Streptococcus pneumoniae [Pneumococcus] remains the leading infectious cause of serious illness including bacteremia, meningitis and pneumonia in older adults and individuals with certain immunocompromising conditions. Disease rates in immunocompromised adults can be 20 times more than those without these conditions. PPSV 23 prevents Invasive Pneumococcal disease [IPD] but not Pneumococcal Pneumonia whereas PCV13 prevents both IPD and Pneumonia. Current guidelines from CDC and ACIP recommend use of both PPSV23 and PCV13 vaccines for all older adults ≥ 65 years of age and adults ≥ 19 years of age with immunocompromising conditions, functional or anatomic asplenia, cochlear implants or CSF leaks.

Despite this, PPSV23 and PCV13 vaccination coverage in 2014 among adults 19-64 years at high risk was 20.3% and among adults ≥65 years was 61.3%. In addition, more than 65% of persons who have been hospitalized for severe pneumococcal disease had been admitted in the hospital in the preceding 3 year, yet few had received pneumococcal vaccine.

In 2014 the Center for disease control and prevention’s Advisory Committee on Immunization Practices (CDC ACIP) updated its vaccine guidelines and recommended the administration of a 13-valent pneumococcal conjugate vaccine (PCV13) in series with the 23-valent pneumococcal polysaccharide vaccine (PPSV23) for adults ≥65 year and adults with high risk conditions. As a part of this core measure we implemented an updated electronic medical record/EMR protocol that aides the nursing staff (NS) to screen and immunize eligible patients. The aim of our study is to analyze the effect of this new protocol on vaccination rate and compliance.

Methods:
This study was conducted in 8 hospital tertiary care facility in Detroit. The pneumococcal vaccine assessment protocol (PVAP) was launched in October 2015, which is a user friendly electronic guideline compliant with the new CDC ACIP guidelines. The PVAP popped up on the EMR anytime a new patient was admitted and prompted the NS to fill the checklist aiding them to screen for eligible patients (Figure 1). We analyzed the effect on vaccination rate and compliance with ACIP guidelines pre and post PVAP launch. Compliance was defined as the percent of patients who were eligible for the vaccine per the ACIP guidelines and were administered the correct schedule of vaccines.

Results:
500 newly admitted adult patient (age ≥18) who met the ACIP pneumococcal vaccination criteria were selected via EMR search 6 months pre and post PVAP. Compliance rate pre PVAP ranged from 96-98 percentile and continued to remain steady during the same range (Figure 1). Complete information on patients’ immune status, risk factors and eligibility was easily accessible from a single screen in the EMR following the PVAP launch. PVAP was considered a user friendly and convenient tool by the NS.

Conclusion:
The pivotal role of pneumococcal vaccine on prevention of invasive pneumococcal infection is well known. However the new CDC ACIP guidelines can be perplexing to NS especially in facility with high patient volume. PVAP proved to be an efficient tool to aide NS to comply easily to the new ACIP recommendations.

INTRODUCTION
- **Streptococcus pneumoniae** [Pneumococcus] remains the leading infectious cause of serious illness including bacteremia, meningitis and pneumonia in older adults and individuals with certain immunocompromising conditions. Disease rates in immunocompromised adults can be 20 times more than those without these conditions.
- PPSV 23 prevents Invasive Pneumococcal disease [IPD] but not Pneumococcal Pneumonia whereas PCV13 prevents both IPD and Pneumonia.
- Current guidelines from CDC and ACIP recommend use of both PPSV23 and PCV13 vaccines for all older adults ≥ 65 years of age and adults ≥ 19 years of age with immunocompromising conditions, functional or anatomic asplenia, cochlear implants or CSF leaks.
- Despite this, PPSV23 and PCV13 vaccination coverage in 2014 among adults 19-64 years at high risk was 20.3% and among adults ≥65 years was 61.3%. In addition, more than 65% of persons who have been hospitalized for severe pneumococcal disease had been admitted in the hospital in the preceding 3 year, yet few had received pneumococcal vaccine.

OBJECTIVE
- The aim of our study was to analyze the effect on pneumococcal vaccination rates and compliance with ACIP guidelines after implementation of an updated EMR protocol that aides in screening and immunization of eligible patients.

METHODS
- **Study conducted in a** hospital tertiary care facility in Detroit region.
- PVAP: user friendly electronic protocol consistent with the new CDC ACIP recommendations was launched in October 2015. Nursing education on PVAP was done at the time protocol was launched.
- The PVAP pops up on the EMR anytime a new patient is admitted. Complete information on patient’s immune status, risk factors and eligibility are easily accessible from a single screen in the EMR.
- PVAP prompted the NS to fill the checklist aiding them to screen and immunize eligible patients (Figure 1).
- For evaluating outcomes, newly admitted adult patients ≥18 years of age who were eligible for vaccination per ACIP guidelines were selected via EMR search 6 months prior to and 6 months after PVAP launch.
- Compliance, defined as percent of patients who were eligible for vaccination and received the correct vaccine type.

RESULTS
- **500 patients each** were selected pre and post PVAP implementation.
- Compliance rate pre PVAP was ranging from 96-98 percentile and continued to remain steady around the same range post PVAP launch (Figure 2).
- The PVAP was considered user friendly and convenient tool by the NS.

CONCLUSION
- High adherence to ACIP Pneumococcal vaccination recommendations was noted with use of an updated PVAP protocol in hospitalized adults ≥18 years. Nursing education is critical at the beginning to achieve higher compliance to the protocol.