

Medications Learning Guide

1. Briefly summarize the roles of the following in relation to the regulation of medications.
 - a. Federal regulations:
 - b. State and local regulations:
 - c. Health care agencies:
 - d. Nurse Practice Act:
2. A single medication may have three different names. Define each one.
 - a. Chemical name:
 - b. Generic name:
 - c. Trade name:
3. A medication classification indicates:
4. The form of the medication determines its:
5. Pharmacokinetics is:
6. Absorption is:
7. Identify the factors that influence drug absorption.
 - a.
 - b.
 - c.
 - d.
 - e.
8. Identify the factors that affect the rate and extent of medication distribution.
 - a.
 - b.
 - c.
 - d.
 - e.
9. Explain the role of metabolism.
10. Identify the primary organ for drug excretion, and explain what happens if this organ's function declines.
11. Define the following predicted or unintended effects of drugs.
 - a. Therapeutic effects:
 - b. Side effects:
 - c. Adverse effects:

- d. Toxic effects:
- e. Idiosyncratic reactions:
- f. Allergic reactions:
- g. Anaphylactic reactions:
- h. Medication interaction:
- i. Synergistic effect:
- j. Medication tolerance:
- k. Medication dependence:

12. Define the following terms related to medication dose responses.

- a. Minimum effective concentration (MEC):
- b. Peak concentration:
- c. Trough concentration:
- d. Biological half-life:

13. Identify the three types of oral routes.

- a.
- b.
- c.

14. List the four major sites for parenteral injections.

- a.
- b.
- c.
- d.

15. Identify five methods for applying medications to mucous membranes.

- a.
- b.
- c.
- d.
- e.

16. Identify the benefit of the inhalation route.

17. Briefly explain the common types of medication orders.

- a. Verbal:
- b. Standing or routine:
- c. PRN:
- d. Single (one-time):
- e. STAT:
- f. Now:

18. Identify the common medication errors that can cause patient harm.

- a.
- b.
- c.
- d.
- e.

Critical Thinking

19. List the EIGHT rights of medication administration.

- a.
- b.
- c.
- d.
- e.
- f.
- g.

Nursing Process

Assessment

20. Identify the areas the nurse needs to assess to determine the need for and potential response to medication therapy.

- a.
- b.
- c.
- d.
- e.
- f.
- g.
- h.
- i.

Implementation

21. Identify factors that can influence the patient's compliance with the medication regimen.

- a.
- b.
- c.
- d.

22. Identify the components of medication orders.

- a.
- b.
- c.

- d.
- e.
- f.
- g.

23. The recording of medication includes:

- a.
- b.
- c.
- d.
- e.

24. Explain the reasons why polypharmacy happens to a patient.

Evaluation

25. Identify two goals for safe and effective medication administration.

- a.
- b.

Medication Administration

26. Identify the precautions to take when administering any oral preparation to prevent aspiration.

- a.
- b.
- c.
- d.
- e.
- f.
- g.
- h.
- i.
- j.

27. Identify the guidelines to ensure safe administration of transdermal or topical medications.

- a.
- b.
- c.
- d.
- e.
- f.

28. The most common form of nasal instillation is:
29. List four principles for administering eye instillations.
- a.
 - b.
 - c.
 - d.
30. Failure to instill ear drops at room temperature causes:
- a.
 - b.
 - c.
31. Vaginal medications are available as:
- a.
 - b.
 - c.
 - d.
32. Rectal suppositories are used for:
33. Explain the following types of inhalation inhalers:
- a. Pressurized metered-dose inhalers (pMDIs):
 - b. Breath-actuated metered-dose inhalers (BAIs):
 - c. Dry powder inhalers (DPIs):
34. Identify the aseptic techniques to use to prevent an infection during an injection.
- a.
 - b.
 - c.
 - d.
35. Identify the factors that must be considered when selecting a needle for an injection.
- a.
 - b.
36. Describe each of the following.
- a. Ampule:
 - b. Vial:
37. List the three principles to follow when mixing medications from two vials.
- a.
 - b.
 - c.

38. Insulin is classified by:
39. Identify the principles to follow when mixing two types of insulin in the same syringe.
- a.
 - b.
 - c.
 - d.
 - e.
40. List the techniques used to minimize patient discomfort that is associated with injections.
- a.
 - b.
 - c.
 - d.
 - e.
 - f.
 - g.
 - h.
41. Identify the best sites for subcutaneous injections.
- a.
 - b.
 - c.
42. What is the maximum amount of water-soluble medication given by the subcutaneous route?
43. What angles should be used when administering a subcutaneous injection, and with which needle should they be used?
- a.
 - b.
44. What is the angle of insertion for an intramuscular (IM) injection?
45. Indicate the maximum volume of medication for an IM injection in each of the following groups.
- a. Well-developed adults:
 - b. Older children, older-adults, and thin adults:
46. Describe the characteristics of the following intramuscular injection sites.
- a. Ventrogluteal:
 - b. Vastus lateralis:

c.Deltoid:

47. Explain the rationale for the Z-track method in IM injections.

48. Explain the rationale for intradermal injections.

Review Questions

Select the appropriate answer and cite the rationale for choosing that particular answer.

49. The study of how drugs enter the body, reach their sites of action, are metabolized, and exit from the body is called:

1. Pharmacology
2. Pharmacopoeia
3. Pharmacokinetics
4. Biopharmaceutical

Answer:

Rationale:

50. Which statement correctly characterizes drug absorption?

1. Most drugs must enter the systemic circulation to have a therapeutic effect.
2. Oral medications are absorbed more quickly when administered with meals.
3. Mucous membranes are relatively impermeable to chemicals, making absorption slow.
4. Drugs administered subcutaneously are absorbed more quickly than those injected intramuscularly.

Answer:

Rationale:

51. The onset of drug action is the time it takes for a drug to:

1. Produce a response
2. Accelerate the cellular process
3. Reach its highest effective concentration
4. Produce blood serum concentration and maintenance

Answer:

Rationale:

52. Which of the following is not a parenteral route of administration?

1. Buccal
2. Intradermal
3. Intramuscular
4. Subcutaneous

Answer:

Rationale:

53. The nurse is preparing an insulin injection in which both regular and NPH will be mixed. Into which vial should the nurse inject air first?

1. The vial of regular insulin
2. The vial of NPH
3. Either vial, as long as modified insulin is drawn up first
4. Neither vial; it is not necessary to put air into vials before withdrawing medication

Answer:

Rationale:

54. A young-adult patient tells her nurse that she is afraid of injections. The nurse is preparing to administer the patient a flu vaccine. Which of the following techniques can the nurse use to reduce the patient's discomfort? (Select all that apply.)

1. Ask the patient to think about why the injection is necessary
2. Position the patient comfortably
3. Apply a vapocoolant to the skin before giving the injection
4. Use a large-gauge needle
5. Carefully use anatomical landmarks to select injection site

Answer:

Rationale:

Next Generation NCLEX® Examination-Style Question

55. The nurse is caring for a 54-year-old patient with Type 1 diabetes mellitus. The patient has orders for 6 units of regular and 5 units of intermediate (NPH) insulin to be administered subcutaneously. To administer the medication as ordered, the nurse will first ____1_____. Then the nurse will ____2_____.

Options for 1

- Shake both insulin vials.
- Roll the NPH insulin between the palms.
- Make sure both insulin vials are clear.
- Roll the regular insulin between the palms.

Options for 2

- Draw 6 units of NPH insulin into a U-100 syringe.
- Inject 5 units of air into the intermediate (NPH) insulin using a U-100 syringe.
- Draw 11 units of 70/30 insulin (NPH) into a U-100 syringe.
- Draw 5 units of NPH insulin into a U-500 syringe.