

Title: Evaluation of Pneumococcal conjugate vaccine 13-valent (PCV13, Prevnar 13) utilization in adults over 65 years of age

Purpose: Recently, the Advisory Committee on Immunization Practices (ACIP) conducted a planned review of invasive pneumococcal disease burden and subsequently voted to make PCV13 vaccination a shared decision making process with their immunization provider. Saint Luke's Health System's current protocol reflects ACIP's 2014 guidelines, which indicate PCV13 for all adults age 65 or older. The purpose of this study is to determine the fiscal impact of implementing the revised PCV13 recommendations.

Methods: A retrospective review was performed on patients aged 65 years and older who had an order for PCV13 while admitted to Saint Luke's Health System within the dates of January 2019 to June 2019. Charts were reviewed to determine if patients met criteria to be considered immunocompromised. ACIP deems any of the following to be immunocompromising conditions: B- and T- lymphocyte deficiency, complement deficiencies, phagocytic disorders, HIV, chronic renal failure on hemodialysis, nephrotic syndrome, leukemia, lymphoma, Hodgkin disease, generalized malignancy, iatrogenic immunosuppression, solid organ transplant, multiple myeloma, or anatomical or functional asplenia.

Results: 583 patients were identified as having an order for PCV13, but only 392 patients actually received the vaccine. Out of those 392 patients, only 20 (5.1%) had an immunocompromising condition while 372 (94.9%) had age alone as their indication for vaccination. The total cost for administering PCV13 over this 6 month span was \$68,306 (\$64,821 on patients without an immunocompromising condition, \$3,485 on immunocompromised patients).

Conclusion: Saint Lukes Health System should change the current PCV13 protocol and standing order set to reflect ACIP's updated guidelines. If changed as recommended, PCV13 will be administered only to inpatients with immunocompromising conditions. All other inpatients will no longer be vaccinated with PCV13. Total cost savings over a six month period are estimated to be \$64,821.