PROFICIENCY TEST Basic IV Problems

Name: _____

There are 14 questions related to IV and IVPB and enteral feeding calculations. Answers are given in Appendix A. Round to the nearest whole number.

1. Order: 1000 mL D5NS; run 150 mL/hour IV
   Supply: IV bag of 1000 mL D5NS
   a. Approximately how many hours will the IV run?
   b. How many drops per minute (macrodrip 10 gtt/mL or microdrip 60 gtt/mL)?
   c. What size tubing will you use?

2. Order: 100 mL LR 12 noon–6 pm IV
   a. What are the drops per minute (macrodrip 10 gtt/mL or microdrip 60 gtt/mL)?
   b. What size tubing will you use?

3. Order: 150 mL NS IV over 3 hours
   Supply: bag of 250 mL NS for IV and macrotubing, 15 gtt/mL; microtubing, 60 gtt/mL
   a. What would you do to obtain 150 mL NS?
   b. What are the drops per minute?
   c. What size tubing will you use?

4. Order: 500 mL D5W IV KVO. Solve for 24 hours. An infusion pump is available. What should be the setting on the infusion pump?

5. Order: doxycycline (Vibramycin) 100 mg IVPB every day
   Supply: 100 mg powder
   Package directions: 250 mL/D5W to infuse over 1 hour; macrodrip tubing 10 gtt/mL
   a. State the amount and type of IV fluid you will use and the time for infusion you will use.
   b. What are the drops per minute?

6. Order: aminophylline 500 mg in 250 mL D5W to run 8 hours IV
   Available: vial of aminophylline labeled 1 g in 10 mL; microdrip tubing
   a. How much aminophylline is needed?
   b. What is the drip rate?

7. A client is receiving a primary IV at the rate of 125 mL/hour. The doctor orders cefoxitin (Mefoxin) 1 g in 75 mL D5W q6h to run over 1 hour. Calculate the 24-hour parenteral intake.

8. Order: 1000 mL D5½NS to run at 90 mL/hour; infusion pump available
   a. What will be the pump setting?
   b. Approximately how long will the IV run?

9. A doctor orders 500 mL aminophylline 0.5 g to infuse at 50 mL/hour. How many milligrams will the client receive each hour?

10. Order: trimethoprim and sulfamethoxazole (Bactrim) 5 mL IVPB q6h
    Supply: vial of 5 mL; one 5-mL vial per 75 mL D5W run over 60 to 90 minutes.
    The main IV line is connected to an infusion pump. What will you do?
    a. State the type and amount of IV fluid you would use and the time for infusion.
    b. How would you program the infusion pump?

PROFICIENCY TEST Basic IV Problems (*continued*)

11. Prepare 3/4 strength Isocal. Total volume is 150 mL. How much Isocal is to be mixed with how much water?

12. Prepare 1/2 strength Vivonex. Total volume is 500 mL. How much Vivonex is to be mixed with how much water?

13. Prepare 25% Osmolite. Total volume is 400 mL. How much Osmolite is to be mixed with how much water?

14. Prepare full strength Isocal. Total volume is 500 mL. How much Isocal is to be mixed with how much water?