

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.

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

1 hr = 60 min

$$\frac{100 \text{ mL}}{60 \text{ min}} \times 10 \text{ gtt/mL} = 16.6$$

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?

Time → 0.5 hrs

$$\frac{\text{Volume}}{\text{Time}} = \frac{\text{Flow Rate}}{\text{Given}} \quad \frac{150}{0.5} = \boxed{300 \text{ mL/hr}}$$

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?

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

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?

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

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?

$$\frac{5000 \text{ units (2 mL)}}{10,000 \text{ units}} = \boxed{1 \text{ mL}}$$

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?

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

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.

Time → 0.5

$$\frac{\text{Volume}}{\text{Time (hr)}} = \frac{50 \text{ mL}}{0.5} = \boxed{100 \text{ mL/hr}}$$

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

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

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

$$\frac{150 \text{ mL}}{0.5} = \boxed{300 \text{ mL}}$$

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?

$$\frac{600 \text{ mL}}{75 \text{ mL/hr}} = \boxed{8 \text{ hrs}}$$

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?

Order: 100mg IV bolus
Available: 20mg/mL

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

12. Medication order: 50 mg/kg/day. Patient weight: 85.8 pounds. The patient will receive 950 mg/day.

$$\boxed{1950 \text{ mg/day}}$$

$$\frac{50 \text{ mg}}{39 \text{ kg/day}}$$

$$85.8 \text{ lbs} = 39 \text{ kg}$$

$$8 \times 3 = 24$$

$$\rightarrow 24 \text{ hrs} = 1 \text{ day}$$

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?

$$125 \text{ mg} \times 3 = \boxed{375 \text{ mg}}$$

Order: 2.5 mL every 8 hrs.
Available: 250 mg/5mL

$$\frac{2.5 \text{ mL}}{5 \text{ mL}} \times \frac{?}{250 \text{ mg}} = \frac{125 \text{ mg}}{?}$$

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?

$$\text{Weight: } 66 \text{ lbs} = 30 \text{ kg}$$

$$2 \text{ mg} \rightarrow \text{g} = 0.002$$

$$0.002 \text{ g} / 30 = \boxed{0.06 \text{ g}}$$

2mg - 4mg/kg/Q4 PO PRN

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?

$$\frac{20 \text{ mg}}{5 \text{ mL}} + 5 \text{ mL}$$

$$\frac{20 \text{ mg}}{10 \text{ mL}} = 2 \text{ mg}$$

$$\frac{20 \text{ mg}}{5 \text{ mL}} + 5 \text{ mL}$$

$$\frac{20 \text{ mg}}{10 \text{ mL}} = \boxed{2 \text{ mg}}$$