Title: Optimal Asthma care for Pediatric Patients Presenting to the emergency department.

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Research Summary

Background: The 2007 CDC survey an estimated 9.6 million children (13.1 percent) under 18 years had been diagnosed with asthma during their lifetimes (1). The CDC national asthma control program state profile estimated 322,007 children in Florida had asthma and the asthma hospitalization rate in Florida for children was 172.6/100,000 persons while the total U.S. rate was 144/100,000 persons. (2) Nationally and internationally asthma care is suboptimal and there is much to be learned about the disease process as well as strategies for management.

The overall goal of our efforts is to improve pediatric asthma care, decrease emergency room visits, decrease hospitalizations, and decrease need for short courses of oral steroids. This will be accomplished using established best practices for reducing the burden of asthma as identified through scientific research and peer reviewed journals and expert panels.

There is variability in adherence to NIH Guidelines (EPR-3) for the treatment of acute asthma in our emergency department. It is our hypothesis that improving adherence will decrease admissions from the ED, decrease return visits to the ED, decrease repeated exacerbations, and decrease in recurrent courses of oral steroids.

Our aims are:
1) Collect data on adherence to the guidelines for 3 months;
2) Provide education, order sets, and clinical pathways based on NIH guidelines to ED physicians, staff, respiratory therapists, and nurses; and
3) Measure adherence and determine the extent of reductions in hospital admissions, time to first beta agonist dose, time to first steroid dose, and amount of beta agonist used, and the rate of representation to the ED.

Outcomes listed above will be measured via chart review before and after implementation of asthma order set and pathways.

The medical student's role will be to assist in implementation of the protocol in the emergency room, education of staff, and in extracting data via chart review post implementation. There is potential for publication if the student would like to complete the IRB.