

## **PATIENT CONTROLLED ANALGESIA (PCA) AT HOME USING THE CADD® SOLIS-VIP PUMP**

**Patient Name:** \_\_\_\_\_ **MRN** \_\_\_\_\_ **DOB** \_\_\_\_\_

### **Medication Information**

Name of Medication : \_\_\_\_\_ Concentration: \_\_\_\_\_

Medication stable at room temperature for: \_\_\_\_\_

### **Pump settings**

Pump # : \_\_\_\_\_

Change AA batteries or recharge rechargeable battery as noted by battery life indicator on pump

Units: \_\_\_\_\_

Concentration : \_\_\_\_\_

Continuous rate: \_\_\_\_\_

PCA dose: \_\_\_\_\_

PCA lockout: \_\_\_\_\_ minutes

Max doses per hour: \_\_\_\_\_

Reservoir volume: \_\_\_\_\_ ml

Infusion Start Date: \_\_\_\_\_

Pharmacist: \_\_\_\_\_/\_\_\_\_\_

Pump has been programmed and double checked

Family/pharmacist will reprogram pump at home via telephone

### **Normal saline flush solution**

Amount to give: \_\_\_\_\_ ml

When to give it:

┆ before and after giving the medication/fluids

┆ \_\_\_\_\_

### **Heparin flush solution**

Solution: \_\_\_\_\_ units/ml

Amount to give: \_\_\_\_\_ ml

When to give it:

┆ After giving the medication and normal saline flush

\_\_\_\_\_

## **Preventing Infection:**

It is very important to prevent infection. Failure to do so might require removal of the central venous catheter. The nurse will show you how to keep your supplies clean, so no germs will enter the catheter and cause an infection.

*Cleanliness is a must!* Each time you handle supplies or perform a procedure, do the following steps:

1. Prepare a clean work space area by cleaning a solid surface with household cleanser.
2. Clean hands well, using one of the following methods:
  - Use an alcohol hand sanitizer according to directions.
  - If hands are dirty or alcohol hand sanitizer is not available, wash hands for *at least 20 seconds* with soap, rubbing all surfaces briskly, including fingernails. Use a paper towel or clean hand towel to dry your hands, and then use the towel to turn off the faucet.
3. Before *each time* you flush or attach a new syringe/tubing to the injection cap, scrub the injection cap for 15 seconds with a fresh chlorhexidine wipe, using friction. Let it dry completely. Do not fan or blow on it.

## **Getting Ready:**

- 1) Make sure the medication is at room temperature
  - Remove the medication from the refrigerator as directed. Your homecare nurse will discuss with you how early this should be removed to make sure it is safe to use.
  - Do not use a microwave, oven, or water to warm.
- 2) Check the label on the bag and verify:
  - Child's name
  - Medication/Dose
  - Expiration date

### **Starting an infusion/medication with NEW tubing:**

1. ALWAYS TURN ON the pump before attaching the tubing / cassette. To turn on the pump, push the power button located on the right side of the pump.
2. Pump will beep multiple times when finished 'powering up'.
3. Once 'powered up', remove blue clip from tubing cassette, open the silver latch handle located on the right side of pump and attach the cassette located on the tubing to the pump. Insert the 'feet' in first.
4. To latch cassette/tubing in place, close the silver latch handle.
5. Screen will read "**Reset Reservoir Volume to \_\_\_\_\_ml?**" Press (yes) to reset the volume. (Note: this will not take place with first connection - only on following connections.)

### **Starting an infusion/medication WITHOUT changing the tubing (just changing the bag):**

1. Stop the pump by hitting the "Stop/Start" button.
2. Press "Tasks" button and then press "Select" when "Reservoir Volume" is highlighted on the screen.
3. Screen will read "**Reset Reservoir Volume to \_\_\_\_\_ml?**" Press (yes) to reset volume.  
**OR**
1. Unclamp and re-clamp cassette/tubing from pump and press (yes) to "**Reset Reservoir Volume to \_\_\_\_\_ml?**". You should see the message: "Saving".

### **Priming the tubing (IF NOT ALREADY PRIMED):**

#### **WARNING: DO NOT PRIME TUBING WHEN TUBING IS ATTACHED TO THE PATIENT**

1. Remove the cover at the end of the tubing and unclamp the tubing (keep the cover clean by placing it face up onto a clean surface).
2. When asked to "Prime Tubing?" Press the (yes) button. **Press (no) if tubing is already primed.**
3. With one hand, hold the tubing with the filter (if present) end down. With your other hand, press the **(yes)** button to pump fluid through the tubing until the filter (if present) and all tubing is filled with fluid and **all air is removed**. If air bubbles are present, tap filter to remove them.
4. Clamp the tubing and replace the clean cover.

## Connecting Medication/Fluids to Patient

### Review of S.A.S.H. method:

1. Flush with normal **S**aline
2. **A**dminister medication or fluid
3. Flush with normal **S**aline
4. Flush with **H**eparin



**Note:** Every time you flush the IV line with normal saline or heparin, use the "**push-and-pause**" method: push a little solution, then pause for 1 to 2 seconds, then push a little more, pause, and so on. This method cleans the inside of the IV line. Your home care nurse will show you how to do this.

1. Gather supplies:
  - chlorhexidine wipes
  - normal saline syringes or dextrose solution syringes (2)
  - heparin syringe
  - IV medicine/fluids you will be giving
  - non-sterile gloves
  - disinfectant cap
2. Wash hands and put on non-sterile gloves. Put supplies in order of use on the work surface.
3. Check the labels of the normal saline and heparin syringes, and any other medicines or
  - A medicine is good until the end of the day on the day it expires. Throw it away sooner if you see sediment in it or if you question its cleanliness. If you do throw a medicine away, be sure to call the home care pharmacy for a replacement dose.

### Preparing pre-filled syringes:

**Saline and Heparin** syringes have an air bubble in them. With the tip cap on, press the syringe rod forward until it "pops." Remove the cap, being careful not to touch the inside of the cap. Point the syringe tip up and gently squirt the air bubble out. Replace the cap.

4. Remove disinfectant cap **OR** if disinfectant cap not in place, scrub the injection cap with a chlorhexidine wipe for 15 seconds and let it dry completely.
5. Attach normal saline syringe tip into the injection cap.
6. Unclamp the catheter.
7. Flush with normal saline using the push-and-pause method. When syringe is empty, remove it from the injection cap.
8. If you are not giving medicines at this time, go to step 1 of the next section
9. If you are giving medicines, scrub injection cap with a new chlorhexidine wipe for 15 seconds and let it dry completely.
10. Connect the medicine/IV tubing and give as instructed by your home care nurse.
11. Open all clamps.
12. Press the START/STOP button.
13. When “Start the Pump?” appears, press the (yes) button.
  - “Infusion is starting now...” will appear on screen.
  
  - “RUNNING” will appear on the top of the screen, the green light will blink, and the fluid will start to flow.

**At end of infusion or when medication complete:**

1. Disconnect the tubing from the injection cap.
2. Scrub the injection cap with a new chlorhexidine wipe for 15 seconds and let it dry.
3. Attach normal saline syringe and flush using the push-and-pause method. When syringe is empty, remove it from the injection cap.
4. Scrub the injection cap with a new chlorhexidine wipe 15 seconds and let it dry.
5. Attach heparin syringe and flush using the push-and-pause method. When syringe is empty, remove it from the injection cap.
6. Clamp the line.
7. Apply disinfectant cap to injection cap.

**Important tips**

- Make sure the pump is turned on before attaching a new cassette/tubing.
- If the green light is on, the pump is running.
- If the amber light is on, the pump is *not* running.
- Refer to the CADD Solis instruction booklet for detailed instructions, warnings, and trouble shooting that was included in your delivery of supplies.
- To turn pump off: push the power button on the right side of the pump. When “Power down” appears, press “yes” button.
- You must have a key to lock the cassette or tubing – please ask your home care nurse if you have questions.
- The pump must have a charged battery (rechargeable battery or 4 AA batteries) in it to run. If the batteries die, the pump will not deliver fluids or medication even if it is plugged into the wall.
- If using the rechargeable battery, do not wait until it is depleted the recharge. Pending on the rate of the infusion, it may need to be recharged daily.

**Questions?**

If you have any questions, please call your home care nurse.

Reviewed by Home Care & Home Care Pharmacy 11/2024.