Practice Exercises:

1. The physician’s order says, “540 mL NS IV to infuse in 240 min by infusion pump.” Calculate the flow rate in mL/h.

2. How long will it take 1.5 L NS to be infused IV at a rate of 250 mL per hour?

3. The order reads, “750 mL NS to infuse in 8 hours.” The drop factor is 12 gtt/mL. What is the drip rate?

4. What drip rate should you set the IV pump for if your patient needs 1 L lactated ringer’s solution to infuse over 6 hours? The drop factor is 15 gtt/mL.

5. Your patient needs two 500 mL units of whole blood to be infused in 5 hours. The drop factor is 15 gtt/mL.

6. The order is to infuse 540 mL NS IV in 240 min. by an infusion pump. What is the drip rate? The drop factor is 10 gtt/mL.

7. What should the drip rate be for the following order: “30 mL antibiotic D₅W in 15 min”? You will use macrodrip tubing with a drop factor of 20 gtt/mL.

8. Infuse D₅W IV at 250 mL/h for 4 hours. What is the total volume to be infused in liters?

9. Infuse 1 L Normal Saline IV over 5 hours. The drop factor is 15 gtt/mL. What is the flow rate (mL/h)?

10. Infuse 0.5 L of D₅W 0.33 NaCl IV for 10 hours at a drop factor of 60 gtt/mL. How many milliliters will be infused per hour?

11. The order states, Penicillin IV over 4 hours at a rate of 75 mL per hour. What is the total volume to be infused in liters?

12. Physician orders 200 mg of medication to be administered IV over 4 hours. The medication needs to be dissolved in 600 mL of fluids. If the drop factor is 60 gtt/mL, what is the appropriate drip rate?

13. 750 mL of medication will be infused at a rate of 125 mL/h. You start the IV at 0800. At what time will the infusion finish?

14. When you begin your shift at 0600, a patient has 500 mL of IV fluid left to be infused over the next 4 hours. If the drop factor is 20 gtt/mL, what is the drip rate set on the IV infusion set?

Answers:

1. 135 mL/h
2. 6 hours
3. 19 gtt/min
4. 42 gtt/min
5. 50 gtt/min
6. 23 gtt/min
7. 40 gtt/min
8. 1 L
9. 200 mL/h
10. 50 mL/h
11. 0.3 L
12. 50 gtt/min
13. At 1400.
14. 42 gtt/min