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What is melioidosis?

Melioidosis is an uncommon bacterial infection caused by Burkholderia pseudomallei. The disease affects humans and animals. It is spread to people and animals through contact with soil, air, or water contaminated by the bacteria. Cases may increase after hurricanes, heavy rain, and other severe weather events. These weather events cause the bacteria to rise to the surface of the soil.

Who gets melioidosis?

Melioidosis is a rare disease in the United States, but the bacteria have been found in the Gulf Coast region of the U.S., and in Puerto Rico and the U.S. Virginia Islands. It is more common in tropical or subtropical areas of the world, including Southeast Asia and Australia. People who get melioidosis include agricultural workers, military personnel, travelers to areas where the disease is common, construction workers, and people who have contact with contaminated soil or water. Individuals with underlying diseases, such as diabetes mellitus, kidney or liver disease, chronic lung disease, thalassemia (a form of anemia), cancer or another immune-compromising condition, are at higher risk for developing the infection.

How is melioidosis spread?

The bacteria that cause melioidosis usually enter the body through breathing in contaminated soil dust or water droplets, contact with contaminated soil through breaks in the skin, or by drinking contaminated water. Person-to-person transmission is very rare but can occur through contact with blood or body fluids of an infected person. Laboratory-acquired infections are also rare, but can occur, especially if procedures produce aerosols.

What are the symptoms of melioidosis?

The bacteria can infect the skin or lungs or can spread throughout the body. The symptoms that a person might develop depend on the location of infection. Some people might not develop any symptoms. A skin infection may look like an ulcer or skin sore. Symptoms of lung infection include cough, chest pain, fever, headache, or decreased appetite. If the bacteria enter the blood, symptoms include fever, headache, breathing difficulties, abdominal pain or discomfort, joint pain, or confusion. If the bacteria spread throughout the body, symptoms include fever, weight loss, stomach or chest pain, muscle or joint pain, headache, and seizures.

How soon after exposure do symptoms appear?

The time between exposure and development of signs and symptoms varies. Usually, symptoms appear one to four weeks after exposure but can range from one day to many years after exposure.

How is melioidosis diagnosed?

Melioidosis is diagnosed by testing patient samples (e.g., blood, urine, skin lesions, or throat swab) or finding increases in antibodies in the blood.

What is the treatment for melioidosis?

Melioidosis is treated with long courses of antibiotics. The infection can return in some people, especially in those who do not complete the full treatment.

Do people who have been in contact with someone with melioidosis infection need to be tested and treated?

It is very rare for people to get the disease from another person. Healthcare workers, including laboratory workers, may get the disease if exposed to an infected person's blood or bodily fluids before the right safety precautions are taken. Public health will work with healthcare and laboratory workers to determine if they were exposed. If an exposure does happen, the worker should take antibiotics for 21 days to prevent getting sick.

How can melioidosis be prevented?

People with open skin wounds or chronic conditions (like diabetes or kidney disease) should avoid contact with soil or standing water in areas where the disease is common. Agricultural workers in these areas should wear boots and gloves. Healthcare workers and lab workers should follow the right practices when caring for patients or when handling blood or body fluids.

Could melioidosis be used for bioterrorism?

Yes. The bacteria that cause melioidosis are considered possible bioterrorism agents because they could be intentionally released in the air, food, or water. If these bacteria are inhaled or ingested, they could cause severe disease.

How can I get more information about melioidosis?

- If you have concerns about melioidosis, contact your healthcare provider.
- Call your local health department. You can find your local health department at vdh.virginia.gov/health-department-locator/.
- Visit the CDC page on melioidosis at cdc.gov/melioidosis/about/index.html for more information.

Melioidosis: Overview for Health Care Providers

Two page summary of: Organism, Reporting, Infectious Dose, Occurrence, Natural Reservoir, Route of Infection, Communicability, Case-fatality Rate, Risk Factors, Incubation Period, Clinical Manifestations, Differential Diagnosis, Laboratory Tests/Sample Collection, Treatment, Vaccine

Melioidosis: Guidance for Health Care Providers

| Key Medical and Public Health Interventions After Identification of a Suspected Case |
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