



# Performing Home Infusions with a Flow Regulator (Dial-a-Flow Device)



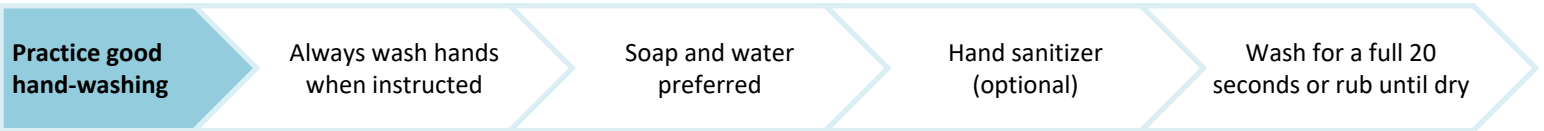
Use this teach sheet to walk you through your infusions. Check with your home health nurse to see if any steps do not apply to you.

## Four Components for Performing Infusions:

- 1- PRACTICE GOOD HAND-WASHING 2- PREPARE SUPPLIES 3- PREPARE IV LINE 4- START AND STOP INFUSION

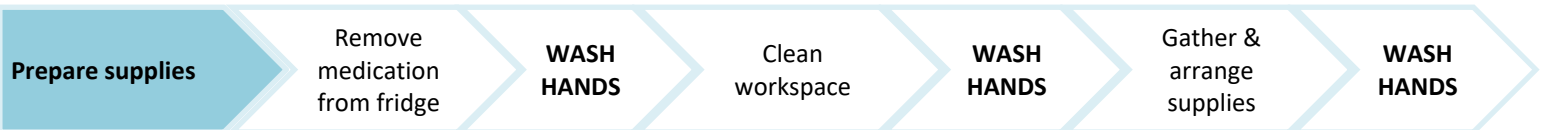
Medication(s) to infuse: \_\_\_\_\_

Home Infusion Nurse (name, #): \_\_\_\_\_



### STEP 1: PRACTICE GOOD HAND-WASHING

- Always remember to **WASH YOUR HANDS** for a full 20 seconds when instructed.
  - Soap and water is always preferred (hand sanitizer optional).
  - Make it a habit to wet your hands, apply soap, and lather for 20 seconds (hum the Happy Birthday song twice).
  - If using hand sanitizer, rub a dime-sized amount between your hands until dry. Never wave or blow on your hands to speed up drying.
  - Remember, if you are using gloves, you must still wash your hands.
  - Washing your hands helps reduce your chance of infection.



### STEP 2: PREPARE SUPPLIES

- Note the time to start the infusion: \_\_\_\_\_  AM  PM
- Note the amount of time your medication should be left at room temperature: \_\_\_\_\_  HR  Minutes

- Note the time to remove the medication from refrigerator (if refrigerated): \_\_\_\_\_  HR  Minutes
  - Remove medication from refrigerator BEFORE the infusion. Follow your medication recommendations.
  - Your medication will infuse at the correct rate if administered at room temperature.

Do NOT attempt to warm the medication by other means.

- Double-check your medication to confirm the following information before the infusion:
  - Medication has my name and date of birth.
  - Medication name is correct.
  - Medication dose is correct.
  - Medication is not expired.
  - If any of this information is incorrect, stop *and* call your infusion pharmacy immediately.

- WASH YOUR HANDS.**
  - Soap and water are preferred (hand sanitizer optional).
  - Wash for 20 seconds (hum the Happy Birthday song twice) or rub with hand sanitizer until your hands are dry.

## STEP 2: PREPARE SUPPLIES (CONTINUED)

- Clean your workspace and SAS or SASH mat with alcohol pads, sanitizing wipes, or cleaning solution and paper towels.
  - Select a dry, hard work surface to set up your medication and supplies.

### WASH YOUR HANDS.

- Soap and water are preferred (hand sanitizer optional).
- Wash for 20 seconds (hum the Happy Birthday song twice) or rub with hand sanitizer until your hands are dry.

- Gather the following supplies and place on your workspace (do not put on top of your SAS or SASH mat yet):

- 4–5 alcohol wipes (to clean your supplies and hub (IV line tip))
- 2 prefilled saline syringes (to clear your IV line and remove any leftover medication)
- 1 prefilled heparin syringe (to clear your IV line and prevent blockage; your nurse will tell you if you need it)
- 1 medication bag (at room temperature)
- Medication orders (to check the rate needed to infuse your medication)
- 1 set of flow regulator tubing (can be reused within 24-hours with the SAME medication)
- 1 cap (to protect the end of your tubing between infusions)
- 1 IV pole (to hang your IV medication from)

- Arrange your alcohol wipes, wrapped prefilled syringes, medication bag and dial-a-flow tubing above your SAS or SASH mat in their respective location. Do not place any of these items on top of your SAS or SASH mat yet.

- “S” = Saline
- “A” = Administer or Antibiotic (includes your medication bag, dial-a-flow tubing and red cap)
- “S” = Saline
- “H” = Heparin (most patients will not need this)

### WASH YOUR HANDS.

- Soap and water are preferred (hand sanitizer optional).
- Wash for 20 seconds (hum the Happy Birthday song twice) or rub with hand sanitizer until your hands are dry.

- Unwrap both saline syringes and the heparin syringe (if prescribed). Place the syringes in the correct location on top of your SAS or SASH mat.

- Remove your medication bag from the plastic wrapping. Place the unwrapped medication bag over the “A” on top of your SAS or SASH mat.

- Remove the flow regulator tubing from the plastic wrapping if you are preparing for your first infusion of the day. Close the clamp on the flow regulator tubing and place over the “A” on top of your SAS or SASH mat.

- Do not unwrap the red cap yet. Keep it above the “A” on your SAS or SASH mat.

- Raise your IV pole as high as it goes.

‘Spike the bag’ in order to attach the flow regulator tubing to your medication bag:

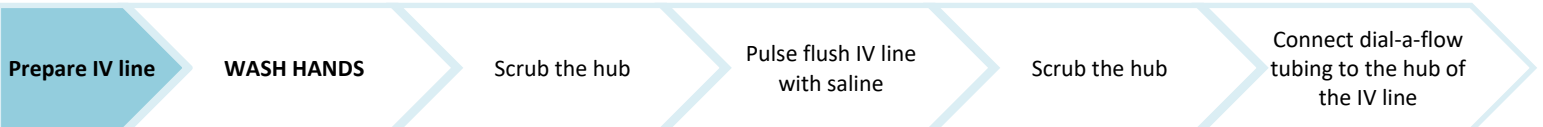
- Turn the dial (called a flow-regulator) on your flow regulator tubing until the green line is on “open.”
- Pull the plastic protective tab off the medication bag. Just pull. Do not twist.
- Remove the clear protective cap from the spike (located on your flow regulator tubing).
  - ***Make sure the spike does not touch anything. If the spike touches anything, throw that tubing set away and begin again with a new tubing set.***
- Insert the tubing spike into the medication bag (where the tab was removed).
  - Use a “push and twist” motion (like putting a key into an ignition).
- You will know the bag is spiked when you see the tip of the tubing spike in the medication bag and when you see medicine in the drip chamber.

### WASH YOUR HANDS.

- Soap and water are preferred (hand sanitizer optional).
- Wash for 20 seconds (hum the Happy Birthday song twice) or rub with hand sanitizer until your hands are dry.

## STEP 2: PREPARE SUPPLIES (CONTINUED)

- Remove all the air in the tubing by running fluid through it. This is called priming the tubing:
  - Hang the medication bag on the IV pole.
  - Squeeze the drip chamber until it fills halfway.
  - Open the white clamp on the tubing. The medication will run through the tubing.
  - Close the white clamp on the tubing as soon as you see medication drip out of the end.
  - Change the flow regulator rate from “open” to the rate on your medication orders. Rate: \_\_\_\_\_
  - Make sure you do not see any air in the tubing.
- Get comfortable to prepare your IV line.



## STEP 3: PREPARE IV LINE

- WASH YOUR HANDS.**
  - Soap and water are preferred (hand sanitizer optional).
  - Wash for 20 seconds (hum the Happy Birthday song twice) or rub with hand sanitizer until your hands are dry.
- Pick up the saline syringe from the first “S.” Remove air bubbles from the saline.
  - Remove the protective cap from the syringe and place the cap flat-side down on your SAS or SASH mat.
  - Hold the syringe with the end up and plunger at the bottom.
  - Pull back on the syringe plunger slightly to break the seal. You will be able to see the air bubble in the syringe.
  - Slowly push the plunger up to let the air bubble out.
  - Hold the syringe in your hand.
- ‘Scrub the hub.’ Clean the end cap (hub) by wrapping the alcohol square over and around the sides for at least 15 seconds.
  - Use the first alcohol wipe above your SAS or SASH mat (the one before the first “S”).
  - Once you have cleaned the hub, hold the hub with two fingers. Keep the hub from touching anything else.
  - If your hub touches anything, wash your hands and scrub the hub again with a new alcohol square.
- Flush your IV line with saline ( “pulse flush”):
  - Hold the hub in one hand and the saline syringe in the other.
  - Screw the syringe onto the hub using a “push and twist” motion. It’s like putting a key into an ignition.
  - Once the syringe is connected to the hub, open the clamp on your IV line and slowly push 1 to 2 mL of medication at a time. Stop and push 1 to 2 mL more. Repeat this “pulse flush” until the saline syringe is empty. Flushing this way each time helps keep your IV line from getting clogged.
  - If you have trouble flushing your IV line, make sure the clamp on your IV line is open. If your clamp is open and you are still having trouble, stop and call your infusion provider.
- Remove the empty saline syringe from your IV line. Throw it away. Do not remove the hub from your IV line.
- Before connecting your flow regulator tubing to the hub of your IV line, double-check the three questions found across the top of your SAS or SASH mat.
  - 1- Did you check the prescription?
  - 2- Did you check the expiration or “Do Not Use After” date?
  - 3- Did you wash your hands?
- WASH YOUR HANDS.**
  - Soap and water are preferred (hand sanitizer optional).
  - Wash for 20 seconds (hum the Happy Birthday song twice) or rub with hand sanitizer until your hands are dry.

### STEP 3: PREPARE IV LINE (CONTINUED)

- 'Scrub the hub' of your IV line with a NEW alcohol square for at least 15 seconds.
  - Use the second alcohol wipe above your SAS or SASH mat (the one before the "A").
  - Once you have cleaned the hub, hold the hub with two fingers. Keep the hub from touching anything else.
  - If your hub touches anything, wash your hands and scrub the hub again with a new alcohol square.
- Connect your flow regulator tubing to the hub of your IV line:
  - Hold the hub in one hand. Find the end of the medication tubing. Remove the medication tubing cap.
  - Connect the medication tubing to the hub of your IV line. Use the same "push and twist" motion as before.



### STEP 4: START AND STOP INFUSION

- Before starting the infusion, make sure your IV pole is extended. This way, the medication bag stays your heart during the infusion.
  - If the bag is below your heart, it can slow the infusion and cause blood to back up in the IV line. *If you notice this, don't panic. Stop and call your infusion provider for help.*
- Open the clamps on your IV line and flow regulator tubing. Medication will begin to drip through the drip chamber.
- Turn the numbers on the dial to match the rate on your medication orders.
- Rest and relax! The medication will infuse for a varying amount of time, depending on the time prescribed by your doctor and on how warm the medication was. You will know your infusion is complete when the medication bag is empty and the drip chamber is less than half-full.
- Once your infusion is complete, **WASH YOUR HANDS.**
  - Soap and water are preferred (hand sanitizer optional).
  - Wash for 20 seconds (hum the Happy Birthday song twice) or rub with hand sanitizer until your hands are dry.
- To stop the infusion, close the clamp on the flow regulator tubing.
- Wrap any excess tubing on the IV pole.
- Will you be using your tubing again?  
**Yes:** You need to perform another infusion with the same medication later today. You can reuse this tubing.
  - You may reuse the same tubing for the same medication for up to 24 hours.**No:** You only have one infusion for this medication today, or this flow regulator tubing was last used yesterday. Throw away the tubing.
  - NEVER use the same tubing for two different medications.
  - Do not reuse the same tubing for the same medication after 24 hours.
- Disconnect your medication tubing from your IV line. Grasp the end cap (hub) of your IV line with one hand while using your other hand to unscrew the tubing. Do this until it is disconnected from the hub. Do not remove the hub from your IV line.
- If you will reuse your tubing, remove the red cap (above the "A" of your SAS or SASH mat) from the plastic wrapping. Apply the clean cap to the end of the flow regulator tubing.
  - When it is time to prepare a new medication bag for the next infusion that day, throw out the old bag and repeat the process of washing your hands, spiking a new bag using the same tubing, priming the tubing for the second infusion, and connecting the tubing to the hub of your IV line.
- If you will not reuse your tubing, throw away the tubing. You will not need the red cap.

## STEP 4: START AND STOP INFUSION (CONTINUED)

### WASH YOUR HANDS.

- Soap and water are preferred (hand sanitizer optional).
- Wash for 20 seconds (hum the Happy Birthday song twice) or rub with hand sanitizer until your hands are dry.

### Pick up the saline syringe from the second “S.” Remove air bubbles from the saline.

- Remove the protective cap from the syringe and place the cap flat-side down on your SAS or SASH mat.
- Hold the syringe with the end up and plunger at the bottom.
- Pull back on the syringe plunger slightly to break the seal. You will be able to see the air bubble in the syringe.
- Slowly push the plunger up to let the air bubble out.
- Hold the syringe in your hand.

### ‘Scrub the hub’ of your IV line with a NEW alcohol square for at least 15 seconds.

- Use the third alcohol wipe above your SAS or SASH mat (the one before the second “S”).
- Once you have cleaned the hub, continue to hold the hub. Do not let it touch other surfaces.
- If your hub does touch anything, *wash your hands and scrub the hub again with a new alcohol square.*

### Flush your IV line with saline again via the “pulse flush” method by doing the following:

- While holding your hub in one hand, hold the syringe in your other hand.
- Screw the syringe onto the hub using a “push and twist” motion (like putting a key into an ignition).
- Once the syringe is connected to the hub, make sure the clamp on your IV line is open. Slowly push 1 to 2 mL of medication at a time. Stop and push 1 to 2 mL more. Repeat this “pulse flush” until the saline syringe is empty.
- If you have trouble flushing your line, check to make sure the clamp on your IV line is open. If your clamp is open and you still have difficulty, *stop and call your infusion provider.*

### Remove the empty saline syringe from your IV line using a gentle “twist and pull” motion. Throw it away in your trash. Be careful, and do not remove the hub from your IV line.

### If you are not using heparin, close the clamp on your IV line and WASH YOUR HANDS for a full 20 seconds.

### If you are using heparin, use the heparin syringe on the ‘H.’ Remove the air bubbles like you did before. ‘Scrub the hub’ of your IV line using a NEW alcohol square for at least 15 seconds.

- Use the last alcohol square above your SAS or SASH mat (the one before the “H”).
- Once you have cleaned the hub, hold the hub with two fingers to avoid contaminating the hub with other surfaces.
- If your hub does touch anything, *wash your hands and scrub the hub again with a new alcohol square.*

### Flush your IV line with heparin via the “pulse flush” method by doing the following:

- Hold your hub in one hand. Keep holding the heparin syringe in the other hand.
- Screw the syringe onto the hub using a “push and twist” motion (like putting a key into an ignition).
- Check that the clamp on your IV line is open. Slowly push 1 to 2 mL of medication at a time. Stop and push 1 to 2 mL more. Repeat this “pulse flush” until the heparin syringe is empty.
- If you have trouble flushing your line, check to make sure the clamp on your IV line is open. *If your clamp is open and you still have difficulty, stop and call your infusion provider.*

### WASH YOUR HANDS.

- Soap and water are preferred (hand sanitizer optional).
- Wash for 20 seconds (hum the Happy Birthday song twice) or rub with hand sanitizer until your hands are dry.

### Congratulations! You have successfully infused your medication!

**Disclosure:** This project was funded under grant R01HS027819 from the Agency for Healthcare Research and Quality (AHRQ), U.S. Department of Health and Human Services (HHS). The authors are solely responsible for this document’s contents which should not be interpreted as an official position of AHRQ or of HHS.