of Template-Based Charting for Inpatient Asthma Management on Proper Classification of Asthma

Siddhartha A Dante, MD and H. Barrett Fromme, MD, MHPE. Department of Pediatrics. University of Chicago Comer Children’s Hospital, Chicago, Illinois

Background

- Asthma exacerbations are a common cause of pediatric inpatient hospitalization.
- Management of asthma is the first and only measure set by the Joint Commission to evaluate and compare pediatric hospitals.
- Focus is on utilization of rescue medications, steroid use in the hospital, and discharge with a home management plan
- Inpatient management is largely ignored in these measures
- NHBLI expert panel review establishes classifications of asthma that requires a thorough and accurate history
- Proper classification allows optimization of long-term management of asthma patients
- This classification can be neglected in a busy hospital environment

Aims

Previous process improvement projects for in-patient asthma management in the literature have focused on process-mapping and order set creation and not on the history taking and classification of asthma, but it is logical to assume that proper classification of asthma has a direct effect on management.

Our overall goal is to improve inpatient asthma care with a focus on proper medication selection and directed education. However, both goals require the proper classification of asthma prior to any further process improvement interventions.

The Intervention

- Creation of a new EPIC Smart Phrase-based charting process that can be easily utilized in daily work for asthma admissions
- Directed educational intervention for interns and residents regarding Smart Phrase Use on the Maroon team, which covers all asthma admissions outside of the PICU.

Progress To Date

- A total of 161 patients were discharged from Comer Children's Hospital with a primary diagnosis of asthma from August 2013 to January 2014 (Table).
- One hundred six patients (56%) were admitted to the General Pediatrics service and seventy nine patients (42%) were admitted to the Pediatric Intensive Care Unit.
- Seasonal variation was observed in total number of patients admitted with a primary diagnosis of asthma with the majority of patients admitted in September and October (Figure 2).
- Initial analysis has been limited to usage of the template in admission H&P notes. Patients were not included in the analysis if their primary diagnosis was reactive airway disease or if they had received a new diagnosis of asthma. 89 of 123 (72%) patients had a primary diagnosis of asthma versus length of stay or risk of PICU transfer.

Lessons Learned

- This process improvement project was directed at intern residents on the general pediatrics service
- 42% of patients were admitted to the PICU, where residents were not trained on the template
- Some of the patients without templates used were likely attributable to PICU transfer patients
- Efforts should be made to address this education gap

Next Steps

This project is step 1 of a multi-step approach to improve inpatient asthma management. Proper classification of asthma will allow for the ability to answer quality questions such as whether appropriate discharge medications were selected. Additionally, it may allow for resource direction based on further analyses such as classification of asthma versus length of stay or risk of PICU transfer.

Contact: Siddhartha Dante, MD (siddhartha.dante@uchospitals.edu)