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Dosage Calculation Worksheet #2

1. The IV order is for D₅W to infuse at 100 mL/hr. The drop factor is 10 gtt/mL. How many drops per minute (gtt/min) should the pump be set to run? Round final answer to whole number.

$$\frac{100 \text{ mL}}{60 \text{ min}} \times 10 \text{ gtt} = 16.7 \text{ gtt/mL} \rightarrow 17 \text{ gtt/mL}$$

2. Medication order: Rocephin 1 g IV every ~~12 hours~~ over 30 minutes. Available: rocephin 1 g in 150 mL NS. At what rate would you set your pump?

$$\frac{150 \text{ mL}}{0.5 \text{ hrs}} = 300 \text{ mL/hr}$$

3. Medication order: Vistaril 20 mg IM q4h PRN for nausea. The 10 mL vial that you have available is labeled 25 mg/mL. How many mL will you draw up to give?

$$\frac{20 \text{ mg}}{25 \text{ mg}} \times \text{mL} = 0.8 \text{ mL}$$

4. Medication order: Haldol 3 mg IM q6h PRN for agitation. The 1 mL vial that you have available is labeled 5 mg/mL. How many mL will you draw up to give?

$$\frac{3 \text{ mg}}{5 \text{ mg}} \times \text{mL} = 0.6 \text{ mL}$$

5. Medication order: heparin 5000 units subQ every 12 hours. Drug available: heparin 10,000 units/2 mL. How many mL will you administer for the day?

$$24 \div 12 = 2 \quad \frac{5000}{10,000} \times 2 \text{ mL} = 1 \times 2 = 2 \text{ mL}$$

6. A patient has an order for 200 mg q8h of cimetidine (Tagamet) to be administered intramuscularly. The vial of 8 mL contains 300 mg per 2 mL. How many mL would you give q8h?

$$\frac{200 \text{ mg}}{300 \text{ mg}} \times 2 \text{ mL} = 1.3 \text{ mL}$$

7. Medication order: Garamycin 80 mg IVPB over 30 minutes. Available: Garamycin (gentamicin sulfate) 80 mg in 50 mL of D₅W. Calculate the flow rate in mL/hr.

$$\frac{50 \text{ mL}}{0.5 \text{ hrs}} = 100 \text{ mL/hr}$$

8. You have an IV infusing at 125 mL/hr. How long will it take 1500 mL to infuse?

$$1500 \text{ mL} \times \frac{1 \text{ hr}}{125 \text{ mL}} = 12 \text{ hrs}$$

9. Medication order: rocephin g 1 IV every 12 hours over 30 minutes.
Available: rocephin 1 g in 150 mL NS. At what rate would you set your pump?

$$\frac{150 \text{ mL}}{.5} = 300 \text{ mL/hr}$$

10. An infusion pump is set to administer 75 mL/hr to a patient. How many hours will it take for the patient to receive 600 mL of fluid?

$$600 \text{ mL} \times \frac{1 \text{ hr}}{75 \text{ mL}} = 8 \text{ hrs}$$

11. A patient is to receive lidocaine hydrochloride (Xylocaine) 100 mg as an intravenous bolus. The Xylocaine is labeled 20 mg/mL. How many milliliters should be administered?

$$100 \text{ mg} \times \frac{1 \text{ mL}}{20 \text{ mg}} = 5 \text{ mL}$$

12. Medication order: 50 mg/kg/day. Patient weight: 85.8 pounds. The patient will receive ___ mg/day.

$$85.8 \times \frac{1 \text{ kg}}{2.2 \text{ lbs}} = 39 \text{ kg} \quad 39 \text{ kg} \times 50 \text{ mg} = 1,950 \text{ mg/day}$$

13. Medication order: Amoxicillin 2.5 mL every 8 hours. Available is Amoxicillin 250 mg/5mL. The nurse will administer how many mg for the day?

$$24 \div 8 = 3 \text{ times} \quad \frac{2.5 \text{ mL}}{5 \text{ mL}} \times 250 \text{ mg} = 125 \times 3 = 375 \text{ mg/day}$$

14. Medication order: Ondansetron 2 mg - 4 mg/kg/Q 4 hours po PRN nausea. The patient weighs 66 lbs. What is the minimum amount of medication in grams that can be administered every 4 hours?

$$66 \text{ lbs} \times \frac{1 \text{ kg}}{2.2 \text{ lbs}} = 30 \text{ kg} \times 2 \text{ mg} = 60 \text{ mg} = \text{minimum}$$

15. Medication order: 5 mL of normal saline is added to a vial of Lasix 20 mg/5 mL. How many milligrams of Lasix are in each millimeter of fluid? mg/mL

$$\frac{20 \text{ mg}}{5 \text{ mL}} \times \frac{40 \text{ mL}}{10 \text{ mL}} = 4 \text{ mg/mL}$$