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Dosage Calculation Worksheet #1

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 <u>milligrams</u> of codeine would have been taken?

   1 tsp = 5 mL
   12 tsp = 60 mL
   60 ÷ 5 = 12
   10 × 12 = $\boxed{120 \text{ mL}}$

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

   10 × 80 = 800 mcg/min
   800 × 15 = $\boxed{12{,}000 \text{ mcg}}$

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

   35 lbs = 15.9 kg
   40 × 15.9 = 636 mg/day
   636 ÷ 6 = $\boxed{106 \text{ mg per dose}}$

4. The medication order is to administer naloxone (Narcan) 1.5 mcg/kg STAT. The child weighs 36.3 pounds. How many <u>mg</u> of Narcan will the nurse give to the child?

   36.3 lbs = 16.5 kg
   1.5 mcg × 16.5 kg = 24.75 mcg
   24.75 = 0.02475 mg = $\boxed{0.03 \text{ mg}}$

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 <u>milligrams</u> of PCN would have been taken?

   1 tsp = 5 mL
   21 tsp = 105 mL
   105 ÷ 5 = 21
   180 × 21 = 3780 mg

   $\boxed{3780 \text{ mg}}$

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6. Medication order: Cephalexin 375 mg PO tid. How many grams will the patient receive each 24 hours?

$$375 \times 3 = 1125 \text{ mg}$$

$$1125 = 1.125 \text{ g}.$$

$$\boxed{1.1 \text{ g}}$$

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?

$1 g = 1000 \text{ mg}$

$$D = 750 \text{ mg} \qquad H = 1000 \text{ mg} \qquad V = 2.5 \text{ mL}$$

$$X = \frac{750 \,(2.5)}{1000} = \frac{1875}{1000} = 1.875 \text{ mL} = \boxed{1.9 \text{ mL}}$$

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

$$D = 7.5 \text{ mg} \qquad H = 5 \text{ mg} \qquad V = 1 \text{ tab}$$

$$X = \frac{7.5 \,(1)}{5} = 1.5 \text{ tablets} = \boxed{2 \text{ tablets per dose}}$$

$$\boxed{4 \text{ tablets per day}}$$

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

$$D = 125 \text{ mg} \qquad H = 250 \text{ mg} \qquad V = 5 \text{ mL}$$

$$X = \frac{125 \,(5)}{250} = \frac{625}{250} = \boxed{2.5 \text{ mL per dose}}$$

$$\boxed{7.5 \text{ mL per day}}$$

10. Medication order: Capoten 100 mg. Available: Capoten 0.1 g tablets. How many tablets will you administer? $0.1 g = 100 \text{ mg}$

$$D = 100 \text{ mg} \qquad H = 100 \text{ mg} \qquad V = 1 \text{ tab}$$

$$X = \frac{100 \,(1)}{100} = \boxed{1 \text{ tablet}}$$

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

$$1L = 32 \text{ oz}$$

$$128 \text{ oz} = \boxed{4 L}$$

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?

D5W = 5%

$$D = 2500 \text{ units} \qquad H = 20,000 \qquad V = 250 \text{ mL}$$

$$X = \frac{2500(250)}{20000} = \frac{625000}{20,000} = 31.25 \text{ mL} = \boxed{31.3 \text{ mL}}$$

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

$$300,000 \times 2.5 \text{ mL} = \boxed{750,000 \text{ units}}$$

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?

$$D = 0.15 \text{ mg} \qquad H = 0.4 \text{ mg} \qquad V = 1 \text{ mL}$$

$$X = \frac{0.15(1)}{0.4} = 0.375 \text{ mL} = \boxed{0.4 \text{ mL}}$$

15. Medication order: Atropine 0.4 mg Sub-Q now. Drug available: atropine 5 mg per 10 mL. How many mL will you administer?

$$D = 0.4 \text{ mg} \qquad H = 5 \text{ mg} \qquad V = 10 \text{ mL}$$

$$X = \frac{0.4(10)}{5} = \frac{4}{5} = \boxed{0.8 \text{ mL}}$$

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