

1. An individual is taking cough suppressant that contains codeine 10 mg in 5 mL. If the individual took 12 tsp of the medication during a 24-hour period, how many milligrams of codeine would have been taken?

$$1 \text{ teaspoon} = 5 \text{ mL} \rightarrow 12 \text{ teaspoons} = 60 \text{ mL}$$

$$\frac{10 \text{ mg}}{5 \text{ mL}} = \frac{X}{60 \text{ mL}} = 5X = 600 \text{ mL} = 120 \text{ mg}$$

2. The nurse is to give 10 mcg/kg/min of a medication. The patient weighs 80 kg. How many mcg will the nurse give in 15 minutes?

$$80 \text{ kg} (10) = 800 \text{ mcg} (15) = 12,000 \text{ mcg}$$

3. Calculate the individual dose in mg a medication to be administered in six divided doses if a patient weighs 35 pounds and is to be given 40 mg/kg/day. Round kg to nearest 10th.

$$\text{Weight} = 35 \text{ lbs} / 2.2 = 15.9 \text{ kg}$$

$$40 \text{ mg} (15.9 \text{ kg}) = 636 \text{ mg} / 6 \text{ doses} = 106 \text{ mg a dose}$$

4. The medication order is to administer naloxone (Narcan) 1.5 mcg/kg STAT. The child weighs 36.3 pounds. How many mg of Narcan will the nurse give to the child? $\text{Weight} = 36.3 / 2.2 = 16.5 \text{ kg} (1.5 \text{ mcg}) = 24.75$

$$24.75 / 1000 = 0.02475 \rightarrow 0.02 \text{ mg}$$

5. An individual is taking an antibiotic that contains penicillin (PCN) 180 mg in 5 mL. If the individual took 21 tsp of the medication in 7 days, how many milligrams of PCN would have been taken?

$$1 \text{ teaspoon} = 5 \text{ mL}$$

$$12 \text{ teaspoons} = 105 \text{ mL}$$

$$\frac{180 \text{ mg}}{5 \text{ mL}} = \frac{X}{105 \text{ mL}} = 3,780 \text{ mg}$$

6. Medication order: Cephalexin 375 mg PO tid. How many grams will the patient receive each 24 hours? *k H d (meter/liter/gram) d c m*

$$375 \text{ mg} / 1000 = 0.375 \text{ g} (3) = 1.125 \rightarrow 1.13 \text{ g}$$

7. Medication order: Unipen 750 mg IM q6h Available: Unipen add 4 mL sterile water to make 1 g/2.5 mL How many mL of the reconstituted solution will you administer?

$$\frac{2.5 \text{ mL} \times 1 \times 750 \text{ mg}}{1 \text{ g} \times 1000 \times 1} = \frac{1.875}{1000} = 1.875 \rightarrow 1.8 \text{ mL}$$

8. Medication order: Zaroxolyn 7.5 mg PO bid. Available: Zaroxolyn 5 mg tablets. How many tablets will you administer?

$$\frac{1 \text{ tablet} \times 1 \times 7.5 \text{ mg}}{5 \text{ mg} \times 1 \times 1} = 1.5 \text{ tablets (2)} = \boxed{3 \text{ tablets}}$$

9. Medication order: Erythromycin 125 mg via gastric tube tid. Available: Erythromycin 250 mg/5 mL How many mL will you administer?

$$\frac{5 \text{ mL} \times 1 \times 125 \text{ mg}}{250 \text{ mg} \times 1 \times 1} = \frac{625}{250} = \boxed{2.5 \text{ mL}}$$

10. Medication order: Capoten 100 mg. Available: Capoten 0.1 g tablets. How many tablets will you administer?

$$\frac{1 \text{ tablet} \times 1 \times \cancel{0.1} 100 \text{ mg}}{0.1 \text{ g} \times 1000 \times 1} = \frac{100 \text{ mg}}{100} = \boxed{1 \text{ tablet}}$$

11. Change 128 oz to L. Round final answer to a whole number.

$$\frac{1 \text{ ounce}}{30 \text{ mL}} = \frac{128 \text{ ounce}}{x} = 3840/1000 = \boxed{3.8 \text{ L}}$$

12. Medication order: heparin 2500 units/hr. Drug available: heparin 20,000 units in 250 mL D5W. At what rate will you set your pump?

Mass/time - IV mL rate

$$\cancel{2500} \text{ 2500 units} / \cancel{20,000} 20,000 \times 250 \text{ mL} = 31.25 \rightarrow \boxed{31.3 \text{ mL/hr}}$$

13. Penicillin G Procaine (Wycillin) contains 300,000 units/mL. How many units would there be in 2.5 mL?

$$\frac{300,000 \text{ units}}{1 \text{ mL}} = \frac{x}{2.5 \text{ mL}} = \boxed{750,000 \text{ units}}$$

14. The preoperative order is for atropine sulfate 0.15 mg. The supply of atropine sulfate is 0.4 mg/mL. How many mL will you prepare?

$$\frac{1 \text{ mL} \times 1 \times 0.15 \text{ mg}}{0.4 \text{ mg} \times 1 \times 1} = \frac{0.15}{0.4} = 0.375 \rightarrow \boxed{0.38 \text{ mL}}$$