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#### Practice-Based Education Program to Increase Vaccination Rate in Patients on Immunotherapeutic Agents

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# **Practice-Based Education Program to Increase** Vaccination Rate in Patients on Immunotherapeutic Agents Andrea Soliman, DO, Soorya Aggarwal, DO, Kyle Kreitman, DO, Kourtney Erickson, DO, Abdul Aleem, MD and Marie O'Brien, DO

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# Problem

- Immunosuppressive agents have changed the course of debilitating autoimmune conditions, but come with an increased risk of vaccine preventable infections<sup>1</sup>
- Vaccine indications and dosing recommendations are not being adhered to regularly by primary and speciality practices

# Background

- Multiple organizations recommend scheduled influenza and pneumococcal vaccinations in all patients on chronic immunosuppression<sup>2,3</sup>
- According to the Center for Disease Control (CDC) in 2014, vaccination adherence remains low amongst high-risk persons aged 19–64 years<sup>4</sup>

- Aim

 Implement a protocolized vaccination program for patients on immunosuppressive medications to increase influenza and pneumococcal vaccination adherence by at least 15% for each vaccine

### Measures

• Retrospective chart analysis of 756 patients on biologic agents in a primary care setting

 Patients were evaluated for compliance with CDC guidelines for immunocompromised individuals for the 3 vaccines listed below:

### 1 Influenza

2 Prevnar 13 **3** Pneumovax 23

## Intervention

 Educational outreach sessions were performed for all providers of internal medicine and rheumatology practices biannually Information sheets were

displayed in all involved practices

# **Pneumonia Vaccination Schedule**

**latrogenic Immunosuppression** (19–64 years old)

Pneumococcal 13-Valent Conjugate

**Pneumococcal Polyvalent 1st Dose** 

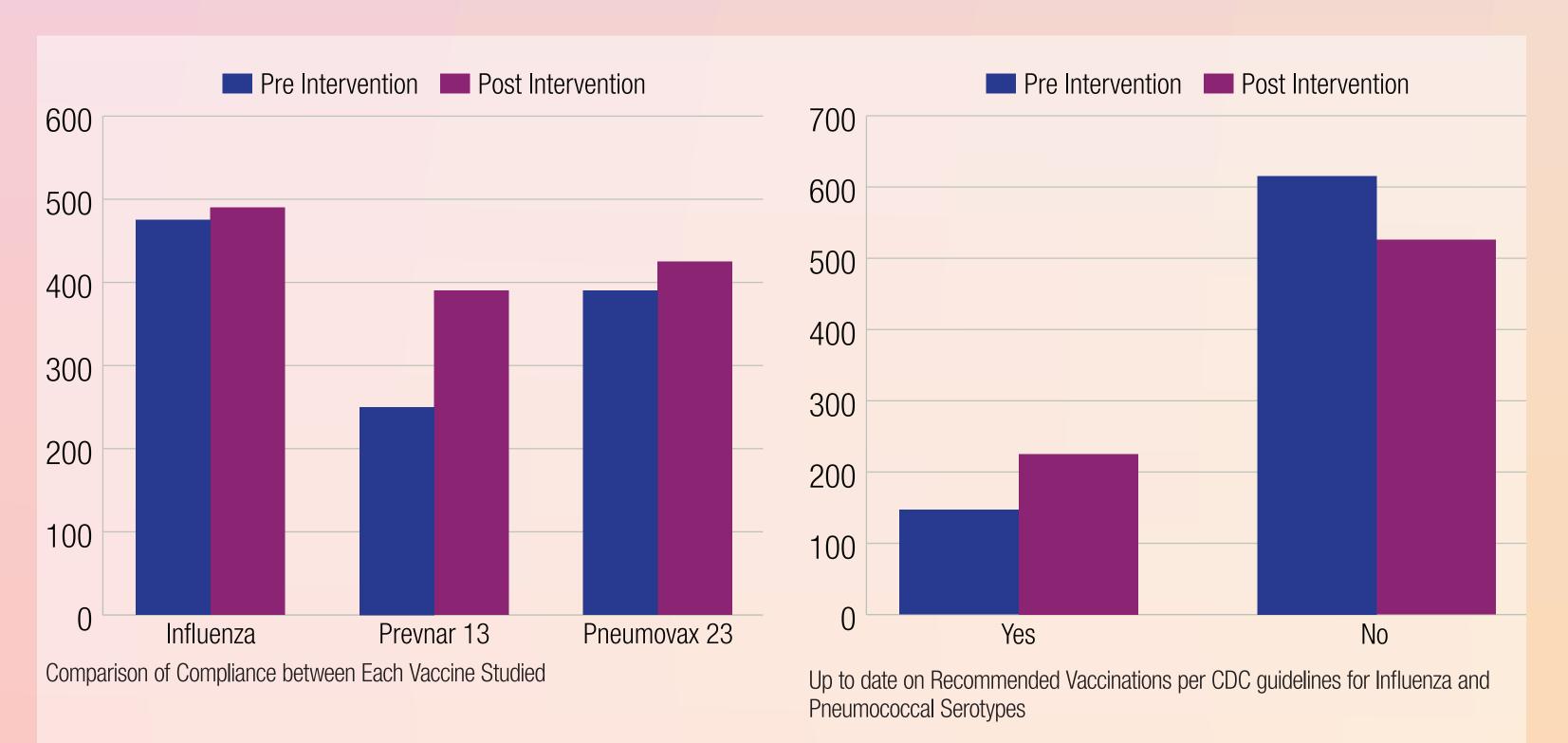
5 YEARS LATER

**Pneumococcal Polyvalent** 2nd Dose

8 WEEKS LATER

## Current Results

(n=81) in an at risk patient population



# Future Steps

- A vaccination clinic is being developed in order to improve access to patients requiring vaccinations
- We will optimize our best practice alert advisory through electronic medical record to notify providers of vaccine schedules for our at risk population

#### REFERENCES

<sup>1</sup>Malhi, G., Rumman, A., Thanabalan, R., Croitoru K., Silverberg M. S., Steinhart. A. H, Nguyen G. C., "Vaccination in Inflammatory Bowel Disease Patients: Attitudes, Knowledge and Uptake." Journal of Crohn's and Colitis. 2015: 439-444 <sup>2</sup>Farraye, F. A., Melmed G. Y., Lichtenstein G. R., Kane S. V., "ACG Clinical Guideline: Preventive Care in Inflammatory Bowel Disease" (2017) 112:241-258. <sup>3</sup>Singh, J. A., et. al. "2015 American College of Rheumatology Guideline for the Treatment of Rheumatoid Arthritis." Arthritis Care & Research. 2015. American College of Rheumatology.



# • There was an increase in overall vaccination adherence by 11%

<sup>4</sup>Williams, W, et. al. "Surveillance of Vaccination Coverage Among Adult Populations—United States, 2014." Surveillance Summaries. (2016). 65(1); 1-36. <sup>5</sup>Centers for Disease Control and Prevention (CDC). Reasons reported by Medicare beneficiaries for not receiving influenza and pneumococcal vaccinations—United States 1996. MMWR Morb Mortal Wkly Rep. 1999;48(39):886-890.

