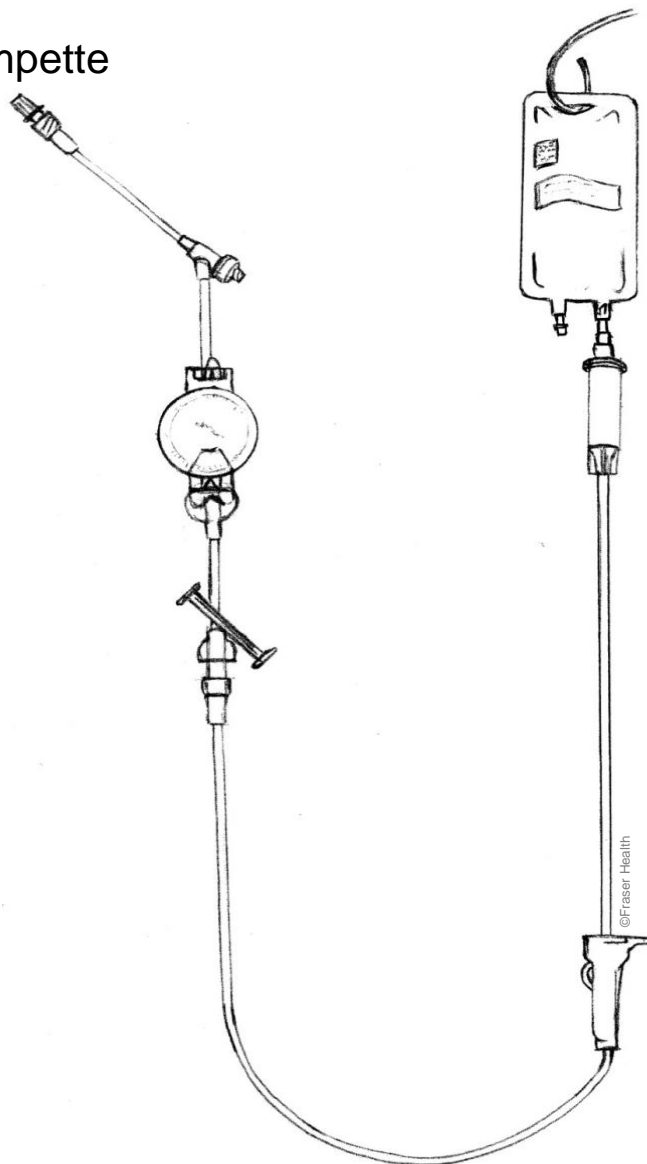


# How To Give Medication Through Your Central Venous Catheter

Abbotsford Regional Hospital and Cancer Centre  
Chilliwack General Hospital  
Fraser Canyon Hospital

Valved central venous catheter (CVC)  
with gravity system  
single tubing and pumpette

*(Non-Flex bag)*



Community IV Program

This book goes together with your **Introductory Book** on the Fraser Health Community IV Program. This book has more information to help you care for your IV system and contact information if you need to speak to a nurse about your IV system.

Always keep your 'client information' materials close by so you can follow the steps and for easy reference.

A nurse will go through this information with you and show you how to take care of your Central Venous Catheter (CVC).

## Table of Contents

---

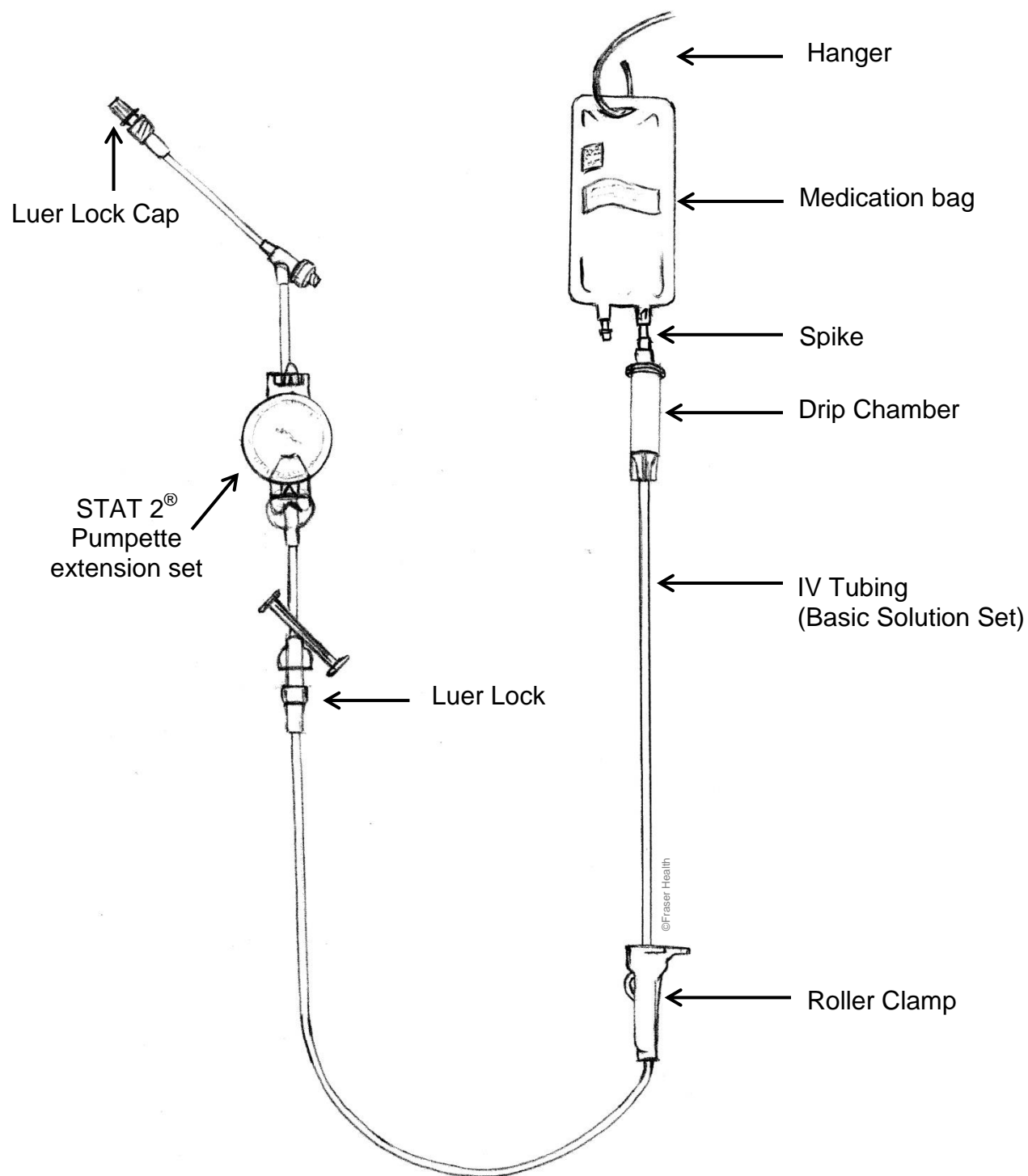
IV Set-up.....	1
Preparing the IV Tubing, Pumpette, and Medication Bag.....	2
Preparing Supplies for Flushing .....	7
Flushing Your CVC .....	9
Starting Your Medication.....	11
Disconnecting the Pumpette Extension Set .....	13
Troubleshooting .....	15

# Table of Contents

---

This page is intentionally blank.

## IV Set-Up



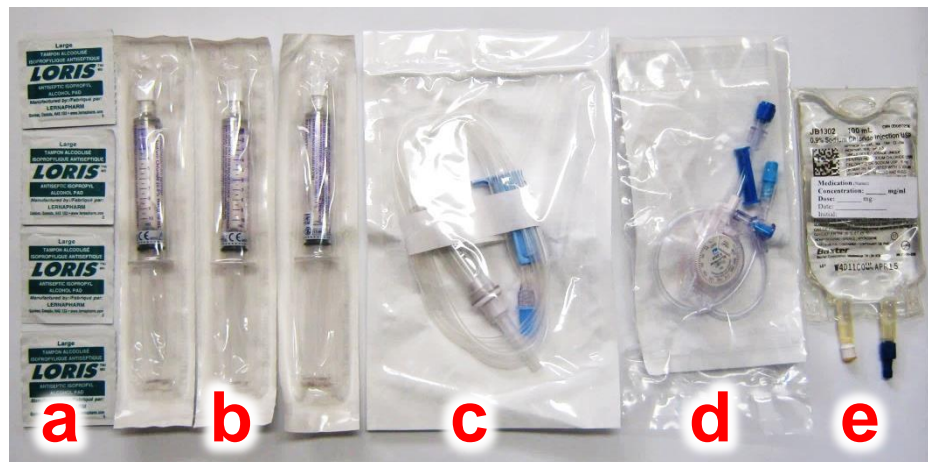
## Preparing the IV Tubing, Pumpette, and Medication Bag

1. Prepare a clean work area.
2. Clean your hands with soap and water or alcohol based hand sanitizer.



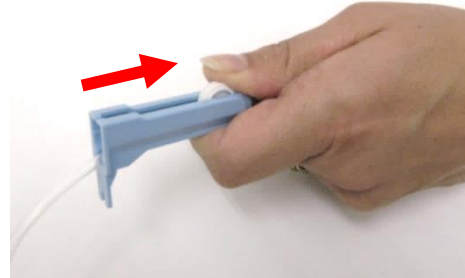
Clean work area and hands help prevent infection

3. Check your CVC site.  
If it is red, puffy or painful, call your nurse. The nurse will instruct you as to what to do next.
4. Gather your supplies:
  - a. 4 alcohol swabs
  - b. 3 prefilled saline syringes
  - c. Basic Solution Set (IV tubing)
  - d. Pumpette Extension Set
  - e. Medication bag



**Please note:** Medication should be at room temperature. When refrigerated, remove the medication bag from the refrigerator at least 30 minutes before using.

5. Take the Basic Solution Set (IV tubing) out of the package.
6. Remove the paper wrapper.
7. Straighten the tubing while holding both ends.
8. Close the roller clamp on the tubing by rolling the roller downwards. This stops fluid from going into the tubing.

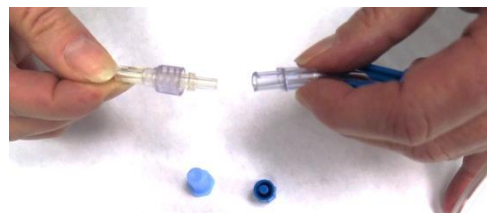


Roll clamp towards you with your thumb

9. Take the Pumpette Extension Set out of the package.
10. To attach the Pumpette to the Basic Solution Set:
  - Remove the blue protective cap from the Basic Solution Set.
  - Remove the darker blue protective cap from the Pumpette.
  - Put the end of the Pumpette into the end of the Basic Solution Set and twist to tighten.



Both caps on



Both caps off



Make sure the ends do not touch anything

11. Check the label on the medication bag for:
  - ✓ Your name
  - ✓ Correct drug
  - ✓ Correct amount or dose
12. Check the expiry date.
13. Squeeze the medication bag gently to check for leaks.

## Note

**Do not** use the bag if it is:

- cloudy
- leaking
- discoloured
- expired

**Do not** use if bag has floating particles in it.

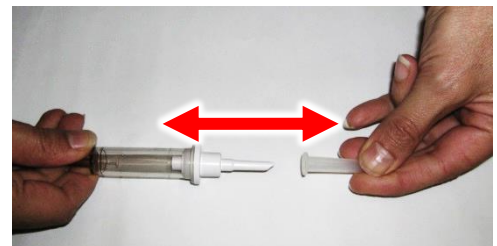
Contact the nurse or pharmacy.

14. Hold the medication bag above the port with one hand. Remove the protective cover (usually blue) by pulling on the bottom of the protective cover.



**Make sure the opening does not touch anything**

15. Pull the protective cap off the spike on the end of the Basic Solution Set.



**Make sure the end does not touch anything**



16. Insert the spike into the medication bag port using a push and twisting motion.



17. Hang the medication bag on the IV pole.

18. Adjust the pole.  
Think about the position you will be in while you are getting the medication.

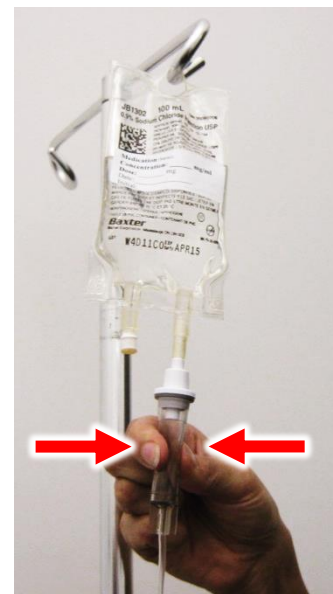
19. The medication bag should be about 3 feet (80 cm) above your CVC site when in this position.



20. Fill the drip chamber with fluid by squeezing it and then letting it go.

Check to see if the fluid level is at the mark on the drip chamber.

Squeeze and let go again until the drip chamber is about half full.



**This limits air bubbles from going into the tubing.**

# Preparing the IV Tubing, Pumpette, and Medication Bag

21. Be sure the dial on the Pumpette extension set is turned to the 'Full Open' position;

If not turned to 'Full Open':

- Open the covering case.
- Turn the dial all the way to 'Full Open'.



22. **Slowly** open the roller clamp by pushing the roller upward with your thumb to clear the tubing of air.



23. Watch the fluid go down the tubing until you see a few drops around the protective cap at the end of the Pumpette Extension tubing

**Note:** Leave the protective cap on.

24. Close the roller clamp on the tubing by rolling the roller downwards.

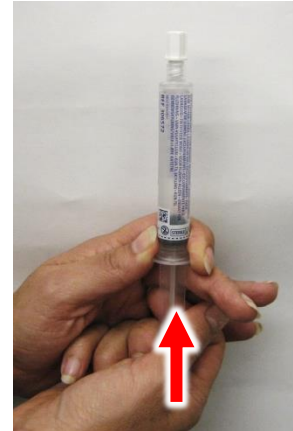


You are now finished preparing the tubing, Pumpette, and medication bag.

## Preparing supplies for flushing

Prepare 3 pre-filled saline syringes:

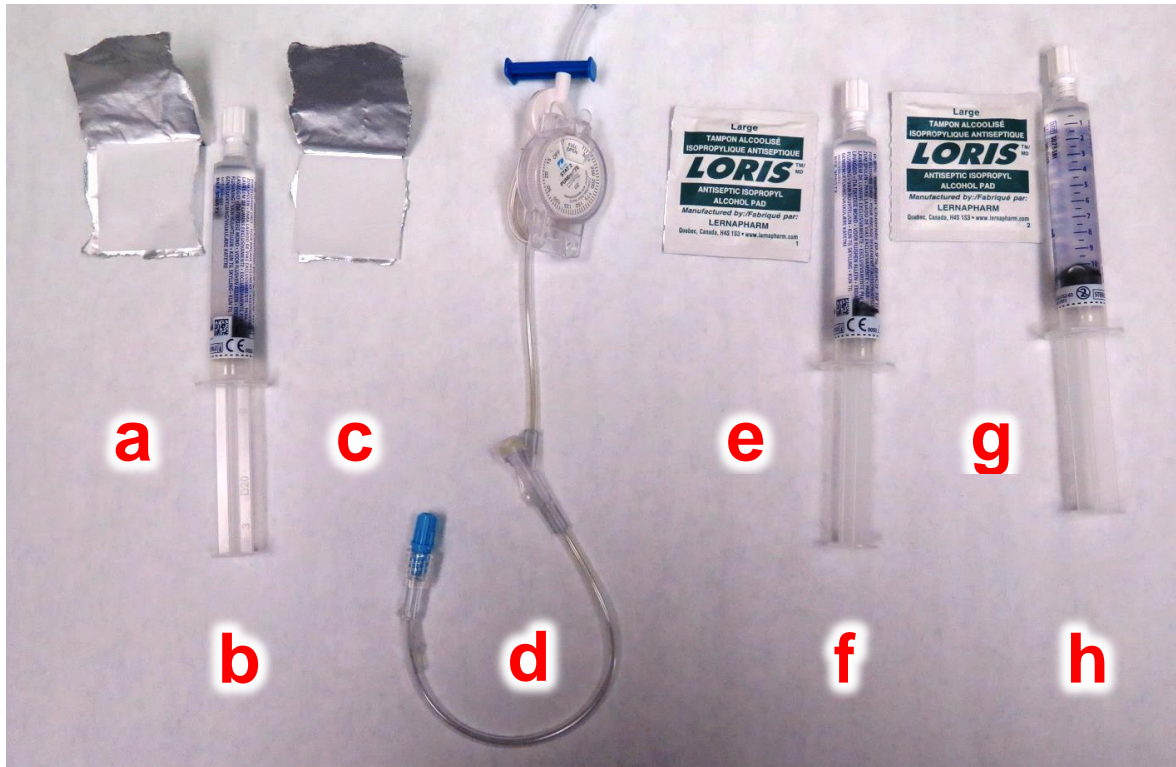
1. Open the package and remove syringe.
2. Hold the syringe with tip up.
3. Push on the plunger until you hear a popping sound.
4. Slightly loosen the white cap **but do not remove the cap.**
5. Push the plunger until you see a drop of fluid at the tip.
6. Tighten the white cap.
7. **Repeat steps 1 to 6** for all 3 syringes.



# Preparing Supplies for Flushing

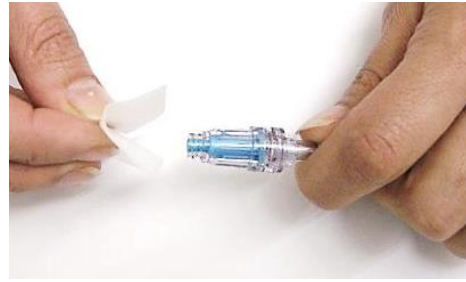
Prepare remaining supplies, placing each item in order of use:

- a. alcohol swab opened on 3 sides
- b. saline syringe
- c. alcohol swab opened on 3 sides
- d. capped end of Pumpette
- e. alcohol swab
- f. saline syringe
- g. alcohol swab
- h. saline syringe



## Flushing your CVC

1. To clean the end of the Max Zero Connector on the end of your CVC:
  - Firmly hold the Max Zero Connector with one hand.
  - Clean the Max Zero Connector with an alcohol swab for thirty (30) seconds.
  - Let it dry.
2. Remove the cap from the end of the syringe.
3. To connect the syringe to the Max Zero Connector:
  - Firmly hold the Max Zero Connector.
  - Gently push and twist the syringe clockwise into the centre of the Max Zero Connector.

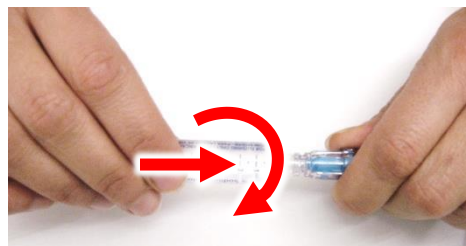


Cleaning with an alcohol swab helps prevent infection in the blood.

**Make sure nothing touches the cleaned end.**



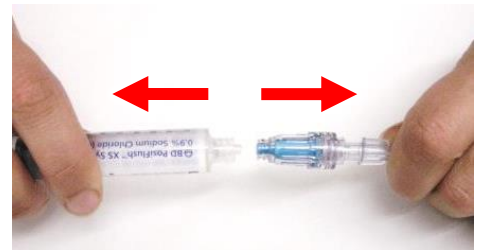
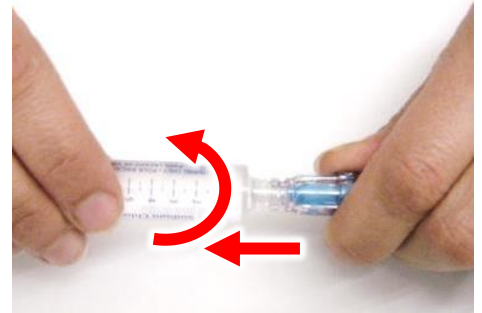
**Make sure nothing touches the end of the syringe.**



4. Push the plunger with a 'push/pause motion' until you have flushed with 10mLs of saline.

A push/pause motion allows the saline to flush your CVC and helps prevent it from plugging.

5. To remove the syringe:
  - Firmly hold the Max Zero Connector.
  - Remove the syringe from the Max Zero Connector by twisting counter-clockwise until the syringe separates from the Max Zero Connector.

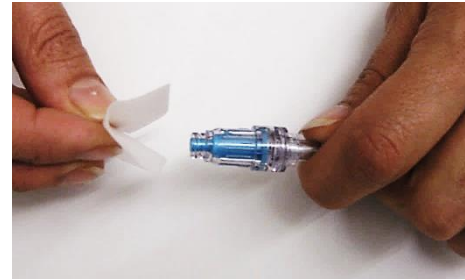


**'Blue stays with you'**



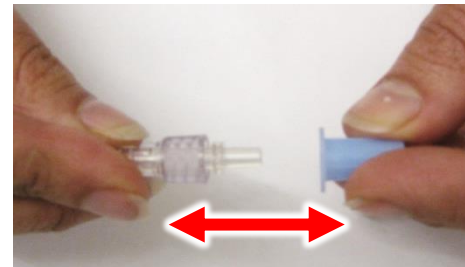
## Starting your medication

1. To clean the Max Zero Connector on the end of your CVC:
  - Firmly hold the Max Zero Connector with one hand.
  - Clean the Max Zero Connector with an alcohol swab for thirty (30) seconds.
  - Let it dry.



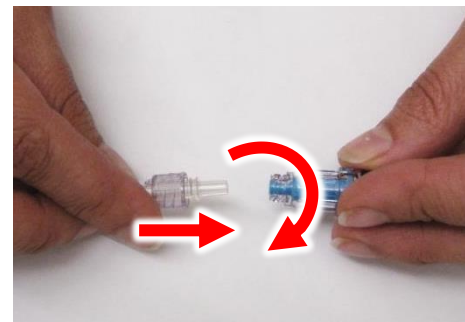
**Make sure nothing touches the cleaned end.**

2. Remove the protective cap off the end of the Pumpette Extension Set.



**Make sure nothing touches the open end.**

3. To connect the Pumpette Extension Set to the Max Zero Connector:
  - Firmly hold the Max Zero Connector.
  - Push and twist the Pumpette Extension Set clockwise into the centre of the Max Zero Connector.



4. Sit or lie down where you want to be while getting your medication.
5. Open the covering case on the Pumpette dial.
6. Turn the Pumpette dial to the rate calculated by the nurse.



7. Close the cover of the dial.
8. **Slowly** open the roller clamp completely on the Basic Solution Set by rolling the roller upward all the way to the top.
9. Watch for drops in the drip chamber.

**My dial rate**  
\_\_\_\_\_ mL/hour



10. Check the drip rate at least every 15 minutes.

**My drip rate**  
**1 drop every \_\_\_\_\_ seconds**

**Note:** A change in body position may change the drip rate.

If the infusion does not drip or is dripping too slowly check the “**Troubleshooting**” section for more instructions.

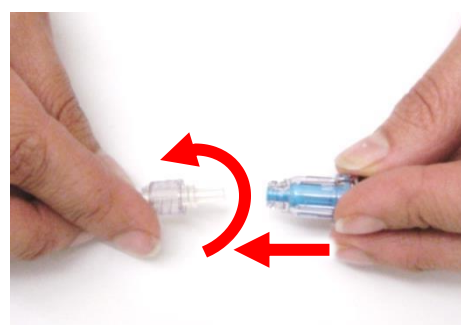
11. When the medication bag and drip chamber are empty, close the roller clamp on the Basic Solution Set.



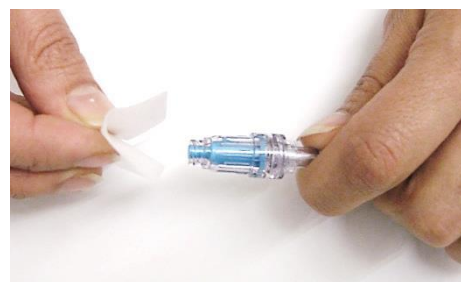


## Disconnecting the Pumpette Extension Set

1. Prepare these supplies and place out in the order shown:
  - a. alcohol swab opened on three sides
  - b. prepared syringe
  - c. alcohol swab opened on three sides
  - d. prepared syringe
2. To disconnect the Max Zero Connector from the Pumpette Extension Set tubing:
  - Firmly hold the Max Zero Connector.
  - Untwist and pull the Pumpette Extension Set tubing from the Max Zero Connector.
3. To clean the Max Zero Connector on the end of your CVC:
  - Firmly hold the Max Zero Connector with one hand.
  - Clean the Max Zero Connector with an alcohol swab for thirty (30) seconds.
  - Let it dry.
4. Remove the cap from the end of the syringe.



**'Blue stays with you'**



**This helps prevent infection.**

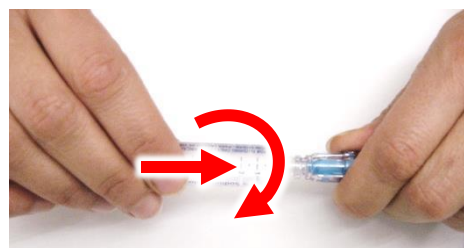


**Make sure nothing touches the end of the syringe.**

## Disconnecting the Pumpette Extension Set

5. To connect the syringe to the Max Zero Connector:

- Firmly hold the Max Zero Connector.
- Gently push and twist the syringe clockwise into the centre of the Max Zero Connector.

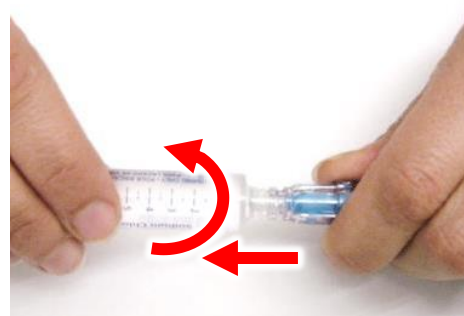


6. Push the plunger with a 'push/pause motion' until you have flushed with 10mLs of saline.

A push/pause motion allows the saline to flush your CVC and helps prevent it from plugging.

7. To remove the syringe:

- Firmly hold the Max Zero Connector.
- Remove the syringe from the Max Zero Connector by twisting counter-clockwise until the syringe separates from the Max Zero Connector.



**'Blue stays with you'**

### Repeat Steps 3 to 7

8. Secure your extension set and Max Zero Connector as directed.
9. Throw your used supplies in the garbage.

## Troubleshooting

Problem	What you should do
Fluid or blood is leaking from the insertion site of your CVC	<p>Stop activities that pull or hit the extension tubing.</p> <p>Contact a nurse as soon as possible.</p>
Leaking at the connections	Tighten all of the connections.
IV bag drip chamber does not drip or drips too slowly	<p>Make sure clamps are open.</p> <p>Check for kinks in the tubing. Gently straighten and tape tubing in place to keep from kinking.</p> <p>If you have a PICC, change the position of your arm.</p> <p>Raise the IV pole higher.</p> <p>Open and close the roller clamp a few times, or move the clamp up or down the tubing.</p>
Difficulty with flushing the CVC with normal saline	<p>Make sure there are no kinks in tubing.</p> <p>Continue to try the <b>'push/pause motion'</b> 5 to 10 more times. Do not force the plunger.</p> <p>If it is still difficult to flush, contact a nurse.</p>

### Remember

If you have any questions, write them down so you can ask the nurse.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This information does not replace the advice given to you by your healthcare provider.

To order: [patienteduc.fraserhealth.ca](http://patienteduc.fraserhealth.ca)

