

STRONG CHILDREN'S RESEARCH CENTER

Summer 2015 Research Scholar

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ABSTRACT

Title: *Improving the management of pediatric community-acquired pneumonia*

Background: Community-acquired pneumonia (CAP) is a leading cause for pediatric hospitalization. In 2011, the Pediatric Infectious Diseases Society and the Infectious Diseases Society of America developed evidenced-based guidelines for the clinical management of pediatric CAP. Subsequent to the publication of these guidelines, a national quality improvement collaborative of more than 50 hospital systems was undertaken to develop national benchmarks for the diagnosis and management of CAP and to improve fidelity to the guidelines.

Objective: To compare Golisano Children's Hospital (GCH) at UPMC data to national benchmarks in order to inform future quality improvement initiatives and protocol development for CAP over the next 12 months.

Methods: This quality improvement study included a retrospective, cross-sectional, chart review of pediatric patients admitted with a primary diagnosis of pneumonia (ICD9 codes: 481, 482.0, 482.2-.42, 482.89, 485, 486) from September 1, 2013 through May 10, 2015. Inclusion criteria were: age 3 months to 18 years, admission to and discharge from GCH, and administration of either a full inpatient course of antibiotics or discharged to complete a full course of antibiotics for CAP. Patients who received ICU care during admission, mechanical ventilation/intubation, had co-morbid conditions, were transferred to or from SMH, and/or had any pleural drainage procedure were excluded. A total of 8 run charts were created for each individual metric for 5 different cycles. Each cycle represents a 3-month period (Sep '13-Nov '13, Dec '13-Feb '14, Mar '14-May '14, Sep '14-Nov '14, Dec '14-Feb '15).

Results: A total of 220 pediatric patient charts were reviewed and out of those, 66 charts met study criteria. The average age was 4.9 (± 5.2) years and the average length of hospitalization was 5 (± 5.6) days. Results for each run chart showing GCH data compared to the national data and target goal metrics are attached.

Conclusion: These data will inform targeted interventions for areas of below-average performance in the management of inpatient CAP at GCH, with specific regard to narrow-spectrum antibiotic use in the ED and macrolide use on the inpatient floors.

ABSTRACT

Results:

