Optimizing Pneumococcal Immunization in an Academic Geriatrics Practice with a Multifaceted Intervention

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Introduction

- Older adults have the greatest risk of serious illness and death from pneumococcal disease.
- In 2021, the CDC reported that coverage with > 1 dose of any type of pneumococcal vaccine (PV) among adults aged > 65 years was a suboptimal 65.8%. The coverage among Whites aged ≥65 years (70.1%) was higher than Blacks (54.8%), Hispanics (46.2%), or Asians (55.8%).
- We report PV rates for eligible patients at a Geriatrics practice before and after interventions to improve performance, documentation and potentially reduce disparities in PV status.

Methods

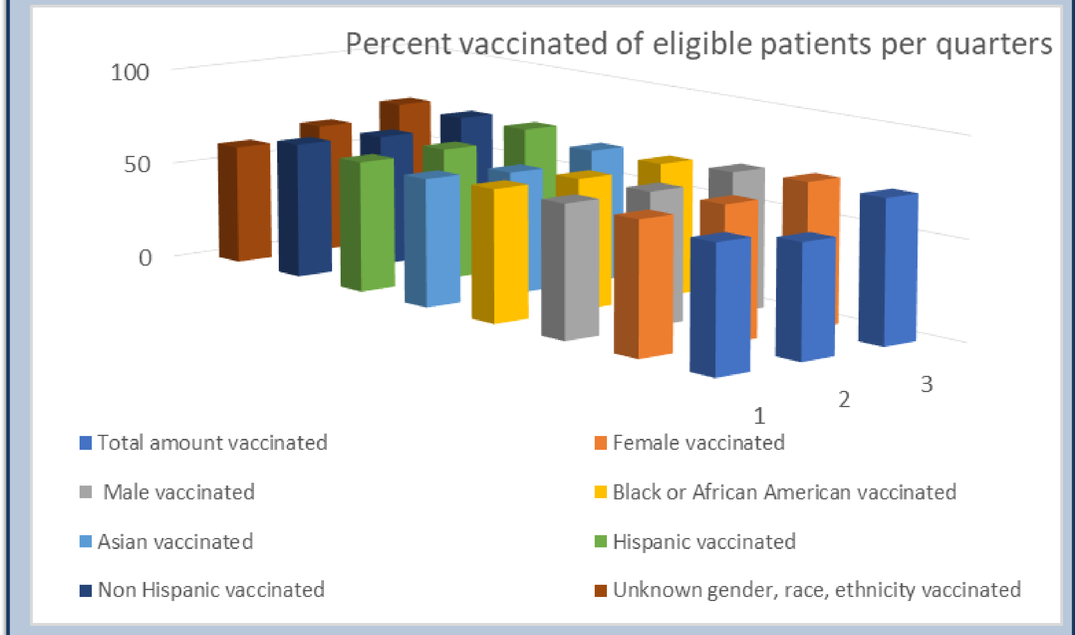
- **Setting:** Academic geriatrics practice involving faculty and fellow's patients.
- **Outcome:** change in rates of PV pre and post interventions.
- **Intervention:** Initial education of faculty and fellows to offer PV during appointment and to document past vaccinations if received or deferral of PV. A documentation algorithm for workflow improvement was provided. Secondarily, reminders of the department's vaccination goal, re-education, and individual feedback on performance were performed.
- **Measures:** Patients self-reported demographics (e.g., age, sex, race, ethnicity). From our system quality metrics database, we abstracted PV compliance percentage rates based on the number of vaccinated patients versus the total number of eligible patients per quarter. The first quarter (Q1) was baseline, Q2 was post-first intervention, and Q3 was post-second intervention.

Result

- Q1 (baseline) PV rates were 63.1%, 67.1% in Q2 (post intervention 1), and 72% in Q3 (post second intervention). This had a p value of <0.0001.
- Rates for females were 66.4%, 67.4%, and 70.8%: and rates for males 66.7%, 66.6%, and 73.5%.
- Rates of PV for Blacks or African American race were 66.7%, 65.9%, and 68.6%.
- Rates for Asians were 64.7%, 62.2%, and 71.7%.
- Rates for Hispanic/ Latino ethnicity were 58.6%, 61.6%, and 67.4%. This contrasted with non-Hispanics at 68.9%, 67.5%, 70.3%, respectively.
- Those with unknown gender and race had rates of 61.0%, 66.7%, and 77.8%.

	Q1	Q2	Q3
Total vacc/vpq	942/1493	1112/1657	1364/1894
Female vacc/vpq	249/375	724/1074	763/1078
Male vacc/vpq	134/201	386/580	580/789
Black vacc/vpq	56/84	114/173	94/137
Asian vacc/vpq	22/34	51/82	54/76
Hispanic vacc/vpq	34/58	93/151	91/135
Non-Hispanic vacc/vpq	314/456	757/1121	611/869
Unknown gender, race, ethnicity vacc/vpq	559/917	2/3	21/27

Table 1: Number of patients vaccinated by group over the total amount of eligible patients.
Vacc = vaccinated number, vpq = visits per quarter



Discussion

- Achieving goals in pneumococcal vaccination rates is a longitudinal process that may require multiple patient encounters due to time constraints, EMR inefficiencies and documentation discrepancies.
- Awareness of differences in demographics associated with vaccination rates can help address the disparities.
- Understanding individual practice challenges may also help disclose areas of improvement.
- Our study limitations include errors in documenting demographics, variations in the number of patients seen per quarter, and possible multiple visits per patient.
- Additional barriers include older adults who may have trouble recalling the correct date for documentation and vaccine deferrals.

Conclusion

Increasing provider awareness through education, workflow adjustments, and feedback on performance are simple interventions that may positively impact PV rates.

References

1. Hung MC, Srivastav A, Lu PJ, Black CL, Jatlaoui TC, Lindley MC, Singleton JA. Centers for Disease Control and Prevention. (2023, July 19). Vaccination coverage among adults in the United States, National Health Interview Survey, 2021. Centers for Disease Control and Prevention. https://www.cdc.gov/vaccines/imz-managers/coverage/adultvaxview/pubs-resources/vaccination-coverage-adults-2021.html