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Improving Pneumococcal Polysaccharide Vaccination in Children With Cystic Fibrosis

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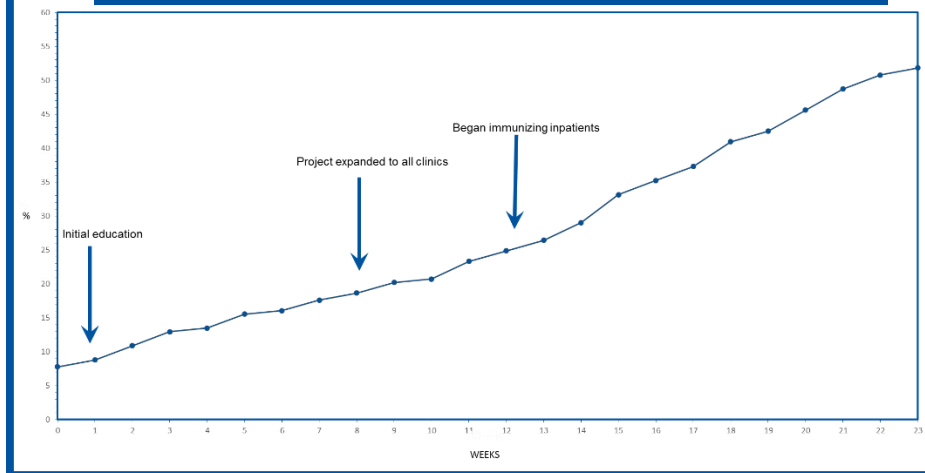
Introduction

- Cystic fibrosis (CF) is an inherited, lifelong condition resulting in chronic lung disease. Current guidelines recommend administration of pneumococcal polysaccharide vaccine (PPSV23) to high risk patients, including patients with CF, greater than 2 years of age. Search of our electronic medical records indicated that only 7.7% (11/193) of our CF patients ≥ 2 years had received PPSV23. None of our CF providers were regularly administering PPSV23 in their CF clinics and few were aware of the recommendation.
- The aim of this project was to increase overall PPSV23 vaccination in our CF population from 7.7% to 30% by 9/1/2018.

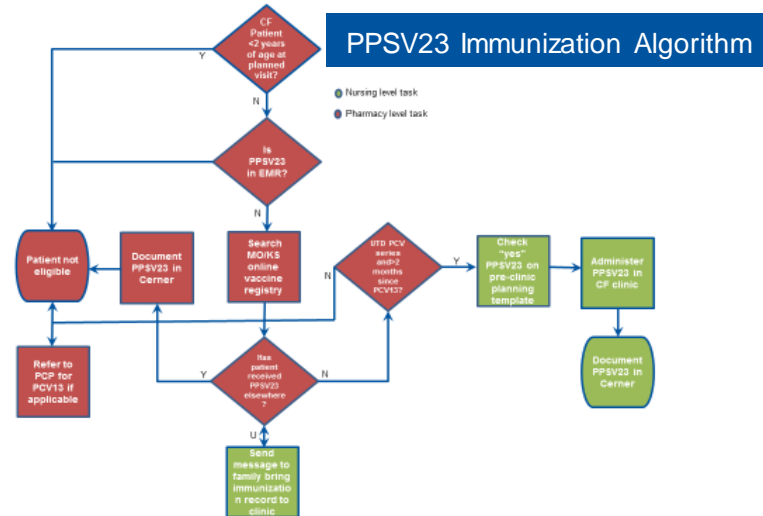
Methods

- The primary outcome measure was percentage of patients greater than age 2 years who have received PPSV23.
- Secondary measures included overall vaccination rate during the 23 week duration of the project and reasons for a patient not receiving PPSV23.
- Project interventions included: a report of age eligible patients, education of CF providers, education of CF patients/families through a quarterly newsletter, utilization of an immunization algorithm, incorporation of PPSV23 discussion into pre-clinic huddles, and administration of the vaccine during CF clinic. The first 8 weeks served as a pilot period in half of our CF clinics. At week 13 we expanded vaccination to eligible inpatients.

Percent of Cystic Fibrosis Patients Up-To-Date on PPSV-23



PPSV23 Immunization Algorithm



Results

- During the 23 week period, our overall PPSV23 vaccination among age-eligible CF patients increased from 7.7% to 51.8% (100/193).
- The overall vaccination rate during the study period was 52% (85/163).

Top Reasons For Patient Not Receiving PPSV23



- Sick
- Unknown
- No Vaccine Record
- Needed PCV13
- Refused
- Transitioning Care

Conclusions

- Few CF patients seen in our clinic had received PPSV23 vaccination despite it being the standard of care.
- During a 23 week period we increased vaccination of our CF population primarily through education, utilization of an immunization algorithm, incorporation of PPSV23 into pre clinic planning and administration of the vaccine during CF clinic and during inpatient stays.
- Invasive pneumococcal disease may be decreased through increased immunization of high risk patients.