

Watkins 3e Test Bank
Chapter 1

Chapter 1. History of Pharmacology

MULTIPLE CHOICE

1. Which term **best** describes the process of utilizing genetic information to develop pharmacological agents to treat diseases?
 - a. Partially synthesized
 - b. Pharmacogenetics
 - c. Totally synthesized
 - d. Scientific method

ANS: B

	Feedback
A	Partially synthesized refers to medications made by adding a pure chemical to a natural substance.
B	Pharmacogenetics is the study of individual candidate genes as powerful tools to explain interindividual variability in drug response
C	Totally synthesized refers to medications made by combining two or more pure chemicals to produce a new substance that could be used as a medication.
D	Scientific method refers to the process of using hypothesis, testing, and observation to make deductions.

PTS: 1

REF: 6

2. A client has been prescribed diuretic therapy to treat fluid volume excess and wants to know if any dietary modifications are necessary. Which of the following responses by the nurse is **best**?
 - a. "There is no need for any dietary modification as long as you eat a well-balanced diet."
 - b. "As long as you take the medication as prescribed, there should be no dietary modifications needed."
 - c. "I need to verify the medication order in order to provide you with information."
 - d. "As long as you consume eight glasses of water a day, you will be able to replace all fluid losses."

ANS: C

	Feedback
A	There are several types of diuretic medications that have different mechanisms

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	of action; therefore, this statement is not accurate. It is critical to know the specific type of diuretic therapy that is prescribed in order to provide a logical response.
B	Diuretic therapy is aimed at fluid reduction, and depending on the type of diuretic therapy, electrolyte loss can also occur. This takes place based on the mechanism of action for the prescribed therapy. This is not an accurate statement.
C	The nurse should verify the medication order to find out what type of diuretic therapy has been prescribed. For example, furosemide is a loop diuretic that leads to fluid and potassium excretion, which in turn would require potassium supplementation.
D	Depending on the type of medication/mechanism of action, this is not an accurate statement, as this fluid intake will not be able to replace all fluid losses.

PTS: 1

REF: 8

3. The nurse is taking care of a patient who has thyroid disease. What type of mineral medication does the nurse anticipate that the health-care provider will order?
 - a. Potassium
 - b. Magnesium sulfate
 - c. Gold
 - d. Iodine

ANS: D

	Feedback
A	Potassium is used to regulate fluid balance, maintain cardiac function, and promote bone health.
B	Magnesium sulfate is used in the treatment of constipation and eclampsia.
C	Gold is used in the treatment of arthritis.
D	Iodine is used to treat goiters.

PTS: 1

REF: 8

4. While caring for a patient scheduled for knee replacement surgery, the nurse provides cefazolin as ordered 30 minutes preoperatively. Which statement indicates that teaching has been effective?
 - a. "This antibiotic is given as a prophylactic to help reduce the risk of infection after surgery."

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- b. "This is a palliative medication to help ease the pain from surgery."
- c. "This medication will replace vitamins and minerals that may be lost due to bleeding during surgery."
- d. "This medication will help the surgeon identify areas of bone destruction due to arthritis."

ANS: A

	Feedback
A	This medication is an example of an antibiotic used prior to surgery to prevent infection.
B	This medication is an antibiotic and does not provide pain relief.
C	This medication is an antibiotic and does not replace vitamins and minerals.
D	This medication is an antibiotic and does not assist in the identification of bone destruction.

PTS: 1

REF: 9

5. While caring for a patient with a history of hypothyroidism, the nurse expects which of the following medications to be included in the patient's medication list?
- a. Levothyroxine sodium
 - b. Estrogen
 - c. Iodine 131
 - d. Carbimazole

ANS: A

	Feedback
A	This medication replaces thyroid hormone in individuals who have low levels due to hypothyroidism.
B	This medication is used as hormone replacement, often for women in menopause.
C	Iodine 131 is used in the diagnosis, not treatment, of thyroid conditions.
D	Carbimazole is used to reduce thyroid hormone production in individuals who experience hyperthyroidism.

PTS: 1

REF: 9

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6. An oncology patient is admitted to the nursing unit under hospice care. Which medication should the nurse anticipate that the health-care provider will order?
- Prophylactic antibiotics
 - Diagnostic medication
 - Palliative therapy
 - Curative therapy

ANS: C

	Feedback
A	Hospice care indicates that the patient's condition is terminal; therefore, prophylactic antibiotics would not be indicated.
B	Hospice care indicates that the patient's condition is terminal; therefore, diagnostic medications/procedures would not be indicated.
C	Palliative therapy is indicated for the care and treatment of terminal patients.
D	Hospice care indicates that the patient's condition is terminal; therefore, there is no curative therapy available.

PTS: 1

REF: 9

7. A patient is scheduled for diagnostic testing. Which medication should the nurse anticipate that the health-care provider would order?
- Estrogen
 - Penicillin (PCN)
 - Naloxone
 - Barium sulfate

ANS: D

	Feedback
A	Estrogen is used for hormone replacement therapy.
B	PCN is an antibiotic used for the treatment of infections.
C	Naloxone is a medication used to reverse opioid overdose.
D	Barium sulfate is used as a contrast material during diagnostic imaging procedures.

PTS: 1

REF: 9

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8. A patient wants to know which plant contains vitamin C. What is the **best** nursing response?
- a. Coca
 - b. Rose hips
 - c. Foxglove
 - d. Bark of white willow tree

ANS: B

	Feedback
A	Digoxin is found in coca plants and is used to treat heart failure.
B	Rose hips is a good source of vitamin C/ascorbic acid.
C	Procaine is derived from the foxglove plant and is an anesthetic.
D	Salicin is found in the bark of the white willow tree and is a form of salicylic acid.

PTS: 1

REF: 7

9. Which of the following **best** describes the benefit of the use of pharmacogenetics in the treatment of conditions?
- a. Pharmacogenetics is a new area of pharmacology that is developing rapidly.
 - b. Pharmacogenetics informs the family of inherited conditions.
 - c. Pharmacogenetics assists the physician in learning about the family.
 - d. Pharmacogenetics is used to identify the best drug and dose to be used.

ANS: D

	Feedback
A	Although this statement is true, it does not describe the benefit of the use of pharmacogenetics.
B	Pharmacogenetics is used to learn about an individual's response(s) to medications, not to reveal inherited conditions.
C	Pharmacogenetics does not assist the physician in learning about the family. The genetics specific to the individual are studied.
D	Pharmacogenetics identifies the best medication and dose to use for patient conditions such as cancer.

PTS: 1

REF: 7

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10. A group of nurses are reviewing barbiturate medications. Which statement is accurate?
- They are naturally derived drugs.
 - They are derived from animal sources.
 - They are derived from plant sources.
 - They are synthetic medications.

ANS: D

	Feedback
A	Barbiturates are made from chemical sources and are synthesized.
B	Barbiturates are not derived from animal sources.
C	Barbiturates are not derived from plant sources.
D	Barbiturates are chemically derived and considered synthetic medications.

PTS: 1

REF: 7

MULTIPLE RESPONSE

11. Based on the classification system of pharmacodynamics, which category statements are accurate? (Select all that apply.)
- Palliative therapy provides pain relief.
 - Diagnostic drugs help to identify pathological processes.
 - Prophylactic medications are curative.
 - Replacement medications provide needed physiological components.
 - Destructive medications are always curative.

ANS: A, B, D

	Feedback
A.	This is a factual statement describing the function of palliative care.
B.	Diagnostic drugs are used with imaging procedures to localize pathological processes.
C.	Prophylactic medications are used to prevent infections, but they are not always curative.
D.	This is a factual statement describing the function of replacement therapy.
E.	Destructive medications are not always curative, but they help to destroy certain tumors or microbes.

PTS: 1

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REF: 9

12. A nurse is reviewing insulin medication. Which statements are accurate? (Select all that apply.)
- Escherichia coli* is used in the recombinant form of human insulin.
 - Synthetic insulin preparations are more economical.
 - Human recombinant insulin provides less chance of allergic reactions.
 - Synthetic sources are not commonly used.
 - All insulins are derived from animal sources.

ANS: A, B, C

	Feedback
A.	This is a factual statement. Human insulin is produced by using recombinant technology to add the insulin gene to a non-pathogenic strain of <i>E. coli</i> .
B.	This is a factual statement. Synthetic drugs are typically less expensive because they are mass produced.
C.	This is a factual statement. There is less chance of a reaction if animal sources are not used.
D.	Synthetic sources of insulin are used commonly, as they are less expensive.
E.	Insulin can be derived from animal sources (pigs or cows), but synthetic forms are the most commonly used.

PTS: 1

REF: 8

13. A nurse is reviewing medication category relationships. Which statements are accurate? (Select all that apply.)
- Radiopaque dyes are considered to be prophylactic medications.
 - Acetaminophen is considered to be a curative medication.
 - Flu vaccine is considered to be a prophylactic medication.
 - A neoplastic drug is considered to be a destructive medication.
 - Thyroid hormone is considered to be a replacement medication.

ANS: C, D, E

	Feedback
A.	Radiopaque dyes are considered to be diagnostic medications.
B.	Acetaminophen is considered to be a palliative medication.
C.	This is a factual statement. Immunizations are considered to be prophylactic medications.
D.	This is a factual statement. Neoplastic drugs are used in the treatment of

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	cancers/tumors.
E.	This is a factual statement. Thyroid hormones are used as replacement therapy to treat hypothyroid conditions.

PTS: 1
REF: 9,10

14. A group of LPN students are reviewing state practice acts for nursing. Which statements represent **best** practice for the LPN role? (Select all that apply.)
- LPNs are not allowed to administer intravenous (IV) medications in the majority of states.
 - LPNs are not allowed to administer medications via the rectal route.
 - LPNs must be directly supervised during medication administration.
 - LPNs may be allowed to start and discontinue IV fluids in selected states.
 - LPNs may not administer medications through central lines.

ANS: A, D, E

	Feedback
A.	In most states, LPNs cannot administer medication via the IV route.
B.	LPNs can administer medication via the rectal route.
C.	LPNs usually work under the direct supervision of the RN, but they are not always directly supervised during medication administration.
D.	This is a factual statement describing the functional role of the LPN.
E.	This is a factual statement, as central line medication administration is beyond the scope of practice for an LPN.

PTS: 1
REF: 10

15. An LPN is working in an acute care setting and the patient assigned has several medications to be administered via a central line. Which actions should the LPN implement? (Select all that apply.)
- Administer the medications as ordered, as the patient is part of the nursing assignment.
 - Contact the health-care provider for an alternate delivery route.
 - Hold the medications until the LPN can speak with the charge nurse.
 - Arrange with the charge nurse to either administer the medications or assign an RN staff nurse to administer.

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- e. Make sure that the medications are available to administer during the shift as ordered.

ANS: D, E

	Feedback
A.	LPNs cannot administer medications via a central line, as this is outside of the scope of practice.
B.	There is no need to contact the health-care provider for an alternate delivery route.
C.	The medication should not be held, but rather administered at the designated time.
D.	The LPN should discuss with the charge nurse having alternative administration policies implemented either by the charge nurse directly or by assigning an RN staff nurse.
E.	It is important to make sure that the medications are available to administer as ordered during the shift.

PTS: 1

REF: 10

16. A nurse is administering a diuretic medication to a patient on a medical-surgical unit. Which of the following is a factual statement?
- The medication is viewed as curative, as it will help to decrease fluid volume.
 - The nurse should monitor intake and output during the course of therapy.
 - Daily weights should be included as part of monitoring therapy.
 - Assess the patient for pain relief following administration.
 - Increase fluid intake during therapy.

ANS: A, B, C

	Feedback
A.	This is a factual statement, as diuretics help to restore physiological function by decreasing fluid volume.
B.	This is a factual statement. Intake and output are an essential part of fluid volume status therapy.
C.	This is a factual statement. Daily weights are an essential part of fluid volume status therapy.
D.	Diuretics are not used for pain relief. While pain assessment is part of the nursing assessment, it is not done for this reason.
E.	If the patient has been prescribed a diuretic, then the patient is experiencing fluid

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	volume excess, not deficit, and additional fluids should not be administered.
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PTS: 1
REF: 9, 10

17. A nurse is caring for an oncology patient admitted for treatment of an acute infection. Which medications should the nurse anticipate that the health-care provider will prescribe? (Select all that apply.)
- Intravenous fluids as replacement therapy.
 - Diuretic to restore fluid balance.
 - Antineoplastic agents to treat cancer.
 - Antibiotic therapy to treat infection.
 - Pain medication for comfort.

ANS: A, D, E

	Feedback
A.	Intravenous fluids may be indicated to maintain hydration.
B.	Diuretics are not likely to be ordered, as there is no evidence that the patient has fluid volume excess.
C.	Antineoplastic agents would not be ordered, as the patient is admitted for an acute infection, not for the treatment/management of cancer.
D.	Antibiotic therapy is indicated for the treatment of infection.
E.	Pain medication may be indicated for patient comfort.

PTS: 1
REF: 9

18. A nurse is monitoring a patient during the postoperative period following a surgical procedure. Which actions should be included in the plan of care? (Select all that apply.)
- Assess and document patient's level of pain.
 - Administer antineoplastic agents as ordered.
 - Administer intravenous fluids as ordered.
 - Administer pain medication as ordered.
 - Administer contrast material.

ANS: A, C, D

	Feedback
A.	This is a factual statement based on postoperative care of a surgical patient.

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B.	There is no clinical indication for the administration of antineoplastic agents.
C.	Intravenous fluids are part of the treatment plan for postoperative surgical patients.
D.	Pain medication is included in the treatment plan for postoperative surgical patients.
E.	There is no clinical indication to administer contrast material for the postoperative patient.

PTS: 1
REF: 9, 10

19. A nurse is reviewing clinical indications for the use of botulinum toxin. Which statements are accurate? (Select all that apply.)
- This medication can be used to treat diabetic infections.
 - This medication is used in large amounts for a therapeutic effect.
 - This medication can be used to treat torticollis.
 - This medication can be used to treat strabismus.
 - This medication can be used to treat migraine headaches.

ANS: C, D, E

	Feedback
A.	This medication is not used in the treatment of diabetic infections.
B.	This medication is used in tiny doses for a therapeutic effect.
C.	This is a factual statement. It is used in the treatment of a condition in which neck muscles contract, causing the head to turn to one side (torticollis).
D.	This is a factual statement. It is used in the treatment of eye misalignment (strabismus).
E.	This is a factual statement. It is used in the treatment of migraine headaches.

PTS: 1
REF: 8

20. A nurse is monitoring a patient who has received iodine irradiation therapy to treat a tumor. Which statements are accurate? (Select all that apply.)
- The medication was used as a destructive agent.
 - Small doses of the medication were used during the treatment.
 - The same dosages are used for identification as well as treatment.

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- d. This medication is considered to be a toxin.
- e. The medication was used to shrink the tumor.

ANS: A, D, E

	Feedback
A.	This is a factual statement, as iodine irradiation therapy is used to destroy (shrink) a tumor.
B.	High doses of this medication are used to shrink tumors.
C.	Small doses of iodine can help pinpoint thyroid problems, whereas large doses are used to shrink tumors.
D.	This is a factual statement, as the material is radioactive.
E.	This is a factual statement based on the therapeutic action of the medication.

PTS: 1
REF: 8