

## Chapter 02: Medication Development, Regulation, and Resources

### Snyder & Keegan: Pharmacology for the Surgical Technologist, 4th Edition

#### MULTIPLE CHOICE

1. Which federal action sets the standards for quality and requires proper medication labeling for preparations containing morphine?
  - a. Durham-Humphrey Amendments
  - b. Food, Drug, and Cosmetic Act
  - c. Pure Food and Drug Act
  - d. Controlled Substances Act

ANS: C

The Pure Food and Drug Act of 1906 requires all drugs marketed in the United States to meet minimal standards of uniform strength, purity, and quality. This Act requires all preparations containing morphine to be labeled as such.

DIF: 1

REF: 22

TOP: AST Core Curriculum XI:D:2, state and federal laws

2. Drugs that are listed with a *C-I* are considered to
  - a. have a high-abuse potential with no medical use.
  - b. be appropriate for postoperative pain control.
  - c. have a low-abuse potential (e.g., steroids).
  - d. be available over the counter.

ANS: A

The Schedules of Controlled Substances established drugs with high abuse potential as C-I.

DIF: 1

REF: 23

TOP: AST Core Curriculum XI:B:1, controlled substance (Schedule I-V)

3. Which government agency was established to enforce the Controlled Substances Act?
  - a. Occupational Safety and Health Administration (OSHA)
  - b. The U.S. Food and Drug Administration (FDA)
  - c. The Drug Enforcement Agency (DEA)
  - d. The Joint Commission

ANS: C

The Controlled Substances Act established the DEA to enforce its requirements and controls.

DIF: 1

REF: 22

TOP: AST Core Curriculum XI:D:2, state and federal laws

4. All of the following are on the “Do Not Use” list of abbreviations *except*
  - a. U for unit.
  - b. the trailing zero.
  - c. QD for once daily.
  - d. zero before the decimal point.

ANS: D

The Joint Commission established a “Do Not Use” list of abbreviations that includes U for unit, the trailing zero, and the abbreviation, QD. The use of a zero before the decimal point is a recommended practice.

DIF: 1                      REF: 25  
TOP: AST Core Curriculum XI:D:1, health care facility policies and procedures

5. Nonprescription medications are also known as which one of the following?
- Addictive medications
  - Over-the-counter medications
  - Controlled substances
  - Schedule C-II medications

ANS: B  
Medications that do not require prescriptions are called over-the-counter medications.

DIF: 1                      REF: 21  
TOP: AST Core Curriculum XI:B:3, nonprescription medication - over the counter

6. All of the following are disadvantages to pharmacogenetics *except*
- its use to target specific diseases.
  - the complexity of its development.
  - the cost of genetic research.
  - educating health care providers to its use.

ANS: A  
Pharmacogenetics can be used to target specific diseases. This technologic advantage makes pharmacogenetics important.

DIF: 2                      REF: 26                      TOP: AST Core Curriculum X:A:1, pharmacology

7. Who assigns a brand name to a new medication?
- The FDA
  - Manufacturer
  - Pharmacist
  - Drug reference publishers

ANS: B  
The manufacturer’s name for a medication is called the *brand or trade name*.

DIF: 1                      REF: 27  
TOP: AST Core Curriculum XI:A:3, trade | AST Core Curriculum XI:A:3, brand name

8. A medication’s generic name is
- never capitalized on the label.
  - followed by the registered trademark (®) symbol.
  - its formula.
  - its proprietary name.

ANS: A  
The generic name is not owned by any one company and is not capitalized.

DIF: 1                      REF: 27                      TOP: AST Core Curriculum XI:A:2, generic name

9. On some medication labels, the generic name is
- placed inside parentheses.
  - capitalized.
  - not required.
  - most prominent.

ANS: A

The generic name may be placed directly under the brand name or in parentheses.

DIF: 1                      REF: 27                      TOP: AST Core Curriculum XI:A:2, generic name

10. The full quantity contained in a medication bottle is its
- control number.
  - administration route.
  - total volume.
  - supply dosage.

ANS: C

The full quantity of a medication in the bottle is known as its *total volume*.

DIF: 1                      REF: 27                      TOP: AST Core Curriculum XII:A:5, amount

11. The organization that internationally regulates medications is
- The Joint Commission.
  - FDA.
  - OSHA.
  - The World Health Organization.

ANS: D

The World Health Organization is a specialized agency of the United Nations and is the international regulatory agency for medications.

DIF: 1                      REF: 29  
TOP: AST Core Curriculum XI:D:2, state and federal laws

12. The identifying number on every prescription that is required by federal law is called the
- National Drug Code.
  - label alert.
  - barcode symbol.
  - lot number.

ANS: A

The identifying number on every prescription that is required by federal law is the National Drug Code.

DIF: 1                      REF: 28  
TOP: AST Core Curriculum XI:D:2, state and federal laws

13. Coordination of research about drug abuse in another country is regulated by the
- CDC

- b. WHO
- c. FDA
- d. DEA

ANS: B

The WHO acts as the coordinating authority on international public health, providing technical assistance in the drug field, and promoting research on drug abuse.

DIF: 2                      REF: 21  
TOP: AST Core Curriculum XI:C:1, narcotic precautions

14. Which drug law established classifications, known as schedules, of medications that had potential for abuse?
- a. Controlled Substances Act
  - b. Pure Food and Drug Act
  - c. Federal Food, Drug, and Cosmetic Act
  - d. Drug Enforcement Administration

ANS: A

The Controlled Substances Act of 1970 established classifications, known as schedules, of medications that had potential for abuse.

DIF: 1                      REF: 22  
TOP: AST Core Curriculum XI:B:1, controlled substance (Schedule I-V)

15. Drugs from which controlled substance schedule have an accepted use in the surgical setting?
- a. C-I
  - b. C-II
  - c. C-III
  - d. C-IV

ANS: B

Controlled substances from the C-II schedule have high abuse potential but also have accepted medical uses, as in the surgical setting. Alfentanil, Cocaine, and morphine are frequently used in surgery.

DIF: 2                      REF: 22  
TOP: AST Core Curriculum XI:B:1, controlled substance (Schedule I-V)

16. How does a surgical technologist know if he or she can handle and administer medications in his or her state?
- a. By asking the surgeon
  - b. By asking the facility's risk management
  - c. By researching the state's policy online
  - d. By contacting the AORN

ANS: C

As a surgical technologist, you should be knowledgeable about the medication handling and administration laws in your state. State practice acts are public information; this means you can read these acts yourself in order to be correctly informed.

DIF: 2                      REF: 24

TOP: AST Core Curriculum XI:D:2, state and federal laws

17. Which of the following is an advantage of pharmacogenomics?
- Complexity of the genetic research
  - Cost of the genetic research
  - Education in the use of this technology
  - Facilitate the medication approval process

ANS: D

Facilitating the medication approval process is an advantage of Pharmacogenomics.

DIF: 1

REF: 26

TOP: AST Core Curriculum X:A:1, pharmacology

18. What should be done to an otic suspension medication to dilute the particles before it is administered to the patient?
- It must be liquefied.
  - It must be concentrated.
  - It must be shaken.
  - It must be sterilized.

ANS: C

The word *suspension* tells us the solution must be shaken to dilute the particles before it is administered to the patient.

DIF: 3

REF: 27

TOP: AST Core Curriculum XI:G:2:b, suspension

19. How should an outdated multiuse vial of a local anesthetic be handled?
- By finishing the vial
  - By returning it to pharmacy
  - By giving it to anesthesia team
  - By discarding the vial

ANS: B

Outdated medications should be returned to the pharmacy and another obtained with a date that is not passed.

DIF: 2

REF: 28

TOP: AST Core Curriculum XII:A:6, expiration date

20. All are found on medication labels, *except*
- supply dosage.
  - control number.
  - label alert.
  - PDR number.

ANS: D

PDR (Physician's Desk Reference) is a resource used to access information on thousands of medications used in medical and surgical practice; however, a PDR number would not be found on a medication label.

DIF: 1

REF: 28

TOP: AST Core Curriculum XII:A:1, label information

21. Which medication reference is published annually and updated quarterly by the American Society of Health-System Pharmacists, Bethesda, Md.?
- AHFS
  - USP-NF
  - PDR
  - WHO

ANS: A

This reference is published annually and updated quarterly by the American Society of Health-System Pharmacists.

DIF: 1

REF: 30

TOP: AST Core Curriculum XI:E:4, American Hospital Formulary Service Index

22. Which source is the most reliable way to check that medication information is accurate online?
- Searching the Internet
  - Using a government website
  - Asking a clinical coordinator
  - Calling the FDA

ANS: B

Utilizing a governmental website to verify information would be the best method.

DIF: 1

REF: 30

TOP: AST Core Curriculum XI:E, Medication publications

## COMPLETION

1. Which categories of medications under the FDA's pregnancy categories are considered to be within safe limits for use during pregnancy?

ANS:

A, B

The FDA's Pregnancy Categories list A and B as either "no risk" (category A) or "little to no risk" (category B), respectively.

DIF: 1

REF: 25

TOP: AST Core Curriculum XI:B:2, prescription medications

2. In the phases of human medication testing, what is the last phase?

ANS:

Post-market

The last phase in medication testing on humans is phase IV or post-market study, which occurs after the medication is released for use in the treatment of a specified condition.

DIF: 1

REF: 26

TOP: AST Core Curriculum X:A:1, pharmacology