Introduction

- Streptococcus pneumoniae is a significant bacterial pathogen that can cause morbidity and mortality among the elderly [1]
- The pneumonia vaccination status for adults 65 and older is an important measure for CMS, and practices are measured and incentivized based on the percentage of patients 65 and older who have ever received a pneumococcal vaccine [2]
- Vaccination experts encourage the use of non-physician ambulatory care team to spearhead vaccination efforts utilizing a chief vaccination officer[3]

At our academic medical center we discovered baseline pneumonia vaccination rates in resident physician clinics (59.85%) are significantly lower than attending physician clinics (69.16%)

Aim

Double the number of pneumonia vaccinations given in the resident physician clinics over a one month period

Actions Taken

4-week multicomponent quality improvement project
April – May 2019, building on educational outreach done in 2018

Pocket Cards

- Pocket cards with the ACP pneumonia vaccine recommendations were distributed to physicians and nurses
- If the patient was 65 years or older and due for either PCV13 or PPSV23, a nurse would pend the order prior to the visit for the appropriate vaccine following the pocket card instructions

Provider Education

Nurse Pended Orders

Results

- The results indicated that the intervention group was 2.61 times (95% CI = [1.18, 6.10]) more likely to vaccinate compared to the control group patients (20% vs. 8.7%, χ² (1)= 5.16, p=0.02, Cramer’s V =0.16)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Intervention</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients scheduled, all ages</td>
<td>420</td>
<td>396</td>
</tr>
<tr>
<td>Patients seen, all ages (scheduled patients – no shows)</td>
<td>350</td>
<td>345</td>
</tr>
<tr>
<td>Patients seen ≥ 65</td>
<td>95</td>
<td>103</td>
</tr>
<tr>
<td>Patients seen ≥ 65 who received a pneumonia vaccine</td>
<td>19 (20.00%)</td>
<td>9 (8.74%)</td>
</tr>
<tr>
<td>Patients seen ≥ 65 who received a pneumonia vaccine with pended order</td>
<td>12 (63% of given vaccines)</td>
<td>0</td>
</tr>
<tr>
<td>Patients seen ≤ 65</td>
<td>253</td>
<td>242</td>
</tr>
<tr>
<td>Patients seen ≤ 65 who received a pneumonia vaccine</td>
<td>9 (3.55%)</td>
<td>5 (1.45%)</td>
</tr>
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Post Intervention Nurse Interview and Provider Survey Results

- It was not a huge influence. It takes me about five minutes to go through a patient’s chart to figure out if they are needing a pneumonia vaccine or not. Yeah, not much added time to what we originally do or what we normally do anyway... but the pendling of the order, the looking through the chart does not take a whole lot of time.
- If there’s a nurse that can go through the patient chart, see if there’s a pneumonia vaccine or any vaccine that they are due for and go ahead pend the orders for the residents, that is one less thing they must think of.

Post Intervention Resident & Physician Survey

- 75% Response Rate
- Majority found the intervention to be somewhat to very helpful
- 92% of respondents indicated they strongly favor having a nurse review charts prior to clinic visits and pending the order for the appropriate pneumonia vaccine for eligible patients 65 years and older and other preventative measures

Conclusion

- We aimed to close this “vaccination gap” by bringing vaccinations to the forefront of the busy office visit by having a nurse pend pneumonia vaccine orders
- Our results suggest that our strategy of enlisting the help of non-physician members of the care team is sustainable and effective
- We intend to build on this project by rolling out a similar project on a broader scale by applying this same framework to other preventive quality metrics

References