

# ***KLEBSIELLA* INFECTION**

## **FACT SHEET**

### **Overview**

*Klebsiella* is a type of Gram-negative bacteria. *Klebsiella* bacteria are normally found in the human intestines and in human stool. When these bacteria get into other areas of the body, they can cause infection. These infections could include:

- urinary tract infections;
- pneumonia;
- bloodstream infections (also called sepsis);
- wound or surgical site infections; and
- meningitis.

*Klebsiella* is a significant cause of healthcare-associated infections (HAIs). Sometimes bacteria like *Klebsiella* change so that certain antibiotics don't kill them anymore. This is called "resistant." Increasingly, *Klebsiella* has been found to be resistant to the class of antibiotics known as carbapenems.

### **Signs and Symptoms**

The signs and symptoms of *Klebsiella* infection depend on the location of infection. General signs of infection might include:

- fever;
- chills;
- redness;
- swelling;
- pain; and
- drainage or pus from a wound or surgical site.

### **Causes and Transmission**

*Klebsiella* bacteria are mostly spread through person-to-person contact. Less commonly, they are spread by contamination in the environment. As with other healthcare-associated infections, the bacteria can be spread in a health care setting via the contaminated hands of health care workers. The bacteria are not spread through the air.

### **Risk Factors**

*Klebsiella* infections can occur outside of the health care setting, but this is rare in healthy people. In hospitals and other health care locations, certain patients are at higher risk of developing *Klebsiella* infection. These include patients with devices such as ventilators (breathing machines) or intravenous (IV) catheters and patients who are taking certain antibiotics for a long time.

## **Complications**

*Klebsiella* infection can be treated with antibiotics. However, some *Klebsiella* bacteria have become resistant to antibiotics and can be very difficult to treat. In such cases, the antibiotic used to treat illness may need to be changed or a patient may need to take antibiotics for a longer period.

## **Tests and Diagnosis**

The only way to identify a *Klebsiella* infection is to collect and test appropriate specimens in the laboratory. For example, a doctor might collect a urine sample for testing if he or she thinks a person has a urinary tract infection. The laboratory can also test to determine which antibiotic will be the most effective to treat the illness.

## **Treatments**

*Klebsiella* infections can be treated with antibiotics. However, some *Klebsiella* bacteria have become highly resistant to antibiotics, and some can be very difficult to treat. Persons diagnosed with a *Klebsiella*-related illness must follow the treatment as prescribed by the health care provider. If the health care provider prescribes an antibiotic, patients must take it **exactly** as instructed and **complete** the course of medication, even if symptoms are gone. This can help to prevent antibiotic resistance.

## **Prevention**

The best way to prevent the spread of *Klebsiella*, and all infections, is to clean your hands often. This includes washing hands with soap and water or using an alcohol-based hand rub. Health care workers should follow specific infection control precautions. These might include wearing gowns and gloves when entering a room of patients with *Klebsiella*-related illness.

Patients and health care workers should clean their hands often, including:

- before preparing or eating food;
- before touching their eyes, nose or mouth;
- after using the restroom;
- after blowing their nose, coughing or sneezing;
- before and after changing wound dressings or bandages; and
- after touching hospital surfaces such as bed rails, bedside tables, doorknobs, remote controls or the phone.

## **Disease Patterns**

Most *Klebsiella* infections occur in a health care setting.

## **Additional Information**

Centers for Disease Control and Prevention:

<http://www.cdc.gov/HAI/organisms/klebsiella/klebsiella.html>.

*This fact sheet provides general information. Please contact your physician for specific clinical information.*

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