MATH FOR MEDS/CHAPTER 26

Critical Care IV Calculations

NAME/DATE

Direction. All of the following calculations are to be done for controller or volumetric pump delivery.

1. Calculate the flow rate for a critical care drug that is to be delivered at 0.2 mg per min from a solution of 500 mL containing 100 mg.

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2. A solution of 250 mL D5W contains 10 mg of a critical care medication. It is ordered to infuse at 4 mcg/min. What flow rate is necessary?

   _____

3. The medication is to be infused at the rate of 1 mcg/kg/min. The patient weighs 49 kg. The strength of the solution is 40 mg in 500 mL. Calculate the flow rate. _____

4. A solution of 3 mg of medication in 500 mL D5W is to be infused at the rate of 0.02 mcg/kg/min. The patient weighs 67 kg. Calculate the flow rate.

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5. The dosage ordered is 5 mcg/kg/min. The patient weighs 85 kg and the solution strength is 600 mg in 250 mL. Calculate the flow rate.

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6. An IV of 500 mL containing 600 mg of medication is ordered to infuse at the rate of 20 mL/hr. What dosage is infusing per hr? _____

   per min? _____

7. A solution infusing at 25 mL/hr has a strength of 500 mg in 250 mL.

   What dosage is infusing per hr? _____

   per min? _____

8. A medication is being titrated to maintain systolic blood pressure > 100. The solution strength is 6 mg in 1000 mL D5W. The range ordered is 2–4 mcg/min. Calculate the flow rate range. _____

9. A medication dosage of 400-800 mcg/min has been ordered to regulate blood pressure. The solution infusing has a concentration of 200 mg in 50 mL. Calculate the flow rate range. _____

10. After several adjustments upwards and downwards the pressure has regulated at a flow rate of 9 mL/hr. How many mcg is the patient now receiving per minute? _____