

Mosby's Nursing Video Skills

Procedure Guideline for Administering Medications by Intravenous Bolus

1. An IV bolus delivers a small volume of concentrated medication directly into the vein by way of an existing IV or a Saline lock.
2. Before you begin, verify the health care provider's orders.
3. Gather the necessary equipment and supplies.
4. Prepare medications using aseptic technique. Keep in mind the six rights of medication administration: right medication, right dose, right patient, right route, right time and right documentation. To review, refer to the Video Skill "Ensuring the Six rights of Medication Administration."
5. Check a drug reference manual to determine how quickly the medication can be given and to ensure that it is compatible with the primary IV solution.
6. Pause twice during your preparation to compare the label carefully with the MAR.
7. Administer the medication to the patient at the correct time (see agency policy). Give time-critical medications (e.g., "stat" and "now" doses) at the exact time ordered. During administration, apply the six rights of medication administration.
8. After performing hand hygiene and providing privacy, introduce yourself to the patient and family, if present.
9. Identify the patient using two identifiers (e.g., name and birth date or name and account number, according to agency policy). Compare these identifiers with the MAR or medical record.
10. Perform your third check at the bedside by comparing the MAR or computer printout with the names of the medications on the medication labels.
11. Do not forget to check the expiration date on the medication vial.
12. Ask the patient if he has any known allergies.
13. Discuss with the patient the purpose of each medication, its action, and possible adverse effects. Explain that you will give the medication through the patient's existing IV line. Allow the patient to ask questions. Encourage the patient to report any symptoms of discomfort at the IV site.
14. Assess the IV site for any signs of phlebitis or infiltration such as redness, swelling or discomfort.
15. Perform hand hygiene, and apply clean gloves.
16. **Administering medication by intravenous push (existing line):**
 - A. Confirm the bolus is compatible with the IV fluid.
 - B. Select the needleless injection port of the IV tubing closest to the patient.
 - C. Clean the injection port with an antiseptic swab. Allow it to dry.
 - D. To connect the syringe to the IV tubing, insert the needleless tip of the medication syringe through the center of the port.
 - E. Occlude the IV line by pinching the tubing just above the injection port. If IV fluids are infusing by means of a pump, pause the pump if necessary while the IV bolus medication is being administered. Pull back gently on the syringe's plunger to aspirate for blood return.
 - F. If the IV is patent, release the tubing and inject the medication within the amount of time recommended by agency policy, the pharmacist, or a medication reference manual. Use a

watch to time the administration. Pinch the IV line while pushing medication, and release it when not pushing medication. If the IV fluids are compatible, you can allow IV fluids to infuse when not pushing the medication.

- G. After injecting the medication, withdraw the syringe and recheck the IV fluid infusion rate. If the IV pump was paused, remember to restart the infusion at the desired rate.
 - H. Cloudiness in the IV tubing may indicate that the medication is incompatible with the IV solution and a precipitate is forming. Stop the infusion immediately and change the IV tubing.
 - I. With the new tubing in place, clean the selected injection port with an antiseptic swab. Allow it to dry.
 - J. Pinch the IV line, attach a prefilled normal saline flush to the port. Pull back gently on the plunger of the syringe to aspirate for blood return. Flush with 10 mL of normal saline. Remove the syringe.
 - K. Clean the injection port with a new antiseptic swab, and allow it to dry. Attach a medication syringe to the selected injection port. Using a watch with a second hand, give the IV medication over the appropriate amount of time. Remove the syringe.
 - L. Clean the injection port with a new antiseptic swab, and allow it to dry. Attach a new prefilled normal saline flush, and inject 10 mL of normal saline through the IV line at the **same rate** at which the medication was administered.
 - M. Release the tubing and restart the primary infusion.
 - N. If the IV currently infusing is a medication, disconnect it and administer IV push medication as above, if your agency policy allows it. If you are unable to stop the IV infusion, insert a new saline lock and administer the medication using the IV push (IV lock) method.
17. **IV bolus through an intermittent IV device (saline lock):**
- A. Verify the patient and medications as above.
 - B. Prepare flush solutions according to agency policy.
 - (1) *Saline flush method (preferred method)*: Prepare two 10-mL barrel-size syringes filled with 2 to 3 mL each of normal saline (0.9%). Many agencies do not provide prefilled normal saline syringes for flushing IV lines.
 - (2) Heparin flush method (not recommended; refer to agency policy).
 - C. Administer the medication:
 - (1) Clean the injection port with an antiseptic swab. Release the clamp.
 - (2) Insert a syringe containing normal saline 0.9% through the injection port of the IV lock.
 - (3) Pull back gently on the plunger of the syringe, and check for blood return.
 - (4) Flush the IV site with 2-3 mL of normal saline by pushing slowly on the plunger. Observe the insertion site for infiltration.
 - (5) Remove the empty syringe.
 - (6) Clean the injection port again with a new antiseptic swab.
 - (7) Insert the syringe containing the prepared medication through the injection port of the IV lock.
 - (8) Inject the medication within the amount of time recommended by agency policy, the pharmacist, or a medication reference manual. Use a watch to time the administration.
 - (9) After administering the bolus, withdraw the syringe.
 - (10) Clean the injection port with a new antiseptic swab. Allow it to dry.

- (11) Attach a second syringe containing 0.9% normal saline, and flush the port with 2-3 mL of normal saline at the **same rate** at which the medication was delivered. Watch the IV site for sudden swelling.
18. As you complete the injection of normal saline, reclamp the saline lock while maintaining pressure on the syringe plunger.
 19. Stay with the patient for several minutes and observe for any adverse or allergic reactions.
 20. With either technique used, dispose of uncapped needles and syringes in a puncture-proof, leak-proof container.
 21. Remove your gloves, and perform hand hygiene.
 22. Help the patient into a comfortable position, and place toiletries and personal items within reach.
 23. Place the call light within easy reach, and make sure the patient knows how to use it to summon assistance.
 24. To ensure the patient's safety, raise the appropriate number of side rails and lower the bed to the lowest position.
 25. Leave the patient's room tidy.
 26. As part of your follow up care, continue to monitor the patient for adverse reactions.