

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**

$$10 \text{ mg} \times 12 = 120$$

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**

$$10 \times 80 = 800 \times 15 = 12,000$$

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**

$$40 \times 15.9 / 6 = 106 \text{ mg}$$

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**

$$1.5 \text{ mcg} = 0.0015 \text{ mg} \times 16.5 \text{ kg} = 0.02 = 0.02 \text{ mg}$$

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? **3,780**

$$180 \text{ mg} \times 21 = 3,780 \text{ mg}$$

6. Medication order: Cephalexin 375 mg PO tid. How many grams will the patient receive each 24 hours? Round to a whole number. **1**

$$375 \text{ mg} \times 3 = 1,125 \text{ mg} = 1.1 \text{ g} = 1 \text{ gm}$$

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.

$$750 \text{ mg} / 1000 \text{ mg} \times 2.5 \text{ mL} = 1.9 \text{ mL/dose}; 7.6 \text{ mL/day}$$

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**

$$7.5 \text{ mg}/5 \text{ mg} = 1.5 \text{ tablets per dose}; 3 \text{ tablets/day}$$

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

$$125/250 \times 5 = \mathbf{2.5 \text{ mL/dose}, 7.5 \text{ mL/day}}$$

10. Medication order: Capoten 100 mg. Available: Capoten 0.1 g tablets. How many tablets will you administer? **1**

$$0.1 \text{ g} = 100 \text{ mg}$$

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

$$128 \times 30 \text{ mL (1 oz)} = 3,840 \text{ mL} = 4\text{L}$$

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

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

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**

$$0.15 \text{ mg}/0.4 \text{ mg} \times 1 \text{ mL} = 0.375 = 0.4 \text{ mL}$$

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**

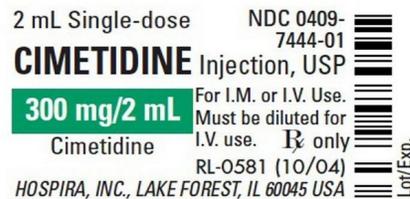
$$0.4 \text{ mg}/5 \text{ mg} \times 10 \text{ mL} = 0.8 \text{ mL}$$

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)

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

This question is a range order: $130/2.2 = 59.1$ kg; 59.1×25 mg = 1,477.55 mg and 59.1×50 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? **Answer: 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. **Answer: 0.06 mL**

$$10 \text{ mg}/500 \text{ mg} \times 3 \text{ mL} = 0.06 \text{ mL}$$

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.

Answer: 54 mg

$$48/2.2 = 21.8 \text{ kg}; 5 \times 21.8 \text{ kg} = 109/2 \text{ doses} = 54.5 \text{ mg}$$

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. **Answer: 0.85 mL**

$$187 \text{ lbs}/2.2 = 85; 1 \text{ mg} \times 85 = 85 \text{ mg}. 85 \text{ mg}/30 \text{ mg} \times 0.3 \text{ mL} = 0.85 \text{ mL}$$

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? **Answer: 135**

$$1,350 \text{ g} = 1.35 \text{ kg} \times 100 \text{ mg} = 135 \text{ mg}$$

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? **Answer: 200**

$$50 \text{ mg} = 50,000 \text{ mcg}/250 \text{ mL} = 200 \text{ mcg}$$

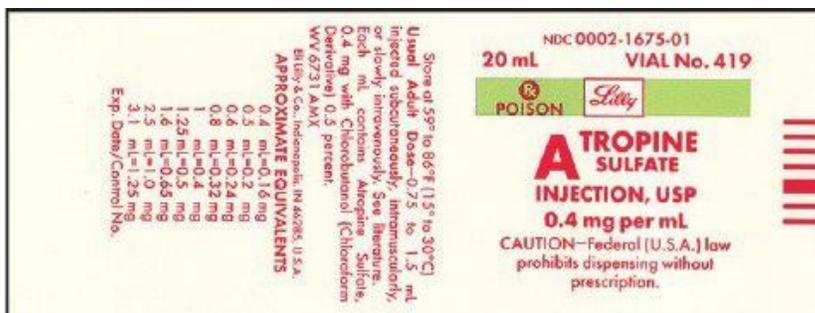
22. Administer ampicillin sodium 125 mg IVP (IV Push) every 6 hours. Reconstitute with 7.4 mL of bacteriostatic water to yield 1 g/7.4 mL. The nurse should draw up how many mL per dose? Round answer to the 10th. **Answer: 0.9**

$$125 \text{ mg}/1,000 \text{ mg} \times 7.4 \text{ mL} = 0.925 = 0.9 \text{ mL}$$

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. **Answer: 57.6 mcg/dose and 28.8 mcg/day**

$$8 \times 7.2 = 57.6 \text{ mcg}/2 = 28.8 \text{ mcg}$$

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



$$0.6 \text{ mg}/0.4 \text{ mg} \times 1 \text{ mL} = 1.5 \text{ mL}$$