

OUTPATIENT INFUSION THERAPY FOR MULTIDRUG-RESISTANT TUBERCULOSIS

DAILY TASKS

PREPARING FOR THE PATIENT’S ARRIVAL

- Check the schedule of appointments for the day*
- Review the physician’s orders for each patient*
- Prepare for the patient’s prescribed therapy*

GREETING AND ASSESSING A PATIENT

- Follow infection control procedures*
- Greet the patient and make the patient comfortable*
- Converse with the patient and ask about the patient’s current condition*
- Look at the patient for signs of adverse reactions*
- Assess the infusion site*
- Document and report to a supervising physician signs and symptoms of adverse reactions, phlebitis, or infiltration*
- Monitor vital signs as a routine part of the patient’s examination*

PROVIDING INFUSION THERAPY

- Note: Prior to these steps, all equipment and supplies should be assembled; IV tubing should be attached to bags; and tubing should be primed.*
- Patients may be infused via PICC line or implanted port. Where the procedures differ, it is indicated in the steps below.*
 - Explain the infusion procedure to the patient, including any changes in procedures*
 - Set the rate and volume to be infused on pump*
 - Refer to the manufacturer’s manual
 - Use a slow infusion rate at first and increase the rate gradually, day to day
 - Watch for signs of fluid overload
 - Don sterile gloves and cleanse the area of port or PICC line*
 - Use a circular motion
 - Clean the area with 3 different alcohol swabs
 - Recleanse with a betadine swab 3 times
 - Allow the area to dry and apply a new dressing
 - Confirm placement of the PICC line or implanted port*
 - Placement must be confirmed by the presence of a brisk blood return or by radiographic testing
 - Document confirmation of catheter tip placement by a radiology report
 - Flush with saline*
 - Use a pulsating motion (“stop and go”)
 - Obtain a physician’s order for flushing protocols using heparinized saline
 - If there is difficulty flushing, check the clamp to make sure it is open. Also, check for any drainage, swelling, bleeding, or redness. The patient’s position may also be changed to move the catheter inside the vein away from the vein wall

If PICC:

- Cleanse injection cap with an alcohol swab
- Clamp extension set attached to the PICC
- Attach a 10 cc syringe containing 10 ml 0.9% saline solution; unclamp extension set; and gently aspirate for blood return. *If there is no blood return, do not use and notify the supervising physician.* After blood return, flush with saline
- Insert a leverlock cannula of primary tubing into the injection site of the saline lock

If implanted port, cannulate and flush:

- Palpate port site to locate septum
- Attach intermittent luer lock adapter to the end of the Huber needle. Attach a 10 ml saline-filled syringe to the end of the intermittent luer lock adapter; prime the Huber needle and extension set. Clamp the extension set
- Stabilize the port between the thumb and forefinger by grasping both sides of the device. Palpate the septum with the other gloved hand
- Insert the Huber needle perpendicular to the septum, and push it slowly but firmly, through the skin and portal septum until it comes to rest at the bottom of the portal chamber
- Unclamp the extension set and aspirate for blood return. Inject a flush of 10 ml 0.9% saline solution
- Clamp the extension set while maintaining pressure on the syringe plunger to prevent backflow of blood
- If needed, place 2” x 2” gauze underneath the bend (right angle) and wings of the Huber needle for support. (If the wings are flush to the skin, this step can be omitted.)
- Apply skin prep to the outer border where the transparent dressing adheres; allow it to dry; and apply a transparent membrane dressing
- Attach the primed IV tubing. Tape the junction tubing securely to the chest

Note: Periodically, blood may need to be drawn on infusion patients. When drawing blood:

- Flush the line with 10 cc saline, draw 10 cc blood, and discard
- Draw the required amount of blood and then flush the line again with 10 cc saline. Mark on the lab slip that blood was taken from the port or PICC line
- Once infusion therapy is complete, flush the line first with 5 to 10 cc saline and then infuse antibiotics. When the antibiotics have been completely infused, flush the line again with 5 to 10 cc saline and finally, flush with 5 cc heparin. Immediately lock the line to prevent air from getting into the line and to avoid backflow of blood

Start the pump to administer infusion

During infusion therapy:

- Check on the patient
- Look for symptoms of adverse reactions, phlebitis, or infiltration

After therapy:

If PICC:

- Flush the catheter with a 10 cc syringe containing 10 ml 0.9% saline
- Follow by flushing with a 10 ml syringe containing 5 ml heparin (100 units/ml)
- Apply tape and gauze to hold the PICC line in place, paying attention to the patient’s preferences for placement of gauze and tape; the patient’s arm should be allowed to bend freely for daily activities

If implanted port:

- Clamp the extension set. Disconnect the IV tubing. Clean the luer lock PRN adapter on extension set with a betadine swab for 30 to 35 seconds
- Flush with 10 ml saline. Attach a 10 cc saline-filled syringe to the luer lock PRN adapter on the extension set. Unclamp the extension set and flush; then clamp the extension set
- Groshong Ports do not require heparinization. If using another type of port that requires heparinization, also flush with 10 ml heparin solution; then clamp the extension set
- Carefully remove the transparent dressing and gauze
- Stabilize the device between the thumb and forefingers by grasping both sides of the device
- Remove the Huber needle by pulling it straight up
- Wipe the insertion site and apply an adhesive bandage

Discard the IV tubing and bag after use

Change dressing at least once a week

DIRECTLY OBSERVING ORAL THERAPY

Set out the oral drugs, a cup of water, and any food to be given with the drugs

Show the drugs to the patient and say what they are

Observe the patient ingesting all the drugs

Document the drugs taken

CONTINUING PATIENT SUPPORT AND EDUCATION

Make conversation with the patient

Provide education about MDR-TB and the therapy as needed

CONCLUDING A PATIENT VISIT

Provide any oral medication to be taken later at home

Discuss or confirm arrangements for the next clinic appointment

Give any special instructions from the physician

Encourage and praise the patient for adherence

Complete documentation of the treatment session

After the visit, communicate with the patient’s physician as needed

DISCHARGE FROM INFUSION THERAPY

The implanted ports and the PICC line should be removed

Return the pump used by the patient to the supply company or to the hospital supply unit, according to clinic policy



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