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 10th. **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 100th. **0.02**

   1.5 mcg = 0.0015 mg x 16.5 kg = 0.02 = 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? **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? Round to a whole number. **1**

   375 mg x 3 = 1,125 mg = 1.1 g = 1 gm

7. Medication order: Unipen 750 mg IM q6h. The label reads to add 4 mL sterile water. The total concentration will equal 1 g/2.5 mL. How many mL of the reconstituted solution will you administer per dose and per day? Round to the 10th.

   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 <u>and</u> 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 per day?

   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. 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

13. The preoperative order is for atropine sulfate 0.15 mg now. 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

14. 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

15. 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)

<u>Answer</u>: 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

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

17. 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. **<u>Answer:</u> 0.06 mL**

10 mg/500 mg x 3 mL = 0.06 mL

18. 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.

<u>Answer:</u> 54 mg

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

19. Administer enoxaparin (Lovenox) 1 mg/kg daily. 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. **<u>Answer:</u> 0.85 mL**

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

20. 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? **<u>Answer:</u> 135**

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

21. A patient with hypertensive emergency is being treated with sodium nitroprusside. Available is 50 mg/250 mL. How many micrograms of are in each milliliter? **<u>Answer:</u> 200**

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

22. 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 10th. **<u>Answer</u>: 0.9**

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

23. Administer digoxin 8 mcg/kg/bid po. The patient weighs 7.2 kg. How many mcg of digoxin should be administered to the patient at per dose? Per day? Do not round. **<u>Answer:</u> 57.6 mcg/dose and 115.2 mcg/day**

8 x 7.2 = 57.6 mcg (per dose) x 2 = 115.2 mcg (per day)

24. Administer Atropine sulfate, 0.6 mg IM. How many mL should the nurse administer? Do not round. **<u>Answer:</u> 1.5 mL**

0.6 mg /0.4 mg x 1 mL = 1.5 mL