

***Pathophysiology: Concepts of Human Disease (Sorenson)***  
**Chapter 1 Introduction to the Basics of Pathophysiology**

1) Which pathophysiological concept should the nurse consider when developing a plan of care for a patient with myocardial ischemia?

- A) There is a decrease in the amount of oxygen and glucose reaching the myocardium.
- B) There is a lack of oxygen reaching the myocardium, but the supply of glucose is adequate.
- C) There is a lack of glucose reaching the myocardium, but the supply of oxygen is adequate.
- D) There is a complete lack of both oxygen and glucose reaching the myocardium.

Answer: A

Explanation: A) A decrease in blood flow to the myocardium means that there is a decrease in the amount of oxygen and glucose to the heart muscle. A related term is hypoxia, which refers to a lack of oxygen to tissue. This can occur from disruptions of the respiratory system.

B) A decrease in blood flow to the myocardium means that there is a decrease in the amount of oxygen and glucose to the heart muscle. A related term is hypoxia, which refers to a lack of oxygen to tissue. This can occur from disruptions of the respiratory system.

C) A decrease in blood flow to the myocardium means that there is a decrease in the amount of oxygen and glucose to the heart muscle. A related term is hypoxia, which refers to a lack of oxygen to tissue. This can occur from disruptions of the respiratory system.

D) A decrease in blood flow to the myocardium means that there is a decrease in the amount of oxygen and glucose to the heart muscle. A related term is hypoxia, which refers to a lack of oxygen to tissue. This can occur from disruptions of the respiratory system.

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Cognitive Level: Applying

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Client Need & Sub: Physiological Integrity: Physiological Adaptation

Standards: Nursing Process: Planning | Learning Outcome: 1.1 Define the conceptual basis for and the language used in the study of pathophysiology. | QSEN Competencies: III.A.1.

Demonstrate knowledge of basic scientific methods and processes | AACN Essential Competencies: IX.8. Implement evidence-based nursing interventions as appropriate for managing the acute and chronic care of patients and promoting health across the lifespan

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 1: Recognize the conceptual basis for and the language used in the study of pathophysiology.

2) The nurse is assessing a patient's risk factors for disease at an annual physical examination. Which question would the nurse ask to assess lifestyle risk factors?

- A) "Does your neighborhood have parks and sidewalks?"
- B) "Tell me about the health of your parents."
- C) "What is the highest level of education that you completed?"
- D) "How would you describe your diet?"

Answer: D

Explanation: A) Risk factors emerge from a number of sources. One is the genetic blueprint provided to each of us at birth, and another is lifestyle factors. Lifestyle factors reflect decisions about diet, exercise, smoking, and other variables that influence health. Social determinants of health are factors related to where one lives, educational level, income, availability of fresh food, public transportation, and a number of other considerations that can affect health.

B) Risk factors emerge from a number of sources. One is the genetic blueprint provided to each of us at birth, and another is lifestyle factors. Lifestyle factors reflect decisions about diet, exercise, smoking, and other variables that influence health. Social determinants of health are factors related to where one lives, educational level, income, availability of fresh food, public transportation, and a number of other considerations that can affect health.

C) Risk factors emerge from a number of sources. One is the genetic blueprint provided to each of us at birth, and another is lifestyle factors. Lifestyle factors reflect decisions about diet, exercise, smoking, and other variables that influence health. Social determinants of health are factors related to where one lives, educational level, income, availability of fresh food, public transportation, and a number of other considerations that can affect health.

D) Risk factors emerge from a number of sources. One is the genetic blueprint provided to each of us at birth, and another is lifestyle factors. Lifestyle factors reflect decisions about diet, exercise, smoking, and other variables that influence health. Social determinants of health are factors related to where one lives, educational level, income, availability of fresh food, public transportation, and a number of other considerations that can affect health.

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Cognitive Level: Applying

Client Need & Sub: Health Promotion and Maintenance

Standards: Nursing Process: Assessment | Learning Outcome: 1.2 Describe characteristics of and risk factors associated with health and illness. | QSEN Competencies: I.B.10 Engage patients or designated surrogates in active partnerships that promote health, safety and well-being, and self-care management | AACN Essential Competencies: IX. 1. 1. Conduct comprehensive and focused physical, behavioral, psychological, spiritual, socioeconomic, and environmental assessments of health and illness parameters in patients, using developmentally and culturally appropriate approaches

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 2: Consider the characteristics of and risk factors associated with health and illness.

3) The occupational health nurse is assessing a manufacturing plant for chemical agents that may cause disease in the employees. The nurse should be alert for:

- A) stress levels.
- B) helminths.
- C) radiation.
- D) lead.

Answer: D

Explanation: A) Endogenous disease etiologies arise from within the body. Examples are abnormal immune reactions, gene mutations, coagulation defects, stress, and metabolic abnormalities.

B) Etiologic agents may be exogenous, that is, arising from the external environment, such as chemical, physical, and infectious agents. Examples of infectious etiologic agents are bacteria, viruses, fungi, and helminths.

C) Etiologic agents may be exogenous, that is, arising from the external environment, such as chemical, physical, and infectious agents. Examples of physical etiologic agents are extremes in environmental temperatures, radiation, trauma, and electricity.

D) Etiologic agents may be exogenous, that is, arising from the external environment, such as chemical, physical, and infectious agents. Examples of chemical etiologic agents are alcohol, lead, mercury, air pollutants, carbon monoxide, pesticides, and adverse effects of medications.

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Cognitive Level: Applying

Client Need & Sub: Health Promotion and Maintenance

Standards: Nursing Process: Assessment | Learning Outcome: 1.3 Outline the structure of this program, including the pathogenesis and etiology of disease; the clinical manifestations of disorders; how pathophysiology is linked to diagnosis and treatment; and the impact of genetics, nutrition, and lifespan on health and illness. | QSEN Competencies: III.A.1. Demonstrate knowledge of basic scientific methods and processes | AACN Essential Competencies: IX. 1. 1. Conduct comprehensive and focused physical, behavioral, psychological, spiritual, socioeconomic, and environmental assessments of health and illness parameters in patients, using developmentally and culturally appropriate approaches

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 2: Consider the characteristics of and risk factors associated with health and illness.

4) A patient has been diagnosed with idiopathic pulmonary fibrosis. The nurse explains to the patient that idiopathic means:

- A) the disease is inherited.
- B) the cause is unknown.
- C) it was caused by an error in care.
- D) the disease is secondary to another illness.

Answer: B

Explanation: A) A disease that is inherited is a genetic or hereditary disorder.

B) When the cause of a disease cannot be determined, its etiology is said to be idiopathic.

C) The etiology of conditions that are caused unintentionally by a treatment, a diagnostic procedure, or an error caused by a healthcare provider are called iatrogenic.

D) A condition that is caused by another disease is called a secondary disorder.

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Cognitive Level: Understanding

Client Need & Sub: Physiological Integrity: Physiological Adaptation

Standards: Nursing Process: Implementation | Learning Outcome: 1.3 Outline the structure of this program, including the pathogenesis and etiology of disease; the clinical manifestations of disorders; how pathophysiology is linked to diagnosis and treatment; and the impact of genetics, nutrition, and lifespan on health and illness. | QSEN Competencies: III.A.1. Demonstrate knowledge of basic scientific methods and processes | AACN Essential Competencies: IX.7.

Provide appropriate patient teaching that reflects developmental stage, age, culture, spirituality, patient preferences, and health literacy considerations to foster patient engagement in their care

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

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MNL Learning Outcome: LO 3: Relate how the key factors and basic principles that inform pathophysiology impact health and illness.

5) The nurse is documenting the assessment findings from a patient being seen in the clinic. Which of the following does the nurse document as a subjective finding?

- A) Nausea
- B) Breath sounds
- C) Fever
- D) Skin color

Answer: A

Explanation: A) A symptom is a subjective sensation that is perceived by the affected individual but not observable by the person examining the individual. Examples of symptoms include pain, nausea, dyspnea, and numbness. A sign is an objective indication of disease that is observable by the person conducting a physical assessment. Examples of signs include abnormal heart or lung sounds, rash, fever, a change in the respiratory or heart rate, sluggish or absent pupil reaction to light, and changes in skin color.

B) A symptom is a subjective sensation that is perceived by the affected individual but not observable by the person examining the individual. Examples of symptoms include pain, nausea, dyspnea, and numbness. A sign is an objective indication of disease that is observable by the person conducting a physical assessment. Examples of signs include abnormal heart or lung sounds, rash, fever, a change in the respiratory or heart rate, sluggish or absent pupil reaction to light, and changes in skin color.

C) A symptom is a subjective sensation that is perceived by the affected individual but not observable by the person examining the individual. Examples of symptoms include pain, nausea, dyspnea, and numbness. A sign is an objective indication of disease that is observable by the person conducting a physical assessment. Examples of signs include abnormal heart or lung sounds, rash, fever, a change in the respiratory or heart rate, sluggish or absent pupil reaction to light, and changes in skin color.

D) A symptom is a subjective sensation that is perceived by the affected individual but not observable by the person examining the individual. Examples of symptoms include pain, nausea, dyspnea, and numbness. A sign is an objective indication of disease that is observable by the person conducting a physical assessment. Examples of signs include abnormal heart or lung sounds, rash, fever, a change in the respiratory or heart rate, sluggish or absent pupil reaction to light, and changes in skin color.

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Cognitive Level: Applying

Client Need & Sub: Physiological Integrity: Physiological Adaptation

Standards: Nursing Process: Assessment | Learning Outcome: 1.3 Outline the structure of this program, including the pathogenesis and etiology of disease; the clinical manifestations of disorders; how pathophysiology is linked to diagnosis and treatment; and the impact of genetics, nutrition, and lifespan on health and illness. | QSEN Competencies: III.A.1. Demonstrate knowledge of basic scientific methods and processes | AACN Essential Competencies: IX. 1. 1. Conduct comprehensive and focused physical, behavioral, psychological, spiritual, socioeconomic, and environmental assessments of health and illness parameters in patients, using developmentally and culturally appropriate approaches

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 1: Recognize the conceptual basis for and the language used in the study of pathophysiology.

6) How should the nurse respond when a patient asks the difference between acute and chronic hip pain?

- A) "An acute illness develops over a longer period of time than a chronic one."
- B) "A chronic illness is more serious than an acute illness."
- C) "A chronic illness is enduring while an acute illness is short term."
- D) "A chronic illness is life threatening while an acute illness is not."

Answer: C

Explanation: A) An acute injury or disease is one that appears quickly; a chronic condition has an enduring quality with lasting implications. An important point is that neither of these terms relates to severity or degree of injury or disease. For example, when an individual sprains an ankle, an acute injury, the injury is sudden but might not have significant lasting implications. In contrast, with a chronic disease, there are several states that may be enduring and lasting (such as a mild case of osteoarthritis) but without significant impairment of functional ability.

B) An acute injury or disease is one that appears quickly; a chronic condition has an enduring quality with lasting implications. An important point is that neither of these terms relates to severity or degree of injury or disease. For example, when an individual sprains an ankle, an acute injury, the injury is sudden but might not have significant lasting implications. In contrast, with a chronic disease, there are several states that may be enduring and lasting (such as a mild case of osteoarthritis) but without significant impairment of functional ability.

C) An acute injury or disease is one that appears quickly; a chronic condition has an enduring quality with lasting implications. An important point is that neither of these terms relates to severity or degree of injury or disease. For example, when an individual sprains an ankle, an acute injury, the injury is sudden but might not have significant lasting implications. In contrast, with a chronic disease, there are several states that may be enduring and lasting (such as a mild case of osteoarthritis) but without significant impairment of functional ability.

D) An acute injury or disease is one that appears quickly; a chronic condition has an enduring quality with lasting implications. An important point is that neither of these terms relates to severity or degree of injury or disease. For example, when an individual sprains an ankle, an acute injury, the injury is sudden but might not have significant lasting implications. In contrast, with a chronic disease, there are several states that may be enduring and lasting (such as a mild case of osteoarthritis) but without significant impairment of functional ability.

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Cognitive Level: Applying

Client Need & Sub: Physiological Integrity: Physiological Adaptation

Standards: Nursing Process: Implementation | Learning Outcome: 1.3 Outline the structure of this program, including the pathogenesis and etiology of disease; the clinical manifestations of disorders; how pathophysiology is linked to diagnosis and treatment; and the impact of genetics, nutrition, and lifespan on health and illness. | QSEN Competencies: III.A.1. Demonstrate knowledge of basic scientific methods and processes | AACN Essential Competencies: IX.3. Implement holistic, patient-centered care that reflects an understanding of human growth and development, pathophysiology, pharmacology, medical management and nursing management across the health-illness continuum, across lifespan, and in all healthcare settings

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 1: Recognize the conceptual basis for and the language used in the study of pathophysiology.

7) A nurse researcher involved in epigenomics is studying:

- A) the role of specific genes.
- B) the function of groups of genes in mediating physiologic function.
- C) genetic variations and modifications that influence a particular cell.
- D) the origin of the structural and functional events leading to disease.

Answer: C

Explanation: A) Through genetics, the role of specific genes is studied. This study involves examining how genetic variations are passed through familial inheritance.

B) Genomics refers to the study of the function of groups of genes in terms of mediating physiologic function. Genomics studies how an inherited genetic trait, such as sickle cell trait, influences the likelihood that an individual will develop sickle cell disease.

C) The study of all genetic variations or modifications that have influenced a particular cell is referred to as epigenomics. The focus is on the broader picture in terms of studying a complete set of modifications to cellular DNA.

D) The pathogenesis of a disease refers to origin of, or the underlying mechanisms responsible for, the clinical manifestations of that disease. Pathogenesis is the origin of the sequence of events to structural and/or functional alterations in cells, tissues, or organs resulting in disease.

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Cognitive Level: Understanding

Client Need & Sub: Physiological Integrity: Physiological Adaptation

Standards: Nursing Process: Implementation | Learning Outcome: 1.3 Outline the structure of this program, including the pathogenesis and etiology of disease; the clinical manifestations of disorders; how pathophysiology is linked to diagnosis and treatment; and the impact of genetics, nutrition, and lifespan on health and illness. | QSEN Competencies: III.B. 1 Participate effectively in appropriate data collection and other research activities | AACN Essential

Competencies: III. 2. Demonstrate an understanding of the basic elements of the research process and models for applying evidence to clinical practice

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 1: Recognize the conceptual basis for and the language used in the study of pathophysiology.

8) When planning a program to educate the community about healthy nutrition, the community health nurse should tell adults to consume:

- A) 100% of grain intake as whole grains.
- B) at least 3.5 cups of fruits and vegetables each day.
- C) more highly pigmented fruits and vegetables.
- D) 3 to 5 servings of dairy each day.

Answer: C

Explanation: A) At least half of our daily intake of grains should be whole grains. The words "whole wheat" as the first ingredient indicates a whole grain product. Other good choices are common foods as oatmeal and popcorn. Less familiar grains such as quinoa or whole-grain couscous could also be included.

B) Adults are advised to consume at least 4.5 cups of fruits and vegetables daily for a variety of vitamins, minerals, phytochemicals, and fiber.

C) The more highly pigmented the fruits and vegetables are, the better. Beets, spinach, squash, and berries are all good picks.

D) Most Americans should consume two to three servings of low-fat dairy foods such as milk, yogurt, or low-fat cheese daily.

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Cognitive Level: Applying

Client Need & Sub: Health Promotion and Maintenance

Standards: Nursing Process: Planning | Learning Outcome: 1.3 Outline the structure of this program, including the pathogenesis and etiology of disease; the clinical manifestations of disorders; how pathophysiology is linked to diagnosis and treatment; and the impact of genetics, nutrition, and lifespan on health and illness. | QSEN Competencies: I.B.10 Engage patients or designated surrogates in active partnerships that promote health, safety and well-being, and self-care management | AACN Essential Competencies: VII. 11. Participate in clinical prevention and population-focused interventions with attention to effectiveness, efficiency, cost-effectiveness and equity

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 2: Consider the characteristics of and risk factors associated with health and illness.



9) When developing a care plan to teach a patient with hypertension about sodium intake, the nurse should include limiting sodium intake to:

- A) 2,300-2,500 mg/day.
- B) 2,000-2,300 mg/day.
- C) 1,500-2,000 mg/day.
- D) less than 1,500 mg/day.

Answer: D

Explanation: A) Sodium should be limited to 2,300 mg/day for individuals younger than 51 years of age and less than 1,500 mg/day for those 51 years of age or older, African Americans, and individuals with hypertension, diabetes, or chronic kidney disease.

B) Sodium should be limited to 2,300 mg/day for individuals younger than 51 years of age and less than 1,500 mg/day for those 51 years of age or older, African Americans, and individuals with hypertension, diabetes, or chronic kidney disease.

C) Sodium should be limited to 2,300 mg/day for individuals younger than 51 years of age and less than 1,500 mg/day for those 51 years of age or older, African Americans, and individuals with hypertension, diabetes, or chronic kidney disease.

D) Sodium should be limited to 2,300 mg/day for individuals younger than 51 years of age and less than 1,500 mg/day for those 51 years of age or older, African Americans, and individuals with hypertension, diabetes, or chronic kidney disease.

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Cognitive Level: Applying

Client Need & Sub: Health Promotion and Maintenance

Standards: Nursing Process: Planning | Learning Outcome: 1.3 Outline the structure of this program, including the pathogenesis and etiology of disease; the clinical manifestations of disorders; how pathophysiology is linked to diagnosis and treatment; and the impact of genetics, nutrition, and lifespan on health and illness. | QSEN Competencies: I.B.10 Engage patients or designated surrogates in active partnerships that promote health, safety and well-being, and self-care management | AACN Essential Competencies: IX.7. Provide appropriate patient teaching that reflects developmental stage, age, culture, spirituality, patient preferences, and health literacy considerations to foster patient engagement in their care

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 2: Consider the characteristics of and risk factors associated with health and illness.

10) Which of the following statements describes the role of a nurse involved in epidemiology?

- A) The nurse studies an individual's risk for disease.
- B) The nurse provides care to individuals with certain diseases.
- C) The nurse studies the distribution of disease in a population.
- D) The nurse provides care to a population.

Answer: C

Explanation: A) Epidemiology is broadly defined as the study of how disease is distributed in populations and identification of the factors influencing the distribution.

B) Epidemiology is broadly defined as the study of how disease is distributed in populations and identification of the factors influencing the distribution.

C) Epidemiology is broadly defined as the study of how disease is distributed in populations and identification of the factors influencing the distribution.

D) Epidemiology is broadly defined as the study of how disease is distributed in populations and identification of the factors influencing the distribution.

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Cognitive Level: Applying

Client Need & Sub: Health Promotion and Maintenance

Standards: Nursing Process: Planning | Learning Outcome: 1.4 Describe the study of epidemiology, and outline the leading indicators of morbidity and mortality in the United States.

| QSEN Competencies: II.A.2 Describe scopes of practice and roles of health care team members

| AACN Essential Competencies: VII.1 Assess protective and predictive factors, including genetics, which influence the health of individuals, families, groups, communities and populations

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 4: Associate the study epidemiology and the leading indicators of morbidity and mortality in the U.S.

- 11) Which statement represents the epidemiology nurse's calculation of the incidence of asthma?
- A) There were 10 new cases of asthma diagnosed in adults ages 24 to 65 years in the past 12 months in Centerville.
  - B) There were a total of 3,600 people with a diagnosis of diabetes in Centerville in 2015.
  - C) There were 2 people diagnosed with Lyme disease in Centerville last year.
  - D) There were 20 cases of opioid overdose in adults ages 18 to 24 years in Centerville.

Answer: A

Explanation: A) Incidence is the number of new cases of a condition within a defined period and for a defined population, such as the number of individuals who experienced a spinal cord injury within the past 12 months in the United States. Other defined populations could include adults, children, and athletes. Incidence provides a sense of frequency of occurrence in a particular group or population. Prevalence is the number of individuals of a defined population who already have a disease or condition, such as the number of adults in the United States with a spinal cord injury.

B) Incidence is the number of new cases of a condition within a defined period and for a defined population, such as the number of individuals who experienced a spinal cord injury within the past 12 months in the United States. Other defined populations could include adults, children, and athletes. Incidence provides a sense of frequency of occurrence in a particular group or population. Prevalence is the number of individuals of a defined population who already have a disease or condition, such as the number of adults in the United States with a spinal cord injury.

C) Incidence is the number of new cases of a condition within a defined period and for a defined population, such as the number of individuals who experienced a spinal cord injury within the past 12 months in the United States. Other defined populations could include adults, children, and athletes. Incidence provides a sense of frequency of occurrence in a particular group or population. Prevalence is the number of individuals of a defined population who already have a disease or condition, such as the number of adults in the United States with a spinal cord injury.

D) Incidence is the number of new cases of a condition within a defined period and for a defined population, such as the number of individuals who experienced a spinal cord injury within the past 12 months in the United States. Other defined populations could include adults, children, and athletes. Incidence provides a sense of frequency of occurrence in a particular group or population. Prevalence is the number of individuals of a defined population who already have a disease or condition, such as the number of adults in the United States with a spinal cord injury.

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Cognitive Level: Analyzing

Client Need & Sub: Health Promotion and Maintenance

Standards: Nursing Process: Assessment | Learning Outcome: 1.4 Describe the study of epidemiology, and outline the leading indicators of morbidity and mortality in the United States. | QSEN Competencies: II.A.2 Describe scopes of practice and roles of health care team members | AACN Essential Competencies: VII. 11. Participate in clinical prevention and population-focused interventions with attention to effectiveness, efficiency, cost-effectiveness and equity NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 4: Associate the study epidemiology and the leading indicators of morbidity and mortality in the U.S.

12) In developing a plan for teaching community health nurses about the role of the nurse in epidemiology, the epidemiology nurse should include:

- A) diagnosing the cause of a disease.
- B) treating the disease.
- C) evaluating therapeutic measures.
- D) reducing risk factors for disease.

Answer: C

Explanation: A) The objectives of epidemiology are to identify the cause of the disease and the risk factors, to determine the extent of the disease in the community, to study the natural history and the prognosis of the disease, to evaluate both existing and newly developed preventive and therapeutic measures and modes of healthcare delivery, and to provide the basis for developing public policy related to a variety of measures.

B) The objectives of epidemiology are to identify the cause of the disease and the risk factors, to determine the extent of the disease in the community, to study the natural history and the prognosis of the disease, to evaluate both existing and newly developed preventive and therapeutic measures and modes of healthcare delivery, and to provide the basis for developing public policy related to a variety of measures.

C) The objectives of epidemiology are to identify the cause of the disease and the risk factors, to determine the extent of the disease in the community, to study the natural history and the prognosis of the disease, to evaluate both existing and newly developed preventive and therapeutic measures and modes of healthcare delivery, and to provide the basis for developing public policy related to a variety of measures.

D) The objectives of epidemiology are to identify the cause of the disease and the risk factors, to determine the extent of the disease in the community, to study the natural history and the prognosis of the disease, to evaluate both existing and newly developed preventive and therapeutic measures and modes of healthcare delivery, and to provide the basis for developing public policy related to a variety of measures.

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Cognitive Level: Applying

Client Need & Sub: Health Promotion and Maintenance

Standards: Nursing Process: Planning | Learning Outcome: 1.4 Describe the study of epidemiology, and outline the leading indicators of morbidity and mortality in the United States. | QSEN Competencies: II.A.2 Describe scopes of practice and roles of health care team members | AACN Essential Competencies: VII.1 Assess protective and predictive factors, including genetics, which influence the health of individuals, families, groups, communities and populations

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 4: Associate the study epidemiology and the leading indicators of morbidity and mortality in the U.S.

13) When planning community health promotion and prevention programs, the nurse should be aware that the leading cause of death in the United States is:

- A) accidents.
- B) suicide.
- C) heart disease.
- D) cancer.

Answer: C

Explanation: A) The leading causes of death in the United States in 2015 were: heart disease 614,348; cancer (all forms) 591,699; chronic lower respiratory diseases 147,101; accidents (unintentional injuries) 136,053; stroke (cerebrovascular diseases) 133,103; Alzheimer disease 93,541; diabetes 76,488; influenza and pneumonia 55,227; nephritis, nephrotic syndrome, and nephrosis 48,146; and intentional self-harm (suicide) 42,773.

B) The leading causes of death in the United States in 2015 were: heart disease 614,348; cancer (all forms) 591,699; chronic lower respiratory diseases 147,101; accidents (unintentional injuries) 136,053; stroke (cerebrovascular diseases) 133,103; Alzheimer disease 93,541; diabetes 76,488; influenza and pneumonia 55,227; nephritis, nephrotic syndrome, and nephrosis 48,146; and intentional self-harm (suicide) 42,773.

C) The leading causes of death in the United States in 2015 were: heart disease 614,348; cancer (all forms) 591,699; chronic lower respiratory diseases 147,101; accidents (unintentional injuries) 136,053; stroke (cerebrovascular diseases) 133,103; Alzheimer disease 93,541; diabetes 76,488; influenza and pneumonia 55,227; nephritis, nephrotic syndrome, and nephrosis 48,146; and intentional self-harm (suicide) 42,773.

D) The leading causes of death in the United States in 2015 were: heart disease 614,348; cancer (all forms) 591,699; chronic lower respiratory diseases 147,101; accidents (unintentional injuries) 136,053; stroke (cerebrovascular diseases) 133,103; Alzheimer disease 93,541; diabetes 76,488; influenza and pneumonia 55,227; nephritis, nephrotic syndrome, and nephrosis 48,146; and intentional self-harm (suicide) 42,773.

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Cognitive Level: Understanding

Client Need & Sub: Health Promotion and Disease Prevention

Standards: Nursing Process: Planning | Learning Outcome: 1.4 Describe the study of epidemiology, and outline the leading indicators of morbidity and mortality in the United States.

| QSEN Competencies: I.B.10 Engage patients or designated surrogates in active partnerships that promote health, safety and well-being, and self-care management | AACN Essential

Competencies: VII.1 Assess protective and predictive factors, including genetics, which influence the health of individuals, families, groups, communities and populations

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 4: Associate the study epidemiology and the leading indicators of morbidity and mortality in the U.S.

14) Which information about risk factors should the school nurse use when developing a program to reduce modifiable risk factors in high school students?

- A) Sickle cell anemia is an inherited disorder.
- B) Heart disease develops at an earlier age in men.
- C) Many high school students do not get enough physical activity.
- D) Certain ethnic variables increase the risk for chronic disease.

Answer: C

Explanation: A) Age, gender, and racial/ethnic differences are unmodifiable risk factors for many diseases.

B) Age, gender, and racial/ethnic differences are unmodifiable risk factors for many diseases.

C) The four most important modifiable health risk behaviors are physical inactivity, poor nutrition, tobacco use, and excessive alcohol consumption. Only 33% of U.S. high school students participate in daily physical education classes.

D) Age, gender, and racial/ethnic differences are unmodifiable risk factors for many diseases.

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Cognitive Level: Analyzing

Client Need & Sub: Health Promotion and Maintenance

Standards: Nursing Process: Planning | Learning Outcome: 1.4 Describe the study of epidemiology, and outline the leading indicators of morbidity and mortality in the United States.

| QSEN Competencies: I.B.10 Engage patients or designated surrogates in active partnerships that promote health, safety and well-being, and self-care management | AACN Essential

Competencies: VII.1 Assess protective and predictive factors, including genetics, which influence the health of individuals, families, groups, communities and populations

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 2: Consider the characteristics of and risk factors associated with health and illness.

15) A woman with type 1 diabetes is being seen for her first prenatal examination. Which information should the nurse include in the woman's care plan?

- A) Teaching the signs and symptoms of preeclampsia
- B) Explaining the fetal risk of macrosomia
- C) Discussing symptoms of placental abruption to report
- D) Reinforcing that there will be no risk to the fetus

Answer: A

Explanation: A) Women who had type 1 or type 2 diabetes before becoming pregnant can have a variety of adverse fetal and maternal outcomes, such as increased risk for preeclampsia, hypertension during pregnancy, cesarean delivery, miscarriage, birth defects, preterm delivery, macrosomia (very large baby), hypoglycemia, fetal death, and infant death.

B) Women who had type 1 or type 2 diabetes before becoming pregnant can have a variety of adverse fetal and maternal outcomes, such as increased risk for preeclampsia, hypertension during pregnancy, cesarean delivery, miscarriage, birth defects, preterm delivery, macrosomia (very large baby), hypoglycemia, fetal death, and infant death.

C) Women who had type 1 or type 2 diabetes before becoming pregnant can have a variety of adverse fetal and maternal outcomes, such as increased risk for preeclampsia, hypertension during pregnancy, cesarean delivery, miscarriage, birth defects, preterm delivery, macrosomia (very large baby), hypoglycemia, fetal death, and infant death.

D) Women who had type 1 or type 2 diabetes before becoming pregnant can have a variety of adverse fetal and maternal outcomes, such as increased risk for preeclampsia, hypertension during pregnancy, cesarean delivery, miscarriage, birth defects, preterm delivery, macrosomia (very large baby), hypoglycemia, fetal death, and infant death.

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Cognitive Level: Applying

Client Need & Sub: Health Promotion and Maintenance

Standards: Nursing Process: Planning | Learning Outcome: 1.4 Describe the study of epidemiology, and outline the leading indicators of morbidity and mortality in the United States.

| QSEN Competencies: I.B.10 Engage patients or designated surrogates in active partnerships that promote health, safety and well-being, and self-care management | AACN Essential

Competencies: IX.7. Provide appropriate patient teaching that reflects developmental stage, age, culture, spirituality, patient preferences, and health literacy considerations to foster patient engagement in their care

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 2: Consider the characteristics of and risk factors associated with health and illness.

16) A nurse working on a busy medical unit has noticed an increase in the incidence of pressure ulcers in the patient population. Which action demonstrates the principles of evidence-based practice (EBP)?

- A) Reviewing the literature for current best evidence pressure ulcer prevention
- B) Reviewing the literature for informational articles on best methods to prevent pressure ulcers
- C) Reviewing hospital policy and procedures to make sure they are being followed correctly
- D) Reviewing patient charts to audit nursing interventions to prevent pressure ulcers

Answer: A

Explanation: A) EBP is "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patient. It means integrating individual clinical expertise with the best available external clinical evidence from systematic research."

B) EBP should be based on research and best evidence and not informational articles.

C) Policy and procedures may not reflect the most current EBP. They should be reviewed to determine if they are based on current best evidence.

D) Auditing nursing care is not an example of EBP.

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Cognitive Level: Applying

Client Need & Sub: Safe and Effective Care Environment: Management of Care

Standards: Nursing Process: Planning | Learning Outcome: 1.5 Explain the importance of evidence-based practice. | QSEN Competencies: III.A. Demonstrate knowledge of basic scientific methods and processes | AACN Essential Competencies: IX.8. Implement evidence-based nursing interventions as appropriate for managing the acute and chronic care of patients and promoting health across the lifespan

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 3: Relate how the key factors and basic principles that inform pathophysiology impact health and illness.



17) Which action by the nurse shows an understanding of integrating evidence-based principles into practice?

- A) Creating a care plan and then presenting it to the patient
- B) Making the best decisions for the patient
- C) Seeking patient preferences about his care
- D) Providing written information explaining the patient's care

Answer: C

Explanation: A) The process of implementing evidence into practice relies on melding clinical expertise with existing research evidence in providing care that also respects the values and preferences of the patient. Without acknowledging patient preferences and experience, the healthcare provider could implement interventions supported by the literature but find a patient who is not adhering to the recommendations because of different goals or values.

B) The process of implementing evidence into practice relies on melding clinical expertise with existing research evidence in providing care that also respects the values and preferences of the patient. Without acknowledging patient preferences and experience, the healthcare provider could implement interventions supported by the literature but find a patient who is not adhering to the recommendations because of different goals or values.

C) The process of implementing evidence into practice relies on melding clinical expertise with existing research evidence in providing care that also respects the values and preferences of the patient. Without acknowledging patient preferences and experience, the healthcare provider could implement interventions supported by the literature but find a patient who is not adhering to the recommendations because of different goals or values.

D) The process of implementing evidence into practice relies on melding clinical expertise with existing research evidence in providing care that also respects the values and preferences of the patient. Without acknowledging patient preferences and experience, the healthcare provider could implement interventions supported by the literature but find a patient who is not adhering to the recommendations because of different goals or values.

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Cognitive Level: Applying

Client Need & Sub: Safe and Effective Care Environment: Management of Care

Standards: Nursing Process: Planning | Learning Outcome: 1.5 Explain the importance of evidence-based practice. | QSEN Competencies: III.A. Demonstrate knowledge of basic scientific methods and processes | AACN Essential Competencies: IX.8. Implement evidence-based nursing interventions as appropriate for managing the acute and chronic care of patients and promoting health across the lifespan

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 3: Relate how the key factors and basic principles that inform pathophysiology impact health and illness.

18) When developing a care plan for a patient with asthma, the nurse needs to understand which pathophysiological subconcept?

- A) Infection
- B) Coagulation
- C) Inflammation
- D) Perfusion

Answer: C

Explanation: A) Asthma is a condition of reactive airway constriction, in which parts of the respiratory tract are sensitive to allergens. In the presence of an environmental allergen, parts of the respiratory tract constrict, restricting the flow of air into the lung. The reduction in air flow leads to decreases in the concentration of oxygen in the bloodstream. The allergen stimulates the immune system, which releases inflammatory mediators. The resulting inflammation contributes to the reduction of airflow.

B) Asthma is a condition of reactive airway constriction, in which parts of the respiratory tract are sensitive to allergens. In the presence of an environmental allergen, parts of the respiratory tract constrict, restricting the flow of air into the lung. The reduction in air flow leads to decreases in the concentration of oxygen in the bloodstream. The allergen stimulates the immune system, which releases inflammatory mediators. The resulting inflammation contributes to the reduction of airflow.

C) Asthma is a condition of reactive airway constriction, in which parts of the respiratory tract are sensitive to allergens. In the presence of an environmental allergen, parts of the respiratory tract constrict, restricting the flow of air into the lung. The reduction in air flow leads to decreases in the concentration of oxygen in the bloodstream. The allergen stimulates the immune system, which releases inflammatory mediators. The resulting inflammation contributes to the reduction of airflow.

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Cognitive Level: Applying

Client Need & Sub: Physiological Integrity: Physiological Adaptation

Standards: Nursing Process: Planning | Learning Outcome: 1.1 Define the conceptual basis for and the language used in the study of pathophysiology. | QSEN Competencies: III.A.1.

Demonstrate knowledge of basic scientific methods and processes | AACN Essential Competencies: IX.3. Implement holistic, patient-centered care that reflects an understanding of human growth and development, pathophysiology, pharmacology, medical management and nursing management across the health-illness continuum, across lifespan, and in all healthcare settings

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 1: Recognize the conceptual basis for and the language used in the study of pathophysiology.

19) When the nurse teaches parents how transmitting the sickle cell trait to offspring influences the development of sickle cell disease, the nurse is applying principles of:

- A) genomics.
- B) genetics.
- C) epigenomics.
- D) gene.

Answer: A

Explanation: A) Genomics refers to the study of the function of groups of genes in terms of mediating physiologic function. Genomics explains how an inherited genetic trait, such as sickle cell trait, influences the likelihood that an individual will develop sickle cell disease.

B) Genetics is the study of how gene variations are passed through familial inheritance.

C) Epigenomics is the study of all genetic variations or modifications that have influenced a particular cell. The focus is on the broader picture in terms of studying a complete set of modifications to cellular DNA.

D) Genes, made up of DNA, are the genetic material of inheritance within a cell.

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Cognitive Level: Applying

Client Need & Sub: Physiological Integrity: Physiological Adaptation

Standards: Nursing Process: Implementation | Learning Outcome: 1.3 Outline the structure of this program, including the pathogenesis and etiology of disease; the clinical manifestations of disorders; how pathophysiology is linked to diagnosis and treatment; and the impact of genetics, nutrition, and lifespan on health and illness. | QSEN Competencies: I.B.10 Engage patients or designated surrogates in active partnerships that promote health, safety and well-being, and self-care management | AACN Essential Competencies: IX.7: Provide appropriate patient teaching that reflects developmental stage, age, culture, spirituality, patient preferences, and health literacy considerations to foster patient engagement in their care

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 3: Relate how the key factors and basic principles that inform pathophysiology impact health and illness.

20) The nurse is reviewing literature to determine the death rate due to cardiovascular disease in the United States. The nurse understands that the information he is seeking indicates:

- A) morbidity.
- B) mortality.
- C) disability-adjusted life-years.
- D) prevalence.

Answer: B

Explanation: A) Morbidity is defined as a departure from physiologic or psychologic well-being and encompasses disease, injury, and disability.

B) Mortality is defined as the number of deaths in a given population.

C) Disability-adjusted life-years (DALYs) are defined as the years of potential life lost due to premature mortality and the years of productive life lost due to disability for people living with the health condition or its sequelae.

D) Prevalence is the number of individuals of a defined population who already have a disease or condition.

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Cognitive Level: Applying

Client Need & Sub: Safe and Effective Care Environment: Management of Care

Standards: Nursing Process: Planning | Learning Outcome: 1.4 Describe the study of epidemiology, and outline the leading indicators of morbidity and mortality in the United States.

| QSEN Competencies: III.A.1. Demonstrate knowledge of basic scientific methods and processes | AACN Essential Competencies: III.2. Demonstrate an understanding of the basic elements of the research process and models for applying evidence to clinical practice

NLN Competencies: Knowledge and Science: Relationships between knowledge/science and quality and safe patient care

MNL Learning Outcome: LO 3: Relate how the key factors and basic principles that inform pathophysiology impact health and illness.