

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.

$$10 \times 100 = 1000 \text{ gtt/hr} = 16.67 \text{ gtt/min}$$

$$\boxed{17 \text{ gtt/min}}$$

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? $150 \text{ mL} \times 10 \text{ gtt} = 1500 \text{ gtt} \div 30 \text{ min} =$

$$\boxed{50 \text{ gtt/min}}$$

$$\text{or } \boxed{300 \text{ mL/hr}}$$

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?

~~$$25 \text{ mg} \times 10 \text{ mL} = 250 \text{ mg}$$~~

$$\frac{20 \text{ mg}}{x} = \frac{25 \text{ mg}}{1}$$

$$\frac{20 \text{ mg}}{25 \text{ mg}} = \frac{25 \text{ mg} \times x}{25 \text{ mg}}$$

$$20 \text{ mg} = \boxed{0.8 \text{ mL}}$$

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? $\frac{5 \text{ mg}}{1} = \frac{3 \text{ mg}}{x}$ $5x = \frac{3}{5} =$

$$\boxed{0.6 \text{ mL}}$$

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?

$$\frac{10,000}{2} = \frac{5000}{1} \times 2 \text{ doses} = \boxed{2 \text{ mL per day}}$$

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?

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

$$\frac{400}{300} = \frac{300}{300} \times$$

$$\boxed{1.3 \text{ mL}}$$

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.

$$\frac{50 \text{ mL}}{30 \text{ min}} = \frac{100 \text{ mL}}{1 \text{ hr}}$$

$$\boxed{100 \text{ mL/hr}}$$

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

$$\frac{125 \text{ mL}}{60 \text{ min}} = \frac{1500 \text{ mL}}{X} \quad 125x = \frac{90,000}{125} \quad 320 \text{ min} = \boxed{12 \text{ hours}}$$

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?

same as #2?

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?

$$\frac{75}{1} = \frac{600}{X} = \boxed{8 \text{ hrs}}$$

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?

$$\frac{20 \text{ mg}}{1 \text{ mL}} = \frac{100 \text{ mg}}{X} \quad \frac{20}{20}x = \frac{100}{20} = \boxed{5 \text{ mL}}$$

12. Medication order: 50 mg/kg/day. Patient weight: 85.8 pounds. The patient will receive 1950 mg/day.

$$85.8 \div 2.2 = 39 \text{ kg} \times 50 \text{ mg} =$$

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?

$$\frac{250 \text{ mg}}{5 \text{ mL}} = \frac{125 \text{ mg}}{2.5 \text{ mL}} \times 3 \text{ doses} = \boxed{375 \text{ mg/day}}$$

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?

$$66 \div 2.2 = 30 \text{ kg} \quad \frac{2 \text{ mg} \times 30 \text{ kg}}{30 \text{ kg}} = \boxed{0.06 \text{ g/4 hours}}$$

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?

$$\frac{20 \text{ mg}}{5} = \frac{x}{1} = \boxed{4 \text{ mg/mL}}$$