

FAQs

(frequently asked questions)

about

“Catheter-Associated Bloodstream Infections”

(also known as “Central Line-Associated Bloodstream Infections”)

What is a catheter-associated bloodstream infection?

A “central line” or “central catheter” is a tube that is placed into a patient’s large vein, usually in the neck, chest, arm, or groin. The catheter is often used to draw blood, or give fluids or medications. It may be left in place for several weeks. A bloodstream infection can occur when bacteria or other germs travel down a “central line” and enter the blood. If you develop a catheter-associated bloodstream infection you may become ill with fevers and chills or the skin around the catheter may become sore and red.

Can a catheter-related bloodstream infection be treated?

A catheter-associated bloodstream infection is serious, but often can be successfully treated with antibiotics. The catheter might need to be removed if you develop an infection.

What are some of the things that hospitals are doing to prevent catheter-associated bloodstream infections?

To prevent catheter-associated bloodstream infections doctors and nurses will:

- Choose a vein where the catheter can be safely inserted and where the risk for infection is small.
- Clean their hands with soap and water or an alcohol-based hand rub before putting in the catheter.
- Wear a mask, cap, sterile gown, and sterile gloves when putting in the catheter to keep it sterile. The patient will be covered with a sterile sheet.
- Clean the patient’s skin with an antiseptic cleanser before putting in the catheter.
- Clean their hands, wear gloves, and clean the catheter opening with an antiseptic solution before using the catheter to draw blood or give medications. Healthcare providers also clean their hands and wear gloves when changing the bandage that covers the area where the catheter enters the skin.
- Decide every day if the patient still needs to have the catheter. The catheter will be removed as soon as it is no longer needed.
- Carefully handle medications and fluids that are given through the catheter.

What can I do to help prevent a catheter-associated bloodstream infection?

- Ask your doctors and nurses to explain why you need the catheter and how long you will have it.

- Ask your doctors and nurses if they will be using all of the prevention methods discussed above.
- 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 you do not see your providers clean their hands, please ask them to do so.

- If the 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.

What do I need to do when I go home from the hospital?

Some patients are sent home from the hospital with a catheter in order to continue their treatment. If you go home with a catheter, your doctors and nurses will explain everything you need to know about taking care of your catheter.

- Make sure you understand how to care for the catheter before leaving the hospital. For example, ask for instructions on showering or bathing with the catheter and how to change the catheter dressing.
- Make sure you know who to contact if you have questions or problems after you get home.
- Make sure you wash your hands with soap and water or an alcohol-based hand rub before handling your catheter.
- Watch for the signs and symptoms of catheter-associated bloodstream infection, such as soreness or redness at the catheter site or fever, and call your healthcare provider immediately if any occur.

If you have additional questions, please ask your doctor or nurse.

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FAQs

(frequently asked questions)

about “Catheter-Associated Urinary Tract Infection”

What is “catheter-associated urinary tract infection”?

A urinary tract infection (also called “UTI”) is an infection in the urinary system, which includes the bladder (which stores the urine) and the kidneys (which filter the blood to make urine). Germs (for example, bacteria or yeasts) do not normally live in these areas; but if germs are introduced, an infection can occur.

If you have a urinary catheter, germs can travel along the catheter and cause an infection in your bladder or your kidney; in that case it is called a catheter-associated urinary tract infection (or “CA-UTI”).

What is a urinary catheter?

A urinary catheter is a thin tube placed in the bladder to drain urine. Urine drains through the tube into a bag that collects the urine. A urinary catheter may be used:

- If you are not able to urinate on your own
- To measure the amount of urine that you make, for example, during intensive care
- During and after some types of surgery
- During some tests of the kidneys and bladder

People with urinary catheters have a much higher chance of getting a urinary tract infection than people who don’t have a catheter.

How do I get a catheter-associated urinary tract infection (CA-UTI)?

If germs enter the urinary tract, they may cause an infection. Many of the germs that cause a catheter-associated urinary tract infection are common germs found in your intestines that do not usually cause an infection there. Germs can enter the urinary tract when the catheter is being put in or while the catheter remains in the bladder.

What are the symptoms of a urinary tract infection?

Some of the common symptoms of a urinary tract infection are:

- Burning or pain in the lower abdomen (that is, below the stomach)
- Fever
- Bloody urine may be a sign of infection, but is also caused by other problems
- Burning during urination or an increase in the frequency of urination after the catheter is removed.

Sometimes people with catheter-associated urinary tract infections do not have these symptoms of infection.

Can catheter-associated urinary tract infections be treated?

Yes, most catheter-associated urinary tract infections can be treated with antibiotics and removal or change of the catheter. Your doctor will determine which antibiotic is best for you.

What are some of the things that hospitals are doing to prevent catheter-associated urinary tract infections?

To prevent urinary tract infections, doctors and nurses take the following actions.

Catheter insertion

- o Catheters are put in only when necessary and they are removed as soon as possible.
- o Only properly trained persons insert catheters using sterile (“clean”) technique.
- o The skin in the area where the catheter will be inserted is cleaned before inserting the catheter.
- o Other methods to drain the urine are sometimes used, such as
- External catheters in men (these look like condoms and are placed over the penis rather than into the penis)
- Putting a temporary catheter in to drain the urine and removing it right away. This is called intermittent urethral catheterization.

Catheter care

- o Healthcare providers clean their hands by washing them with soap and water or using an alcohol-based hand rub before and after touching your catheter.

If you do not see your providers clean their hands, please ask them to do so.

- o Avoid disconnecting the catheter and drain tube. This helps to prevent germs from getting into the catheter tube.
- o The catheter is secured to the leg to prevent pulling on the catheter.
- o Avoid twisting or kinking the catheter.
- o Keep the bag lower than the bladder to prevent urine from backflowing to the bladder.
- o Empty the bag regularly. The drainage spout should not touch anything while emptying the bag.

What can I do to help prevent catheter-associated urinary tract infections if I have a catheter?

- Always clean your hands before and after doing catheter care.
- Always keep your urine bag below the level of your bladder.
- Do not tug or pull on the tubing.
- Do not twist or kink the catheter tubing.
- Ask your healthcare provider each day if you still need the catheter.

What do I need to do when I go home from the hospital?

- If you will be going home with a catheter, your doctor or nurse should explain everything you need to know about taking care of the catheter. Make sure you understand how to care for it before you leave the hospital.
- If you develop any of the symptoms of a urinary tract infection, such as burning or pain in the lower abdomen, fever, or an increase in the frequency of urination, contact your doctor or nurse immediately.
- Before you go home, make sure you know who to contact if you have questions or problems after you get home.

If you have questions, please ask your doctor or nurse.

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FAQs

(frequently asked questions)

about “Clostridium Difficile”

What is Clostridium difficile infection?

Clostridium difficile [pronounced Klo-STRID-ee-um dif-uh-SEEL], also known as “*C. diff*” [See-dif], is a germ that can cause diarrhea. Most cases of *C. diff* infection occur in patients taking antibiotics. The most common symptoms of a *C. diff* infection include:

- Watery diarrhea
- Fever
- Loss of appetite
- Nausea
- Belly pain and tenderness

Who is most likely to get C. diff infection?

The elderly and people with certain medical problems have the greatest chance of getting *C. diff*. *C. diff* spores can live outside the human body for a very long time and may be found on things in the environment such as bed linens, bed rails, bathroom fixtures, and medical equipment. *C. diff* infection can spread from person-to-person on contaminated equipment and on the hands of doctors, nurses, other healthcare providers and visitors.

Can C. diff infection be treated?

Yes, there are antibiotics that can be used to treat *C. diff*. In some severe cases, a person might have to have surgery to remove the infected part of the intestines. This surgery is needed in only 1 or 2 out of every 100 persons with *C. diff*.

What are some of the things that hospitals are doing to prevent C. diff infections?

To prevent *C. diff* infections, doctors, nurses, and other healthcare providers:

- Clean their hands with soap and water or an alcohol-based hand rub before and after caring for every patient. This can prevent *C. diff* and other germs from being passed from one patient to another on their hands.
- Carefully clean hospital rooms and medical equipment that have been used for patients with *C. diff*.
- Use Contact Precautions to prevent *C. diff* from spreading to other patients. Contact Precautions mean:
 - o Whenever possible, patients with *C. diff* will have a single room or share a room only with someone else who also has *C. diff*.
 - o Healthcare providers will put on gloves and wear a gown over their clothing while taking care of patients with *C. diff*.
 - o Visitors may also be asked to wear a gown and gloves.
 - o When leaving the room, hospital providers and visitors remove their gown and gloves and clean their hands.

- o Patients on Contact Precautions are asked to stay in their hospital rooms as much as possible. They should not go to common areas, such as the gift shop or cafeteria. They can go to other areas of the hospital for treatments and tests.
- Only give patients antibiotics when it is necessary.

What can I do to help prevent C. diff infections?

- Make sure that all doctors, nurses, and other healthcare providers clean their hands with soap and water or an alcohol-based hand rub before and after caring for you.

If you do not see your providers clean their hands, please ask them to do so.

- Only take antibiotics as prescribed by your doctor.
- Be sure to clean your own hands often, especially after using the bathroom and before eating.

Can my friends and family get C. diff when they visit me?

C. diff infection usually does not occur in persons who are not taking antibiotics. Visitors are not likely to get *C. diff*. Still, to make it safer for visitors, they should:

- Clean their hands before they enter your room and as they leave your room
- Ask the nurse if they need to wear protective gowns and gloves when they visit you.

What do I need to do when I go home from the hospital?

Once you are back at home, you can return to your normal routine. Often, the diarrhea will be better or completely gone before you go home. This makes giving *C. diff* to other people much less likely. There are a few things you should do, however, to lower the chances of developing *C. diff* infection again or of spreading it to others.

- If you are given a prescription to treat *C. diff*, take the medicine exactly as prescribed by your doctor and pharmacist. Do not take half-doses or stop before you run out.
- Wash your hands often, especially after going to the bathroom and before preparing food.
- People who live with you should wash their hands often as well.
- If you develop more diarrhea after you get home, tell your doctor immediately.
- Your doctor may give you additional instructions.

If you have questions, please ask your doctor or nurse.

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FAQs

(frequently asked questions)

about “Surgical Site Infections”

What is a Surgical Site Infection (SSI)?

A surgical site infection is an infection that occurs after surgery in the part of the body where the surgery took place. Most patients who have surgery do not develop an infection. However, infections develop in about 1 to 3 out of every 100 patients who have surgery.

Some of the common symptoms of a surgical site infection are:

- Redness and pain around the area where you had surgery
- Drainage of cloudy fluid from your surgical wound
- Fever

Can SSIs be treated?

Yes. Most surgical site infections can be treated with antibiotics. The antibiotic given to you depends on the bacteria (germs) causing the infection. Sometimes patients with SSIs also need another surgery to treat the infection.

What are some of the things that hospitals are doing to prevent SSIs?

To prevent SSIs, doctors, nurses, and other healthcare providers:

- Clean their hands and arms up to their elbows with an antiseptic agent just before the surgery.
- Clean their hands with soap and water or an alcohol-based hand rub before and after caring for each patient.
- May remove some of your hair immediately before your surgery using electric clippers if the hair is in the same area where the procedure will occur. They should not shave you with a razor.
- Wear special hair covers, masks, gowns, and gloves during surgery to keep the surgery area clean.
- Give you antibiotics before your surgery starts. In most cases, you should get antibiotics within 60 minutes before the surgery starts and the antibiotics should be stopped within 24 hours after surgery.
- Clean the skin at the site of your surgery with a special soap that kills germs.

What can I do to help prevent SSIs?

Before your surgery:

- Tell your doctor about other medical problems you may have. Health problems such as allergies, diabetes, and obesity could affect your surgery and your treatment.

- Quit smoking. Patients who smoke get more infections. Talk to your doctor about how you can quit before your surgery.
- Do not shave near where you will have surgery. Shaving with a razor can irritate your skin and make it easier to develop an infection.

At the time of your surgery:

- Speak up if someone tries to shave you with a razor before surgery. Ask why you need to be shaved and talk with your surgeon if you have any concerns.
- Ask if you will get antibiotics before surgery.

After your surgery:

- Make sure that your healthcare providers clean their hands before examining you, either with soap and water or an alcohol-based hand rub.

If you do not see your providers clean their hands, please ask them to do so.

- Family and friends who visit you should not touch the surgical wound or dressings.
- Family and friends should clean their hands with soap and water or an alcohol-based hand rub before and after visiting you. If you do not see them clean their hands, ask them to clean their hands.

What do I need to do when I go home from the hospital?

- Before you go home, your doctor or nurse should explain everything you need to know about taking care of your wound. Make sure you understand how to care for your wound before you leave the hospital.
- Always clean your hands before and after caring for your wound.
- Before you go home, make sure you know who to contact if you have questions or problems after you get home.
- If you have any symptoms of an infection, such as redness and pain at the surgery site, drainage, or fever, call your doctor immediately.

If you have additional questions, please ask your doctor or nurse.

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FAQs

(frequently asked questions)

about “Ventilator-Associated Pneumonia”

What is a Ventilator-Associated Pneumonia (VAP)?

A “pneumonia” is an infection of the lungs. A “ventilator” is a machine that helps a patient breathe by giving oxygen through a tube. The tube can be placed in a patient’s mouth, nose, or through a hole in the front of the neck. The tube is connected to a ventilator. A “ventilator-associated pneumonia” or “VAP” is a lung infection or pneumonia that develops in a person who is on a ventilator.

Why do patients need a ventilator?

A patient may need a ventilator when he or she is very ill or during and after surgery. Ventilators can be life-saving, but they can also increase a patient’s chance of getting pneumonia by making it easier for germs to get into the patient’s lungs.

What are some of the things that hospitals are doing to prevent ventilator-associated pneumonia?

To prevent ventilator-associated pneumonia, doctors, nurses, and other healthcare providers:

- **Keep the head of the patient’s bed raised** between 30 and 45 degrees unless other medical conditions do not allow this to occur.
- **Check the patient’s ability to breathe on his or her own** every day so that the patient can be taken off of the ventilator as soon as possible.
- **Clean their hands** with soap and water or an alcohol-based hand rub before and after touching the patient or the ventilator.
- **Clean the inside of the patient’s mouth** on a regular basis.
- **Clean or replace equipment** between use on different patients.



Keep the head of the patient’s bed raised between 30 to 45 degrees.

What can I do to help prevent VAP?

- If you smoke, quit. Patients who smoke get more infections. If you are going to have surgery and will need to be on a ventilator, talk to your doctor before your surgery about how you can quit smoking.
- Family members can ask about raising the head of the bed.
- Family members can ask when the patient will be allowed to try breathing on his or her own.
- Family members can ask doctors, nurses, and other healthcare providers to clean their hands.

If you do not see your providers clean their hands, please ask them to do so.

- Family members can ask about how often healthcare providers clean the patient’s mouth.

Can VAP be treated?

VAP can be a very serious infection. Most of the time, these infections can be treated with antibiotics. The choice of antibiotics depends on which specific germs are causing the infection. Your healthcare provider will decide which antibiotic is best.

If you have questions, please ask your doctor or nurse.

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FAQs

(frequently asked questions)

about

“Vancomycin-Resistant Enterococcus”

What is VRE?

VRE refers to vancomycin-resistant *enterococcus*. The *enterococcus* is a germ or bacterium that lives in the intestinal tract and in the female genital tract. Most of the time, the *enterococcus* does not cause a problem. This is called colonization. Occasionally, the *enterococcus* can cause an infection of the urinary tract, bloodstream, or skin wounds. Vancomycin is an antibiotic that can be used to treat those infections. However, some *enterococcus* germs are no longer killed by vancomycin and are known as vancomycin-resistant *enterococcus* or VRE. These germs are often resistant to many antibiotics in addition to vancomycin.

Are certain people at risk of getting a VRE infection?

The following people are at an increased risk of becoming infected with VRE:

- People who have been previously treated with the antibiotic vancomycin or other antibiotics for long periods of time.
- People who are hospitalized, especially when they receive antibiotics for long periods of time.
- People with weakened immune systems such as patients in intensive care units, or in cancer or transplant wards.
- People who have undergone surgical procedures, such as abdominal or chest surgery.
- People with medical devices such as urinary catheters or intravenous (IV) catheters that stay in for some time.
- People who are colonized with VRE.

Can VRE infections be treated?

Most VRE infections can be treated with antibiotics other than vancomycin. Laboratory testing can help healthcare providers determine which antibiotics will work.

How is VRE spread?

VRE can be passed from person to person. VRE can get onto hands when they touch a person with VRE or after contact with contaminated surfaces or equipment.

How can the spread of VRE be prevented in the hospital?

In the hospital:

- Caregivers should clean their hands with soap and water or an alcohol-based hand rub before and after caring for every patient.
- Hospital rooms and medical equipment should be cleaned and disinfected after use.
- In some cases, your healthcare provider may also use gowns and gloves to help prevent spread
- Your healthcare providers should take special measures (isolation precautions) to prevent the spread of your infection to others.

How can I prevent the spread of VRE?

If you or someone in your household has VRE, the following can be done to prevent the spread of VRE:

- Keep your hands clean, especially after using the bathroom or before preparing food. Use soap and water or use alcohol-based hand rubs.
- Frequently clean areas of your home, such as your bathroom, that may become contaminated with VRE.
- Wear gloves if you might come in contact with body fluids (such as stool or bandages from infected wounds) that could contain VRE. Always wash your hands after removing gloves.
- If you have VRE, be sure to tell the healthcare provider caring for you. Healthcare facilities use special precautions to help prevent the spread of VRE to others.

Where can I get more information about VRE?

More information about VRE is available from the Centers for Disease Control and Prevention (CDC) at:
http://www.cdc.gov/ncidod/dhqp/ar_vre.html

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