HICKMAN®
Catheter Care
with a
Needleless
Connector
# Table of Contents

Part 1 – Learning about the HICKMAN® Catheter ................................................................. 2

Part 2 – Caring for Your Hickman® Catheter ........................................................................ 3  
  A. Preventing Infection ........................................................................................................ 3  
  B. Bathing ............................................................................................................................ 4  
  C. Site Care for First 4 Weeks ............................................................................................ 4  
  D. Dressing Changes .......................................................................................................... 5  
  E. Once your Catheter Has Healed .................................................................................... 6  
  F. Flushing the Catheter ..................................................................................................... 7  
  G. Changing the needleless connector ............................................................................. 7

Part 3 – Sensitive Skin Care .................................................................................................. 8

Part 4 – Getting More Supplies ........................................................................................... 10

Part 5 – Problem Solving ..................................................................................................... 11

HICKMAN® is a registered trademark of C. R. Bard Inc., and its related company, BCR, Inc.
Part 1 – Learning about the HICKMAN® Catheter

The HICKMAN® catheter is a narrow, plastic-like, hollow tube. It is tunneled under the skin and placed in one of the veins just under the collarbone. It is held in place by a textured cuff that lies under the skin. The catheter is placed just above the heart (see picture below). Listed below are some of the uses.

- Drawing blood
- Chemotherapy
- IV (intravenous) fluids
- Blood transfusions
- IV (intravenous) nutrition

Benefits

- Comfort – Fewer needle sticks are needed.
- Safety – Secure access into your bloodstream that can be maintained as long as it is needed.
- Independence – Many treatments can be done on an outpatient basis.

HICKMAN® Catheter Placement

Your HICKMAN® will be placed in the operating room, Ambulatory Surgery, or in the Department of Interventional Radiology. Placement often takes about 30 minutes. There is some waiting and observation time. The entire process may take 2 – 4 hours.

Medicines may be given to help you relax. A local anesthetic is used to numb the area. For some children, general anesthesia may be used. The first incision is made just below the collarbone. This is where the catheter enters the large blood vessel that leads to the heart. This place is called the “entrance site.”

The entrance site will have paper “stitches” called steri-strips or “glue” called Dermabond® holding it closed. These will fall off as the site heals.

The rest of the HICKMAN® catheter is tunneled under the skin where the second small incision is made. This is the “exit site” where the catheter exits the body. At the exit site, a few stitches will be placed to hold it in place until the tissue can heal. These stitches may be removed by your nurse or doctor in about one month.
After Placement

- A chest x-ray will be taken to confirm proper placement.
- You may feel some neck and/or shoulder pain and stiffness for a couple of days. Pain medicine may be ordered for you.
- It is normal to have a small amount of bleeding, oozing, or blood around the exit site for 1 – 2 days. If the bleeding increases or does not stop, contact your nurse or doctor.
- Check with your health care team before you resume any strenuous activity.
- You must have someone with you to drive you home after the procedure. If you received any sedation, you should not drive or make important personal or business decisions until the next day.

Part 2 – Caring for Your Hickman® Catheter

A. Preventing Infection

- To prevent infection, you will need to keep the exit site very clean and the opening to the HICKMAN® catheter (hub) sterile. Your nurse will show you how to do this.
- Always clean your work area with soap and water. Let it dry before setting up supplies.
- Wash your hands well with soap and water for 60 seconds. Be sure to clean under your nails. You may want to use a nail brush. Rinse well. Dry your hands with a clean towel.
- Use only tubing, IV bags, or other supplies that are sterile.
- Never touch the end of the catheter or the connection end of the needleless connector with your fingers.
- Never touch the hub or tip of the syringe. Do not use a needleless connector or syringe if it has been touched by your fingers or any other non-sterile object.
- Always clean the top of the needleless connector with an alcohol wipe using a ‘juicing’ method for 10-15 seconds and let dry before accessing.
- Handle gauze pads or transparent dressings only at the edges.
- Watch for expiration dates on your medicines and supplies.
- Always store your supplies in a dry place.
B. Bathing

- You will be able to shower in 24 – 48 hours. Tap water contains small numbers of germs. You must protect your HICKMAN® catheter and hub from water. You will need to keep it covered with a waterproof type of dressing. These may include: tegaderm, Micropore® patch, Ziplock® bag, or AquaGuard®. You can order the AquaGuard® at 1-800-426-1042.

- The catheter should never be below the level of water in the tub when you are bathing.

- Swimming is not allowed. Check with your health care provider.

Other Helpful Points

- Never use scissors, pins, or sharp objects near your catheter.

- Carry an extra sterile needleless connector in the event your connector leaks or comes off.

- Carry a rubber band and sterile gauze in case your catheter breaks. In the event of a break, pinch off the catheter between the break and your skin. Cover the end with sterile gauze and secure with a rubber band. If you have a cannula clamp, make sure the clamp is between the break and your exit site. Call your health care team right away.

- If your skin becomes irritated from the tape or the dressing, ask about other skin care options, which may include skin prep.

- Keep the catheter coiled or looped and taped to your chest at all times to prevent it from being pulled out or damaged.

C. Site Care for First 4 Weeks (While the stitches are in)

Note: Pre-packaged central line dressing kits may be provided.

Supplies

- 1 ChloraPrep® skin antiseptic
- 1 roll of tape
- 1 gauze dressing (2x2 or 4x4) or 1 transparent adhesive dressing
- clean and sterile gloves
- skin prep (optional)
- Biopatch® – donut shaped patch that contains a disinfectant (optional). If a Biopatch® is used for an infected-appearing site or after a new catheter, the patch can stay on the site for six days unless it is soaked with blood or fluid. If wet or soiled, change the patch earlier.
Steps

1. Set up a clean work surface.

2. Gather your supplies.

3. Wash your hands well for 60 seconds.

4. Put on clean gloves and carefully remove the old dressing. Adhesive remover may be used to loosen the old dressing.

5. Remove used gloves and put on sterile exam gloves.

6. Inspect the exit site for redness, swelling, drainage, tenderness, and/or warmth. Call your health care team, if any of these are present. Also, report dry skin, rash, or irritation from the dressing.

7. If there is a lot of drainage or dried blood around the exit site, clean the area with alcohol swabsticks.

8. Pinch the wings on the ChloraPrep® to release the liquid into the sponge pad. Do not touch the pad. Gently press the sponge against the skin near the exit site until you can see the liquid on the skin. Use a back and forth friction rub for 60 seconds to all the skin covered by the dressing. Let air dry. Do not blot, wave at, or blow-dry the site.

9. Apply skin prep to edges of dressing field. Let dry.

D. Dressing Changes

Gauze Dressing (To be used only for infected or irritated sites)

When gauze dressing are used, the dressing should be changed every day and sooner if it is loose wet, soiled, or if any drainage is present.

- Open the sterile gauze package.
- Pick up the gauze. Be careful to touch only the very edges or the outside part that will not come in contact with your HICKMAN® catheter exit site.
- Place the gauze over the exit site.
- Tape the edges of the gauze or, if directed, cover the gauze completely with tape.
Transparent Adhesive Dressing without Gauze

Change at least every three days or sooner if it is loose, wet, soiled, or if any drainage is present. Peel the backing from the transparent dressing and apply to site. Be careful not to touch the adhesive side to anything but the exit site. Place the dressing over the catheter tube first. Then gently smooth other the rest of the dressing.

Note: Sorbaview® is a type of transparent dressing often used in children.

E. Once your Catheter Has Healed

In about four weeks, your exit site should be well healed and the stitches will be removed. If your stitches are still in after this time, please ask your health care team about removing them.

Once your stitches are removed, the cleaning routine may change. Instead of the ChloraPrep®, the site can be cleaned with a washcloth and antimicrobial soap. Soap with a chlorhexidine base such as Hibiclens® is preferred. At this point, you may not have to wear a dressing. If you do not use a dressing, you must clean your site daily. If you continue to use a dressing, you will need to follow the cleaning/dressing routine outlined above.

Note: If you do not use a dressing at home and return for a hospital stay, a dressing may be used while you are in the hospital.

Always cover your catheter site and hub before cleaning to protect it from any water contamination. The catheter may not go under water.

Follow these steps

1. Use a liquid antimicrobial soap and a clean washcloth. Do not use a bar of soap.

2. Place the washcloth at the exit site and clean your skin around the site. Use a clean, fresh washcloth each day and pat dry.

3. Then, apply your dressing – either a transparent or gauze dressing or band-aid. Some people prefer no dressing at all.

4. Loop and secure the catheter at all times to prevent pulling even if you are not using a dressing.
F. Flushing the Catheter

Supplies

- Pre-filled 5 mL heparinized saline (10 units per mL concentration) syringes. If these are not available as pre-filled, your nurse will teach you how to prepare your syringes.
- Alcohol wipes
- Needleless connector (every 3 days, or as directed by your homecare nurse)
- Clean gloves.

1. Wash your hands for 60 seconds.

2. Put on clean gloves.

3. Clean the top of the needleless connector with an alcohol wipe using a ‘juicing’ method for 10-15 seconds and let dry.

4. Remove the plastic cover from the syringe. Insert the syringe filled with heparinized saline into the connector. If the tip of the syringe touches anything other than the connector, stop, and replace the syringe.

5. Unclamp your catheter.

6. Begin flushing by using a push-stop-push motion on the syringe plunger until the syringe is empty. Note: The catheter should flush easily. If you feel resistance, check to see if the clamp is open and that the tubing isn’t kinked. If there is resistance, do not force.

7. Clamp the line while holding down the plunger and remove syringe at the same time. If you have a HICKMAN® catheter with multiple ports, repeat the steps to flush each port.

8. Close the clamp on the catheter.

9. Flush your catheter after each use. Each port must be flushed at least once a day.

G. Changing the needleless connector

The needleless connector is a two-way connector that needs to be changed every three days or as directed by your homecare provider. Note: change sooner if blood is visible in the connector. The connector is sterile at the connector end.
1. Wash your hands for 60 seconds.

2. Put on clean gloves.

3. Remove the plastic cover from the syringe. Push air out of the syringe.

4. Open the needleless connector package and connect the syringe filled with saline to the end of the connector. Twist on completely. If the tip of the syringe touches anything other than the end of the catheter, stop, and replace the syringe.

5. Fill the needleless connector with saline solution by pointing the blue protective cap found at the other end of the connector up towards the ceiling. This will remove all air from the connector. Leave the syringe filled with saline attached to the connector.

6. Clamp the catheter line.

7. Remove the old needleless connector from the catheter. Hold the line without touching the end of the catheter opening.

8. Remove the blue protective cap from the new needleless connector and attach the connector to the end of the catheter. Do not over tighten. One firm turn onto the line is sufficient.

9. Unclamp the line.

10. Flush the line using push stop push method with the remaining flush solution already attached to the needleless connector.

11. As you complete the flush, clamp the line while holding down the plunger and remove syringe at the same time.

**Part 3 – Sensitive Skin Care**

Follow these steps if your skin because red, irritated, or has open sores.

**Supplies**

- 1 bottle of chlorhexidine solution (Steris® 32 oz CS#1254444 or Hibiclens® single use packets CS#1215001 or bottle if available). **Do not use Chloraprep when your skin is sensitive – the high alcohol content will irritate the skin more.**
- 4x4 sterile gauze for cleaning/drying
- 1 roll of paper tape or hytape (pink) tape or 1 small transparent adhesive dressing
- 2x2 or 4x4 sterile gauze for dressing
- Clean and sterile gloves (if stitches are still in place)
- No-sting skin prep
- Adhesive tape remover
- Sterile water if indicated
1. Wash your hands for 60 seconds.

2. Open 4x4 gauze package. Pour chlorhexidine onto one of the sterile 4x4 squares. You may need to dilute it with sterile water.

3. Put on sterile gloves if your stitches are still in place; otherwise, no gloves are needed.

4. Gently scrub the exit site with the soaked gauze squares for 30 seconds. Gently blot dry with the other package of dry 4x4 sterile gauze.

5. Let air dry completely. Do not wave at or blow dry the area.

6. Apply a dressing according to dressing change Section C. Make sure to apply no-sting skin prep around the area where the adhesive will be placed. Your health care team will help you decide which dressing is best for you.

**Gauze**

Skin that is very irritated with open sores should be covered with gauze not left open to the air. When you place the gauze, make sure to either use a no-tape method which your health care team can teach you or make sure the tape is not in direct contact with the irritated skin. Try to place your tape in a different area each time you change your dressing and use the least amount of tape that you can. This will give your skin a chance to heal.
Part 4 – Getting More Supplies

You may be given three days worth of supplies to care for your catheter. Your health care team will ensure that further supplies will be arranged through the correct supplier.

**Hickman® Catheter Supply Checklist**

Use this checklist to take inventory of your home supplies. Your nurse will help you figure out what you need and order refills.

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>3 DAY SUPPLY</th>
<th># ON HAND</th>
<th># NEEDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needleless Connectors</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prefilled Heparinized saline (10 units/ml) syringes</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol Wipes</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ChloraPrep® skin antiseptic</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2x2 and/or 4x4 Gauze Squares</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Band-Aids®</td>
<td>0 – 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antimicrobial (Chlorhexidine-base) Soap 32 oz.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tape 1”</td>
<td>1 roll</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transparent Adhesive Dressing</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean Gloves</td>
<td>1 box</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sterile Gloves</td>
<td>1 box</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sharps® Container (available in CS) if using needles for mixing medicines or have syringes contaminated with blood</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biopatch® (optional)*</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Securement Device (to keep catheter looped and secured)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*If a Biopatch® is used on an infected appearing site or a new catheter, the patch can stay on the site for 6 days unless it is soaked with blood or fluid. If soiled, change the patch earlier.
Part 5 – Problem Solving

Call your health care team right away if you have any of the problems listed below.

- Fever and/or chills.
- Shaking and/or chills after flushing your catheter.
- Constant blood in the catheter tubing.
- Swelling of face, neck, chest, or arm.
- Drainage, redness, swelling, severe pain, or bleeding at the exit site.
- Problems flushing, such as meeting resistance when you push on the plunger of the syringe.
- Damage to the HICKMAN® catheter such as a leak, hole, cut, or crack in the tubing. See Helpful Points on page 5 for details.
- Cuff is visible from the exit site.
- HICKMAN® catheter is accidentally pulled out. Apply pressure with gauze to the exit and entrance sites as shown in picture on page 2.

Personalized Dressing Plan, if different from above.

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person’s health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright ©11/2015. University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#4324.