

Lesson One - Introduction to IV Bolus Medication Administration

LEARN: Introduction to IV Bolus Medication Administration Slide Presentation

20 minutes

Purpose:

Participants will receive a thorough introduction to IV Bolus Medication Administration and the proper procedure and documentation surrounding it.

Materials:

- *Introduction to IV Bolus Medication Administration* slide presentation
- *Introduction to IV Bolus Medication Administration Check-Off (Sample Medication Administration Record)*
- IV model or simulator with saline lock

Facilitation Steps:

1. Share the following information with students as you show the PowerPoint presentation.

Slide 1: Introduction Slide

Slide 2: IV boluses are commonly practiced in acute care settings. It requires a small volume of medication administered via an existing IV access such as a saline lock or primary IV.

Show students the model and what a saline lock looks like

Boluses are also called IV Push medications or IVP. However, according to the Institute for Safe Medication Practices, the term “push” or “bolus” should not be used with medications that need to be administered over 1 minute or longer. Use more descriptive terms such as IV over 5 minutes.

Boluses are used in emergencies or when a fast-acting medication is needed. Facilities have policies that identify which medications are to be given in this manner. IV bolus is a dangerous method of administering medications since there is no time to correct errors. The medication goes directly into the bloodstream.

Slide 3: Review the FOCUS: Part 2 - Safety Activity

The C stands for compatibility and reminds nurses to assess whether the IV drug to be administered is compatible with the other ordered IV components currently infusing

The A stands for Allergies. Check with the patient regarding allergies and if an allergy is present, make sure an allergy band is applied.

The T stands for Tubing and reminds nurses to assess whether it is time to change the tubing, the correct tubing is being used, there are no kinks or other problems with the tubing and a designated sticker is on the tubing.

The S stands for Site. Determine whether the site is safe to use and check for infiltration (swelling, pain) or signs of phlebitis (warmth, redness on the vein). A site cannot be used if not patent.

The P stands for Pump safety and is important if you are administering a bolus with a primary IV running. Is it programmed correctly? Pumping? Plugged in?

The first R stands for Rate and reminds nurses to know the correct rate for giving an IV push medication

The second R stands for Release the clamp on the IV tubing if it was clamped.

The last R reminds nurses to Return to reassess the patient to see how well the medication was tolerated and to assess whether the medication was effective. Remember to document!

Slide 4: Verify the rate of administration of IV push medication using pharmacy or an IV medication reference manual.

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Review the amount of medication that a patient will receive each minute, the concentration and rate of administration.

Recognize the medication is being given and any potential adverse reactions related to the rate and route of administration.

Some IV medications can only be given safely if a patient is being continuously monitored for dysrhythmias, blood pressure changes, or other adverse effects. Some medications can only be administered in specific areas within a health care agency (critical care unit, emergency room). Confirm guidelines regarding requirements for special monitoring.

Slide 5: *Demonstrate how to calculate IV rate times. If available, students (or instructor) could look Lasix up in drug book and discuss other information such as Y-site compatibilities and pediatric rates.*

Answer: Lasix should be given over 3 minutes. You should draw up 6mL. Thus dividing the dose into 2mL per minute (0.5mL every 15 seconds).

$$6\text{mL} \times 20\text{mg} = 2\text{mL}/\text{min}$$

$$60\text{mg} \quad 1 \text{ min}$$

Slide 6: Many medication errors are associated with IV boluses being administered too quickly. A study performed in the United Kingdom in 2003 uncovered errors in 49% of all IV medications. The study noted that 79% of these errors occurred during the administration of drugs given an IV push; 95% of the IV push drugs were reported as having been given too fast.

This can result in speed shock and possibly even death.

If your patient develops a reaction to the medication – stop the IV bolus!

If the site looks reddened or starts to swell – stop the IV bolus!

Slide 7: Some facilities provide pre-drawn saline flushes. If the facility does not, you will have to draw up 2-3mL of saline in two syringes for the flush.

The needle is only used to draw up the medication unless it comes pre-filled. Saline locks and ports are needleless.

Show the students the supplies

Slide 8: Prior to administering any medication, it is important to review the medication administration record and provider's order. It is essential to review general information about the medication as well, including the rate and incompatibilities.

Make sure the medication is appropriate for your patient.

Show MAR provided. Note that this is a PRN medication so pain level would need to be assessed /documented before and after.

Slide 9: *Demonstrate swabbing of vial, adding air, removing needle cap in one smooth motion to prevent a rebound needle stick and drawing of medication.*

Depending on dose, it may be necessary to add air equal to the dose into the vial prior to removing the medication. This equalizes the pressure in the vial. Remove air bubbles.

One handed scoop method: Place the cap on a flat surface and hold the syringe in one hand. Keep the other hand by your side. Slide the needle into the cap, then lift it up and snap it on securely using only one hand.

Finish completing the rights of administration once dose is drawn. This may be done at a medication cart or at bedside depending on facility. Most facilities require a second person to check high alert medication dosages.

Slide 10: Review proper identifiers (name, date of birth, medical record number, photograph in MAR)

Ask students how they would explain an IV bolus medication administration.

Slide 11: Apply clean gloves and assist patient to comfortable position exposing the port needed. Swab the port with alcohol and allow to dry as this is what sanitizes the port.

Hold onto the port so it stays clean.

Slide 12: *Demonstrate Flush*

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Since the medication goes directly into the vein, it is important to expel any air from the syringes. When connecting the syringe to the port, make sure the luer lock end and port does not become contaminated.

Pull gently and look for a flash of blood in the syringe. This indicates patency. With smaller gauge IVs, it is possible not to get a blood return.

Flushing clears the port and tubing of blood. It should flush without difficulty and there should be no signs of infiltration.

Slide 13: *Demonstrate IV bolus administration*

Once again, clean the port and remove capped needle from med syringe. Expel any air bubbles without losing medication. When connecting the syringe to the port, make sure the luer lock end and port does not become contaminated.

Take your time administering the medication and watch your patient for reactions!

Slide 14: Flushing IV line with saline prevents obstruction of the IV port and confirms that all medication is delivered.

Flushing IV site at same rate as medication ensures that any medication remaining within IV needle is delivered at the correct rate.

Have students reflect back to the Lasix problem. How long would this medication administration take? (Lasix was over 3 minutes; flush is over 3 minutes)

Slide 15: Most IV medications require a follow-up assessment. Some medications, such as pain medications, can be followed up in minutes. Also, look for any adverse reactions to the procedure before leaving the room.

Slide 16: Every MAR is different depending on facility. Some facilities will also require an IV site assessment as well.

Demonstrate documentation of IV bolus