

Dosage Calculation Worksheet #3

1. Medication order: Heparin 25,000 units in 500 mL, infuse 4000 units/hr. How many mL per hour do you need to infuse to deliver 4000 units/hr?

$$\frac{25000 \text{ units}}{500 \text{ mL}} = 50 \text{ units/mL} \quad 4000 \text{ units/hr} \times \frac{1 \text{ mL}}{50 \text{ units}} = \boxed{80 \text{ mL/hr}}$$

2. Medication order: Lidocaine 8 mg in 250 mL, infuse at 10 mcg/min. How many mL per hour do you need to infuse to deliver 10 mcg/min?

$$\frac{10 \text{ mcg}}{\text{min}} \times \frac{60 \text{ min}}{\text{hr}} = 600 \text{ mcg/hr} \quad \frac{8000 \text{ mcg}}{250 \text{ mL}} = 32 \text{ mcg/mL} \quad 600 \text{ mcg/hr} \times \frac{\text{mL}}{32 \text{ mcg}} = \boxed{18.75 \text{ mL/hr}}$$

3. Medication order: Aminophylline 1 gram in 250 mL, infuse 25 mg/hr. How many mL per hour must you infuse to deliver 25 mg/hr?

$$\frac{1000 \text{ mg}}{250 \text{ mL}} = 4 \text{ mg/mL} \quad \frac{25 \text{ mg}}{\text{hr}} \times \frac{\text{mL}}{4 \text{ mg}} = \boxed{6.25 \text{ mL/hr}}$$

4. Medication on hand: Insulin 75 units in 125 mL. How many units per mL?

$$\frac{75 \text{ units}}{125 \text{ mL}} = \boxed{0.6 \text{ units/mL}}$$

5. Medication order: Unipen 750 mg IM q6h. Available: Unipen 1 g/2.5 mL after it has been reconstituted. How many mL of the reconstituted solution will you administer? Round answer to the nearest tenth.

$$0.750 \text{ g} \times \frac{2.5 \text{ mL}}{1 \text{ g}} = 1.875 \text{ mL} = \boxed{1.9 \text{ mL}}$$

6. A nurse is administering an antibiotic via IVPB. The pharmacy dispenses 150 milligrams (mg) of antibiotic mixed in 250 milliliters (mL) of normal saline to infuse over 30 minutes. The nurse will set the infusion pump at _____ mL/hour to administer the IVPB.

$$\frac{250 \text{ mL}}{0.5 \text{ hr}} = \boxed{500 \text{ mL/hr}}$$

7. Administer 3.5 mL of aminophylline liquid (250 mg/2.5mL) PO for pain now. The nurse will administer 1 milligrams.

$$3.5 \text{ mL} \times \frac{250 \text{ mg}}{2.5 \text{ mL}} = \boxed{350 \text{ mg}}$$

8. Order: Administer cephazolin 60 mg IM daily. Available is a 5 mL vial of cephazolin 100 mg/mL. The nurse should administer how many mL?

$$60 \text{ mg} \times \frac{\text{mL}}{100 \text{ mg}} = \boxed{0.6 \text{ mL}}$$

1 mg = 1000 mcg
 1 g = 1000 mg
 mL per hr = total volume in mL / time in hrs