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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 milligrams of codeine would have been taken?

1 tsp = 5 mL
12 tsp = 60 mL

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

10 mcg/80 kg/min
800 mcg/min x 15 min
12,000 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.

40 mg/15.9 kg/day
636 mg/day
636/6 = 106 mg

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?

1.5 mcg/kg
1.5 mcg/16.5 kg
24.75 mcg

K H D □ d c m – – mcg
0.02475
0.02 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?

$\frac{180\text{ mg}}{5\text{ mL}} = \frac{X\text{ mg}}{105\text{ mL}}$ $\frac{5X}{5} = \frac{18,900}{5}$

1 tsp = 5 mL
21 tsp = 105 mL

X = 3780 mg

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

375 mg x 3 = 1125 mg
1125
1.125 g

7. Medication order: Unipen 750 mg IM q6hAvailable: Unipen add 4 mL sterile water to make 1 g/2.5 mLHow many mL of the reconstituted solution will you administer?

$\frac{1000\text{ mg}}{2.5\text{ mL}} = \frac{750\text{ mg}}{X\text{ mL}}$

1.9 mL

$\frac{1000X}{1000} = \frac{1875}{1000}$ X = 1.875

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

$\frac{5\text{mg}}{7\text{tab}} = \frac{7.5\text{mg}}{X\text{ tab}}$ $\frac{5X}{5} = \frac{7.5}{5} =$ 1.5 tab/dose

3 tabs/day

9. Medication order: Erythromycin 125 mg via gastric tube tid. Available: Erythromycin 250 mg/5 mLHow many mL will you administer? $\frac{250\text{mg}}{5\text{mL}} = \frac{125\text{mg}}{X\text{mL}}$ $250X = 625$ $\frac{625}{250} =$ 2.5 mL/dose

7.5 mL/day

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

K H D ☐ d C m – – meq

0.700

$\frac{700\text{ mg}}{7\text{ tab}} = 100\text{ mg}$ 7 tablet

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

1L = 1000 mL

1 oz = 30 mL

128 oz = 3,840 mL

$\frac{1000\text{mL}}{1\text{L}} = \frac{3,840\text{mL}}{X\text{L}}$ $1000X = \frac{3,840}{1000} = 3.84$

= 4L

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?

pump = mL/hr

$\frac{20,000\text{u}}{250\text{mL}} = 80\text{u/mL}$ ~~2500u/60min = 41.67 min~~

2500u/80u = 31.25mL

31.3mL/hr

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

$\frac{300,000\text{u}}{1\text{mL}} = \frac{X\text{ units}}{2.5\text{mL}}$ X = 750,000 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?

$\frac{0.4\text{mg}}{1\text{mL}} = \frac{0.15\text{mg}}{X\text{mL}}$ $0.4X = \frac{0.15}{0.4} = 0.375$

0.38mL

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

$\frac{5\text{mg}}{10\text{mL}} = \frac{0.4\text{mg}}{X\text{mL}}$

$5X = \frac{4}{5}$ X = 0.8mL