



# **CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTION (CLABSI) FACT SHEET**

## **Overview**

A central line, or central venous catheter, is a narrow tube that is placed in a large vein in the neck, chest, groin or arm to deliver fluids or medications. These long, flexible catheters empty in or near the heart and are important ways for treating or monitoring many conditions.

If bacteria or other organisms enter the blood, this is called a bloodstream infection. In healthcare, these infections often occur in patients with central lines. This is because bacteria and other organisms can enter the body at the site of the central line, and travel into the bloodstream. These infections are called central line-associated bloodstream infections (CLABSIs).

CLABSIs are among the most serious and costly of all healthcare-associated infections. They can result in illnesses and deaths, longer hospital stays and high costs.

## **Signs and Symptoms**

Common symptoms of CLABSI include:

- Fever
- Chills
- Soreness or redness around the catheter site

## **Causes and Transmission**

Transmission typically occurs through contamination of the central line or the area where the central line enters the body. This can occur when healthcare worker hands are not properly cleaned before the insertion of a central line, a change of the line dressing or giving medication through the line.

## **Risk Factors**

Patients with central lines are at increased risk for blood stream infections because the catheter serves as an entry point for organisms outside the body to enter the bloodstream. These organisms can cause local or widespread infections with potential for serious complications. The longer a central line remains in place, the higher the risk of infection.

## **Complications**

A CLABSI may mean that the central line will need to be removed, which could make it difficult for some patients to receive medications or fluids they

need. Severe infections can result in septic shock (collapse of blood pressure due to infection), organ damage or failure, abnormal blood clotting and death.

### **Tests and Diagnosis**

Blood samples are collected to look for pathogens (bacteria or other organisms). The samples are usually collected directly from the central line.

### **Treatments**

CLABSIs are serious infections, but can often be treated with antibiotics. The specific type(s) and duration of antibiotic therapy depends on the pathogen that is causing the infection. Other types of medications can be used to treat the complications.

### **Prevention**

Doctors and nurses should always clean their hands with soap and water or an alcohol-based hand rub, wear sterile, protective gear and clean a patient's skin with an antiseptic cleanser before putting in a catheter. Healthcare workers should also clean their hands and wear gloves before handling a catheter opening or changing a bandage covering the catheter area.

### **As a patient with a central line, these steps might help you to prevent CLABSIs:**

- Ask your doctors and nurses to explain why you need the catheter and how long you will have it.
- Make sure that all doctors and nurses caring for you clean their hands with soap and water or an alcohol-based hand rub before and after caring for you.
- If your bandage comes off or becomes wet or dirty, tell your nurse or doctor immediately.
- Inform your nurse or doctor if the area around your catheter is sore or red.
- Do not let family and friends who visit touch the catheter or the tubing.
- Make sure family and friends clean their hands with soap and water or an alcohol-based hand rub before and after visiting you.

### **Disease Patterns**

The rate of CLABSI in Pennsylvania has been decreasing. In 2014, there were approximately seven CLABSIs for every 10,000 days that patients had a central line. This is 41 percent less than the rate in 2009. Updated information about CLABSI and other healthcare-associated infections in Pennsylvania is published each year by the Department of Health:  
[http://www.health.pa.gov/facilities/Consumers/Healthcare%20Associated%20Infection%20\(HAI\)/Pages/HAI-Annual-Reports.aspx#.V5j4h6DD-Um](http://www.health.pa.gov/facilities/Consumers/Healthcare%20Associated%20Infection%20(HAI)/Pages/HAI-Annual-Reports.aspx#.V5j4h6DD-Um)

**Additional Information**

Centers for Disease Control and Prevention:  
<http://www.cdc.gov/HAI/bsi/bsi.html>

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

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