Pneumonia Reduction in Adults age > 65 in San Antonio via Education in Partnership with local TAB

Christine Song, Edward Kim, Sireesha Teegala, Adriana Saenz, Andrea Padilla, Elida Lopez Villa, Juliana Zamora, Kennedy Tlaseca, Renee Del Carmen, Valerie Davis
Alvin Estacio, Fozia Ali, Robert Wood, Paula Winkler, Deepika Ram, Christina Madj, Satvika Tardipathhy, Reethu Nayak, Nida Hussain, Ryan Purkhiser, Eva Vosta, Adriana Sanchez
The University of Texas Health Science Center at San Antonio

Introduction

The Bexar Country Translational Advisory Board (TAB) and the University of Texas Health Science Center at San Antonio Family Health Center collaborated to help improve the Pneumococcal vaccination rates in adults age ≥ 65 to reduce the number of hospitalizations due to pneumonia.

Pneumococcal vaccine helps protect against a bacteria called Streptococcus Pneumoniae.

There are 2 vaccines:

- PCV 13 contains 13 serotypes commonly implicated in disease
- PPSV23 contains the 23 most commonly infecting serotypes.

Children receive PCV13 at 2, 4, 6, and 12 or 15 months of age. Adults after the age of 65 require PCV13 and PPSV23; however, some adults with certain medical conditions may require additional Pneumococcal vaccines between the ages 19-65.

Table 1. Medical conditions or other indications for administration of PCV13 and PPSV23 for adults

Medical indication	Underlying medical condition	PCV13 for ≥ 19 years	PPSV23* for 19 through 64 years		PCV13 at ≥ 65 years	PPSV23 at ≥ 65 years
		Recommended	Recommended	Revaccination	Recommended	Recommended
None	None of the below				✓	✓ ≥ 1 year after PCV13
Immunocompetent persons	Alcoholism		✓		✓	✓ ≥ 1 year after PCV13 ≥ 5 years after any PPSV23 at < 65 years
	Chronic heart disease†					
	Chronic liver disease					
	Chronic lung disease§					
	Cigarette smoking					
	Diabetes mellitus					
	Cochlear implants	✓	✓ ≥ 8 weeks after PCV13		✓ If no previous PCV13 vaccination	✓ ≥ 8 weeks after PCV13 ≥ 5 years after any PPSV23 at < 65 years
	CSF leaks					
Persons with functional or anatomic asplenia	Congenital or acquired asplenia	✓	✓ ≥ 8 weeks after PCV13	✓ ≥ 5 years after first dose PPSV23	✓ If no previous PCV13 vaccination	✓ ≥ 8 weeks after PCV13 ≥ 5 years after any PPSV23 at < 65 years
	Sickle cell disease/other hemoglobinopathies					
Immunocompromised persons	Chronic renal failure	✓	✓ ≥ 8 weeks after PCV13	✓ ≥ 5 years after first dose PPSV23	✓ If no previous PCV13 vaccination	✓ ≥ 8 weeks after PCV13 ≥ 5 years after any PPSV23 at < 65 years
	Congenital or acquired immunodeficiencies¶					
	Generalized malignancy					
	HIV infection					
	Hodgkin disease					
	Iatrogenic immunosuppression#					
	Leukemia					
	Lymphoma					
	Multiple myeloma					
	Nephrotic syndrome					
	Solid organ transplant					

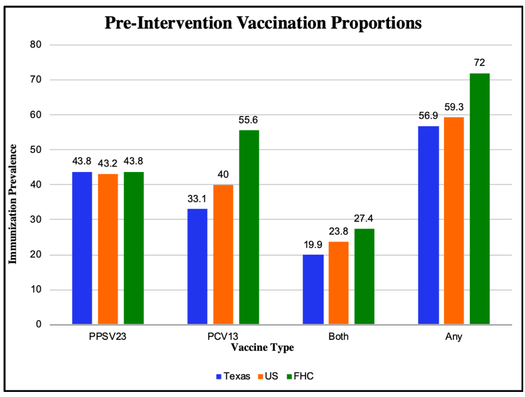
Significance

Pneumococcal vaccines are recommended for all children and adults who have a condition that places that increased risk for pneumonia because S. Pneumoniae is a major cause of morbidity and mortality in children and older adults worldwide with the highest mortality rate occurring in individual age 65 or older. Before antibiotics, S. pneumoniae was responsible for more than 75% of pneumonia; however, recent studies have isolated organisms in 5-15% of cases in the US, which is most likely due to vaccination and reduction in cigarette smoking. However, S. Pneumoniae continues to account for approximately 4 million cases of pneumonia each year in the US and the most common agent leading to hospitalizations in all age groups.

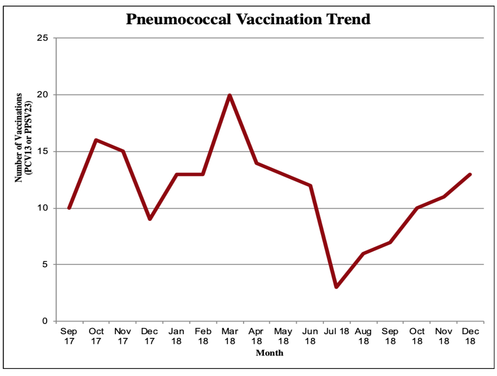
Material and Methods

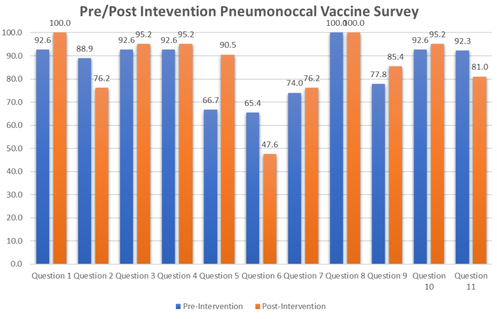
1. Chart review to determine vaccination rates from September 2017 to December 2018 in patients ≥65 established in the FHC from 2017 to 2018.
2. Pre-intervention surgery
3. Presentation of Pneumococcal vaccination guideline to providers and staff
4. Provision of providers with pocket-card of CDC Pneumococcal guideline
5. Pending Post-intervention survey and chart review of vaccination rate

Findings



- 268 patients had been vaccinated with PCV13
- 211 patients had been vaccinated with PPSV23
- 132 patients had completed Pneumococcal vaccinations
- **135 patient had no vaccinations**





Question Key	
1	How many different Pneumonia vaccines do patients need after age 65?
2	How many doses of Pneumovax (PPSV23) are recommended after age 65?
3	How many doses of Prevnar (PCV13) are recommended after age 65?
4	If patients have received PCV13, do they need PPSV23?
5	If patients have received PPSV23, do they need Prevnar PCV13?
6	If patients received PCV13 prior to age 65, do they need another dose after 65?
7	If patients received PPSV23 prior to age 65, do they need another dose after 65?
8	Can you get the Pneumococcal vaccines if you have had pneumonia before?
9	How often do you think you should offer the pneumococcal vaccine to your patients who are indicated
10	I should check my patient's pneumococcal vaccine status_____
11	I should take time to counsel patients about pneumonia vaccine during their visit_____

Anticipated Results

Show improvement in Pneumococcal vaccination rate after multifaceted intervention, which will hopefully reduce the number of hospitalizations in adults ≥ 65 year of age due to pneumonia.

References

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