

## **Association of Asthma Educators 2019 Poster Abstract Submission Page (DATA)**

**Title: Objective testing before discharge leads to lower readmission rates.**

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**Background:** Norton Children's Hospital (NCH) is a 267 bed pediatric hospital in Louisville Kentucky. Louisville is ranked number five for its high asthma prevalence and high number of asthma-related emergency room visits and hospitalizations. NCH has designed a discharge criteria, for patients 5-18 admitted with primary diagnosis of asthma, that requires the patient to score >70% on their FEV<sub>1</sub> before discharge. This allows for more objective data on the patient's clinical presentation before discharge resulting in a lower readmission rate but a longer length of stay.

**Methods:** Patients 5-18 with a primary diagnosis of asthma admitted to NCH must meet the following discharge criteria: receive one treatment at Q4 hours with FEV<sub>1</sub>>70% (measured by pulmonary function testing done in-house), maintain SpO<sub>2</sub> > 91% on room air, receive patient and family education from Asthma Educator, have a Home Management Plan of Care and a follow-up appointment in 1-3 days with primary care doctor. If a patient meets discharge criteria on their PFT they are then discharged home. Patients who do not pass their PFTs with FEV<sub>1</sub>>70% are spaced back to Q3 albuterol treatments until PFTs are repeated in the morning.

**Results:** Seven day readmission for 2017-2018 at NCH hospital shows inpatient to inpatient readmission of 0%; 0/706 patients. NCH PEER hospitals (as identified by PHIS data) report inpatient to inpatient readmission rate as .38%; 15/3943 patients. NCH length of stay data reports average LOS was 2.64 whereas PEER hospitals LOS was 2.31.

**Conclusion:** NCH mean LOS is longer than PEER hospitals, but the readmission rate is less than PEER hospitals. This reduction in readmission stems from the objective data collected via in house PFTs before discharge. Using objective data verses strictly subjective data for discharge gives the patients a better chance at success once discharged; proven by the readmission rate.