

Outbreak of Invasive Pneumococcal Disease at a Correctional Facility in Barbour County, Alabama

The Alabama Department of Public Health (ADPH) is investigating a cluster of severe pneumococcal disease (IPD) at the Ventress Correctional Facility in Barbour County, Alabama. Since September 14, 2018, among individuals incarcerated at Ventress Correctional Facility, there have been three laboratory-confirmed cases with one of these cases resulting in death.

ADPH is working closely with Alabama Department of Corrections to make sure everyone who is considered high risk at Ventress Correctional Facility is offered pneumococcal vaccination (PPV23) and preventive antibiotics.

Those who have shared close (e.g., sharing respiratory secretions) or prolonged contact (e.g., share living quarters) with inmates or personnel from Ventress Correctional Facility during the month of September 2018 should seek care if they start having signs or symptoms of severe pneumococcal disease. These include fever, chills, stiff neck, headache, sensitivity to light, cough, shortness of breath, chest pain, or other severe respiratory symptoms.

The Centers for Disease Control and Prevention (CDC) recommends those who have a weak immune system, human immunodeficiency virus (HIV), kidney disease, a removed spleen, heart disease, chronic lung disease, chronic alcoholism, or chronic liver disease should speak to their healthcare provider about receiving and staying up-to-date with their pneumococcal vaccines. More information on recommended adult vaccines can be found here:

<https://www.cdc.gov/vaccines/schedules/downloads/adult/adult-schedule-easy-read.pdf>

What is pneumococcal disease?

Pneumococcal disease is a general term for a wide variety of infections caused by bacteria called *Streptococcus pneumoniae* (also known as pneumococcus). *S. pneumoniae* is one of many types of bacteria that can live in the respiratory tract of humans. Many people, especially young children, can carry these bacteria in their nose and throat without being ill.

When *S. pneumoniae* causes disease, the bacteria can cause a wide variety of infections. *S. pneumoniae* infections can occur in many areas of the body, including the sinuses, throat, and lungs. In some cases, however, *S. pneumoniae* can invade areas of the body that normally do not have bacteria, such as the blood or the lining of the brain and spinal cord (meninges). When this happens, it is called invasive pneumococcal disease (IPD) and the infections are usually serious. IPD can lead to death and the chance of death is higher among elderly people and those with chronic medical conditions. Types of severe pneumococcal disease include lung infections (pneumonia), infections of the blood (bacteremia and sepsis) and infections of the lining of the brain and spinal cord (meningitis).

Pneumonia is the most common type of IPD, with symptoms including:

- Fever and chills
- Cough
- Difficulty breathing
- Shortness of breath
- Chest pain

Common symptoms of blood stream infections include:

- Fever and chills
- A fast heart rate
- Dizziness or feeling like you might faint

Meningitis symptoms include:

- Fever
- Stiff neck
- Headache
- Increased sensitivity to light

How is *S. pneumoniae* spread from one person to another?

Pneumococcal bacteria spread from person-to-person by direct contact with respiratory secretions, like saliva or mucus, which contain the bacteria. This includes sharing secretions through contact with items such as cigarettes or bottles, or behaviors such as kissing. Prolonged contact, such as living together in an institutional setting, is also thought to increase the risk of spreading the bacteria.

Where do *S. pneumoniae* outbreaks occur and who is at increased risk?

Although *S. pneumoniae* outbreaks are rare, they can occur in closed settings such as prisons, military barracks, and long-term care facilities. Having certain medical conditions can increase someone's risk of getting a severe pneumococcal infection. Those conditions include:

- Chronic heart disease
- Lung disease
- Liver disease
- Kidney disease
- Not having a spleen
- Conditions that weaken the immune system

Smoking has also been identified as a behavior that puts people at increased risk of getting pneumococcal disease.

Outside visitors to Ventress are at low risk of being exposed to the strain of *S. pneumoniae* causing the outbreak since outside visits to this facility do not lead to close or prolonged contact. Community residents with minimal or no contact with Ventress facility personnel or inmates are also at low risk of being exposed.

What can I do to reduce my risk of pneumococcal disease?

Lower your risk for pneumococcal disease and other infections by:

- Stopping smoking
- Speaking with your healthcare provider about receiving recommended vaccines that may provide additional protection from harmful germs, such as pneumococcal and influenza (flu) vaccines
- Washing your hands regularly

How effective is the vaccine for those at risk during this outbreak?

The PPV23 vaccine protects against 23 strains of pneumococcus causing most of the serious pneumococcal infections in the United States. Based on laboratory testing, we believe PPV23 provides protection against the type of *S. pneumoniae* causing this outbreak. However, even with vaccination and preventive antibiotics, it is possible that infection may still occur.

What is ADPH doing?

- ADPH has coordinated and deployed a field investigation team to the Barbour County Health Department to assist with the disease outbreak at Ventress Correctional Facility.
- The field investigation team is working closely with Ventress Correctional Facility to minimize the risk of further cases of IPD. These activities include identifying other cases from the past and establishing a system to identify new cases and refer them for appropriate care. Finally, ADPH has provided technical assistance and subject matter expertise on *S. pneumoniae* infections, including IPD, to Alabama Department of Corrections personnel and medical staff working at Ventress Medical Facility. This includes recommendations for preventive antibiotics and pneumococcal vaccinations.
- ADPH has coordinated with CDC for subject matter expertise, laboratory assistance, and technical expertise related to outbreaks associated with *S. pneumoniae*. Several CDC employees have joined the field investigation team.
- A Health Alert Network (HAN) has been sent to healthcare providers in Barbour, Dale, Houston, and Pike counties describing signs and symptoms of IPD, recommended diagnostic testing for suspect cases of IPD, and contact information for reporting potential cases to ADPH (1-800-469-4599). The HAN was distributed to counties where the majority of Ventress Correctional Facility personnel reside.

ADPH and Alabama Department of Corrections are committed to minimizing the impact of IPD among Ventress Correctional Facility inmates, personnel, and the surrounding communities.