

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.

$$\frac{1 \text{ hr}}{60 \text{ min}} \times \frac{100 \text{ mL}}{1 \text{ hr}} \times \frac{10 \text{ gtt}}{1 \text{ mL}} = \frac{1000}{60} = 16.67 \text{ gtt/min} = \boxed{17 \text{ gtt/min}}$$

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?

$$\frac{1 \text{ hr}}{30 \text{ min}} \times \frac{1 \text{ g}}{1 \text{ g}} \times \frac{150 \text{ mL}}{1 \text{ g}} = \frac{9000}{30} = \boxed{300 \text{ mL/hr}}$$

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? D: 20mg V: 1mL H: 25mg

$$20 \text{ mg} \times \frac{1 \text{ mL}}{25 \text{ mg}} = \boxed{0.8 \text{ mL}}$$

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? D: 3mg V: 1mL H: 5mg

$$3 \text{ mg} \times \frac{1 \text{ mL}}{5 \text{ mg}} = \boxed{0.6 \text{ mL}}$$

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?

$$\text{D: } 5000 \text{ units} \quad \text{V: } 2 \text{ mL} \quad \text{H: } 10,000 \text{ units}$$
$$5000 \text{ u} \times \frac{2 \text{ mL}}{10,000 \text{ u}} = \frac{10000}{10,000} = \boxed{1 \text{ mL}}$$

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? D: 200mg V: 2mL H: 300mg

$$200 \text{ mg} \times \frac{2 \text{ mL}}{300 \text{ mg}} = \frac{400}{300} = \boxed{1.3 \text{ mL}}$$

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.

$$\frac{60 \text{ min}}{1 \text{ hr}} \times \frac{80 \text{ mg}}{30 \text{ min}} \times \frac{50 \text{ mL}}{80 \text{ mg}} = \frac{240,000}{2400} = \boxed{100 \text{ mL/hr}}$$

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

$$1500 \text{ mL} / 125 \text{ mL/hr} = 12 \text{ hrs}$$

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?

$$\frac{60 \text{ min}}{1 \text{ hr}} \times \frac{1 \text{ g}}{30 \text{ min}} \times \frac{150 \text{ mL}}{1 \text{ g}} = \frac{9000}{30} = 300 \text{ mL/hr}$$

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?

$$600 / 75 = 8 \text{ hrs}$$

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?

D: 100mg V: 1mL H: 20mg

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

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

$$85.8 / 2.2 = 39 \text{ kg}$$

$$50 \times 39 = 1,950 \text{ mg/day}$$

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?

D: 2.5mL H: 5mL V: 250mg

$$2.5 \text{ mL} \times \frac{250 \text{ mg}}{5 \text{ mL}} = \frac{625}{5} = 125 \text{ mg per dose} = 375 \text{ mg per day}$$

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?

$$66 / 2.2 = 30 \text{ kg}$$

$$30 \text{ kg} \times 2 \text{ mg} = 60 \text{ mg}$$

15. Medication order: 5 mL of normal saline is added to a vial of Lasix 20 mg/5 + 5 = 20/10 mL. How many milligrams of Lasix are in each millimeter of fluid?

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

$$\frac{20 \text{ mg}}{5 \text{ mL}} \times \frac{10 \text{ mL}}{10 \text{ mL}} = 20 \text{ mg per mL}$$

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