Medication Calculation Worksheet #1 - Answers

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? **120 mg**

   10 mg x 12 = 120

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? **12,000 mcg**

   10 x 80 = 800 x 15= 12,000

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 $10^{th.}$ **106**

   40 x 15.9 /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? Round to the nearest 100^{th}. **0.03**

   1.5 mcg = 0.0015 mg x 16.5 kg = 0.02475 = 0.03 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? **3,780**

   180 mg x 21 = 3,780 mg

6. Medication order: Cephalexin 375 mg PO tid. How many grams will the patient receive each 24 hours? **1.1**

   375 mg x 3 = 1,125 mg = 1.1 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 per dose and per day? Round to the 10^{th}. **1.9**

   750 mg/1000 mg x 2.5 mL = 1.9 mL/dose; 7.6 mL/day

8. Medication order: Zaroxolyn 7.5 mg PO bid. Available: Zaroxolyn 5 mg tablets. How many tablets will you administer per dose and per day? **1.5 tabs per dose; 3 tabs/day**

7.5 mg/5 mg = 1.5 tablets per dose; 3 tablets/day

9. Medication order: Erythromycin 125 mg via gastric tube tid. Available: Erythromycin 250 mg/5 mL. How many mL will you administer? **2.5**

125/250 x 5 = 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? **1**

0.1 g = 100 mg

11. Change 128 oz to L. Round final answer to a whole number. **4 L**

128 x 30 mL (1 oz) = 3,840 mL = 4L

12. Medication order: heparin 2,500 units/hr. Drug available: heparin 20,000 units in 250 mL D5W. At what rate will you set your pump? Round answer to the 10th. **31.3 mL/hr**

2,500/20,000 x 250 = 31.25 or 31.3 mL/hr

13. Penicillin G Procaine (Wycillin) contains 300,000 units/mL. How many units would there be in 2.5 mL? **750,000 units**

300,000 u x 2.5 mL = 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? Round answer to the 10th. **0.4 mL**

0.15 mg/0.4 mg x 1 mL = 0.375 = 0.4 mL

15. Medication order: Atropine 0.4 mg Sub-Q now. Drug available: atropine 5 mg/ 10 mL. How many mL will you administer? **0.8 mL**

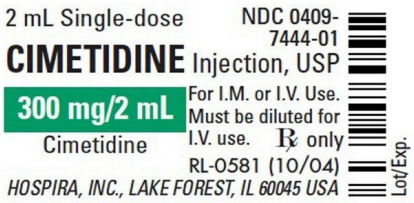
0.4 mg/ 5 mg x 10 mL = 0.8 mL

16. Administer diphenhydramine 25 mg – 50 mg/kg/q 4 hours PRN allergic rhinitis. The patient weighs 130 lbs. What is the minimum and maximum amount in mgs that can be given per dose? (Round kg to 10th)

Answer: 1,477.5 mg (minimum) to 2,955 mg (maximum)

This question is a range order: 130/2.2 = 59.1 kg; 59.1 x 25 mg = 1,477.55 mg and 59.1 x 50 mg = 2,955 mg

17. Administer Cimetidine 150 mg q 6 hrs by mouth for gastritis. How many mL will the nurse administer per day? **Answer: 0 mL**



18. Administer 10 mg of a medication by mouth QID. Instructions on the 0.25 G label say to reconstitute with water to make a concentration of 0.5 g/3 mL. How many mL should the nurse administer per dose? Do not round. **Answer: 0.06 mL**

10 mg/500 mg x 3 mL = 0.06 mL

19. A pediatric patient is prescribed to receive 5 mg/kg/day of a medication, divided in two equal doses. The child weighs 48 pounds. How many mg should the nurse administer? Round kg to 10th. Do not round final answer.

Answer: 54 mg

48/2.2 = 21.8 kg; 5 x 21.8 kg = 109/2 doses = 54.5 mg

20. Administer enoxaparin (Lovenox) 1 mg/kg. The patient weighs 187 lbs. This drug is available in a concentration of 30 mg/0.3 mL. How much should the nurse administer in mL? Do not round. **Answer: 0.85 mL**

187 lbs/2.2 = 85; 1mg x 85 = 85mg. 85 mg/30 mg x 0.3 mL =0.85 mL

21. The physician orders ampicillin 100 mg/kg/ dose for a newly admitted neonate. The neonate weighs 1,350 g. How many milligrams should the nurse administer? **Answer: 135**

1,350 g = 1.35 kg x 100 mg= 135 mg

22. A patient with hypertensive emergency is being treated with sodium nitroprusside. In a dilution of 50 mg/250 mL, how many micrograms of are in each milliliter? **Answer: 200**

50 mg = 50,000 mcg/250 mL = 200 mcg

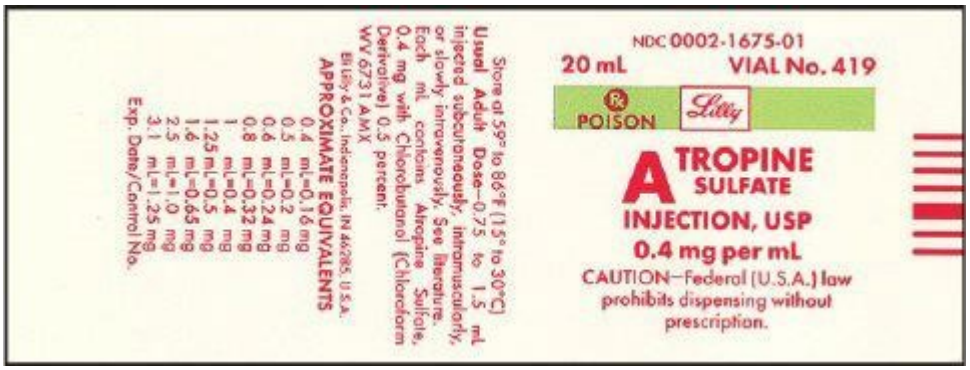
23. Administer ampicillin sodium 125 mg IVP (IV Push) every 6 hours. Reconstitute with 7.4 mL of bacteriostatic water to yield 1 g/7.4 mL. The nurse should draw up how many mL per dose? Round answer to the 10^{th}. **Answer: 0.9**

125 mg/1,000 mg x 7.4 mL = 0.925 = 0.9 mL

24. Administer digoxin 8 mcg/kg/qd. The patient weighs 7.2 kg. The health care provider (HCP) prescribes the digoxin to be given twice daily. How many mcg of digoxin to administer to the patient at each dose? Do not round. **Answer: 28.8 mcg**

8 x 7.2 = 57.6 mcg/2 = 28.8 mcg

25. Administer Atropine sulfate, 0.6 mg IM. How many mL should the nurse administer? Do not round. **Answer: 1.5 mL**



0.6 mg /0.4 mg x 1 mL = 1.5 mL