

Transcript Details

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ReachMD

www.reachmd.com
info@reachmd.com
(866) 423-7849

CDC Recommendations for Pneumococcal Disease in Adults Under Age 65 With Certain Chronic Conditions

Announcer Opening:

You're listening to ReachMD.

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The references for the information discussed today are available in the transcript which can be accessed on the site where you have listened to this podcast.

Here's your host, Margo Trueblood.

Host:

Welcome. Today, we'll be talking about pneumococcal disease and what the Centers for Disease Control and Prevention, or CDC recommends for adults from ages 19 to 64 who have certain chronic conditions.

With us is Dr. Vincent Hsu, an internal medicine, infectious diseases, and preventive medicine physician at AdventHealth Medical Group in Orlando, Florida.

Dr. Hsu:

Happy to be here.

Host:

So, let's get right to it. We're here to talk about pneumococcal disease in adults with certain chronic conditions. Can you tell us more?

Dr. Hsu:

Pneumococcal disease is caused by *Streptococcus pneumoniae* bacteria and has various manifestations. These can be grouped into noninvasive disease when confined to a mucosal location, or invasive disease, when the bacteria are detected in normally sterile sites, such as the blood.^{1,2}

Host:

So how are these bacteria transmitted?

Dr. Hsu:

Following person-to-person transmission via respiratory droplets, the bacteria can remain within the nasopharynx, colonizing and causing no symptoms. It can also lead to infection.³

Host:

Could this be serious?

Dr. Hsu:

Yes. *Streptococcus pneumoniae* has the potential for serious invasive manifestations, such as bacteremic pneumococcal pneumonia, or bacteremia by entering the bloodstream.³

Or it can cause pneumococcal meningitis, where the bacteria cross the blood-brain barrier.³

Host:

So, let's talk a bit more about invasive pneumococcal disease and the adults who are most at risk.

Dr. Hsu:

Sure. In a retrospective cohort study, the risk for invasive pneumococcal disease, or IPD, increased with age, most notably in healthy adults ages 65 years and older.⁴

However, the average rate for IPD was approximately 3- to 7-fold higher in adults younger than age 65 years with diabetes, chronic heart disease, or chronic lung disease, such as COPD, respectively, than in age-matched healthy adults.⁴

Host:

Can you tell us about the design of this study?

Dr. Hsu:

This was a retrospective cohort study using data from January 1, 2006 through December 31, 2010 from 3 health care claims databases representing more than 35 million insured adults.⁴

Adults with these conditions may have increased susceptibility to pneumococcal disease because of underlying factors related to their chronic condition.⁵⁻⁸

Host:

Can you walk us through the three chronic conditions that you mentioned?

Dr. Hsu:

In adults with diabetes, hyperglycemia causes functional impairment of certain immune cells, which results in reduced clearance of bacteria, such as *Streptococcus pneumoniae*, increasing the patient's risk for infection.⁵

Host:

What about those with chronic heart disease?

Dr. Hsu:

In these adults, the heart's diminished capacity to pump blood causes lung congestion.⁶ This accumulation of fluid in the lungs may reduce the clearance of bacteria and increase the patient's risk for infection.⁷

Host:

And those with chronic obstructive pulmonary disease or COPD?

Dr. Hsu:

For adults with COPD, impaired activity of macrophages contributes to chronic inflammation and reduced clearance of bacteria, thus increasing the risk for infection.⁸

Host (Mid-Tag):

Thank you, Dr. Hsu. As a reminder, you're listening to an industry feature titled "Implementing CDC recommendations for pneumococcal disease in adults under age 65 with certain chronic conditions".

I'm Margo Trueblood, and today we've been speaking with Dr. Vincent Hsu about pneumococcal disease and adults with certain chronic conditions. We will be discussing the CDC recommendations for pneumococcal vaccination in these adults under age 65. But before we jump into that let's discuss indications and select safety information for PNEUMOVAX 23, pneumococcal vaccine polyvalent.

Announcer:

PNEUMOVAX 23 is a vaccine indicated for active immunization for the prevention of pneumococcal disease caused by the 23 serotypes

contained in the vaccine. The serotypes included are 1, 2, 3, 4, 5, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19F, 19A, 20, 22F, 23F, and 33F.

PNEUMOVAX 23 is approved for use in persons 50 years of age or older and persons aged 2 years and older who are at increased risk for pneumococcal disease.

PNEUMOVAX 23 will not prevent disease caused by capsular types of pneumococcus other than those contained in the vaccine.

Host:

Now, let's discuss some Select Safety Information for PNEUMOVAX 23, which you'll hear more of throughout this podcast.

Announcer:

Do not administer PNEUMOVAX 23 to individuals with a history of a hypersensitivity reaction to any component of the vaccine. Defer vaccination with PNEUMOVAX 23 in persons with moderate or severe acute illness. Use caution and appropriate care in administering PNEUMOVAX 23 to individuals with severely compromised cardiovascular and/or pulmonary function in whom a systemic reaction would pose a significant risk.

Host:

So, Dr. Hsu, let's discuss PNEUMOVAX 23 and CDC recommendations. Can you tell us a bit more?

Dr. Hsu:

Absolutely. Since 1997, the CDC has specifically recommended vaccination with PNEUMOVAX 23 at the time of diagnosis for appropriate adults under age 65 with diabetes, chronic heart disease, or COPD because of their increased risk for pneumococcal disease.^{9,10}

Therefore, for patients who have just been diagnosed with one of these conditions, pneumococcal vaccination should be considered as part of their routine medical care.^{11,12}

Host:

Are there any medical societies that have practice guidelines or recommendations consistent with the CDC recommendation?

Dr. Hsu:

Yes, having the support of professional societies to reinforce the CDC recommendation is important. The American Diabetes Association, the American College of Cardiology, and the Global Initiative for Chronic Obstructive Lung Disease, are consistent with the CDC recommendations.¹³⁻¹⁵

Host:

Here is some additional safety information for PNEUMOVAX 23.

Announcer:

Available human data from clinical trials of PNEUMOVAX 23 in pregnancy have not established the presence or absence of a vaccine-associated risk.

Host:

So, let's talk a little bit about pneumococcal vaccination rates. I understand the vaccination rates for appropriate patients with certain chronic conditions are low. This seems like an opportunity for more education on the risk of pneumococcal disease. Would you agree?

Dr. Hsu:

Yes, I'd agree. Vaccination rates for protection against pneumococcal disease are low.¹⁰ As a matter of fact, in a 2016 retrospective study of patients under age 65 with certain chronic conditions, total vaccination rates were approximately 13% in patients with chronic heart disease, 17% in patients with COPD, and 21% in patients with diabetes, 5 years after initial diagnosis.¹⁶

Host:

Can you tell us about the design of the study?

Dr. Hsu:

It was a claims-based study from 2009 to 2013 including 18,801 adults with chronic conditions of interest with 5 years of follow-up

data.¹⁶

These results demonstrate why it is so important to be aware of the risk of pneumococcal disease in patients with diabetes, COPD, and chronic heart disease. We should consider vaccination for all appropriate patients with these chronic conditions, consistent with the CDC's recommendations.

Host:

Let's again discuss some safety information for PNEUMOVAX 23.

Announcer:

Persons who are immunocompromised, including persons receiving immunosuppressive therapy, may have a diminished immune response to PNEUMOVAX 23. PNEUMOVAX 23 may not be effective in preventing pneumococcal meningitis in patients who have chronic cerebrospinal fluid leakage resulting from congenital lesions, skull fractures, or neurosurgical procedures.

Host:

Now let's talk a bit about patient awareness about pneumococcal disease.

Dr. Hsu:

Well, a 2019 survey conducted by the National Foundation for Infectious Diseases, including participants at increased risk for pneumococcal disease, showed 46% were unfamiliar with pneumococcal disease, and nearly 60% with an increased risk had never been advised to get vaccinated. This was from a survey of 1,002 US adults, in which knowledge of pneumococcal disease and vaccination was assessed in adults ages 65 years and older, or those with underlying conditions.¹⁷

Host:

Let's take a moment to review more safety information for PNEUMOVAX 23.

Announcer:

The most common adverse reactions, reported in greater than 10% of subjects vaccinated with PNEUMOVAX 23 for the first time in a clinical trial, were: injection-site pain/soreness/tenderness, injection-site swelling/induration, headache, injection-site erythema, asthenia and fatigue, and myalgia. Vaccination with PNEUMOVAX 23 may not offer 100% protection from pneumococcal infection.

Host:

So, as a health care professional, patients want to hear about pneumococcal vaccination from you.^{12,18,19}

Dr. Hsu:

That's right. It's important that you review the benefits and risks, and then provide a strong recommendation to your patients.^{12,18,19}

In addition, you may also want to consider communicating why you are recommending pneumococcal vaccination for your patient, such as why their chronic condition puts them at increased risk.^{18,19}

Host:

Good points. Any final thoughts?

Dr. Hsu:

I'd just like to remind health care professionals that PNEUMOVAX 23 is the only pneumococcal vaccine recommended by the CDC for immunocompetent adults under age 65 with diabetes, chronic heart disease, and COPD and should be administered at the time of diagnosis.¹⁰

The time to implement CDC guidance is now. It is important to help protect your appropriate adult patients against pneumococcal disease.¹⁰

Host:

I want to thank my guest, Dr. Vincent Hsu, for helping us better understand pneumococcal disease and what the CDC recommends for adults from ages 19 to 64 who have certain chronic conditions. Dr. Hsu, it was great speaking with you today.

Dr. Hsu:

My pleasure.

Host:

I'm Margo Trueblood. Thanks for listening.

Announcer Close:

Before administering PNEUMOVAX 23, Pneumococcal Vaccine Polyvalent, please read the [Prescribing Information](#), which can be accessed on the site where you have listened to this podcast. The [Patient Information](#) also is available.

The references for the information discussed today are available in the transcript, which also can be accessed on that site.

The preceding program was brought to you by Merck. If you are interested in learning more about this topic, please visit merckvaccines.com/pneumovax23.

And if you missed any part of this discussion, please visit reachmd.com. This is ReachMD.

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References:

1. Cillóniz C, Amaro R, Torres A. Pneumococcal vaccination. *Curr Opin Infect Dis*. 2016;29(2):187-196.
2. Centers for Disease Control and Prevention (CDC). VPD surveillance manual. Chapter 11: pneumococcal. Accessed Oct 14, 2020. <https://www.cdc.gov/vaccines/pubs/surv-manual/chpt11-pneumo.html>
3. Henriques-Normark B, Tuomanen EI. The pneumococcus: epidemiology, microbiology, and pathogenesis. *Cold Spring Harb Perspect Med*. 2013;3(7):a010215.
4. Shea KM, Edelsberg J, Weycker D, et al. Rates of pneumococcal disease in adults with chronic medical conditions. *Open Forum Infect Dis*. 2014;1(1):1-9.
5. Boyanova L, Mitov I. Antibiotic resistance rates in causative agents of infections in diabetic patients: rising concerns. *Expert Rev Anti Infect Ther*. 2013;11(4):411-420.
6. Chase SC, Taylor BJ, Cross TJ, et al. Influence of thoracic fluid compartments on pulmonary congestion in chronic heart failure. *J Card Fail*. 2017;23(9):690-696.
7. Mor A, Thomsen RW, Ulrichsen SP, et al. Chronic heart failure and risk of hospitalization with pneumonia: a population-based study. *Eur J Intern Med*. 2013;24(4):349-353.
8. Barnes PJ, Burney PG, Silverman EK, et al. Chronic obstructive pulmonary disease. *Nat Rev Dis Primers*. 2015;1:15076. Published 2015 Dec 3.
9. Centers for Disease Control and Prevention (CDC). Prevention of pneumococcal disease: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recomm Rep*. 1997;46(RR-8):1-24.
10. Centers for Disease Control and Prevention (CDC). Use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine for adults with immunocompromising conditions: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Morb Mortal Wkly Rep*. 2012;61(40):816-819.
11. Zimmerman RK, Brown AE, Pavlik VN, et al. Using the 4 Pillars Practice Transformation Program to increase pneumococcal immunizations for older adults: a cluster-randomized trial. *J Am Geriatr Soc*. 2017;65(1):114-122.
12. Centers for Disease Control and Prevention (CDC). Standards for adult immunization practice: overview. Reviewed May 2, 2016. Accessed July 20, 2020. cdc.gov/vaccines/hcp/adults/for-practice/standards/index.html
13. American Diabetes Association. Standards of medical care in diabetes—2019. *Diabetes Care*. 2019;42(suppl 1):S1–S193.
14. Amsterdam EA, Wenger NK, Brindis RG, et al. 2014 AHA/ACC guideline for the management of patients with non–ST-elevation acute coronary syndromes. *J Am Coll Cardiol*. 2014;64(24):e139–e228.
15. Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2018 report. Updated November 20, 2017. Published 2018. Accessed November 04, 2020. http://goldcopd.org/wp-content/uploads/2017/11/GOLD-2018-v6.0-FINAL-revised-20-Nov_WMS.pdf
16. Petigara T, Zhang D. Pneumococcal vaccine coverage in adults Aged 19-64 Years, newly diagnosed with chronic conditions in the U.S. *Am J Prev Med*. 2018;54(5):630-636.
17. National Foundation for Infectious Diseases. NFID survey: attitudes about Influenza and pneumococcal disease prevention. Accessed Sept 30, 2020. <https://www.nfid.org/about-nfid/newsroom/news-conferences/2019-nfid-influenza-pneumococcal-disease-news-conference/national-poll-attitudes-about-flu-and-pneumococcal-disease-prevention/>
18. National Adult and Influenza Immunization Summit. Quick guide to adult messaging. Accessed Oct 14, 2020. www.izsummitpartners.org/content/uploads/2014/05/AdultVaccineMessaging2.pdf
19. National Foundation for Infectious Diseases. Call to action: preventing pneumococcal disease in US adults with chronic conditions. Accessed August 9, 2020. <https://www.nfid.org/wp-content/uploads/2019/08/cta-chronic-conditions.pdf>