

Math Calculations Study Guide

Know the five (5) rights of medication administration.

1. A prescriber orders 50mg of a drug. The drug is only available in a 20mL vial that contains 20mg/mL of the drug. How much solution must the nurse administer for each dose?
 - a. 2.5mL
 - b. 25mL
 - c. 5mL
 - d. 0.25mL
2. A vial of phenytoin sodium (Dilantin) contains 100mg of a drug in a total of 2mL. How many mg of the phenytoin sodium is contained in 0.5mL of solution?
 - a. 2.5mg
 - b. 25mg
 - c. 50mg
 - d. 1.0mg
3. Mycostatin 200,000 units po oral swish and swallow. On hand is mycostatin oral suspension 100,000 units/mL. How many mL should you administer to your patient?

Answer: _____

4. A pediatric patient is to be given 100mg of an antibiotic. The antibiotic is available as a liquid suspension containing 250mg/5mL. How many milliliters of the suspension should the patient receive?
 - a. 4mL
 - b. 2mL
 - c. 0.4mL
 - d. 2.5mL
5. A psychotropic product is available as a liquid containing 50mg of drug/mL. How many mL of solution should be administered to a patient who requires a 180mg dose?
 - a. 0.28mL
 - b. 9mL
 - c. 0.36mL
 - d. 3.6mL
6. Dilantin suspension 250mg has been ordered for your patient. On hand is Dilantin suspension 125mg/5mL. How many mLs will you administer to your patient?

Answer: _____

7. Theophylline 100mg po every 8 hours is prescribed. You have theophylline 200mg/5mL available. How much should you give?

Answer: _____

8. Order reads: Heparin 8000 units subcutaneous every 6 hours. You have Heparin 5,000 units per 0.5ml available. How many mL will you give?
 - a. 0.8
 - b. 1.6
 - c. 4
 - d. 0

9. Order for Heparin 25,000 units in 500mL D5W to infuse at 1000 units/hour. How many mL/hour would you infuse?
- a. 2
b. 20
c. 167
d. 0
10. Order reads: Lanoxin 0.5mg po every day. You have Lanoxin 0.125mg available. How many tablets of this dose would you give?
- a. 2
b. 3
c. 4
d. 0
11. True or False? The nurse can be liable for injuries to a patient if she administers an inappropriate dose ordered by the physician.

Answer: _____

Questions 12, 13, and 14 relate to the following information:

Order reads Ticar 500mg, IM, every 6 hours. Drug available:

12. How many milliliters of dilutant will you add?
- a. 2
b. 4
c. 6
d. 0
13. After reconstitution, how many milliliters of Ticar solution would you have?
- a. 1.3
b. 4.6
c. 2.6
d. 0
14. How many milliliters of Ticar would the patient receive per dose?
- a. 2.6
b. 1.3
c. 4.6
d. 0

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Person, Medication, Dose, Route, Time

1. A prescriber orders 50mg of a drug. The drug is only available in a 20mL vial that contains 20mg/mL of the drug. How much solution must the nurse administer for each dose?

- a. 2.5mL
- b. 25mL
- c. 5mL
- d. 0.25mL

2. A vial of phenytoin sodium (Dilantin) contains 100mg of a drug in a total of 2mL. How many mg of the phenytoin sodium is contained in 0.5mL of solution?

- a. 2.5mg
- b. 25mg
- c. 50mg
- d. 1.0mg

3. Mycostatin 200,000 units po oral swish and swallow. On hand is mycostatin oral suspension 100,000 units/mL. How many mL should you administer to your patient?

Answer: 2 ml

4. A pediatric patient is to be given 100mg of an antibiotic. The antibiotic is available as a liquid suspension containing 250mg/5mL. How many milliliters of the suspension should the patient receive?

- a. 4mL
- b. 2mL
- c. 0.4mL
- d. 2.5mL

5. A psychotropic product is available as a liquid containing 50mg of drug/mL. How many mL of solution should be administered to a patient who requires a 180mg dose?

- a. 0.28mL
- b. 9mL
- c. 0.36mL
- d. 3.6mL

6. Dilantin suspension 250mg has been ordered for your patient. On hand is Dilantin suspension 125mg/5mL. How many mLs will you administer to your patient?

Answer: 10 ml

7. Theophylline 100mg po every 8 hours is prescribed. You have theophylline 200mg/5mL available. How much should you give?

Answer: 2.5 ml

8. Order reads: Heparin 8000 units subcutaneous every 6 hours. You have Heparin 5,000 units per 0.5ml available. How many mL will you give?

- a. 0.8
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11. True or False? The nurse can be liable for injuries to a patient if she administers an inappropriate dose ordered by the physician.

Answer: true

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