The Concept of Cellular Regulation

1) The nurse is teaching a class to prospective parents about the roles that ribonucleic acid (RNA) and deoxyribonucleic acid (DNA) play in the development of the human fetus. Which statements made by the parents indicate understanding of the teaching?
Select all that apply.
A) "RNA will determine what color eyes my baby has."
B) "DNA molecules form the genetic material."
C) "RNA is the messenger that carries DNA to the ribosomes."
D) "DNA is outside the nucleus of the cell."
E) "DNA plays a role in protein synthesis in our bodies."
Answer: B, C
Explanation: A) DNA molecules form the basic genetic material called genes and contain the information about inherited characteristics. RNA is the messenger that carries DNA to the ribosomes. RNA does not determine the color of the eyes, but is responsible for protein synthesis. Both RNA and DNA are contained within the nucleus of each cell.
B) DNA molecules form the basic genetic material called genes and contain the information about inherited characteristics. RNA is the messenger that carries DNA to the ribosomes. RNA does not determine the color of the eyes, but is responsible for protein synthesis. Both RNA and DNA are contained within the nucleus of each cell.
C) DNA molecules form the basic genetic material called genes and contain the information about inherited characteristics. RNA is the messenger that carries DNA to the ribosomes. RNA does not determine the color of the eyes, but is responsible for protein synthesis. Both RNA and DNA are contained within the nucleus of each cell.
D) DNA molecules form the basic genetic material called genes and contain the information about inherited characteristics. RNA is the messenger that carries DNA to the ribosomes. RNA does not determine the color of the eyes, but is responsible for protein synthesis. Both RNA and DNA are contained within the nucleus of each cell.
E) DNA molecules form the basic genetic material called genes and contain the information about inherited characteristics. RNA is the messenger that carries DNA to the ribosomes. RNA does not determine the color of the eyes, but is responsible for protein synthesis. Both RNA and DNA are contained within the nucleus of each cell.
Page Ref: 30
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation
Learning Outcome: 1. Summarize the physiology of the hematological system related to cellular regulation.

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: 2.1.1 Understand the physiology of cellular regulation across the life span

2) A nurse educator is explaining the term hyperplasia to a group of nursing students. Which statement, made by a nursing student, indicates an understanding of why hyperplasia occurs with myocardial infarction?
A) "The cells of the muscle experience hyperplasia with the prolonged need for oxygen."
B) "The cells of the heart are metaplastic in response to muscle damage."
C) "The cells of the heart muscle have lost fluid."
D) "The cells of the heart muscle are responding to metabolic needs."
Answer: A
Explanation: A) Hyperplasia is an increase in density or number of normal cells in response to stress–in this case, the increased demand for oxygen. Cells that lose fluid will shrink in size. The cells of a person's heart do not enlarge as a metabolic response. Metaplasia is a change in the normal pattern of differentiation of cells.
B) Hyperplasia is an increase in density or number of normal cells in response to stress–in this case, the increased demand for oxygen. Cells that lose fluid will shrink in size. The cells of a person's heart do not enlarge as a metabolic response. Metaplasia is a change in the normal pattern of differentiation of cells.
C) Hyperplasia is an increase in density or number of normal cells in response to stress–in this case, the increased demand for oxygen. Cells that lose fluid will shrink in size. The cells of a person's heart do not enlarge as a metabolic response. Metaplasia is a change in the normal pattern of differentiation of cells.
D) Hyperplasia is an increase in density or number of normal cells in response to stress–in this case, the increased demand for oxygen. Cells that lose fluid will shrink in size. The cells of a person's heart do not enlarge as a metabolic response. Metaplasia is a change in the normal pattern of differentiation of cells.
Page Ref: 32
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Evaluation
Learning Outcome: 2. Examine the relationship between cellular regulation and other concepts/systems.

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: 2.1.2 Compare alterations across the life span, concepts related to cellular regulation, and prevention.

3) A nurse is caring for a client who is diagnosed with skin cancer. Which nursing interventions will reduce the growth of cancer cells and support normal cell function?
Select all that apply.
A) Encouraging mobility and exercise
B) Encouraging increased rest and sleep
C) Assessing normal functioning of organ systems
D) Reducing oxygen supply to retard growth of cancer cells
E) Increasing calorie intake
Answer: B, C, E
Explanation: A) Cancer cells grow faster than normal cells, so they use more nutrients for growth, resulting in wasting, which can only be counteracted by increasing the caloric intake of the client. Increased rest and sleep give the client's body more energy to fight the cancer cells. Because cancer cells can grow in any area of the body, it is important for the nurse to assess normal functioning of all organ systems. Decreasing oxygen supply will retard cancer cell growth but it will also retard normal cell health. While clients should not be inactive, they should be taught to reduce activity to reduce weight loss and provide more energy to the healthy cells.
B) Cancer cells grow faster than normal cells, so they use more nutrients for growth, resulting in wasting, which can only be counteracted by increasing the caloric intake of the client. Increased rest and sleep give the client's body more energy to fight the cancer cells. Because cancer cells can grow in any area of the body, it is important for the nurse to assess normal functioning of all organ systems. Decreasing oxygen supply will retard cancer cell growth but it will also retard normal cell health. While clients should not be inactive, they should be taught to reduce activity to reduce weight loss and provide more energy to the healthy cells.
C) Cancer cells grow faster than normal cells, so they use more nutrients for growth, resulting in wasting, which can only be counteracted by increasing the caloric intake of the client. Increased rest and sleep give the client's body more energy to fight the cancer cells. Because cancer cells can grow in any area of the body, it is important for the nurse to assess normal functioning of all organ systems. Decreasing oxygen supply will retard cancer cell growth but it will also retard normal cell health. While clients should not be inactive, they should be taught to reduce activity to reduce weight loss and provide more energy to the healthy cells.
D) Cancer cells grow faster than normal cells, so they use more nutrients for growth, resulting in wasting, which can only be counteracted by increasing the caloric intake of the client. Increased rest and sleep give the client's body more energy to fight the cancer cells. Because cancer cells can grow in any area of the body, it is important for the nurse to assess normal functioning of all organ systems. Decreasing oxygen supply will retard cancer cell growth but it will also retard normal cell health. While clients should not be inactive, they should be taught to reduce activity to reduce weight loss and provide more energy to the healthy cells.

E) Cancer cells grow faster than normal cells, so they use more nutrients for growth, resulting in wasting, which can only be counteracted by increasing the caloric intake of the client. Increased rest and sleep give the client's body more energy to fight the cancer cells. Because cancer cells can grow in any area of the body, it is important for the nurse to assess normal functioning of all organ systems. Decreasing oxygen supply will retard cancer cell growth but it will also retard normal cell health. While clients should not be inactive, they should be taught to reduce activity to reduce weight loss and provide more energy to the healthy cells.
Page Ref: 39
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 3. Identify commonly occurring alterations in cellular regulation and their related therapies.

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: 2.1.2 Compare alterations across the life span, concepts related to cellular regulation, and prevention.

4) The nurse is preparing to perform a health assessment on an adult client who has a family history of cancer. Which questions should the nurse ask the client to assess for the early warning signs of cancer?
Select all that apply.
A) "Do you have a cough that is associated with seasonal allergies?"
B) "Have you noticed a change in your appetite?"
C) "Have you noticed any cuts that have not healed?"
D) "Have you had any changes in bowel or bladder habits?"
E) "Have you experienced any problems swallowing?"
Answer: C, D, E
Explanation: A) Nurses should assess all clients, especially those with a history of cancer, for early warning signs of cancer. The early warning signs include change in bowel or bladder habits, a sore that does not heal, unusual bleeding or discharge, thickening or lump in the breast or elsewhere, indigestion or difficulty swallowing, obvious change in wart or mole, or a nagging cough or hoarseness. Changes in appetite or cough that is associated with seasonal allergies are not associated with the early warning signs of cancer.
B) Nurses should assess all clients, especially those with a history of cancer, for early warning signs of cancer. The early warning signs include change in bowel or bladder habits, a sore that does not heal, unusual bleeding or discharge, thickening or lump in the breast or elsewhere, indigestion or difficulty swallowing, obvious change in wart or mole, or a nagging cough or hoarseness. Changes in appetite or cough that is associated with seasonal allergies are not associated with the early warning signs of cancer.
C) Nurses should assess all clients, especially those with a history of cancer, for early warning signs of cancer. The early warning signs include change in bowel or bladder habits, a sore that does not heal, unusual bleeding or discharge, thickening or lump in the breast or elsewhere, indigestion or difficulty swallowing, obvious change in wart or mole, or a nagging cough or hoarseness. Changes in appetite or cough that is associated with seasonal allergies are not associated with the early warning signs of cancer.
D) Nurses should assess all clients, especially those with a history of cancer, for early warning signs of cancer. The early warning signs include change in bowel or bladder habits, a sore that does not heal, unusual bleeding or discharge, thickening or lump in the breast or elsewhere, indigestion or difficulty swallowing, obvious change in wart or mole, or a nagging cough or hoarseness. Changes in appetite or cough that is associated with seasonal allergies are not associated with the early warning signs of cancer.
E) Nurses should assess all clients, especially those with a history of cancer, for early warning signs of cancer. The early warning signs include change in bowel or bladder habits, a sore that does not heal, unusual bleeding or discharge, thickening or lump in the breast or elsewhere, indigestion or difficulty swallowing, obvious change in wart or mole, or a nagging cough or hoarseness. Changes in appetite or cough that is associated with seasonal allergies are not associated with the early warning signs of cancer.
Page Ref: 36
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Assessment
Learning Outcome: 4. Differentiate common assessment procedures used to examine cellular regulation across the life span.

QSEN Competencies: 1.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.1.3 Identify procedures used to determine cellular regulation status across the life span.

5) The nurse is caring for a client who is diagnosed with cancer. Which diagnostic tests may be helpful to assist with treatment options?
Select all that apply.
A) Tumor markers
B) Urinalysis
C) Physical assessment
D) MRI
E) Stool analysis
Answer: A, B, D
Explanation: A) Many diagnostic tests are helpful in determining treatment for cancer. An MRI, urinalysis, and tumor markers are all diagnostic tests that may be used to determine treatment for cancer. A stool analysis is not a diagnostic test listed to determine treatment for cancer. A physical assessment may be useful to determine how a client is responding to treatment, but it is not considered a diagnostic test.
B) Many diagnostic tests are helpful in determining treatment for cancer. An MRI, urinalysis, and tumor markers are all diagnostic tests that may be used to determine treatment for cancer. A stool analysis is not a diagnostic test listed to determine treatment for cancer. A physical assessment may be useful to determine how a client is responding to treatment, but it is not considered a diagnostic test.
C) Many diagnostic tests are helpful in determining treatment for cancer. An MRI, urinalysis, and tumor markers are all diagnostic tests that may be used to determine treatment for cancer. A stool analysis is not a diagnostic test listed to determine treatment for cancer. A physical assessment may be useful to determine how a client is responding to treatment, but it is not considered a diagnostic test.
D) Many diagnostic tests are helpful in determining treatment for cancer. An MRI, urinalysis, and tumor markers are all diagnostic tests that may be used to determine treatment for cancer. A stool analysis is not a diagnostic test listed to determine treatment for cancer. A physical

assessment may be useful to determine how a client is responding to treatment, but it is not considered a diagnostic test.
E) Many diagnostic tests are helpful in determining treatment for cancer. An MRI, urinalysis, and tumor markers are all diagnostic tests that may be used to determine treatment for cancer. A stool analysis is not a diagnostic test listed to determine treatment for cancer. A physical assessment may be useful to determine how a client is responding to treatment, but it is not considered a diagnostic test.
Page Ref: 37
Cognitive Level: Understanding
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Planning
Learning Outcome: 5. Describe diagnostic and laboratory tests to determine the individual's cellular regulation status.

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: 2.1.3 Identify procedures used to determine cellular regulation status across the life span.

6) The nurse instructs a group of community members about ways to reduce the development of cancer. Which participant statements indicate that teaching has been effective?
Select all that apply.
A) "I should eat at least 2 servings of fruits or vegetables each day."
B) "Sunscreen should be applied before spending time outdoors."
C) "I need to cut down on my smoking."
D) "I need to get my home tested for radon."
E) "I need to keep my children away from smokers."
Answer: B, D, E
Explanation: A) Efforts to reduce the development of cancer include eating five servings of fruits and vegetables each day. Sunscreen should be used by those who spend time outside regularly for work or recreation. All smoking should be discouraged. The home should be tested for radon, which is a known cancer-causing substance. Children should be protected from exposure to tobacco smoke.
B) Efforts to reduce the development of cancer include eating five servings of fruits and vegetables each day. Sunscreen should be used by those who spend time outside regularly for work or recreation. All smoking should be discouraged. The home should be tested for radon, which is a known cancer-causing substance. Children should be protected from exposure to tobacco smoke.
C) Efforts to reduce the development of cancer include eating five servings of fruits and vegetables each day. Sunscreen should be used by those who spend time outside regularly for work or recreation. All smoking should be discouraged. The home should be tested for radon, which is a known cancer-causing substance. Children should be protected from exposure to tobacco smoke.
D) Efforts to reduce the development of cancer include eating five servings of fruits and vegetables each day. Sunscreen should be used by those who spend time outside regularly for work or recreation. All smoking should be discouraged. The home should be tested for radon, which is a known cancer-causing substance. Children should be protected from exposure to tobacco smoke.
E) Efforts to reduce the development of cancer include eating five servings of fruits and vegetables each day. Sunscreen should be used by those who spend time outside regularly for work or recreation. All smoking should be discouraged. The home should be tested for radon, which is a known cancer-causing substance. Children should be protected from exposure to tobacco smoke.
Page Ref: 36
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation/Teaching and Learning
Learning Outcome: 6. Explain management of cellular regulation and prevention of alterations in cellular regulation.

QSEN Competencies: 1.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care

- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.1.4 Explain independent and collaborative interventions for clients with alterations.

7) The nurse is caring for a client with leukemia. Which treatment should the nurse expect to be prescribed for this client?
A) Diuretic therapy
B) Chemotherapy
C) Electrolyte replacement therapy
D) IV fluid therapy
Answer: B
Explanation: A) The client with an alteration in cell growth has cancer and will most likely be treated with chemotherapy and antibiotics. Diuretic therapy, IV fluids, and electrolyte replacement are not typically used to treat the cancer, although they may be used if complications develop.
B) The client with an alteration in cell growth has cancer and will most likely be treated with chemotherapy and antibiotics. Diuretic therapy, IV fluids, and electrolyte replacement are not typically used to treat the cancer, although they may be used if complications develop.
C) The client with an alteration in cell growth has cancer and will most likely be treated with chemotherapy and antibiotics. Diuretic therapy, IV fluids, and electrolyte replacement are not typically used to treat the cancer, although they may be used if complications develop.
D) The client with an alteration in cell growth has cancer and will most likely be treated with chemotherapy and antibiotics. Diuretic therapy, IV fluids, and electrolyte replacement are not typically used to treat the cancer, although they may be used if complications develop.
Page Ref: 33
Cognitive Level: Understanding
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
Nursing Process: Planning
Learning Outcome: 6. Explain management of cellular regulation and prevention of alterations in cellular function.

QSEN Competencies: 1.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.1.4 Explain independent and collaborative interventions for clients with alterations.

8) The nurse is caring for an adolescent Asian client with a strong family history of breast cancer. What should the nurse instruct the client regarding cancer prevention?
Select all that apply.
A) Encourage the client to learn more about the disease.
B) Talk to family members who have the disease.
C) Perform monthly breast self-examination.
D) Teach the side effects of cancer treatment.
E) Discuss cancer fears with the healthcare provider.
Answer: A, C
Explanation: A) When there is a familial history of cancer, the family should be encouraged to learn more about the cancer. Talking to family members who have the disease will not help with early detection or prevention. In families with a disease, the nurse should inform clients about breast self-examination. Teaching the side effects of cancer treatment would be appropriate if the client was diagnosed with breast cancer. The client can discuss cancer fears with the nurse; however, this action will not help prevent the development of the disease.
B) When there is a familial history of cancer, the family should be encouraged to learn more about the cancer. Talking to family members who have the disease will not help with early detection or prevention. In families with a disease, the nurse should inform clients about breast self-examination. Teaching the side effects of cancer treatment would be appropriate if the client was diagnosed with breast cancer. The client can discuss cancer fears with the nurse; however, this action will not help prevent the development of the disease.
C) When there is a familial history of cancer, the family should be encouraged to learn more about the cancer. Talking to family members who have the disease will not help with early detection or prevention. In families with a disease, the nurse should inform clients about breast self-examination. Teaching the side effects of cancer treatment would be appropriate if the client was diagnosed with breast cancer. The client can discuss cancer fears with the nurse; however, this action will not help prevent the development of the disease.
D) When there is a familial history of cancer, the family should be encouraged to learn more about the cancer. Talking to family members who have the disease will not help with early detection or prevention. In families with a disease, the nurse should inform clients about breast self-examination. Teaching the side effects of cancer treatment would be appropriate if the client was diagnosed with breast cancer. The client can discuss cancer fears with the nurse; however, this action will not help prevent the development of the disease.
E) When there is a familial history of cancer, the family should be encouraged to learn more about the cancer. Talking to family members who have the disease will not help with early detection or prevention. In families with a disease, the nurse should inform clients about breast self-examination. Teaching the side effects of cancer treatment would be appropriate if the client was diagnosed with breast cancer. The client can discuss cancer fears with the nurse; however, this action will not help prevent the development of the disease.
Page Ref: 36
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 7. Demonstrate the nursing process in providing culturally competent and caring interventions across the life span for individuals with common alterations in cellular regulation.

QSEN Competencies: 1.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.1.4 Explain independent and collaborative interventions for clients with alterations.

9) A client with anemia is prescribed synthetic erythropoietin. When teaching the client about the therapeutic effect of this treatment, which is appropriate for the nurse to include?
A) Increase in platelets
B) Increase in red blood cells
C) Decrease in white blood cells
D) Decrease in lymph fluid
Answer: B
Explanation: A) Erythropoietin is a hormone produced in the body to stimulate production of red blood cells; synthetic forms are available for administration to cancer clients or others with significantly low red blood cell counts. Erythropoietin will not stimulate or decrease the production of platelets, white blood cells, or lymph fluid.
B) Erythropoietin is a hormone produced in the body to stimulate production of red blood cells; synthetic forms are available for administration to cancer clients or others with significantly low red blood cell counts. Erythropoietin will not stimulate or decrease the production of platelets, white blood cells, or lymph fluid.
C) Erythropoietin is a hormone produced in the body to stimulate production of red blood cells; synthetic forms are available for administration to cancer clients or others with significantly low red blood cell counts. Erythropoietin will not stimulate or decrease the production of platelets, white blood cells, or lymph fluid.
D) Erythropoietin is a hormone produced in the body to stimulate production of red blood cells; synthetic forms are available for administration to cancer clients or others with significantly low red blood cell counts. Erythropoietin will not stimulate or decrease the production of platelets, white blood cells, or lymph fluid.
Page Ref: 33
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation

Nursing Process: Evaluation
Learning Outcome: 8. Compare and contrast common independent and collaborative interventions for clients with alterations in cellular regulation.

QSEN Competencies: 1.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.1.4 Explain independent and collaborative interventions for clients with alterations.

10) The nurse educator is teaching a group of student nurses regarding human growth and development. Which statement by the student nurse indicates the teaching has been effective?
A) "The zygote undergoes differentiation to form a multicellular embryo, which becomes a fetus and then an infant."
B) "Meiosis occurs only in the sex cells of the testes and ovaries."
C) "Mitosis is also known as the reduction division of the cell."
D) "When the two sex cells combine during fertilization, the total number of chromosomes (50) is present in the offspring's cells."
Answer: B
Explanation: A) The zygote undergoes mitosis to form a multicellular embryo, which becomes a fetus and then an infant. Meiosis, the reduction division of the cell, occurs only in the sex cells of the testes and ovaries. When the two sex cells combine during fertilization, the total number of chromosomes present in the offspring's cells is 46, not 50.
B) The zygote undergoes mitosis to form a multicellular embryo, which becomes a fetus and then an infant. Meiosis, the reduction division of the cell, occurs only in the sex cells of the testes and ovaries. When the two sex cells combine during fertilization, the total number of chromosomes present in the offspring's cells is 46, not 50.
C) The zygote undergoes mitosis to form a multicellular embryo, which becomes a fetus and then an infant. Meiosis, the reduction division of the cell, occurs only in the sex cells of the testes and ovaries. When the two sex cells combine during fertilization, the total number of chromosomes present in the offspring's cells is 46, not 50.
D) The zygote undergoes mitosis to form a multicellular embryo, which becomes a fetus and then an infant. Meiosis, the reduction division of the cell, occurs only in the sex cells of the testes and ovaries. When the two sex cells combine during fertilization, the total number of chromosomes present in the offspring's cells is 46, not 50.
Page Ref: 32
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation
Learning Outcome: 1. Summarize the physiology of the hematological system related to cellular regulation.

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: 2.1.1 Understand the physiology of cellular regulation across the life span.

11) A nurse educator is teaching student nurses about methods of cellular transport. When instructing on passive transportation, which information will the nurse include in the teaching plan?
A) Endocytosis
B) Facilitated diffusion
C) Exocytosis
D) Phagocytosis
Answer: B
Explanation: A) Passive cellular transportation does not require energy and includes facilitated diffusion, diffusion, osmosis, and filtration. Active cellular transportation requires energy and includes active transport pumps, endocytosis, phagocytosis, pinocytosis, and exocytosis.
B) Passive cellular transportation does not require energy and includes facilitated diffusion, diffusion, osmosis, and filtration. Active cellular transportation requires energy and includes active transport pumps, endocytosis, phagocytosis, pinocytosis, and exocytosis.
C) Passive cellular transportation does not require energy and includes facilitated diffusion, diffusion, osmosis, and filtration. Active cellular transportation requires energy and includes active transport pumps, endocytosis, phagocytosis, pinocytosis, and exocytosis.
D) Passive cellular transportation does not require energy and includes facilitated diffusion, diffusion, osmosis, and filtration. Active cellular transportation requires energy and includes active transport pumps, endocytosis, phagocytosis, pinocytosis, and exocytosis.
Page Ref: 30
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation
Learning Outcome: 6. Explain management of cellular regulation and prevention of alterations in cellular regulation.

QSEN Competencies: 1.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.1.2 Compare alterations across the life span, concepts related to cellular regulation, and prevention.

12) A nurse is caring for a client with cancer. The nurse teaches the client about which potentially undesirable cellular alterations that can occur during the cell cycle?
Select all that apply.
A) Hyperplasia
B) Differentiation
C) Anaplasia
D) Dysphagia
E) Adaptation
Answer: A, C
Explanation: A) Potentially undesirable cellular alterations that can occur during the cell cycle include hyperplasia and anaplasia. Hyperplasia is an increase in the number or density of normal cells, while anaplasia is the regression of a cell to an immature or undifferentiated cell type. Differentiation is a normal process occurring over many cell cycles that allows cells to specialize in certain tasks. Dysphagia and adaptation are not a part of the cell cycle.
B) Potentially undesirable cellular alterations that can occur during the cell cycle include hyperplasia and anaplasia. Hyperplasia is an increase in the number or density of normal cells, while anaplasia is the regression of a cell to an immature or undifferentiated cell type. Differentiation is a normal process occurring over many cell cycles that allows cells to specialize in certain tasks. Dysphagia and adaptation are not a part of the cell cycle.
C) Potentially undesirable cellular alterations that can occur during the cell cycle include hyperplasia and anaplasia. Hyperplasia is an increase in the number or density of normal cells, while anaplasia is the regression of a cell to an immature or undifferentiated cell type. Differentiation is a normal process occurring over many cell cycles that allows cells to specialize in certain tasks. Dysphagia and adaptation are not a part of the cell cycle.
D) Potentially undesirable cellular alterations that can occur during the cell cycle include hyperplasia and anaplasia. Hyperplasia is an increase in the number or density of normal cells, while anaplasia is the regression of a cell to an immature or undifferentiated cell type. Differentiation is a normal process occurring over many cell cycles that allows cells to specialize in certain tasks. Dysphagia and adaptation are not a part of the cell cycle.
E) Potentially undesirable cellular alterations that can occur during the cell cycle include hyperplasia and anaplasia. Hyperplasia is an increase in the number or density of normal cells, while anaplasia is the regression of a cell to an immature or undifferentiated cell type. Differentiation is a normal process occurring over many cell cycles that allows cells to specialize in certain tasks. Dysphagia and adaptation are not a part of the cell cycle.
Page Ref: 32
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Implementation
Learning Outcome: 3. Identify commonly occurring alterations in cellular regulation and their related therapies.

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: 2.1.2 Compare alterations across the life span, concepts related to cellular regulation, and prevention.

13) The nurse is caring for a client with sickle cell anemia. The nurse teaches the client that the inherited alteration of which type of hemoglobin causes the abnormal shape to the red blood cell?
A) Hgb A
B) Hgb S
C) Hgb B
D) Hgb E
Answer: B
Explanation: A) The inherited alteration of Hgb S causes the abnormal sickle-shaped red blood cell in sickle cell anemia.
B) The inherited alteration of Hgb S causes the abnormal sickle-shaped red blood cell in sickle cell anemia.
C) The inherited alteration of Hgb S causes the abnormal sickle-shaped red blood cell in sickle cell anemia.
D) The inherited alteration of Hgb S causes the abnormal sickle-shaped red blood cell in sickle cell anemia.
Page Ref: 34
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Implementation
Learning Outcome: 1. Summarize the physiology of the hematological system related to cellular regulation.

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: 2.1.1 Understand the physiology of cellular regulation across the life span.

Exemplar 2.1 Cancer

1) During a treatment meeting on an oncology unit, the nurse learns that a client is scheduled for chemotherapy before and after surgery. What are the purposes for this client to receive chemotherapy at these specific times?
Select all that apply.
A) Eradicate all cancer cells.
B) Shrink the tumor.
C) Kill remaining cancer cells.
D) Allow the immune system to kill cancer cells.
E) Improve wound healing.
Answer: B, C
Explanation: A) It is impossible to eradicate all cancer cells with chemotherapy. Chemotherapy before surgery is used to shrink the tumor. Chemotherapy is used after surgery to kill remaining cancer cells. The use of chemotherapy before and after surgery will not allow the immune system to kill the cancer cells. Chemotherapy is not used to improve wound healing.
B) It is impossible to eradicate all cancer cells with chemotherapy. Chemotherapy before surgery is used to shrink the tumor. Chemotherapy is used after surgery to kill remaining cancer cells. The use of chemotherapy before and after surgery will not allow the immune system to kill the cancer cells. Chemotherapy is not used to improve wound healing.
C) It is impossible to eradicate all cancer cells with chemotherapy. Chemotherapy before surgery is used to shrink the tumor. Chemotherapy is used after surgery to kill remaining cancer cells. The use of chemotherapy before and after surgery will not allow the immune system to kill the cancer cells. Chemotherapy is not used to improve wound healing.
D) It is impossible to eradicate all cancer cells with chemotherapy. Chemotherapy before surgery is used to shrink the tumor. Chemotherapy is used after surgery to kill remaining cancer cells. The use of chemotherapy before and after surgery will not allow the immune system to kill the cancer cells. Chemotherapy is not used to improve wound healing.
E) It is impossible to eradicate all cancer cells with chemotherapy. Chemotherapy before surgery is used to shrink the tumor. Chemotherapy is used after surgery to kill remaining cancer cells. The use of chemotherapy before and after surgery will not allow the immune system to kill the cancer cells. Chemotherapy is not used to improve wound healing.
Page Ref: 56
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
Nursing Process: Planning
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with cancer.

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: 2.2.2 Identify collaborative therapies used by interdisciplinary teams.

2) The nurse has completed a seminar teaching a group in the community about ways to reduce cancer risks. The nurse returns a month later to evaluate the effectiveness of the seminar. Which statements made by members of the group indicate retention and application of the material presented by the nurse to reduce the risk of developing cancer?
Select all that apply.
A) "I stopped using tanning booths."
B) "I began drinking two glasses of red wine a day with dinner."
C) "I have reduced my intake of fiber."
D) "I have increased the amount of lean red meat in my diet."
E) "I now limit my alcohol intake to three drinks per week."
Answer: A, E
Explanation: A) Excessive use of alcohol, especially in women, has been linked to increased risk of breast cancer, so reduction in intake would demonstrate understanding. Use of tanning booths increases the risk of skin cancer, so discontinuing use would indicate understanding. Increasing the amount of lean red meat and drinking two glasses of red wine daily are not actions that reduce cancer risk. Increased fiber intake reduces the risk of colon cancer.
B) Excessive use of alcohol, especially in women, has been linked to increased risk of breast cancer, so reduction in intake would demonstrate understanding. Use of tanning booths increases the risk of skin cancer, so discontinuing use would indicate understanding. Increasing the amount of lean red meat and drinking two glasses of red wine daily are not actions that reduce cancer risk. Increased fiber intake reduces the risk of colon cancer.
C) Excessive use of alcohol, especially in women, has been linked to increased risk of breast cancer, so reduction in intake would demonstrate understanding. Use of tanning booths increases the risk of skin cancer, so discontinuing use would indicate understanding. Increasing the amount of lean red meat and drinking two glasses of red wine daily are not actions that reduce cancer risk. Increased fiber intake reduces the risk of colon cancer.
D) Excessive use of alcohol, especially in women, has been linked to increased risk of breast cancer, so reduction in intake would demonstrate understanding. Use of tanning booths increases the risk of skin cancer, so discontinuing use would indicate understanding. Increasing the amount of lean red meat and drinking two glasses of red wine daily are not actions that reduce cancer risk. Increased fiber intake reduces the risk of colon cancer.
E) Excessive use of alcohol, especially in women, has been linked to increased risk of breast cancer, so reduction in intake would demonstrate understanding. Use of tanning booths increases the risk of skin cancer, so discontinuing use would indicate understanding. Increasing the amount of lean red meat and drinking two glasses of red wine daily are not actions that reduce cancer risk. Increased fiber intake reduces the risk of colon cancer.
Page Ref: 45-47
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation/Teaching and Learning
Learning Outcome: 2. Identify risk factors and prevention methods associated with cancer.

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: 2.2.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

3) The nurse is preparing a seminar that discusses the risk and incidence of cancer and culture. What information is considered culturally correct when teaching about the risk of developing cancer?
Select all that apply.
A) African-American are more likely to develop cancer than any other ethnic group.
B) Hispanics have an increased risk of cervical, stomach, and liver cancer.
C) The incidence and mortality rate of all type of cancers are lowest in the Caucasian population.
D) African-Americans are less likely to develop cancer than any other ethnic or racial group in the United States.
E) The Asian/Pacific islander population has the lowest mortality rate of any racial or ethnic group.
Answer: A, E
Explanation: A) African-American clients are more likely to develop cancer than any other ethnic group. There is no specific information about the Hispanic population. The incidence and mortality rate for cancer are lower in Native American men and women than in any other ethnic or racial group. African-Americans are more likely to develop cancer than any other ethnic or racial group in the United States. Mortality rates for cancer are the lowest amount the Asian/Pacific Islander population.
B) African-American clients are more likely to develop cancer than any other ethnic group. There is no specific information about the Hispanic population. The incidence and mortality rate for cancer are lower in Native American men and women than in any other ethnic or racial group. African-Americans are more likely to develop cancer than any other ethnic or racial group in the United States. Mortality rates for cancer are the lowest amount the Asian/Pacific Islander population.
C) African-American clients are more likely to develop cancer than any other ethnic group. There is no specific information about the Hispanic population. The incidence and mortality rate for cancer are lower in Native American men and women than in any other ethnic or racial group. African-Americans are more likely to develop cancer than any other ethnic or racial group in the United States. Mortality rates for cancer are the lowest amount the Asian/Pacific Islander population.
D) African-American clients are more likely to develop cancer than any other ethnic group. There is no specific information about the Hispanic population. The incidence and mortality rate for cancer are lower in Native American men and women than in any other ethnic or racial group. African-Americans are more likely to develop cancer than any other ethnic or racial group in the United States. Mortality rates for cancer are the lowest amount the Asian/Pacific Islander population.

E) African-American clients are more likely to develop cancer than any other ethnic group. There is no specific information about the Hispanic population. The incidence and mortality rate for cancer are lower in Native American men and women than in any other ethnic or racial group. African-Americans are more likely to develop cancer than any other ethnic or racial group in the United States. Mortality rates for cancer are the lowest amount the Asian/Pacific Islander population.
Page Ref: 42
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 3. Illustrate the nursing process in providing culturally competent care across the life span for individuals with cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.2.3 Apply the nursing process to provide culturally competent care across the life span.

4) A client being treated with chemotherapy for cancer complains of fatigue, pallor, progressive weakness, exertional dyspnea, headache, and tachycardia. Which diagnosis should the nurse use as the priority when planning this client's care?
A) Powerlessness
B) Imbalanced Nutrition, Less than Body Requirements
C) Activity Intolerance
D) Ineffective Coping
Answer: C
Explanation: A) The symptoms (fatigue, pallor, progressive weakness, exertional dyspnea, headache, and tachycardia) are caused by aplastic anemia from bone marrow suppression, which is a side effect of the chemotherapy drugs. Decreased red blood cells cause less oxygen to be delivered to body tissues, resulting in tissue hypoxia. Tachycardia is a compensation mechanism to speed up the delivery of oxygen that is available in the fewer number of cells that are present. Tissue hypoxia will result in muscle fatigue, and the symptoms that are related to aplastic anemia will decrease endurance and ability to perform activities. Thus, this NANDA diagnosis should be the first priority. Nutrition or iron deficiency is not the cause of the symptoms, which are related to tissue hypoxia. Powerlessness is the lack of control over current situations, but this is not the client's current problem. Her needs/symptoms are physical, and according to Maslow's theory must be met prior to emotional needs. Although the client might be having coping issues, the physical symptoms are her greatest complaints; therefore, coping is not the top priority in planning her care. Again, physiological needs must be met prior to self-actualization needs.
B) The symptoms (fatigue, pallor, progressive weakness, exertional dyspnea, headache, and tachycardia) are caused by aplastic anemia from bone marrow suppression, which is a side effect of the chemotherapy drugs. Decreased red blood cells cause less oxygen to be delivered to body tissues, resulting in tissue hypoxia. Tachycardia is a compensation mechanism to speed up the delivery of oxygen that is available in the fewer number of cells that are present. Tissue hypoxia will result in muscle fatigue, and the symptoms that are related to aplastic anemia will decrease endurance and ability to perform activities. Thus, this NANDA diagnosis should be the first priority. Nutrition or iron deficiency is not the cause of the symptoms, which are related to tissue hypoxia. Powerlessness is the lack of control over current situations, but this is not the client's current problem. Her needs/symptoms are physical, and according to Maslow's theory must be met prior to emotional needs. Although the client might be having coping issues, the physical symptoms are her greatest complaints; therefore, coping is not the top priority in planning her care. Again, physiological needs must be met prior to self-actualization needs.
C) The symptoms (fatigue, pallor, progressive weakness, exertional dyspnea, headache, and tachycardia) are caused by aplastic anemia from bone marrow suppression, which is a side effect of the chemotherapy drugs. Decreased red blood cells cause less oxygen to be delivered to body tissues, resulting in tissue hypoxia. Tachycardia is a compensation mechanism to speed up the delivery of oxygen that is available in the fewer number of cells that are present. Tissue hypoxia will result in muscle fatigue, and the symptoms that are related to aplastic anemia will decrease endurance and ability to perform activities. Thus, this NANDA diagnosis should be the first priority. Nutrition or iron deficiency is not the cause of the symptoms, which are related to tissue hypoxia. Powerlessness is the lack of control over current situations, but this is not the client's current problem. Her needs/symptoms are physical, and according to Maslow's theory must be met prior to emotional needs. Although the client might be having coping issues, the physical symptoms are her greatest complaints; therefore, coping is not the top priority in planning her care. Again, physiological needs must be met prior to self-actualization needs.

D) The symptoms (fatigue, pallor, progressive weakness, exertional dyspnea, headache, and tachycardia) are caused by aplastic anemia from bone marrow suppression, which is a side effect of the chemotherapy drugs. Decreased red blood cells cause less oxygen to be delivered to body tissues, resulting in tissue hypoxia. Tachycardia is a compensation mechanism to speed up the delivery of oxygen that is available in the fewer number of cells that are present. Tissue hypoxia will result in muscle fatigue, and the symptoms that are related to aplastic anemia will decrease endurance and ability to perform activities. Thus, this NANDA diagnosis should be the first priority. Nutrition or iron deficiency is not the cause of the symptoms, which are related to tissue hypoxia. Powerlessness is the lack of control over current situations, but this is not the client's current problem. Her needs/symptoms are physical, and according to Maslow's theory must be met prior to emotional needs. Although the client might be having coping issues, the physical symptoms are her greatest complaints; therefore, coping is not the top priority in planning her care. Again, physiological needs must be met prior to self-actualization needs.
Page Ref: 58
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
Nursing Process: Assessment
Learning Outcome: 4. Formulate priority nursing diagnoses appropriate for an individual with cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.2.3 Apply the nursing process to provide culturally competent care across the life span.

5) The nurse accompanies the healthcare provider into the client's room and listens as the diagnosis of cancer is shared with the client and family. Once the healthcare provider leaves the room, the nurse notes that the client and family are teary-eyed regarding the diagnosis. What is the nurse's most appropriate intervention at this time?
A) Arrange for the client to complete a medical power of attorney form.
B) Provide emotional support in coping with the diagnosis.
C) Provide teaching about the treatment options for this form of cancer.
D) Help the client and family remain realistic about prognosis.
Answer: B
Explanation: A) When a client and family receive a new diagnosis of cancer, it tends to evoke many emotions, including fear, grief, and anger. This is not an opportune time to teach or set goals. The client and family require emotional support at this time, and other actions can be initiated when they have time to learn to accept and cope with the diagnosis.
B) When a client and family receive a new diagnosis of cancer, it tends to evoke many emotions, including fear, grief, and anger. This is not an opportune time to teach or set goals. The client and family require emotional support at this time, and other actions can be initiated when they have time to learn to accept and cope with the diagnosis.
C) When a client and family receive a new diagnosis of cancer, it tends to evoke many emotions, including fear, grief, and anger. This is not an opportune time to teach or set goals. The client and family require emotional support at this time, and other actions can be initiated when they have time to learn to accept and cope with the diagnosis.
D) When a client and family receive a new diagnosis of cancer, it tends to evoke many emotions, including fear, grief, and anger. This is not an opportune time to teach or set goals. The client and family require emotional support at this time, and other actions can be initiated when they have time to learn to accept and cope with the diagnosis.
Page Ref: 61
Cognitive Level: Applying
Client Need: Psychosocial Integrity
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 6. Plan evidence-based care for an individual with cancer and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.2.2 Identify collaborative therapies used by interdisciplinary teams.

6) A preschool-age child is seen in a pediatric oncology clinic. The nurse assigned to care for the client anticipates a diagnosis of cancer. Which reactions are considered common for the preschool-age child to experience with illnesses and hospitalizations?
Select all that apply.
A) Unawareness of the illness and its severity
B) Understanding of what cancer is and how it is treated
C) Thoughts that they caused their illness and are being punished
D) Confusion as to why a parent is unable to make the illness go away
E) Acceptance, especially if able to discuss the disease with children their own age
Answer: C, D
Explanation: A) Preschool-age children are egocentric and have magical thinking, and thus might believe they caused their own illness. This age group may also be confused as to why their parents cannot make the illness go away. Immediate acceptance will not occur with children of any age. Adolescents find contact with others who have gone through their experience helpful. School-age children can understand a diagnosis of cancer. Infants and toddlers are unaware of the severity of the disease.
B) Preschool-age children are egocentric and have magical thinking, and thus might believe they caused their own illness. This age group may also be confused as to why their parents cannot make the illness go away. Immediate acceptance will not occur with children of any age. Adolescents find contact with others who have gone through their experience helpful. School-age children can understand a diagnosis of cancer. Infants and toddlers are unaware of the severity of the disease.
C) Preschool-age children are egocentric and have magical thinking, and thus might believe they caused their own illness. This age group may also be confused as to why their parents cannot make the illness go away. Immediate acceptance will not occur with children of any age. Adolescents find contact with others who have gone through their experience helpful. School-age children can understand a diagnosis of cancer. Infants and toddlers are unaware of the severity of the disease.
D) Preschool-age children are egocentric and have magical thinking, and thus might believe they caused their own illness. This age group may also be confused as to why their parents cannot make the illness go away. Immediate acceptance will not occur with children of any age. Adolescents find contact with others who have gone through their experience helpful. School-age children can understand a diagnosis of cancer. Infants and toddlers are unaware of the severity of the disease.
E) Preschool-age children are egocentric and have magical thinking, and thus might believe they caused their own illness. This age group may also be confused as to why their parents cannot make the illness go away. Immediate acceptance will not occur with children of any age. Adolescents find contact with others who have gone through their experience helpful. School-age children can understand a diagnosis of cancer. Infants and toddlers are unaware of the severity of the disease.
Page Ref: 50
Cognitive Level: Analyzing
Client Need: Psychosocial Integrity
Client Need Sub:
Nursing Process: Assessment
Learning Outcome: 6. Plan evidence-based care for an individual with cancer and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.2.2 Identify collaborative therapies used by interdisciplinary teams.

7) A client being treated for cancer has a tumor designation of Stage IV, T4, N3, M1. What does this staging indicate to the nurse?
A) The tumor will respond to chemotherapy.
B) The tumor is small in size.
C) The tumor has metastasized with lymph node involvement.
D) There is one single tumor to treat.
Answer: C
Explanation: A) T refers to the depth of invasion. N refers to the absence or presence and extent of lymph node involvement. M refers to presence of metastasis. The numbers range from 0 to 4, with higher numbers indicating increased size and metastasis. Stage IV indicates metastasis. The staging system is not used to determine tumor response to chemotherapy.
B) T refers to the depth of invasion. N refers to the absence or presence and extent of lymph node involvement. M refers to presence of metastasis. The numbers range from 0 to 4, with higher numbers indicating increased size and metastasis. Stage IV indicates metastasis. The staging system is not used to determine tumor response to chemotherapy.
C) T refers to the depth of invasion. N refers to the absence or presence and extent of lymph node involvement. M refers to presence of metastasis. The numbers range from 0 to 4, with higher numbers indicating increased size and metastasis. Stage IV indicates metastasis. The staging system is not used to determine tumor response to chemotherapy.
D) T refers to the depth of invasion. N refers to the absence or presence and extent of lymph node involvement. M refers to presence of metastasis. The numbers range from 0 to 4, with higher numbers indicating increased size and metastasis. Stage IV indicates metastasis. The staging system is not used to determine tumor response to chemotherapy.
Page Ref: 53
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of cancer.

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: 2.2.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

8) The nurse is providing discharge instructions to a client being treated for cancer. For which symptoms should the client be instructed to call for help at home?
Select all that apply.
A) Difficulty breathing
B) Significant increase in vomiting
C) Desire to end life
D) Improved sense of well-being
E) New onset of bleeding
Answer: A, B, C, E
Explanation: A) The client should be instructed to call for help with any difficulty breathing, significant increase in vomiting, a desire to end life, or a new onset of bleeding. An increased sense of well-being would be a desired effect of treatment for cancer.
B) The client should be instructed to call for help with any difficulty breathing, significant increase in vomiting, a desire to end life, or a new onset of bleeding. An increased sense of well-being would be a desired effect of treatment for cancer.
C) The client should be instructed to call for help with any difficulty breathing, significant increase in vomiting, a desire to end life, or a new onset of bleeding. An increased sense of well-being would be a desired effect of treatment for cancer.
D) The client should be instructed to call for help with any difficulty breathing, significant increase in vomiting, a desire to end life, or a new onset of bleeding. An increased sense of well-being would be a desired effect of treatment for cancer.
E) The client should be instructed to call for help with any difficulty breathing, significant increase in vomiting, a desire to end life, or a new onset of bleeding. An increased sense of well-being would be a desired effect of treatment for cancer.
Page Ref: 60
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation/Teaching and Learning
Learning Outcome: 7. Evaluate expected outcomes for an individual with cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.2.3 Apply the nursing process to provide culturally competent care across the life span.

9) The nurse instructs a group of community members on the difference between benign and malignant neoplasms. Which participant statements indicate that teaching has been effective? Select all that apply.
A) "Benign tumors grow slowly."
B) "Malignant tumors are easy to remove."
C) "Benign tumors stay in one area."
D) "Malignant tumors push other tissue out of the way."
E) "Malignant tumors can grow back."
Answer: A, C, E
Explanation: A) Benign tumors are slow-growing, stay in one area, are easy to remove, and push other tissue out of the way. Malignant tumors are more difficult to remove. They invade neighboring tissue and can return once removed.
B) Benign tumors are slow-growing, stay in one area, are easy to remove, and push other tissue out of the way. Malignant tumors are more difficult to remove. They invade neighboring tissue and can return once removed.
C) Benign tumors are slow-growing, stay in one area, are easy to remove, and push other tissue out of the way. Malignant tumors are more difficult to remove. They invade neighboring tissue and can return once removed.
D) Benign tumors are slow-growing, stay in one area, are easy to remove, and push other tissue out of the way. Malignant tumors are more difficult to remove. They invade neighboring tissue and can return once removed.
E) Benign tumors are slow-growing, stay in one area, are easy to remove, and push other tissue out of the way. Malignant tumors are more difficult to remove. They invade neighboring tissue and can return once removed.
Page Ref: 42
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation/Teaching and Learning
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of cancer.

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: 2.2.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

10) The nurse is caring for a thin, older adult client who is diagnosed with cancer and is receiving aggressive chemotherapy. The client is experiencing severe side effects from the therapy and has lost 10 pounds in the past week. What should the nurse teach the client to do? Select all that apply.
A) Purchase fast foods and prepared foods.
B) Eat cold foods rather than hot foods, because they are better tolerated.
C) Keep a food diary and record intake.
D) Eat large frequent meals high in calories.
E) Drink liquid supplements to increase intake of nutrients.
Answer: B, C, E
Explanation: A) Nutrition is an essential part of caring for all client with cancer but takes on even greater importance in the frail elderly, who may already have nutritional challenges such as poor dentition, inefficient absorption of nutrients, and mediation side effects. The goal of nutritional teaching is to help the client increase caloric and nutrient intake through the use of liquid supplements, small frequent meals, and a food diary that will help the nurse evaluate strengths and weaknesses of the current plan. The client receiving chemotherapy may tolerate cold foods better than hot foods. Fast foods and prepared foods tend to be high in fat and sodium and are not the best choice because they do not contain adequate healthy nutrients. Instead, involving the family in preparing meals or in enrolling in Meals on Wheels may be better options for easy ways of obtaining meals.
B) Nutrition is an essential part of caring for all client with cancer but takes on even greater importance in the frail elderly, who may already have nutritional challenges such as poor dentition, inefficient absorption of nutrients, and mediation side effects. The goal of nutritional teaching is to help the client increase caloric and nutrient intake through the use of liquid supplements, small frequent meals, and a food diary that will help the nurse evaluate strengths and weaknesses of the current plan. The client receiving chemotherapy may tolerate cold foods better than hot foods. Fast foods and prepared foods tend to be high in fat and sodium and are not the best choice because they do not contain adequate healthy nutrients. Instead, involving the family in preparing meals or in enrolling in Meals on Wheels may be better options for easy ways of obtaining meals.
C) Nutrition is an essential part of caring for all client with cancer but takes on even greater importance in the frail elderly, who may already have nutritional challenges such as poor dentition, inefficient absorption of nutrients, and mediation side effects. The goal of nutritional teaching is to help the client increase caloric and nutrient intake through the use of liquid supplements, small frequent meals, and a food diary that will help the nurse evaluate strengths and weaknesses of the current plan. The client receiving chemotherapy may tolerate cold foods better than hot foods. Fast foods and prepared foods tend to be high in fat and sodium and are not the best choice because they do not contain adequate healthy nutrients. Instead, involving the family in preparing meals or in enrolling in Meals on Wheels may be better options for easy ways of obtaining meals.

D) Nutrition is an essential part of caring for all client with cancer but takes on even greater importance in the frail elderly, who may already have nutritional challenges such as poor dentition, inefficient absorption of nutrients, and mediation side effects. The goal of nutritional teaching is to help the client increase caloric and nutrient intake through the use of liquid supplements, small frequent meals, and a food diary that will help the nurse evaluate strengths and weaknesses of the current plan. The client receiving chemotherapy may tolerate cold foods better than hot foods. Fast foods and prepared foods tend to be high in fat and sodium and are not the best choice because they do not contain adequate healthy nutrients. Instead, involving the family in preparing meals or in enrolling in Meals on Wheels may be better options for easy ways of obtaining meals.
E) Nutrition is an essential part of caring for all client with cancer but takes on even greater importance in the frail elderly, who may already have nutritional challenges such as poor dentition, inefficient absorption of nutrients, and mediation side effects. The goal of nutritional teaching is to help the client increase caloric and nutrient intake through the use of liquid supplements, small frequent meals, and a food diary that will help the nurse evaluate strengths and weaknesses of the current plan. The client receiving chemotherapy may tolerate cold foods better than hot foods. Fast foods and prepared foods tend to be high in fat and sodium and are not the best choice because they do not contain adequate healthy nutrients. Instead, involving the family in preparing meals or in enrolling in Meals on Wheels may be better options for easy ways of obtaining meals.
Page Ref: 60
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation/Teaching and Learning
Learning Outcome: 6. Plan evidence-based care for an individual with cancer and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.2.2 Identify collaborative therapies used by interdisciplinary teams.

Exemplar 2.2 Anemia

1) A client complaining of mouth soreness had gastric bypass surgery 1 year ago. During the assessment, the nurse notes the client's tongue is beefy, red, and smooth and the client's skin appears yellowish. Which additional information is most likely needed before diagnosing this client?
A) Vitamin B_6 levels
B) Vitamin B_{12} levels
C) Potassium levels
D) Iron levels
Answer: B
Explanation: A) Vitamin B_{12} deficiency is associated with gastric bypass surgery. A deficiency of vitamin B_{12} levels will result in pernicious anemia. This deficiency will manifest as pallor, jaundice, and weakness, and a beefy, smooth red tongue. Iron deficiency anemia will manifest with weakness and fatigue. Vitamin B_6 deficiencies are not typically seen with gastric bypass surgeries and are not manifested with a beefy, red, smooth tongue. The client's reports are not consistent with a potassium deficiency.
B) Vitamin B_{12} deficiency is associated with gastric bypass surgery. A deficiency of vitamin B_{12} levels will result in pernicious anemia. This deficiency will manifest as pallor, jaundice, and weakness, and a beefy, smooth red tongue. Iron deficiency anemia will manifest with weakness and fatigue. Vitamin B_6 deficiencies are not typically seen with gastric bypass surgeries and are not manifested with a beefy, red, smooth tongue. The client's reports are not consistent with a potassium deficiency.
C) Vitamin B_{12} deficiency is associated with gastric bypass surgery. A deficiency of vitamin B_{12} levels will result in pernicious anemia. This deficiency will manifest as pallor, jaundice, and weakness, and a beefy, smooth red tongue. Iron deficiency anemia will manifest with weakness and fatigue. Vitamin B_6 deficiencies are not typically seen with gastric bypass surgeries and are not manifested with a beefy, red, smooth tongue. The client's reports are not consistent with a potassium deficiency.
D) Vitamin B_{12} deficiency is associated with gastric bypass surgery. A deficiency of vitamin B_{12} levels will result in pernicious anemia. This deficiency will manifest as pallor, jaundice, and weakness, and a beefy, smooth red tongue. Iron deficiency anemia will manifest with weakness and fatigue. Vitamin B_6 deficiencies are not typically seen with gastric bypass surgeries and are not manifested with a beefy, red, smooth tongue. The client's reports are not consistent with a potassium deficiency.
Page Ref: 66
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of anemia.

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: 2.3.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

2) A client experiencing fatigue, pallor, and dyspnea on exertion has a complete blood count drawn. Which red blood cell disorder should the nurse anticipate the client is experiencing?
A) Polycythemia
B) Erythropoiesis
C) Herpes simplex
D) Anemia
Answer: D
Explanation: A) Anemia is the most common red blood cell disorder, involving a low count and decreased hemoglobin content. Signs and symptoms of anemia can include pallor of the skin and mucous membranes and dyspnea on exertion. Polycythemia is an abnormally high RBC count. Herpes simplex is not a red blood cell disorder; erythropoiesis is the term for RBC production.
B) Anemia is the most common red blood cell disorder, involving a low count and decreased hemoglobin content. Signs and symptoms of anemia can include pallor of the skin and mucous membranes and dyspnea on exertion. Polycythemia is an abnormally high RBC count. Herpes simplex is not a red blood cell disorder; erythropoiesis is the term for RBC production.
C) Anemia is the most common red blood cell disorder, involving a low count and decreased hemoglobin content. Signs and symptoms of anemia can include pallor of the skin and mucous membranes and dyspnea on exertion. Polycythemia is an abnormally high RBC count. Herpes simplex is not a red blood cell disorder; erythropoiesis is the term for RBC production.
D) Anemia is the most common red blood cell disorder, involving a low count and decreased hemoglobin content. Signs and symptoms of anemia can include pallor of the skin and mucous membranes and dyspnea on exertion. Polycythemia is an abnormally high RBC count. Herpes simplex is not a red blood cell disorder; erythropoiesis is the term for RBC production.
Page Ref: 66
Cognitive Level: Understanding
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of anemia.

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: 2.3.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

3) A client with a history of anemia has started a vegan diet. Which addition to meals should the nurse recommend to help ensure that this client has adequate amounts of iron in the diet? Select all that apply.
A) Legumes
B) Orange juice
C) Brewer's yeast
D) Okra
E) Peas
Answer: A, B, E
Explanation: A) While all these options are good ones for someone on a vegan diet, the ones that would best prevent iron deficiency are legumes, peas, and orange juice. Legumes and peas are good sources of nonheme iron. Orange juice supports iron absorption from foods since it is high in vitamin C. Brewer's yeast is a good source of vitamin B12, which is often low in vegan diets. Okra is not a good source of iron.
B) While all these options are good ones for someone on a vegan diet, the ones that would best prevent iron deficiency are legumes, peas, and orange juice. Legumes and peas are good sources of nonheme iron. Orange juice supports iron absorption from foods since it is high in vitamin C. Brewer's yeast is a good source of vitamin B12, which is often low in vegan diets. Okra is not a good source of iron.
C) While all these options are good ones for someone on a vegan diet, the ones that would best prevent iron deficiency are legumes, peas, and orange juice. Legumes and peas are good sources of nonheme iron. Orange juice supports iron absorption from foods since it is high in vitamin C. Brewer's yeast is a good source of vitamin B12, which is often low in vegan diets. Okra is not a good source of iron.
D) While all these options are good ones for someone on a vegan diet, the ones that would best prevent iron deficiency are legumes, peas, and orange juice. Legumes and peas are good sources of nonheme iron. Orange juice supports iron absorption from foods since it is high in vitamin C. Brewer's yeast is a good source of vitamin B12, which is often low in vegan diets. Okra is not a good source of iron.
E) While all these options are good ones for someone on a vegan diet, the ones that would best prevent iron deficiency are legumes, peas, and orange juice. Legumes and peas are good sources of nonheme iron. Orange juice supports iron absorption from foods since it is high in vitamin C. Brewer's yeast is a good source of vitamin B12, which is often low in vegan diets. Okra is not a good source of iron.
Page Ref: 65
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation/Teaching and Learning
Learning Outcome: 2. Identify risk factors and prevention methods associated with anemia.

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: 2.3.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

4) An older adult client with renal failure is diagnosed with anemia. Based on this data, which cause of anemia will the nurse plan for when providing care?
A) Loss of the kidney hormone erythropoietin
B) A loss of appetite related to elevated blood urea nitrogen (BUN) and creatinine levels
C) The renal dialysis used to treat the chronic renal failure
D) Loss of blood through the urine because the failing kidney does not function properly
Answer: A
Explanation: A) The anemia associated with renal failure is related to the loss of erythropoietin, which is produced by the healthy kidney and stimulates bone marrow to produce red blood cells. The anemia is not directly related to anorexia or hemodialysis, although these factors may be somewhat associated with the anemia. Renal failure causes the loss of protein, not blood, through the urine.
B) The anemia associated with renal failure is related to the loss of erythropoietin, which is produced by the healthy kidney and stimulates bone marrow to produce red blood cells. The anemia is not directly related to anorexia or hemodialysis, although these factors may be somewhat associated with the anemia. Renal failure causes the loss of protein, not blood, through the urine.
C) The anemia associated with renal failure is related to the loss of erythropoietin, which is produced by the healthy kidney and stimulates bone marrow to produce red blood cells. The anemia is not directly related to anorexia or hemodialysis, although these factors may be somewhat associated with the anemia. Renal failure causes the loss of protein, not blood, through the urine.
D) The anemia associated with renal failure is related to the loss of erythropoietin, which is produced by the healthy kidney and stimulates bone marrow to produce red blood cells. The anemia is not directly related to anorexia or hemodialysis, although these factors may be somewhat associated with the anemia. Renal failure causes the loss of protein, not blood, through the urine.
Page Ref: 65
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 2. Identify risk factors and prevention methods associated with anemia.

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: 2.3.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

5) A nursing student is preparing an educational program on hemolytic anemia for the residents of an assisted-living center. Which extrinsic causes of hemolytic anemia should the student include in the program?
Select all that apply.
A) Bacterial infection
B) Thalassemia
C) Ibuprofen use
D) Prosthetic heart valves
E) Acetaminophen use
Answer: A, C, D
Explanation: A) Prosthetic heart valves, medications such as ibuprofen, and bacterial infections are all extrinsic causes of hemolytic anemia. Acetaminophen use is not associated with hemolytic anemia. Thalassemia is considered an intrinsic cause of hemolytic anemia and would not be appropriate to include in this particular teaching.
B) Prosthetic heart valves, medications such as ibuprofen, and bacterial infections are all extrinsic causes of hemolytic anemia. Acetaminophen use is not associated with hemolytic anemia. Thalassemia is considered an intrinsic cause of hemolytic anemia and would not be appropriate to include in this particular teaching.
C) Prosthetic heart valves, medications such as ibuprofen, and bacterial infections are all extrinsic causes of hemolytic anemia. Acetaminophen use is not associated with hemolytic anemia. Thalassemia is considered an intrinsic cause of hemolytic anemia and would not be appropriate to include in this particular teaching.
D) Prosthetic heart valves, medications such as ibuprofen, and bacterial infections are all extrinsic causes of hemolytic anemia. Acetaminophen use is not associated with hemolytic anemia. Thalassemia is considered an intrinsic cause of hemolytic anemia and would not be appropriate to include in this particular teaching.
E) Prosthetic heart valves, medications such as ibuprofen, and bacterial infections are all extrinsic causes of hemolytic anemia. Acetaminophen use is not associated with hemolytic anemia. Thalassemia is considered an intrinsic cause of hemolytic anemia and would not be appropriate to include in this particular teaching.
Page Ref: 68
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation/Teaching and Learning
Learning Outcome: 3. Illustrate the nursing process in providing culturally competent care across the life span for individuals with anemia.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends

- transition and continuity

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: 2.3.3 Apply the nursing process to provide culturally competent care across the life span.

6) The home healthcare nurse is preparing a care plan for a client with severe anemia. The client currently lives alone and states, "I can't even walk to the kitchen without getting winded." What would be the priority nursing diagnosis for this client?
A) Hopelessness
B) Activity Intolerance
C) Altered Nutrition, Less than Body Requirements
D) Anxiety
Answer: B
Explanation: A) Activity Intolerance would be a priority diagnosis for this client. While anxiety, hopelessness, and altered nutrition may be appropriate nursing diagnoses for this client, they are not the priority.
B) Activity Intolerance would be a priority diagnosis for this client. While anxiety, hopelessness, and altered nutrition may be appropriate nursing diagnoses for this client, they are not the priority.
C) Activity Intolerance would be a priority diagnosis for this client. While anxiety, hopelessness, and altered nutrition may be appropriate nursing diagnoses for this client, they are not the priority.
D) Activity Intolerance would be a priority diagnosis for this client. While anxiety, hopelessness, and altered nutrition may be appropriate nursing diagnoses for this client, they are not the priority.
Page Ref: 71
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Planning
Learning Outcome: 4. Formulate priority nursing diagnoses appropriate for an individual with anemia.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.3.3 Apply the nursing process to provide culturally competent care across the life span.

7) A nurse is providing discharge teaching for a client with iron deficiency anemia. The client has been prescribed ferrous sulfate and has been told to increase the intake of foods that are naturally high in iron. Which client statements indicate a need for further education?
Select all that apply.
A) "I will take my ferrous sulfate tablet with my morning oatmeal."
B) "I will decrease my intake of green leafy vegetables while taking my ferrous sulfate tablet."
C) "I will increase my fluid intake while I am taking my ferrous sulfate."
D) "I will take my ferrous sulfate tablet on an empty stomach."
E) "I will decrease milk intake while taking my ferrous sulfate tablet."
Answer: B, D, E
Explanation: A) Ferrous sulfate can cause gastric irritation and constipation. Taking it with a meal can help minimize gastrointestinal distress. The client should not decrease milk or green leafy vegetables from the diet as these are natural sources of iron and should be encouraged. Increasing fiber (oatmeal) and fluid intake can also help prevent constipation.
B) Ferrous sulfate can cause gastric irritation and constipation. Taking it with a meal can help minimize gastrointestinal distress. The client should not decrease milk or green leafy vegetables from the diet as these are natural sources of iron and should be encouraged. Increasing fiber (oatmeal) and fluid intake can also help prevent constipation.
C) Ferrous sulfate can cause gastric irritation and constipation. Taking it with a meal can help minimize gastrointestinal distress. The client should not decrease milk or green leafy vegetables from the diet as these are natural sources of iron and should be encouraged. Increasing fiber (oatmeal) and fluid intake can also help prevent constipation.
D) Ferrous sulfate can cause gastric irritation and constipation. Taking it with a meal can help minimize gastrointestinal distress. The client should not decrease milk or green leafy vegetables from the diet as these are natural sources of iron and should be encouraged. Increasing fiber (oatmeal) and fluid intake can also help prevent constipation.
E) Ferrous sulfate can cause gastric irritation and constipation. Taking it with a meal can help minimize gastrointestinal distress. The client should not decrease milk or green leafy vegetables from the diet as these are natural sources of iron and should be encouraged. Increasing fiber (oatmeal) and fluid intake can also help prevent constipation.
Page Ref: 71
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation/Teaching and Learning
Learning Outcome: 6. Plan evidence-based care for an individual with anemia and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.3.2 Identify collaborative therapies used by interdisciplinary teams.

8) The nurse is evaluating a client's understanding of dietary needs to treat dietary deficiency anemia. Which client statement indicates a need for additional teaching?
A) "I will eat more fruits and vegetables, especially green leafy ones, to get more iron in my diet."
B) "I will need to include more protein foods in my diet such as meats, dried beans, and whole-grain breads."
C) "I will decrease foods high in vitamin C, as they decrease my absorption of iron."
D) "I will take vitamins with extra iron in addition to eating a balanced diet with meat to correct my anemia."
Answer: C
Explanation: A) Increasing foods high in vitamin C will increase absorption of iron. The lack of iron is the problem that needs to be addressed. Extra iron is needed to help replace RBCs and treat the dietary deficiency anemia. Green leafy vegetables will increase iron in the diet. Protein foods such as meats, dried beans, and whole-grain breads do contain iron that will help dietary deficiency anemia.
B) Increasing foods high in vitamin C will increase absorption of iron. The lack of iron is the problem that needs to be addressed. Extra iron is needed to help replace RBCs and treat the dietary deficiency anemia. Green leafy vegetables will increase iron in the diet. Protein foods such as meats, dried beans, and whole-grain breads do contain iron that will help dietary deficiency anemia.
C) Increasing foods high in vitamin C will increase absorption of iron. The lack of iron is the problem that needs to be addressed. Extra iron is needed to help replace RBCs and treat the dietary deficiency anemia. Green leafy vegetables will increase iron in the diet. Protein foods such as meats, dried beans, and whole-grain breads do contain iron that will help dietary deficiency anemia.
D) Increasing foods high in vitamin C will increase absorption of iron. The lack of iron is the problem that needs to be addressed. Extra iron is needed to help replace RBCs and treat the dietary deficiency anemia. Green leafy vegetables will increase iron in the diet. Protein foods such as meats, dried beans, and whole-grain breads do contain iron that will help dietary deficiency anemia.
Page Ref: 71
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation/Teaching and Learning
Learning Outcome: 7. Evaluate expected outcomes for an individual with anemia.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.3.3 Apply the nursing process to provide culturally competent care across the life span.

9) The nurse suspects that a client with severe shortness of breath in the absence of cyanosis is experiencing anemia. Which laboratory tests should the nurse review to confirm anemia? Select all that apply.
A) Serum electrolytes
B) Cardiac enzymes
C) Hemoglobin
D) Blood sugar
E) Hematocrit
Answer: C, E
Explanation: A) In order to exhibit cyanosis, the client's blood must contain about 5 g or more of unoxygenated hemoglobin per 100 mL of blood and the surface blood capillaries must be dilated. Severe anemia will interfere with the development of cyanosis, so the nurse should review the hemoglobin and hematocrit. Blood sugar, cardiac enzymes, and serum electrolytes are not implicated in this phenomenon.
B) In order to exhibit cyanosis, the client's blood must contain about 5 g or more of unoxygenated hemoglobin per 100 mL of blood and the surface blood capillaries must be dilated. Severe anemia will interfere with the development of cyanosis, so the nurse should review the hemoglobin and hematocrit. Blood sugar, cardiac enzymes, and serum electrolytes are not implicated in this phenomenon.
C) In order to exhibit cyanosis, the client's blood must contain about 5 g or more of unoxygenated hemoglobin per 100 mL of blood and the surface blood capillaries must be dilated. Severe anemia will interfere with the development of cyanosis, so the nurse should review the hemoglobin and hematocrit. Blood sugar, cardiac enzymes, and serum electrolytes are not implicated in this phenomenon.
D) In order to exhibit cyanosis, the client's blood must contain about 5 g or more of unoxygenated hemoglobin per 100 mL of blood and the surface blood capillaries must be dilated. Severe anemia will interfere with the development of cyanosis, so the nurse should review the hemoglobin and hematocrit. Blood sugar, cardiac enzymes, and serum electrolytes are not implicated in this phenomenon.
E) In order to exhibit cyanosis, the client's blood must contain about 5 g or more of unoxygenated hemoglobin per 100 mL of blood and the surface blood capillaries must be dilated. Severe anemia will interfere with the development of cyanosis, so the nurse should review the hemoglobin and hematocrit. Blood sugar, cardiac enzymes, and serum electrolytes are not implicated in this phenomenon.
Page Ref: 70
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Reduction of Risk Potential
Nursing Process: Assessment
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with anemia.

QSEN Competencies: I.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: 2.3.2 Identify collaborative therapies used by interdisciplinary teams.

10) The nurse is caring for an older adult client with hemolytic anemia. When planning care for this client, which should the nurse take into consideration regarding this diagnosis?
Select all that apply.
A) It causes the red blood cells to be microcytic.
B) It is associated with an increase in the reticulocyte count.
C) It is the result of blood loss.
D) It is a result of the premature destruction of red blood cells.
E) It always requires treatment with folic acid.
Answer: B, D, E
Explanation: A) Hemolytic anemia is more common with aging and is caused by the premature destruction of the red blood cells. The normal life span of a red blood cell is 120 days. All hemolytic anemias require treatment with folic acid because this vitamin is consumed by the increased bone marrow production of red blood cells in response to the anemia. It is not associated with blood loss. There is an increase, not a decrease, in the reticulocyte (immature red blood cells) count because they are released early from the bone marrow to compensate. Hemolytic anemias are normocytic (red blood cells are normal size), not microcytic.
B) Hemolytic anemia is more common with aging and is caused by the premature destruction of the red blood cells. The normal life span of a red blood cell is 120 days. All hemolytic anemias require treatment with folic acid because this vitamin is consumed by the increased bone marrow production of red blood cells in response to the anemia. It is not associated with blood loss. There is an increase, not a decrease, in the reticulocyte (immature red blood cells) count because they are released early from the bone marrow to compensate. Hemolytic anemias are normocytic (red blood cells are normal size), not microcytic.
C) Hemolytic anemia is more common with aging and is caused by the premature destruction of the red blood cells. The normal life span of a red blood cell is 120 days. All hemolytic anemias require treatment with folic acid because this vitamin is consumed by the increased bone marrow production of red blood cells in response to the anemia. It is not associated with blood loss. There is an increase, not a decrease, in the reticulocyte (immature red blood cells) count because they are released early from the bone marrow to compensate. Hemolytic anemias are normocytic (red blood cells are normal size), not microcytic.
D) Hemolytic anemia is more common with aging and is caused by the premature destruction of the red blood cells. The normal life span of a red blood cell is 120 days. All hemolytic anemias require treatment with folic acid because this vitamin is consumed by the increased bone marrow production of red blood cells in response to the anemia. It is not associated with blood loss. There is an increase, not a decrease, in the reticulocyte (immature red blood cells) count because they are released early from the bone marrow to compensate. Hemolytic anemias are normocytic (red blood cells are normal size), not microcytic.

E) Hemolytic anemia is more common with aging and is caused by the premature destruction of the red blood cells. The normal life span of a red blood cell is 120 days. All hemolytic anemias require treatment with folic acid because this vitamin is consumed by the increased bone marrow production of red blood cells in response to the anemia. It is not associated with blood loss. There is an increase, not a decrease, in the reticulocyte (immature red blood cells) count because they are released early from the bone marrow to compensate. Hemolytic anemias are normocytic (red blood cells are normal size), not microcytic.
Page Ref: 68
Cognitive Level: Understanding
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Planning
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of anemia.

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: 2.3.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

11) The nurse is instructing a client with iron deficiency anemia about appropriate menu choices. Which diet choice indicates that teaching has been effective?
A) Tofu with mixed vegetables in curry, milk, whole-wheat bun
B) Broiled fish, lettuce salad, grapefruit half, carrot sticks
C) Pork chop, mashed potatoes and gravy, cauliflower, tea
D) Roast beef, steamed spinach, tomato soup, orange juice
Answer: D
Explanation: A) This client is anemic and needs iron. This meal contains iron in the beef, folic acid in the spinach, and vitamin C in the tomato soup and orange juice. Vitamin C helps absorption of the iron; folic acid is needed for production of red cells. The meal of tofu with mixed vegetables in curry, milk, and a whole-wheat bun is high in calcium, but the client has iron deficiency anemia and requires a high-iron diet. The meal with a pork chop, mashed potatoes and gravy, cauliflower, and tea has a moderate amount of protein, but no vitamin C. The meal of fish, lettuce, grapefruit, and carrot sticks is high in fiber, low in fat, and moderately high in protein, but low in iron.
B) This client is anemic and needs iron. This meal contains iron in the beef, folic acid in the spinach, and vitamin C in the tomato soup and orange juice. Vitamin C helps absorption of the iron; folic acid is needed for production of red cells. The meal of tofu with mixed vegetables in curry, milk, and a whole-wheat bun is high in calcium, but the client has iron deficiency anemia and requires a high-iron diet. The meal with a pork chop, mashed potatoes and gravy, cauliflower, and tea has a moderate amount of protein, but no vitamin C. The meal of fish, lettuce, grapefruit, and carrot sticks is high in fiber, low in fat, and moderately high in protein, but low in iron.
C) This client is anemic and needs iron. This meal contains iron in the beef, folic acid in the spinach, and vitamin C in the tomato soup and orange juice. Vitamin C helps absorption of the iron; folic acid is needed for production of red cells. The meal of tofu with mixed vegetables in curry, milk, and a whole-wheat bun is high in calcium, but the client has iron deficiency anemia and requires a high-iron diet. The meal with a pork chop, mashed potatoes and gravy, cauliflower, and tea has a moderate amount of protein, but no vitamin C. The meal of fish, lettuce, grapefruit, and carrot sticks is high in fiber, low in fat, and moderately high in protein, but low in iron.
D) This client is anemic and needs iron. This meal contains iron in the beef, folic acid in the spinach, and vitamin C in the tomato soup and orange juice. Vitamin C helps absorption of the iron; folic acid is needed for production of red cells. The meal of tofu with mixed vegetables in curry, milk, and a whole-wheat bun is high in calcium, but the client has iron deficiency anemia and requires a high-iron diet. The meal with a pork chop, mashed potatoes and gravy, cauliflower, and tea has a moderate amount of protein, but no vitamin C. The meal of fish, lettuce, grapefruit, and carrot sticks is high in fiber, low in fat, and moderately high in protein, but low in iron.
Page Ref: 71
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation/Teaching and Learning
Learning Outcome: 3. Illustrate the nursing process in providing culturally competent care across the life span for individuals with anemia.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.3.3 Apply the nursing process to provide culturally competent care across the life span.

12) A nurse is educating a client with anemia about the pathophysiological mechanisms of anemia. Which should be excluded in the nurse's teaching plan for this client?
A) Altered hemoglobin synthesis.
B) Altered DNA synthesis.
C) Decreased hemolysis.
D) Bone marrow failure.
Answer: C
Explanation: A) The pathophysiological mechanisms of anemia include altered hemoglobin synthesis, altered DNA synthesis, bone marrow failure, and increased hemolysis. Altered hemoglobin synthesis is the mechanism involved in iron deficiency anemia, Thalassemia, and chronic inflammation. Altered DNA synthesis is the mechanism involved in Vitamin B12 malabsorption or deficiency, and folic acid malabsorption or deficiency. Bone marrow failure is the mechanism in aplastic anemia, red cell aplasia, myeloproliferative leukemias, and lymphomas.
B) The pathophysiological mechanisms of anemia include altered hemoglobin synthesis, altered DNA synthesis, bone marrow failure, and increased hemolysis. Altered hemoglobin synthesis is the mechanism involved in iron deficiency anemia, Thalassemia, and chronic inflammation. Altered DNA synthesis is the mechanism involved in Vitamin B12 malabsorption or deficiency, and folic acid malabsorption or deficiency. Bone marrow failure is the mechanism in aplastic anemia, red cell aplasia, myeloproliferative leukemias, and lymphomas.
C) The pathophysiological mechanisms of anemia include altered hemoglobin synthesis, altered DNA synthesis, bone marrow failure, and increased hemolysis. Altered hemoglobin synthesis is the mechanism involved in iron deficiency anemia, Thalassemia, and chronic inflammation. Altered DNA synthesis is the mechanism involved in Vitamin B12 malabsorption or deficiency, and folic acid malabsorption or deficiency. Bone marrow failure is the mechanism in aplastic anemia, red cell aplasia, myeloproliferative leukemias, and lymphomas.
D) The pathophysiological mechanisms of anemia include altered hemoglobin synthesis, altered DNA synthesis, bone marrow failure, and increased hemolysis. Altered hemoglobin synthesis is the mechanism involved in iron deficiency anemia, Thalassemia, and chronic inflammation. Altered DNA synthesis is the mechanism involved in Vitamin B12 malabsorption or deficiency, and folic acid malabsorption or deficiency. Bone marrow failure is the mechanism in aplastic anemia, red cell aplasia, myeloproliferative leukemias, and lymphomas.
Page Ref: 65
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of anemia.

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: 2.3.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

13) A nurse is providing discharge instructions to a client with iron deficiency anemia who is experiencing glossitis. Which statements will the nurse include in the discharge teaching for this client?
Select all that apply.
A) Monitor the condition of the lips and tongue daily.
B) Use an alcohol-based mouthwash every 2-4 hours.
C) Provide frequent oral hygiene.
D) Apply a non-petroleum-based lubricating jelly or ointment to the lips after oral care.
E) Use a soft toothbrush or sponge to provide oral care.
Answer: A, C, E
Explanation: A) Glossitis, inflammation of the tongue that may cause the tongue and lips to turn red, and cheilosis (fissures or cracks at the corners of the mouth) may occur with nutritional deficiencies of iron, folate, and vitamin B_{12}. Client education should include monitoring the condition of lips and tongue daily and providing frequent oral hygiene with a soft-bristle toothbrush or sponge. The client should not use an alcohol-based mouthwash, as this would worsen the glossitis. The client should use a petroleum-based lubricating jelly or ointment to the lips after oral care.
B) Glossitis, inflammation of the tongue that may cause the tongue and lips to turn red, and cheilosis (fissures or cracks at the corners of the mouth) may occur with nutritional deficiencies of iron, folate, and vitamin B_{12}. Client education should include monitoring the condition of lips and tongue daily and providing frequent oral hygiene with a soft-bristle toothbrush or sponge. The client should not use an alcohol-based mouthwash, as this would worsen the glossitis. The client should use a petroleum-based lubricating jelly or ointment to the lips after oral care.
C) Glossitis, inflammation of the tongue that may cause the tongue and lips to turn red, and cheilosis (fissures or cracks at the corners of the mouth) may occur with nutritional deficiencies of iron, folate, and vitamin B_{12}. Client education should include monitoring the condition of lips and tongue daily and providing frequent oral hygiene with a soft-bristle toothbrush or sponge. The client should not use an alcohol-based mouthwash, as this would worsen the glossitis. The client should use a petroleum-based lubricating jelly or ointment to the lips after oral care.
D) Glossitis, inflammation of the tongue that may cause the tongue and lips to turn red, and cheilosis (fissures or cracks at the corners of the mouth) may occur with nutritional deficiencies of iron, folate, and vitamin B_{12}. Client education should include monitoring the condition of lips and tongue daily and providing frequent oral hygiene with a soft-bristle toothbrush or sponge. The client should not use an alcohol-based mouthwash, as this would worsen the glossitis. The client should use a petroleum-based lubricating jelly or ointment to the lips after oral care.
E) Glossitis, inflammation of the tongue that may cause the tongue and lips to turn red, and cheilosis (fissures or cracks at the corners of the mouth) may occur with nutritional deficiencies of iron, folate, and vitamin B_{12}. Client education should include monitoring the condition of lips and tongue daily and providing frequent oral hygiene with a soft-bristle toothbrush or sponge. The client should not use an alcohol-based mouthwash, as this would worsen the glossitis. The client should use a petroleum-based lubricating jelly or ointment to the lips after oral care.
Page Ref: 74
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 6. Plan evidence-based care for an individual with anemia and his or her

family in collaboration with other members of the healthcare team.
QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.3.2 Identify collaborative therapies used by interdisciplinary teams.

Exemplar 2.3 Breast Cancer

1) The nurse is reviewing data collected during a health history and physical assessment and determines that a client is at risk for developing breast cancer. Which data supports this client's risk for developing breast cancer?
Select all that apply.
A) Age 60
B) Breastfed both children
C) Sister had breast cancer
D) Body mass index 22
E) Menopause at age 58
Answer: A, C, E
Explanation: A) The risk for developing breast cancer increases with age. Having a first-degree relative with breast cancer increases the risk. Menopause after the age of 55 also increases the risk for developing breast cancer. Breastfeeding and maintaining a normal body weight lower a person's risk for developing breast cancer.
B) The risk for developing breast cancer increases with age. Having a first-degree relative with breast cancer increases the risk. Menopause after the age of 55 also increases the risk for developing breast cancer. Breastfeeding and maintaining a normal body weight lower a person's risk for developing breast cancer.
C) The risk for developing breast cancer increases with age. Having a first-degree relative with breast cancer increases the risk. Menopause after the age of 55 also increases the risk for developing breast cancer. Breastfeeding and maintaining a normal body weight lower a person's risk for developing breast cancer.
D) The risk for developing breast cancer increases with age. Having a first-degree relative with breast cancer increases the risk. Menopause after the age of 55 also increases the risk for developing breast cancer. Breastfeeding and maintaining a normal body weight lower a person's risk for developing breast cancer.
E) The risk for developing breast cancer increases with age. Having a first-degree relative with breast cancer increases the risk. Menopause after the age of 55 also increases the risk for developing breast cancer. Breastfeeding and maintaining a normal body weight lower a person's risk for developing breast cancer.
Page Ref: 77
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance

Client Need Sub:
Nursing Process: Assessment
Learning Outcome: 2. Identify risk factors and prevention methods associated with breast cancer.

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: 2.4.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

2) The nurse is teaching a 34-year-old client with client who has a sister and mother with a history of breast cancer about early screening for the health problem. Which should the nurse include in this teaching?
Select all that apply.
A) Routine monthly breast self-examination
B) Annual screening mammography
C) Routine breast exams to begin after age 35
D) Clinical breast examination every 3 years
E) Reporting of any changes in breast tissue to the health provider at the next routine visit
Answer: A, B, D
Explanation: A) American Cancer Society guidelines for cancer screening include routine breast self-examination starting at age 20; prompt reporting of any change in breast tissue to healthcare provider; clinical breast examination every 3 years from ages 20 to 39, and yearly thereafter; and annual screening mammography starting at age 40, except in women at increased risk, who may have more frequent mammography or other tests such as breast ultrasound exams. Since this client's mother and sister both have a history of breast cancer, she would be eligible for annual mammography.
B) American Cancer Society guidelines for cancer screening include routine breast self-examination starting at age 20; prompt reporting of any change in breast tissue to healthcare provider; clinical breast examination every 3 years from ages 20 to 39, and yearly thereafter; and annual screening mammography starting at age 40, except in women at increased risk, who may have more frequent mammography or other tests such as breast ultrasound exams. Since this client's mother and sister both have a history of breast cancer, she would be eligible for annual mammography.
C) American Cancer Society guidelines for cancer screening include routine breast self-examination starting at age 20; prompt reporting of any change in breast tissue to healthcare provider; clinical breast examination every 3 years from ages 20 to 39, and yearly thereafter; and annual screening mammography starting at age 40, except in women at increased risk, who may have more frequent mammography or other tests such as breast ultrasound exams. Since this client's mother and sister both have a history of breast cancer, she would be eligible for annual mammography.
D) American Cancer Society guidelines for cancer screening include routine breast self-examination starting at age 20; prompt reporting of any change in breast tissue to healthcare provider; clinical breast examination every 3 years from ages 20 to 39, and yearly thereafter; and annual screening mammography starting at age 40, except in women at increased risk, who may have more frequent mammography or other tests such as breast ultrasound exams. Since this client's mother and sister both have a history of breast cancer, she would be eligible for annual mammography.

E) American Cancer Society guidelines for cancer screening include routine breast self-examination starting at age 20; prompt reporting of any change in breast tissue to healthcare provider; clinical breast examination every 3 years from ages 20 to 39, and yearly thereafter; and annual screening mammography starting at age 40, except in women at increased risk, who may have more frequent mammography or other tests such as breast ultrasound exams. Since this client's mother and sister both have a history of breast cancer, she would be eligible for annual mammography.
Page Ref: 58
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation/Teaching and Learning
Learning Outcome: 2. Identify risk factors and prevention methods associated with breast cancer.

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: 2.4.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

3) A client recovering from a hysterectomy does not want to take the prescribed estrogen replacement therapy because of the fear of developing breast cancer. Which response by the nurse is the most appropriate?
A) "The risk of breast cancer is slightly increased for women who opt to take estrogen replacement therapy."
B) "Perhaps you should consider an estrogen-progestin combination therapy."
C) "The risk of breast cancer is not increased for women who have had a hysterectomy and take estrogen replacement medications."
D) "Taking estrogen replacement is required after a hysterectomy."
Answer: C
Explanation: A) The risk for the development of breast cancer is not greater for women who take estrogen replacement therapy after undergoing a hysterectomy. Progestin therapies are not used for women who are in surgical menopause. Further, it is inappropriate for the nurse to make suggestions of a prescriptive nature, as it violates the scope of practice. While it is not mandatory for the client to take estrogen replacement therapy after surgery, the nurse should clarify and correct misconceptions of the client. Estrogen replacement therapy is not associated with breast cancer for women who have undergone a hysterectomy. Taking estrogen after a hysterectomy is optional, not required.
B) The risk for the development of breast cancer is not greater for women who take estrogen replacement therapy after undergoing a hysterectomy. Progestin therapies are not used for women who are in surgical menopause. Further, it is inappropriate for the nurse to make suggestions of a prescriptive nature, as it violates the scope of practice. While it is not mandatory for the client to take estrogen replacement therapy after surgery, the nurse should clarify and correct misconceptions of the client. Estrogen replacement therapy is not associated with breast cancer for women who have undergone a hysterectomy. Taking estrogen after a hysterectomy is optional, not required.
C) The risk for the development of breast cancer is not greater for women who take estrogen replacement therapy after undergoing a hysterectomy. Progestin therapies are not used for women who are in surgical menopause. Further, it is inappropriate for the nurse to make suggestions of a prescriptive nature, as it violates the scope of practice. While it is not mandatory for the client to take estrogen replacement therapy after surgery, the nurse should clarify and correct misconceptions of the client. Estrogen replacement therapy is not associated with breast cancer for women who have undergone a hysterectomy. Taking estrogen after a hysterectomy is optional, not required.

D) The risk for the development of breast cancer is not greater for women who take estrogen replacement therapy after undergoing a hysterectomy. Progestin therapies are not used for women who are in surgical menopause. Further, it is inappropriate for the nurse to make suggestions of a prescriptive nature, as it violates the scope of practice. While it is not mandatory for the client to take estrogen replacement therapy after surgery, the nurse should clarify and correct misconceptions of the client. Estrogen replacement therapy is not associated with breast cancer for women who have undergone a hysterectomy. Taking estrogen after a hysterectomy is optional, not required.
Page Ref: 77
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
Nursing Process: Implementation
Learning Outcome: 2. Identify risk factors and prevention methods associated with breast cancer.

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: 2.4.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

4) The nurse is instructing a group of women between the ages of 40 and 50 about early detection of breast cancer. What should the nurse include in this teaching?
A) Perform monthly breast self-exams.
B) See a healthcare provider if there is a strong family history of breast cancer.
C) Have a yearly mammogram.
D) Have a clinical breast exam performed by a healthcare provider every 5 years.
Answer: C
Explanation: A) Yearly mammography for all women over the age of 40 is encouraged, as it decreases the mortality from breast cancer. Breast self-exam is no longer recommended for all women. The American Cancer Society recommends that young women who choose to do breast self-exams have their technique validated by a healthcare practitioner at a yearly physical exam. The earlier a lump is discovered, the greater the effectiveness of treatment. Discussing a family history of breast cancer would be part of the annual breast exam performed by a healthcare provider. It is inappropriate for women in this age group to have a clinical breast exam every 5 years.
B) Yearly mammography for all women over the age of 40 is encouraged, as it decreases the mortality from breast cancer. Breast self-exam is no longer recommended for all women. The American Cancer Society recommends that young women who choose to do breast self-exams have their technique validated by a healthcare practitioner at a yearly physical exam. The earlier a lump is discovered, the greater the effectiveness of treatment. Discussing a family history of breast cancer would be part of the annual breast exam performed by a healthcare provider. It is inappropriate for women in this age group to have a clinical breast exam every 5 years.
C) Yearly mammography for all women over the age of 40 is encouraged, as it decreases the mortality from breast cancer. Breast self-exam is no longer recommended for all women. The American Cancer Society recommends that young women who choose to do breast self-exams have their technique validated by a healthcare practitioner at a yearly physical exam. The earlier a lump is discovered, the greater the effectiveness of treatment. Discussing a family history of breast cancer would be part of the annual breast exam performed by a healthcare provider. It is inappropriate for women in this age group to have a clinical breast exam every 5 years.
D) Yearly mammography for all women over the age of 40 is encouraged, as it decreases the mortality from breast cancer. Breast self-exam is no longer recommended for all women. The American Cancer Society recommends that young women who choose to do breast self-exams have their technique validated by a healthcare practitioner at a yearly physical exam. The earlier a lump is discovered, the greater the effectiveness of treatment. Discussing a family history of breast cancer would be part of the annual breast exam performed by a healthcare provider. It is inappropriate for women in this age group to have a clinical breast exam every 5 years.
Page Ref: 58
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation/Teaching and Learning
Learning Outcome: 3. Illustrate the nursing process in providing culturally competent care across the life span for individuals with breast cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values

- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.4.3 Apply the nursing process to provide culturally competent care across the life span.

5) During an assessment, the nurse notes that a client receiving radiation treatments for breast cancer has excoriated skin. What is the priority nursing diagnosis for this client?
A) Excess Fluid Volume
B) Ineffective Breathing Pattern
C) Risk for Infection
D) Activity Intolerance
Answer: C
Explanation: A) Radiation causes skin excoriation. With the excoriation, the client is at risk for infection due to skin breakdown. The client who receives radiation is more at risk for fluid volume deficit. Depending on the assessment, the client may or may not have activity intolerance. There is no evidence of respiratory difficulties in this client.
B) Radiation causes skin excoriation. With the excoriation, the client is at risk for infection due to skin breakdown. The client who receives radiation is more at risk for fluid volume deficit. Depending on the assessment, the client may or may not have activity intolerance. There is no evidence of respiratory difficulties in this client.
C) Radiation causes skin excoriation. With the excoriation, the client is at risk for infection due to skin breakdown. The client who receives radiation is more at risk for fluid volume deficit. Depending on the assessment, the client may or may not have activity intolerance. There is no evidence of respiratory difficulties in this client.
D) Radiation causes skin excoriation. With the excoriation, the client is at risk for infection due to skin breakdown. The client who receives radiation is more at risk for fluid volume deficit. Depending on the assessment, the client may or may not have activity intolerance. There is no evidence of respiratory difficulties in this client.
Page Ref: 82
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Assessment
Learning Outcome: 4. Formulate priority nursing diagnoses appropriate for an individual with breast cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.4.3 Apply the nursing process to provide culturally competent care across the life span.

6) The nurse is caring for a client with metastatic breast cancer receiving chemotherapy. Even though the prognosis is poor, the client tells the nurse that the plan is to do everything to survive. How should the nurse respond to this client?
A) "You have a great attitude and I am here to support you through education to help you survive."
B) "It is important to plan for your death, even though there is a chance you will survive."
C) "You should face the reality of the situation. You do not have a good chance of survival."
D) "I am going to speak with your family regarding your unrealistic expectations."
Answer: A
Explanation: A) This client is in the earliest stages of cancer treatment, with removal of the primary tumor about to take place. The nurse's role is to support this client's optimism and help in fighting the disease by teaching about nutrition and other supportive actions the client can take to minimize complications of treatment. While the prognosis may be poor, the outcome is not absolute, and the client's wish to do whatever is necessary to survive should be supported. Emphasizing the low survival rate, encouraging the client to prepare for death, and talking with the family about the client's unrealistic expectations would not support the client's optimism.
B) This client is in the earliest stages of cancer treatment, with removal of the primary tumor about to take place. The nurse's role is to support this client's optimism and help in fighting the disease by teaching about nutrition and other supportive actions the client can take to minimize complications of treatment. While the prognosis may be poor, the outcome is not absolute, and the client's wish to do whatever is necessary to survive should be supported. Emphasizing the low survival rate, encouraging the client to prepare for death, and talking with the family about the client's unrealistic expectations would not support the client's optimism.
C) This client is in the earliest stages of cancer treatment, with removal of the primary tumor about to take place. The nurse's role is to support this client's optimism and help in fighting the disease by teaching about nutrition and other supportive actions the client can take to minimize complications of treatment. While the prognosis may be poor, the outcome is not absolute, and the client's wish to do whatever is necessary to survive should be supported. Emphasizing the low survival rate, encouraging the client to prepare for death, and talking with the family about the client's unrealistic expectations would not support the client's optimism.
D) This client is in the earliest stages of cancer treatment, with removal of the primary tumor about to take place. The nurse's role is to support this client's optimism and help in fighting the disease by teaching about nutrition and other supportive actions the client can take to minimize complications of treatment. While the prognosis may be poor, the outcome is not absolute, and the client's wish to do whatever is necessary to survive should be supported. Emphasizing the low survival rate, encouraging the client to prepare for death, and talking with the family about the client's unrealistic expectations would not support the client's optimism.
Page Ref: 83
Cognitive Level: Analyzing
Client Need: Psychosocial Integrity
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 6. Plan evidence-based care for an individual with breast cancer and her

family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.4.2 Identify collaborative therapies used by interdisciplinary teams.

7) The nurse is reviewing the plan of care for a client being treated with brachytherapy for breast cancer. Which assessment finding indicates that the client's skin integrity has been maintained?
A) Skin intact
B) Skin dry and excoriated
C) Skin stretched
D) Skin damp and sweaty
Answer: A
Explanation: A) The goal for the client receiving radiation therapy to the chest is intact skin, which the nurse would expect to find. Skin that is damp with sweat, dry, or stretched is not consistent with radiation. If the goal were not met, the nurse would find excoriation.
B) The goal for the client receiving radiation therapy to the chest is intact skin, which the nurse would expect to find. Skin that is damp with sweat, dry, or stretched is not consistent with radiation. If the goal were not met, the nurse would find excoriation.
C) The goal for the client receiving radiation therapy to the chest is intact skin, which the nurse would expect to find. Skin that is damp with sweat, dry, or stretched is not consistent with radiation. If the goal were not met, the nurse would find excoriation.
D) The goal for the client receiving radiation therapy to the chest is intact skin, which the nurse would expect to find. Skin that is damp with sweat, dry, or stretched is not consistent with radiation. If the goal were not met, the nurse would find excoriation.
Page Ref: 82
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Evaluation
Learning Outcome: 7. Evaluate expected outcomes for an individual with breast cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.4.3 Apply the nursing process to provide culturally competent care across the life span.

8) The nurse is providing care to a client who was recently diagnosed with breast cancer. The nurse is providing education regarding the possible treatment options. Which options will the nurse include in the teaching session?
Select all that apply.
A) Mastectomy
B) Hormone therapy
C) Lumpectomy
D) Palliative care
E) Radiation
Answer: A, B, C, E
Explanation: A) Treatment options appropriate for a client newly diagnosed with breast cancer may include mastectomy, hormone therapy, lumpectomy, and radiation. Palliative care will only be implemented once the client's cancer is considered to be terminal in nature.
B) Treatment options appropriate for a client newly diagnosed with breast cancer may include mastectomy, hormone therapy, lumpectomy, and radiation. Palliative care will only be implemented once the client's cancer is considered to be terminal in nature.
C) Treatment options appropriate for a client newly diagnosed with breast cancer may include mastectomy, hormone therapy, lumpectomy, and radiation. Palliative care will only be implemented once the client's cancer is considered to be terminal in nature.
D) Treatment options appropriate for a client newly diagnosed with breast cancer may include mastectomy, hormone therapy, lumpectomy, and radiation. Palliative care will only be implemented once the client's cancer is considered to be terminal in nature.
E) Treatment options appropriate for a client newly diagnosed with breast cancer may include mastectomy, hormone therapy, lumpectomy, and radiation. Palliative care will only be implemented once the client's cancer is considered to be terminal in nature.
Page Ref: 79
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
Nursing Process: Implementation
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with breast cancer.

QSEN Competencies: I.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: 2.4.2 Identify collaborative therapies used by interdisciplinary teams.

9) A client prescribed tamoxifen (Nolvadex) for breast cancer treatment asks the nurse how the medication works. What is the best response by the nurse?
A) "Tamoxifen works by inhibiting the cellular mitosis of breast cancer."
B) "Tamoxifen works by blocking estrogen receptors on breast tissue."

C) "Tamoxifen works by binding to the DNA of breast cancer cells."
D) "Tamoxifen works by inhibiting the metabolism of breast cancer cells."
Answer: B
Explanation: A) Breast cancer is dependent on estrogen for growth. Tamoxifen (Nolvadex) acts by blocking estrogen receptors; the tumor is deprived of estrogen. Tamoxifen does not inhibit the metabolism of breast cancer cells. Tamoxifen does not inhibit the cellular mitosis of breast cancer. Tamoxifen does not bind to the DNA of breast cancer cells.
B) Breast cancer is dependent on estrogen for growth. Tamoxifen (Nolvadex) acts by blocking estrogen receptors; the tumor is deprived of estrogen. Tamoxifen does not inhibit the metabolism of breast cancer cells. Tamoxifen does not inhibit the cellular mitosis of breast cancer. Tamoxifen does not bind to the DNA of breast cancer cells.
C) Breast cancer is dependent on estrogen for growth. Tamoxifen (Nolvadex) acts by blocking estrogen receptors; the tumor is deprived of estrogen. Tamoxifen does not inhibit the metabolism of breast cancer cells. Tamoxifen does not inhibit the cellular mitosis of breast cancer. Tamoxifen does not bind to the DNA of breast cancer cells.
D) Breast cancer is dependent on estrogen for growth. Tamoxifen (Nolvadex) acts by blocking estrogen receptors; the tumor is deprived of estrogen. Tamoxifen does not inhibit the metabolism of breast cancer cells. Tamoxifen does not inhibit the cellular mitosis of breast cancer. Tamoxifen does not bind to the DNA of breast cancer cells.
Page Ref: 79-80
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
Nursing Process: Implementation
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with breast cancer.

QSEN Competencies: I.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: 2.4.2 Identify collaborative therapies used by interdisciplinary teams.

10) The nurse instructs a client recovering from a mastectomy on ways to prevent lymphedema. Which client statement indicates that teaching has been successful?
A) "I should do the exercises on my affected arm every day."
B) "I have to take no special precautions."
C) "I should avoid cleansing my skin with soap."
D) "Eating fresh fruits and vegetables will prevent my arm from swelling."
Answer: A
Explanation: A) Range-of-motion exercises in the affected arm helps develop collateral drainage and prevent the development of lymphedema. The client should be instructed to protect the affected limb by not permitting blood pressure measurement and avoiding tight jewelry and clothing on the limb. There is no reason for the client to avoid cleansing the skin of the affected arm with soap. Consuming fresh fruits and vegetables will not prevent the development of lymphedema.
B) Range-of-motion exercises in the affected arm helps develop collateral drainage and prevent the development of lymphedema. The client should be instructed to protect the affected limb by not permitting blood pressure measurement and avoiding tight jewelry and clothing on the limb. There is no reason for the client to avoid cleansing the skin of the affected arm with soap. Consuming fresh fruits and vegetables will not prevent the development of lymphedema.
C) Range-of-motion exercises in the affected arm helps develop collateral drainage and prevent the development of lymphedema. The client should be instructed to protect the affected limb by not permitting blood pressure measurement and avoiding tight jewelry and clothing on the limb. There is no reason for the client to avoid cleansing the skin of the affected arm with soap. Consuming fresh fruits and vegetables will not prevent the development of lymphedema.
D) Range-of-motion exercises in the affected arm helps develop collateral drainage and prevent the development of lymphedema. The client should be instructed to protect the affected limb by not permitting blood pressure measurement and avoiding tight jewelry and clothing on the limb. There is no reason for the client to avoid cleansing the skin of the affected arm with soap. Consuming fresh fruits and vegetables will not prevent the development of lymphedema.
Page Ref: 81
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation/Teaching and Learning
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with breast cancer.

QSEN Competencies: I.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: 2.4.2 Identify collaborative therapies used by interdisciplinary teams.

11) While completing a physical examination, the nurse suspects a client has breast cancer. What did the nurse assess in this client?
Select all that apply.
A) Rash along the inside of the right arm
B) Skin retraction near the left nipple
C) Palpable lump in the right axillae
D) Flaking skin over the right nipple
E) Pain when extending the left arm
Answer: B, C, D
Explanation: A) Manifestations of breast cancer include skin retraction in an area of the breast, unusual lump in the underarm region, and flaking skin near the nipple. A rash on the arm and arm pain upon extension are not manifestations of breast cancer.
B) Manifestations of breast cancer include skin retraction in an area of the breast, unusual lump in the underarm region, and flaking skin near the nipple. A rash on the arm and arm pain upon extension are not manifestations of breast cancer.
C) Manifestations of breast cancer include skin retraction in an area of the breast, unusual lump in the underarm region, and flaking skin near the nipple. A rash on the arm and arm pain upon extension are not manifestations of breast cancer.
D) Manifestations of breast cancer include skin retraction in an area of the breast, unusual lump in the underarm region, and flaking skin near the nipple. A rash on the arm and arm pain upon extension are not manifestations of breast cancer.
E) Manifestations of breast cancer include skin retraction in an area of the breast, unusual lump in the underarm region, and flaking skin near the nipple. A rash on the arm and arm pain upon extension are not manifestations of breast cancer.
Page Ref: 78
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of breast cancer.

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: 2.4.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

Exemplar 2.4 Colorectal Cancer

1) The nurse is speaking with a client who wants information regarding colorectal cancer. Which statement indicates the client understood the information presented by the nurse?
A) The risk of colorectal cancer decreases with age.
B) Colorectal cancer can be detected in early stages by measuring the level of the carcinogenic embryonic antigen (CEA).
C) Colorectal cancer occurs more frequently in clients who have a history of ulcerative colitis.
D) Colorectal cancer has no symptoms in the early stage and there are no definitive diagnostic tests.
Answer: C
Explanation: A) Colorectal cancer is asymptomatic in the early stages. Screening tools such as annual fecal occult blood testing and colonoscopy performed every 5-10 years can detect the cancer when it is still in the curable stage. The risk of colorectal cancer rises with age and it is the most common cancer after the age of 65. Carcinogenic embryonic antigen (CEA) is not considered a diagnostic test but is used as a tumor marker to follow and manage the disease in clients diagnosed with the disease. The incidence of colorectal cancer is increased in clients with a history of ulcerative colitis, and these clients need diligent screening.
B) Colorectal cancer is asymptomatic in the early stages. Screening tools such as annual fecal occult blood testing and colonoscopy performed every 5-10 years can detect the cancer when it is still in the curable stage. The risk of colorectal cancer rises with age and it is the most common cancer after the age of 65. Carcinogenic embryonic antigen (CEA) is not considered a diagnostic test but is used as a tumor marker to follow and manage the disease in clients diagnosed with the disease. The incidence of colorectal cancer is increased in clients with a history of ulcerative colitis, and these clients need diligent screening.
C) Colorectal cancer is asymptomatic in the early stages. Screening tools such as annual fecal occult blood testing and colonoscopy performed every 5-10 years can detect the cancer when it is still in the curable stage. The risk of colorectal cancer rises with age and it is the most common cancer after the age of 65. Carcinogenic embryonic antigen (CEA) is not considered a diagnostic test but is used as a tumor marker to follow and manage the disease in clients diagnosed with the disease. The incidence of colorectal cancer is increased in clients with a history of ulcerative colitis, and these clients need diligent screening.
D) Colorectal cancer is asymptomatic in the early stages. Screening tools such as annual fecal occult blood testing and colonoscopy performed every 5-10 years can detect the cancer when it is still in the curable stage. The risk of colorectal cancer rises with age and it is the most common cancer after the age of 65. Carcinogenic embryonic antigen (CEA) is not considered a diagnostic test but is used as a tumor marker to follow and manage the disease in clients diagnosed with the disease. The incidence of colorectal cancer is increased in clients with a history of ulcerative colitis, and these clients need diligent screening.
Page Ref: 86
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of colorectal cancer.

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: 2.5.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

2) The nurse provides an educational session for community members about the risk factors for colorectal cancer. Which participant statement indicates that teaching has been effective? Select all that apply.
A) "There is a genetic link in the development of colorectal cancer."
B) "People with other bowel disease are at increased risk for developing this cancer."
C) "Eating a diet high in red meat reduces the risk for developing this type of cancer."
D) "Eating cereal fiber reduces the risk of developing colorectal cancer."
E) "Taking aspirin and a multivitamin each day reduces the risk of colorectal cancer."
Answer: A, B, E
Explanation: A) Genetic factors are strongly linked to the risk for colorectal cancer. Family history of the disease increases an individual's risk for its development. Inflammatory bowel diseases increase the risk of colorectal cancer. The disease is prevalent in people who consume diets high in meat proteins. Cereal fiber does not play a role in the development of colorectal cancer. The use of aspirin and multivitamins may reduce the risk of developing colorectal cancer.
B) Genetic factors are strongly linked to the risk for colorectal cancer. Family history of the disease increases an individual's risk for its development. Inflammatory bowel diseases increase the risk of colorectal cancer. The disease is prevalent in people who consume diets high in meat proteins. Cereal fiber does not play a role in the development of colorectal cancer. The use of aspirin and multivitamins may reduce the risk of developing colorectal cancer.
C) Genetic factors are strongly linked to the risk for colorectal cancer. Family history of the disease increases an individual's risk for its development. Inflammatory bowel diseases increase the risk of colorectal cancer. The disease is prevalent in people who consume diets high in meat proteins. Cereal fiber does not play a role in the development of colorectal cancer. The use of aspirin and multivitamins may reduce the risk of developing colorectal cancer.
D) Genetic factors are strongly linked to the risk for colorectal cancer. Family history of the disease increases an individual's risk for its development. Inflammatory bowel diseases increase the risk of colorectal cancer. The disease is prevalent in people who consume diets high in meat proteins. Cereal fiber does not play a role in the development of colorectal cancer. The use of aspirin and multivitamins may reduce the risk of developing colorectal cancer.
E) Genetic factors are strongly linked to the risk for colorectal cancer. Family history of the disease increases an individual's risk for its development. Inflammatory bowel diseases increase the risk of colorectal cancer. The disease is prevalent in people who consume diets high in meat proteins. Cereal fiber does not play a role in the development of colorectal cancer. The use of aspirin and multivitamins may reduce the risk of developing colorectal cancer.
Page Ref: 86
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation/Teaching and Learning
Learning Outcome: 2. Identify risk factors and prevention methods associated with colorectal cancer.

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: 2.5.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations

3) A client recovering from surgery to place a permanent colostomy as treatment for colon cancer is concerned that her spouse will no longer find her sexually attractive. Which response by the nurse is the most appropriate?
A) "Tell me more about the concerns you are having."
B) "Would you like me to speak with your husband for you?"
C) "Do not worry about sex right now. It is more important to focus on recovery."
D) "I will refer you to a counselor to talk about your concerns."
Answer: A
Explanation: A) Since the client has expressed concern to the nurse regarding sexual functioning, the nurse should ask the client to expand upon why there are concerns. Although a referral may be needed for the client at some point, this is not the most appropriate response by the nurse. Telling the client not to worry about the concern and offering to speak to her spouse are not the most appropriate responses at this time.
B) Since the client has expressed concern to the nurse regarding sexual functioning, the nurse should ask the client to expand upon why there are concerns. Although a referral may be needed for the client at some point, this is not the most appropriate response by the nurse. Telling the client not to worry about the concern and offering to speak to her spouse are not the most appropriate responses at this time.
C) Since the client has expressed concern to the nurse regarding sexual functioning, the nurse should ask the client to expand upon why there are concerns. Although a referral may be needed for the client at some point, this is not the most appropriate response by the nurse. Telling the client not to worry about the concern and offering to speak to her spouse are not the most appropriate responses at this time.
D) Since the client has expressed concern to the nurse regarding sexual functioning, the nurse should ask the client to expand upon why there are concerns. Although a referral may be needed for the client at some point, this is not the most appropriate response by the nurse. Telling the client not to worry about the concern and offering to speak to her spouse are not the most appropriate responses at this time.
Page Ref: 90
Cognitive Level: Applying
Client Need: Psychosocial Integrity
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 3. Illustrate the nursing process in providing culturally competent care across the life span for individuals with colorectal cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education

- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.5.3 Apply the nursing process to provide culturally competent care across the life span.

4) A client has just been told that a colectomy and ileostomy are needed to treat a new diagnosis of colon cancer. Which diagnosis should the nurse use to plan this client's preoperative nursing care?
A) Knowledge Deficit
B) Risk for Disuse Syndrome
C) Risk for Perioperative–Positioning Injury
D) Anticipatory Grieving
Answer: D
Explanation: A) The client and family will require support to deal with their emotional response to learning the client has cancer and will undergo body image-changing surgery. Disuse syndrome and injury from positioning may be factors after surgery. Now is not the time to begin instructions, because the client will most likely be unable to learn or concentrate on what the nurse is teaching.
B) The client and family will require support to deal with their emotional response to learning the client has cancer and will undergo body image-changing surgery. Disuse syndrome and injury from positioning may be factors after surgery. Now is not the time to begin instructions, because the client will most likely be unable to learn or concentrate on what the nurse is teaching.
C) The client and family will require support to deal with their emotional response to learning the client has cancer and will undergo body image-changing surgery. Disuse syndrome and injury from positioning may be factors after surgery. Now is not the time to begin instructions, because the client will most likely be unable to learn or concentrate on what the nurse is teaching.
D) The client and family will require support to deal with their emotional response to learning the client has cancer and will undergo body image-changing surgery. Disuse syndrome and injury from positioning may be factors after surgery. Now is not the time to begin instructions, because the client will most likely be unable to learn or concentrate on what the nurse is teaching.
Page Ref: 89
Cognitive Level: Analyzing
Client Need: Psychosocial Integrity
Client Need Sub:
Nursing Process: Planning
Learning Outcome: 4. Formulate priority nursing diagnoses appropriate for an individual with colon cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.5.3 Apply the nursing process to provide culturally competent care across the life span.

5) The nurse is evaluating care provided to a client recovering from surgery for colorectal cancer. Which outcomes indicate that care has been successful?
Select all that apply.
A) Client reports pain level as an 8 on a rating scale of 0-10.
B) Client has an hourly urine output of 45 mL.
C) Client performs morning care with assistance.
D) Client states family members will care for the ostomy at home.
E) Client tolerates full liquid diet and is requesting solid food.
Answer: B, C, E
Explanation: A) Evidence that care has been effective includes an adequate hourly urine output of at least 0.5 mL/kg/hr, ability to perform activities of daily living, and tolerating oral intake. Not participating in the care of an ostomy and stating that family will provide the care needed are evidence of ineffective coping, an undesirable outcome. Pain rating should be at a level or 3 or less as evidence of successful care.
B) Evidence that care has been effective includes an adequate hourly urine output of at least 0.5 mL/kg/hr, ability to perform activities of daily living, and tolerating oral intake. Not participating in the care of an ostomy and stating that family will provide the care needed are evidence of ineffective coping, an undesirable outcome. Pain rating should be at a level or 3 or less as evidence of successful care.
C) Evidence that care has been effective includes an adequate hourly urine output of at least 0.5 mL/kg/hr, ability to perform activities of daily living, and tolerating oral intake. Not participating in the care of an ostomy and stating that family will provide the care needed are evidence of ineffective coping, an undesirable outcome. Pain rating should be at a level or 3 or less as evidence of successful care.
D) Evidence that care has been effective includes an adequate hourly urine output of at least 0.5 mL/kg/hr, ability to perform activities of daily living, and tolerating oral intake. Not participating in the care of an ostomy and stating that family will provide the care needed are evidence of ineffective coping, an undesirable outcome. Pain rating should be at a level or 3 or less as evidence of successful care.
E) Evidence that care has been effective includes an adequate hourly urine output of at least 0.5 mL/kg/hr, ability to perform activities of daily living, and tolerating oral intake. Not participating in the care of an ostomy and stating that family will provide the care needed are evidence of ineffective coping, an undesirable outcome. Pain rating should be at a level or 3 or less as evidence of successful care.
Page Ref: 89-90
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Evaluation
Learning Outcome: 7. Evaluate expected outcomes for an individual with colorectal cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education

- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.5.3 Apply the nursing process to provide culturally competent care across the life span.

6) The nurse is preparing care for a client recovering from surgery for colorectal cancer. Which interventions should the nurse use when creating a pain management plan for this client? Select all that apply.
A) Provide pain medication upon request.
B) Assess surgical site for inflammation.
C) Assess bowel sounds.
D) Administer pain medication after painful procedures.
E) Instruct to use a pillow to splint when deep breathing and coughing.
Answer: B, C, E
Explanation: A) Pain level should be routinely assessed and pain medication should be provided based upon the assessment and not only when the client requests medication for pain. The surgical site should be routinely assessed for inflammation as a potential source of pain. Bowel sounds should be assessed, as a paralytic ileus could cause an increase in pain. Pain medication should be provided before painful procedures. The client should be instructed to use a pillow to splint the incision when deep breathing and coughing.
B) Pain level should be routinely assessed and pain medication should be provided based upon the assessment and not only when the client requests medication for pain. The surgical site should be routinely assessed for inflammation as a potential source of pain. Bowel sounds should be assessed, as a paralytic ileus could cause an increase in pain. Pain medication should be provided before painful procedures. The client should be instructed to use a pillow to splint the incision when deep breathing and coughing.
C) Pain level should be routinely assessed and pain medication should be provided based upon the assessment and not only when the client requests medication for pain. The surgical site should be routinely assessed for inflammation as a potential source of pain. Bowel sounds should be assessed, as a paralytic ileus could cause an increase in pain. Pain medication should be provided before painful procedures. The client should be instructed to use a pillow to splint the incision when deep breathing and coughing.
D) Pain level should be routinely assessed and pain medication should be provided based upon the assessment and not only when the client requests medication for pain. The surgical site should be routinely assessed for inflammation as a potential source of pain. Bowel sounds should be assessed, as a paralytic ileus could cause an increase in pain. Pain medication should be provided before painful procedures. The client should be instructed to use a pillow to splint the incision when deep breathing and coughing.
E) Pain level should be routinely assessed and pain medication should be provided based upon the assessment and not only when the client requests medication for pain. The surgical site should be routinely assessed for inflammation as a potential source of pain. Bowel sounds should be assessed, as a paralytic ileus could cause an increase in pain. Pain medication should be provided before painful procedures. The client should be instructed to use a pillow to splint the incision when deep breathing and coughing.
Page Ref: 89
Cognitive Level: Creating
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Planning
Learning Outcome: 6. Plan evidence-based care for an individual with colorectal cancer and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.5.2 Identify collaborative therapies used by interdisciplinary teams.

7) The nurse is teaching a client scheduled for a colonoscopy on pre- and post-procedure care. Which statement by the client indicates the need for further teaching?
A) "I will likely have medications that will make me drowsy during the test."
B) "It might be quite painful."
C) "The physician might take tissue samples for further analysis."
D) "The procedure will only take about 1 hour."
Answer: B
Explanation: A) The colonoscopy is not a painful examination. It usually takes about an hour. The client will be given conscious sedation, which causes drowsiness. Tissue samples are often taken during colonoscopies.
B) The colonoscopy is not a painful examination. It usually takes about an hour. The client will be given conscious sedation, which causes drowsiness. Tissue samples are often taken during colonoscopies.
C) The colonoscopy is not a painful examination. It usually takes about an hour. The client will be given conscious sedation, which causes drowsiness. Tissue samples are often taken during colonoscopies.
D) The colonoscopy is not a painful examination. It usually takes about an hour. The client will be given conscious sedation, which causes drowsiness. Tissue samples are often taken during colonoscopies.
Page Ref: 87
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Evaluation
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with colorectal cancer.

QSEN Competencies: I.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: 2.5.2 Identify collaborative therapies used by interdisciplinary teams.

8) A client receiving radiation therapy as treatment for colorectal cancer is experiencing nausea and vomiting. What should the nurse encourage the client to do?
A) Avoid all food and liquid until nausea and vomiting stop.
B) Delay the intake of a meal until 3-4 hours after treatment.
C) Eat spicy or well-seasoned foods instead of bland foods.
D) Use a commercial mouthwash before eating a meal.
Answer: B
Explanation: A) Nausea and vomiting are not uncommon in client receiving radiation, and the client may benefit from delaying meals for a few hours after treatment, allowing the primary effects to subside somewhat. Avoiding all food and liquid could put the client at risk for dehydration. Using a mouthwash and eating spicy foods are not recommended interventions for nausea and vomiting.
B) Nausea and vomiting are not uncommon in client receiving radiation, and the client may benefit from delaying meals for a few hours after treatment, allowing the primary effects to subside somewhat. Avoiding all food and liquid could put the client at risk for dehydration. Using a mouthwash and eating spicy foods are not recommended interventions for nausea and vomiting.
C) Nausea and vomiting are not uncommon in client receiving radiation, and the client may benefit from delaying meals for a few hours after treatment, allowing the primary effects to subside somewhat. Avoiding all food and liquid could put the client at risk for dehydration. Using a mouthwash and eating spicy foods are not recommended interventions for nausea and vomiting.
D) Nausea and vomiting are not uncommon in client receiving radiation, and the client may benefit from delaying meals for a few hours after treatment, allowing the primary effects to subside somewhat. Avoiding all food and liquid could put the client at risk for dehydration. Using a mouthwash and eating spicy foods are not recommended interventions for nausea and vomiting.
Page Ref: 90
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Implementation
Learning Outcome: 6. Plan evidence-based care for an individual with colorectal cancer and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.5.2 Identify collaborative therapies used by interdisciplinary teams.

9) A client with terminal colon cancer is refusing all food and fluids. The client has a living will that states no artificial nutrition is to be provided; however, the family is asking for a gastrostomy tube. What should the nurse do?
A) Take the case to the hospital's ethics committee.
B) Talk to the physician so he or she can move forward with the family's wishes.
C) Honor the client's refusal and help the family come to terms with the situation.
D) Honor the family's wishes and have them sign a consent form.
Answer: C
Explanation: A) A nurse is morally obligated to withhold food and fluids if it is determined to be more harmful to administer them than to withhold them. The nurse must also honor competent clients' refusal of food and fluids. This position is supported by the ANA's Code of Ethics for Nurses, through the nurse's role as a client advocate and through the moral principle of autonomy. Clients, not their families, should make decisions about their own health care and treatment. The physician may or may not be involved, but would not disregard the client's refusal. An ethics committee is usually considered when there is an ethical dilemma and more input is needed to make a decision. In this case, the client has made a decision and it should be honored.
B) A nurse is morally obligated to withhold food and fluids if it is determined to be more harmful to administer them than to withhold them. The nurse must also honor competent clients' refusal of food and fluids. This position is supported by the ANA's Code of Ethics for Nurses, through the nurse's role as a client advocate and through the moral principle of autonomy. Clients, not their families, should make decisions about their own health care and treatment. The physician may or may not be involved, but would not disregard the client's refusal. An ethics committee is usually considered when there is an ethical dilemma and more input is needed to make a decision. In this case, the client has made a decision and it should be honored.
C) A nurse is morally obligated to withhold food and fluids if it is determined to be more harmful to administer them than to withhold them. The nurse must also honor competent clients' refusal of food and fluids. This position is supported by the ANA's Code of Ethics for Nurses, through the nurse's role as a client advocate and through the moral principle of autonomy. Clients, not their families, should make decisions about their own health care and treatment. The physician may or may not be involved, but would not disregard the client's refusal. An ethics committee is usually considered when there is an ethical dilemma and more input is needed to make a decision. In this case, the client has made a decision and it should be honored.
D) A nurse is morally obligated to withhold food and fluids if it is determined to be more harmful to administer them than to withhold them. The nurse must also honor competent clients' refusal of food and fluids. This position is supported by the ANA's Code of Ethics for Nurses, through the nurse's role as a client advocate and through the moral principle of autonomy. Clients, not their families, should make decisions about their own health care and treatment. The physician may or may not be involved, but would not disregard the client's refusal. An ethics committee is usually considered when there is an ethical dilemma and more input is needed to make a decision. In this case, the client has made a decision and it should be honored.
Page Ref: 90
Cognitive Level: Applying
Client Need: Psychosocial Integrity
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 6. Plan evidence-based care for an individual with colorectal cancer and his

or her family in collaboration with other members of the healthcare team.

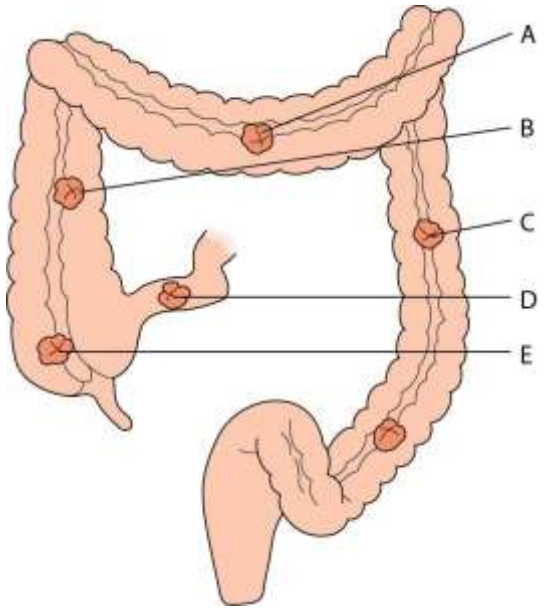
QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
AACN Essential Competencies: IX.3 Implement holistic, patient-centered care that reflects an understanding of human growth and development, pathophysiology, pharmacology, 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: 2.5.2 Identify collaborative therapies used by interdisciplinary teams.

10) A nurse is caring for a client who has had a double-barrel colostomy. Which is true regarding the proximal stoma?
Select all that apply.
A) Is also called the mucus fistula.
B) Diverts feces to the abdominal wall.
C) Expels mucus from the distal colon.
D) Is a functional stoma.
E) Expels mucus from the proximal colon.
Answer: B, D
Explanation: A) When a double-barrel colostomy is performed, two separate stomas are created. The distal colon is not removed, but bypassed. The proximal stoma, which is functional, diverts feces to the abdominal wall. The distal stoma, also called the mucous fistula, expels mucus from the distal colon.
B) When a double-barrel colostomy is performed, two separate stomas are created. The distal colon is not removed, but bypassed. The proximal stoma, which is functional, diverts feces to the abdominal wall. The distal stoma, also called the mucous fistula, expels mucus from the distal colon.
C) When a double-barrel colostomy is performed, two separate stomas are created. The distal colon is not removed, but bypassed. The proximal stoma, which is functional, diverts feces to the abdominal wall. The distal stoma, also called the mucous fistula, expels mucus from the distal colon.
D) When a double-barrel colostomy is performed, two separate stomas are created. The distal colon is not removed, but bypassed. The proximal stoma, which is functional, diverts feces to the abdominal wall. The distal stoma, also called the mucous fistula, expels mucus from the distal colon.
E) When a double-barrel colostomy is performed, two separate stomas are created. The distal colon is not removed, but bypassed. The proximal stoma, which is functional, diverts feces to the abdominal wall. The distal stoma, also called the mucous fistula, expels mucus from the distal colon.
Page Ref: 88
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment

Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with colorectal cancer.

QSEN Competencies: I.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: 2.5.2 Identify collaborative therapies used by interdisciplinary teams.

11) The nurse is caring for a client with colorectal cancer who is post-operative from a transverse colostomy placement. What area of the bowel is involved?



A) A
B) B
C) C
D) D
E) E
Answer: A
Explanation: A) Colostomies take the name of the portion of the colon from which they are formed. The transverse colon is the area of the bowel involved.
B) Colostomies take the name of the portion of the colon from which they are formed. The transverse colon is the area of the bowel involved.
C) Colostomies take the name of the portion of the colon from which they are formed. The transverse colon is the area of the bowel involved.
D) Colostomies take the name of the portion of the colon from which they are formed. The transverse colon is the area of the bowel involved.
E) Colostomies take the name of the portion of the colon from which they are formed. The transverse colon is the area of the bowel involved.
Page Ref: 88
Cognitive Level: Remembering
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with colorectal cancer.

QSEN Competencies: I.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: 2.5.2 Identify collaborative therapies used by interdisciplinary teams.

Exemplar 2.5 Leukemia

1) A pediatric client is receiving chemotherapy for acute lymphocytic leukemia. While providing care for this client, which clinical manifestations would indicate tumor lysis syndrome? Select all that apply.
A) Thrombocytopenia
B) Altered levels of consciousness
C) Respiratory distress
D) Oliguria
E) Upper-extremity edema
Answer: B, D
Explanation: A) Tumor lysis causes a metabolic emergency. Because of electrolyte imbalance, the signs can be oliguria and altered levels of consciousness. Thrombocytopenia occurs with a hematological emergency. Space-occupying lesions can cause respiratory distress and upper-extremity edema.
B) Tumor lysis causes a metabolic emergency. Because of electrolyte imbalance, the signs can be oliguria and altered levels of consciousness. Thrombocytopenia occurs with a hematological emergency. Space-occupying lesions can cause respiratory distress and upper-extremity edema.
C) Tumor lysis causes a metabolic emergency. Because of electrolyte imbalance, the signs can be oliguria and altered levels of consciousness. Thrombocytopenia occurs with a hematological emergency. Space-occupying lesions can cause respiratory distress and upper-extremity edema.
D) Tumor lysis causes a metabolic emergency. Because of electrolyte imbalance, the signs can be oliguria and altered levels of consciousness. Thrombocytopenia occurs with a hematological emergency. Space-occupying lesions can cause respiratory distress and upper-extremity edema.
E) Tumor lysis causes a metabolic emergency. Because of electrolyte imbalance, the signs can be oliguria and altered levels of consciousness. Thrombocytopenia occurs with a hematological emergency. Space-occupying lesions can cause respiratory distress and upper-extremity edema.
Page Ref: 101
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
Nursing Process: Assessment
Learning Outcome: 6. Plan evidence-based care for an individual with leukemia and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.6.2 Identify collaborative therapies used by interdisciplinary teams.

2) An adult client reports to the nurse an inability to tolerate usual exercise and the feeling of fatigue. The client states that these symptoms have been gradual over time. Which physical assessment findings, along with the client's verbal complaints, would indicate chronic lymphocytic leukemia (CML)?
Select all that apply.
A) Joint pain
B) Pallor
C) Splenomegaly
D) Abnormal bleeding
E) Edema
Answer: B, C, E
Explanation: A) The symptoms for CML are insidious and occur over time, affecting older adults. The client may exhibit splenomegaly, pallor, edema, and lymphadenopathy. Bone and joint pain with abnormal bleeding are characteristics of AML, which also occurs in older clients.
B) The symptoms for CML are insidious and occur over time, affecting older adults. The client may exhibit splenomegaly, pallor, edema, and lymphadenopathy. Bone and joint pain with abnormal bleeding are characteristics of AML, which also occurs in older clients.
C) The symptoms for CML are insidious and occur over time, affecting older adults. The client may exhibit splenomegaly, pallor, edema, and lymphadenopathy. Bone and joint pain with abnormal bleeding are characteristics of AML, which also occurs in older clients.
D) The symptoms for CML are insidious and occur over time, affecting older adults. The client may exhibit splenomegaly, pallor, edema, and lymphadenopathy. Bone and joint pain with abnormal bleeding are characteristics of AML, which also occurs in older clients.
E) The symptoms for CML are insidious and occur over time, affecting older adults. The client may exhibit splenomegaly, pallor, edema, and lymphadenopathy. Bone and joint pain with abnormal bleeding are characteristics of AML, which also occurs in older clients.
Page Ref: 93
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of leukemia.

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: 2.6.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

3) The nurse is teaching a class at a local community center about decreasing risk factors for cancer. Which risk factors should the nurse include in the teaching regarding leukemia? Select all that apply.
A) Alkylating agents
B) Diets low in fat
C) Exposure to infectious agents
D) Bloom syndrome
E) Decreased exercise
Answer: A, C, D
Explanation: A) A higher incidence of leukemia associated with chromosomal defects such as Bloom syndrome, exposure to infectious agents, and chemical agents used to treat previous cancer, such as alkylating agents. Low-fat diets are not a risk factor for leukemia, and neither is lack of exercise.
B) A higher incidence of leukemia associated with chromosomal defects such as Bloom syndrome, exposure to infectious agents, and chemical agents used to treat previous cancer, such as alkylating agents. Low-fat diets are not a risk factor for leukemia, and neither is lack of exercise.
C) A higher incidence of leukemia associated with chromosomal defects such as Bloom syndrome, exposure to infectious agents, and chemical agents used to treat previous cancer, such as alkylating agents. Low-fat diets are not a risk factor for leukemia, and neither is lack of exercise.
D) A higher incidence of leukemia associated with chromosomal defects such as Bloom syndrome, exposure to infectious agents, and chemical agents used to treat previous cancer, such as alkylating agents. Low-fat diets are not a risk factor for leukemia, and neither is lack of exercise.
E) A higher incidence of leukemia associated with chromosomal defects such as Bloom syndrome, exposure to infectious agents, and chemical agents used to treat previous cancer, such as alkylating agents. Low-fat diets are not a risk factor for leukemia, and neither is lack of exercise.
Page Ref: 95
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 2. Identify risk factors and prevention methods associated with leukemia.

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: 2.6.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

4) A child has recently been diagnosed with leukemia. The client's sibling is 6 years old and expressing feelings of anger and guilt. This reaction by the sibling is very upsetting to the parents. How should the nurse explain the sibling's behavior?
A) "This behavior is abnormal. I will have the physician refer you to a psychologist."
B) "This behavior is just the sibling's way to get attention."
C) "This is a normal response. Your other child is also affected by the diagnosis and anger and guilt are expected feelings for a 6-year-old."
D) "Your other child should not be so upset. The cancer is easily treated."
Answer: C
Explanation: A) A diagnosis of cancer affects the whole family, and initial feelings experienced by the sibling may be anger and guilt. Seldom will the sibling be unaffected; however, the response is not abnormal. Although the sibling may want attention, this is not the best response by the nurse.
B) A diagnosis of cancer affects the whole family, and initial feelings experienced by the sibling may be anger and guilt. Seldom will the sibling be unaffected; however, the response is not abnormal. Although the sibling may want attention, this is not the best response by the nurse.
C) A diagnosis of cancer affects the whole family, and initial feelings experienced by the sibling may be anger and guilt. Seldom will the sibling be unaffected; however, the response is not abnormal. Although the sibling may want attention, this is not the best response by the nurse.
D) A diagnosis of cancer affects the whole family, and initial feelings experienced by the sibling may be anger and guilt. Seldom will the sibling be unaffected; however, the response is not abnormal. Although the sibling may want attention, this is not the best response by the nurse.
Page Ref: 38-39
Cognitive Level: Applying
Client Need: Psychosocial Integrity
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 3. Illustrate the nursing process in providing culturally competent care across the life span for individuals with leukemia.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.6.3 Apply the nursing process to provide culturally competent care across the life span.

5) The nurse is planning care for a client with acute myeloid leukemia (AML). Which diagnoses are priorities for this client to minimize the risk of complications associated with AML? Select all that apply.
A) Risk for Infection
B) Ineffective Thermoregulation
C) Imbalanced Nutrition
D) Fluid Volume Excess
E) Risk for Ineffective Protection (Bleeding)
Answer: A, E
Explanation: A) AML results in neutropenia (decreased neutrophils = risk of infection) and thrombocytopenia (decreased platelets, which leads to increased risk of bleeding). Therefore, actions to minimize these risks include caution when moving or assisting the client to move, as well as strict hand hygiene to prevent possible cross-contamination. Weight loss is a symptom of chronic myeloid leukemia (CML), not AML. Therefore, dietary needs are not increased with AML. Restriction of fluids and salt are not needed. The client with AML does not have a problem with fluid shifts or edema that would require these restrictions. Fluids are encouraged to remove wastes that occur with chemotherapy treatment and cellular breakdown. Heat intolerance is a symptom of CML, not AML. CML has heat intolerance due to hypermetabolism state present with the condition.
B) AML results in neutropenia (decreased neutrophils = risk of infection) and thrombocytopenia (decreased platelets, which leads to increased risk of bleeding). Therefore, actions to minimize these risks include caution when moving or assisting the client to move, as well as strict hand hygiene to prevent possible cross-contamination. Weight loss is a symptom of chronic myeloid leukemia (CML), not AML. Therefore, dietary needs are not increased with AML. Restriction of fluids and salt are not needed. The client with AML does not have a problem with fluid shifts or edema that would require these restrictions. Fluids are encouraged to remove wastes that occur with chemotherapy treatment and cellular breakdown. Heat intolerance is a symptom of CML, not AML. CML has heat intolerance due to hypermetabolism state present with the condition.
C) AML results in neutropenia (decreased neutrophils = risk of infection) and thrombocytopenia (decreased platelets, which leads to increased risk of bleeding). Therefore, actions to minimize these risks include caution when moving or assisting the client to move, as well as strict hand hygiene to prevent possible cross-contamination. Weight loss is a symptom of chronic myeloid leukemia (CML), not AML. Therefore, dietary needs are not increased with AML. Restriction of fluids and salt are not needed. The client with AML does not have a problem with fluid shifts or edema that would require these restrictions. Fluids are encouraged to remove wastes that occur with chemotherapy treatment and cellular breakdown. Heat intolerance is a symptom of CML, not AML. CML has heat intolerance due to hypermetabolism state present with the condition.
D) AML results in neutropenia (decreased neutrophils = risk of infection) and thrombocytopenia (decreased platelets, which leads to increased risk of bleeding). Therefore, actions to minimize these risks include caution when moving or assisting the client to move, as well as strict hand hygiene to prevent possible cross-contamination. Weight loss is a symptom of chronic myeloid leukemia (CML), not AML. Therefore, dietary needs are not increased with AML. Restriction of fluids and salt are not needed. The client with AML does not have a problem with fluid shifts or edema that would require these restrictions. Fluids are encouraged to remove wastes that occur with chemotherapy treatment and cellular breakdown. Heat intolerance is a symptom of CML, not AML. CML has heat intolerance due to hypermetabolism state present with the condition.

E) AML results in neutropenia (decreased neutrophils = risk of infection) and thrombocytopenia (decreased platelets, which leads to increased risk of bleeding). Therefore, actions to minimize these risks include caution when moving or assisting the client to move, as well as strict hand hygiene to prevent possible cross-contamination. Weight loss is a symptom of chronic myeloid leukemia (CML), not AML. Therefore, dietary needs are not increased with AML. Restriction of fluids and salt are not needed. The client with AML does not have a problem with fluid shifts or edema that would require these restrictions. Fluids are encouraged to remove wastes that occur with chemotherapy treatment and cellular breakdown. Heat intolerance is a symptom of CML, not AML. CML has heat intolerance due to hypermetabolism state present with the condition.
Page Ref: 100
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Planning
Learning Outcome: 4. Formulate priority nursing diagnoses appropriate for an individual with leukemia.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.6.3 Apply the nursing process to provide culturally competent care across the life span.

6) A pediatric client being treated for acute lymphocytic leukemia (ALL) has a white blood cell count of 1,000/mm3. Which nursing diagnosis would be a priority for this client?
A) Readiness for Enhanced Immunization Status
B) Impaired Gas Exchange
C) Risk for Infection
D) Activity Intolerance
Answer: C
Explanation: A) In leukemia, the WBCs that are present are immature and incapable of fighting infection. The client with a WBC count of 500-1,000/mm3 is considered a moderate risk for infection. The client may or may not have activity intolerance, but it is not the priority nursing diagnosis. Impaired gas exchange is not evident in this client. Children with cancer would not be receiving immunizations during treatment.
B) In leukemia, the WBCs that are present are immature and incapable of fighting infection. The client with a WBC count of 500-1,000/mm3 is considered a moderate risk for infection. The client may or may not have activity intolerance, but it is not the priority nursing diagnosis. Impaired gas exchange is not evident in this client. Children with cancer would not be receiving immunizations during treatment.
C) In leukemia, the WBCs that are present are immature and incapable of fighting infection. The client with a WBC count of 500-1,000/mm3 is considered a moderate risk for infection. The client may or may not have activity intolerance, but it is not the priority nursing diagnosis. Impaired gas exchange is not evident in this client. Children with cancer would not be receiving immunizations during treatment.
D) In leukemia, the WBCs that are present are immature and incapable of fighting infection. The client with a WBC count of 500-1,000/mm3 is considered a moderate risk for infection. The client may or may not have activity intolerance, but it is not the priority nursing diagnosis. Impaired gas exchange is not evident in this client. Children with cancer would not be receiving immunizations during treatment.
Page Ref: 100
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Planning
Learning Outcome: 4. Formulate priority nursing diagnoses appropriate for an individual with leukemia.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.6.3 Apply the nursing process to provide culturally competent care across the life span.

7) A young school-age male child is admitted with newly diagnosed acute lymphocytic leukemia. The multidisciplinary team is meeting to plan care for this child and family. Which statement by the parents should receive priority in the nursing planning process?
A) "His brother is upset about the amount of time we are away from home."
B) "Can we plan a trip out of town sometime this summer?"
C) "We are afraid that he will dislodge his central line at school."
D) "How do we get our parking validated?"
Answer: C
Explanation: A) This is an imminent, potentially life-threatening concern. Financial worries, although a significant concern, would not take precedence over a potentially life-threatening concern. Questions about travel and other family matters should be addressed, but they are not acute issues. The impact of the illness on the client's brother is a realistic concern, but not acute or life-threatening.
B) This is an imminent, potentially life-threatening concern. Financial worries, although a significant concern, would not take precedence over a potentially life-threatening concern. Questions about travel and other family matters should be addressed, but they are not acute issues. The impact of the illness on the client's brother is a realistic concern, but not acute or life-threatening.
C) This is an imminent, potentially life-threatening concern. Financial worries, although a significant concern, would not take precedence over a potentially life-threatening concern. Questions about travel and other family matters should be addressed, but they are not acute issues. The impact of the illness on the client's brother is a realistic concern, but not acute or life-threatening.
D) This is an imminent, potentially life-threatening concern. Financial worries, although a significant concern, would not take precedence over a potentially life-threatening concern. Questions about travel and other family matters should be addressed, but they are not acute issues. The impact of the illness on the client's brother is a realistic concern, but not acute or life-threatening.
Page Ref: 101
Cognitive Level: Analyzing
Client Need: Psychosocial Integrity
Client Need Sub:
Nursing Process: Planning
Learning Outcome: 6. Plan evidence-based care for an individual with leukemia and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.6.2 Identify collaborative therapies used by interdisciplinary teams.

8) The nurse is caring for a client who has just been diagnosed with chronic myeloid leukemia (CML). The client and the nurse are discussing the anticipatory grieving process. Which action by the nurse would be inappropriate at this time?
A) Make referrals for support or bereavement groups.
B) Identify family stress management strategies.
C) Encourage the client to see an attorney now to get affairs "in order" before it is too late.
D) Encourage the client to share feelings and discuss grieving.
Answer: C
Explanation: A) Encouraging the client to get affairs "in order" now to avoid waiting until it is too late is not appropriate at this time: Although this topic is helpful to prepare for the actual death, this is not the time because this removes all hope. Establishing open communication and sharing of feelings to discuss grieving is appropriate at this time: The nurse should establish a rapport and use therapeutic communication to allow the client to express feelings and emotions about the new diagnosis of CML. Making referrals for support or bereavement groups is appropriate at this time: Offering information and resources about agencies that deal with grieving is an option to show the client that agencies can assist when the need is felt or when the client is ready to use them. In addition, this helps the client understand that anticipatory grieving is a normal process that occurs. Identifying family stress management strategies is appropriate at this time: Exploring possible stressors and strategies associated with the disease progression will give the client a realistic approach to understanding the disease process and its consequences. This also helps the client begin to share with the family to build a foundation for mutual understanding and trust.
B) Encouraging the client to get affairs "in order" now to avoid waiting until it is too late is not appropriate at this time: Although this topic is helpful to prepare for the actual death, this is not the time because this removes all hope. Establishing open communication and sharing of feelings to discuss grieving is appropriate at this time: The nurse should establish a rapport and use therapeutic communication to allow the client to express feelings and emotions about the new diagnosis of CML. Making referrals for support or bereavement groups is appropriate at this time: Offering information and resources about agencies that deal with grieving is an option to show the client that agencies can assist when the need is felt or when the client is ready to use them. In addition, this helps the client understand that anticipatory grieving is a normal process that occurs. Identifying family stress management strategies is appropriate at this time: Exploring possible stressors and strategies associated with the disease progression will give the client a realistic approach to understanding the disease process and its consequences. This also helps the client begin to share with the family to build a foundation for mutual understanding and trust.

C) Encouraging the client to get affairs "in order" now to avoid waiting until it is too late is not appropriate at this time: Although this topic is helpful to prepare for the actual death, this is not the time because this removes all hope. Establishing open communication and sharing of feelings to discuss grieving is appropriate at this time: The nurse should establish a rapport and use therapeutic communication to allow the client to express feelings and emotions about the new diagnosis of CML. Making referrals for support or bereavement groups is appropriate at this time: Offering information and resources about agencies that deal with grieving is an option to show the client that agencies can assist when the need is felt or when the client is ready to use them. In addition, this helps the client understand that anticipatory grieving is a normal process that occurs. Identifying family stress management strategies is appropriate at this time: Exploring possible stressors and strategies associated with the disease progression will give the client a realistic approach to understanding the disease process and its consequences. This also helps the client begin to share with the family to build a foundation for mutual understanding and trust.
D) Encouraging the client to get affairs "in order" now to avoid waiting until it is too late is not appropriate at this time: Although this topic is helpful to prepare for the actual death, this is not the time because this removes all hope. Establishing open communication and sharing of feelings to discuss grieving is appropriate at this time: The nurse should establish a rapport and use therapeutic communication to allow the client to express feelings and emotions about the new diagnosis of CML. Making referrals for support or bereavement groups is appropriate at this time: Offering information and resources about agencies that deal with grieving is an option to show the client that agencies can assist when the need is felt or when the client is ready to use them. In addition, this helps the client understand that anticipatory grieving is a normal process that occurs. Identifying family stress management strategies is appropriate at this time: Exploring possible stressors and strategies associated with the disease progression will give the client a realistic approach to understanding the disease process and its consequences. This also helps the client begin to share with the family to build a foundation for mutual understanding and trust.
Page Ref: 102
Cognitive Level: Applying
Client Need: Psychosocial Integrity
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 6. Plan evidence-based care for an individual with leukemia and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.6.2 Identify collaborative therapies used by interdisciplinary teams.

9) The nurse is caring for a school-aged child who had a bone marrow transplant for the treatment of leukemia several weeks ago. The child requires protective isolation. Which statement by the child's family indicates understanding of this type of isolation?
A) "We will encourage oral hygiene twice a day.
B) "We will encourage meticulous hand washing among all people in contact with our child."
C) "You will have to administer all medications by IM injection."
D) "It will be important to restrict all visitors."
Answer: B
Explanation: A) A child on protective isolation will be at an increased risk for infection. It will be important to encourage meticulous hand washing among all people who come in contact with the child. Restrict only visitors with colds, flu, or infection. Medications by injection should be avoided. Oral hygiene should be encouraged after every meal.
B) A child on protective isolation will be at an increased risk for infection. It will be important to encourage meticulous hand washing among all people who come in contact with the child. Restrict only visitors with colds, flu, or infection. Medications by injection should be avoided. Oral hygiene should be encouraged after every meal.
C) A child on protective isolation will be at an increased risk for infection. It will be important to encourage meticulous hand washing among all people who come in contact with the child. Restrict only visitors with colds, flu, or infection. Medications by injection should be avoided. Oral hygiene should be encouraged after every meal.
D) A child on protective isolation will be at an increased risk for infection. It will be important to encourage meticulous hand washing among all people who come in contact with the child. Restrict only visitors with colds, flu, or infection. Medications by injection should be avoided. Oral hygiene should be encouraged after every meal.
Page Ref: 101
Cognitive Level: Analyzing
Client Need: Safe and Effective Care Environment
Client Need Sub: Safety and Infection Control
Nursing Process: Evaluation
Learning Outcome: 7. Evaluate expected outcomes for an individual with leukemia.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.6.3 Apply the nursing process to provide culturally competent care across the life span.

10) The nurse is assisting the healthcare provider with a bone marrow aspiration and biopsy on a client who has leukemia. The client also has thrombocytopenia. Upon completing of the test, which intervention is a priority for the nurse?
A) Dispose of the equipment used, and clean the area properly.
B) Label and refrigerate the specimen obtained by the physician.
C) Hold pressure on the wound for approximately 5 minutes.
D) Make certain the client understands the purpose of the test.
Answer: C
Explanation: A) The most important task for the nurse is to prevent bleeding after the biopsy. Holding pressure on the wound for 5 minutes is effective. Dealing with the specimen is accomplished by a third party or after the nurse stabilizes the client. An explanation of the test is performed before the procedure is begun. Cleaning the area is completed after the client is stable and the specimen is sent to the laboratory.
B) The most important task for the nurse is to prevent bleeding after the biopsy. Holding pressure on the wound for 5 minutes is effective. Dealing with the specimen is accomplished by a third party or after the nurse stabilizes the client. An explanation of the test is performed before the procedure is begun. Cleaning the area is completed after the client is stable and the specimen is sent to the laboratory.
C) The most important task for the nurse is to prevent bleeding after the biopsy. Holding pressure on the wound for 5 minutes is effective. Dealing with the specimen is accomplished by a third party or after the nurse stabilizes the client. An explanation of the test is performed before the procedure is begun. Cleaning the area is completed after the client is stable and the specimen is sent to the laboratory.
D) The most important task for the nurse is to prevent bleeding after the biopsy. Holding pressure on the wound for 5 minutes is effective. Dealing with the specimen is accomplished by a third party or after the nurse stabilizes the client. An explanation of the test is performed before the procedure is begun. Cleaning the area is completed after the client is stable and the specimen is sent to the laboratory.
Page Ref: 101
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Reduction of Risk Potential
Nursing Process: Implementation
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with leukemia.

QSEN Competencies: I.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: 2.6.2 Identify collaborative therapies used by interdisciplinary teams.

11) The nurse is caring for a client with leukemia who is experiencing neutropenia as a result of chemotherapy. Which action should the nurse include in the plan of care for this client?
A) Replace hand hygiene with gloves.
B) Restrict visitors with communicable illnesses.
C) Restrict fluid intake.
D) Insert an indwelling urinary catheter to prevent skin breakdown.
Answer: B
Explanation: A) In the neutropenic client, visitors with communicable infections should be restricted. Fluid intake should be encouraged. Gloves may be appropriate but should never replace hand hygiene. Invasive procedures such as indwelling catheters should be avoided.
B) In the neutropenic client, visitors with communicable infections should be restricted. Fluid intake should be encouraged. Gloves may be appropriate but should never replace hand hygiene. Invasive procedures such as indwelling catheters should be avoided.
C) In the neutropenic client, visitors with communicable infections should be restricted. Fluid intake should be encouraged. Gloves may be appropriate but should never replace hand hygiene. Invasive procedures such as indwelling catheters should be avoided.
D) In the neutropenic client, visitors with communicable infections should be restricted. Fluid intake should be encouraged. Gloves may be appropriate but should never replace hand hygiene. Invasive procedures such as indwelling catheters should be avoided.
Page Ref: 101
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Implementation
Learning Outcome: 6. Plan evidence-based care for an individual with leukemia and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.6.2 Identify collaborative therapies used by interdisciplinary teams.

12) A nurse working in the pediatric intensive care unit (PICU) is caring for a child with leukemia. What is the most common type of leukemia in children?
A) Chronic lymphocytic leukemia
B) Acute lymphocytic (lymphoblastic) leukemia
C) Acute myeloid (myeloblastic) leukemia
D) Chronic myeloid (myelogenous) leukemia.
Answer: B
Explanation: A) Acute lymphoblastic leukemia is the most common type of leukemia in children and the most common cancer affecting children under 5 years of age. The other choices are also types of leukemia, but are incorrect choices.
B) Acute lymphoblastic leukemia is the most common type of leukemia in children and the most common cancer affecting children under 5 years of age. The other choices are also types of leukemia, but are incorrect choices.
C) Acute lymphoblastic leukemia is the most common type of leukemia in children and the most common cancer affecting children under 5 years of age. The other choices are also types of leukemia, but are incorrect choices.
D) Acute lymphoblastic leukemia is the most common type of leukemia in children and the most common cancer affecting children under 5 years of age. The other choices are also types of leukemia, but are incorrect choices.
Page Ref: 93
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of leukemia.

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: 2.6.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

13) A pediatric nurse is caring for a child with acute lymphoblastic leukemia (ALL). When providing education to the child's parents regarding this disease, which topics should the nurse include?
Select all that apply.
A) ALL is characterized by abnormal proliferation of all bone marrow elements.
B) This form of leukemia is the most common type among children and adolescents.
C) Most cases of ALL result from the malignant transformation of B cells.
D) This form of leukemia is very rarely seen in children.
E) The onset of ALL is usually gradual.
Answer: B, C
Explanation: A) Acute lymphoblastic leukemia (ALL) is the most common type of leukemia among children and adolescents. Most cases of ALL result from the malignant transformation of B cells. The onset of ALL is usually acute and rapid. Chronic myeloid leukemia (CML) is characterized by abnormal proliferation of all bone marrow elements.
B) Acute lymphoblastic leukemia (ALL) is the most common type of leukemia among children and adolescents. Most cases of ALL result from the malignant transformation of B cells. The onset of ALL is usually acute and rapid. Chronic myeloid leukemia (CML) is characterized by abnormal proliferation of all bone marrow elements.
C) Acute lymphoblastic leukemia (ALL) is the most common type of leukemia among children and adolescents. Most cases of ALL result from the malignant transformation of B cells. The onset of ALL is usually acute and rapid. Chronic myeloid leukemia (CML) is characterized by abnormal proliferation of all bone marrow elements.
D) Acute lymphoblastic leukemia (ALL) is the most common type of leukemia among children and adolescents. Most cases of ALL result from the malignant transformation of B cells. The onset of ALL is usually acute and rapid. Chronic myeloid leukemia (CML) is characterized by abnormal proliferation of all bone marrow elements.
E) Acute lymphoblastic leukemia (ALL) is the most common type of leukemia among children and adolescents. Most cases of ALL result from the malignant transformation of B cells. The onset of ALL is usually acute and rapid. Chronic myeloid leukemia (CML) is characterized by abnormal proliferation of all bone marrow elements.
Page Ref: 93
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Implementation
Learning Outcome: 6. Plan evidence-based care for an individual with leukemia and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.6.2 Identify collaborative therapies used by interdisciplinary teams.

14) A nurse is caring for a client with chronic myeloid leukemia (CML) who is neutropenic. Which interventions will the nurse implement to ensure this client's safety?
Select all that apply.
A) Place client in reverse isolation.
B) Place patient in standard precaution isolation.
C) Administer granulocyte colony-stimulating factor (G-CSF) as ordered.
D) Administer neutrophil colony-stimulating factor (N-CSF) as ordered.
E) Administer a prophylactic gram-negative antibiotic.
Answer: A, C
Explanation: A) A client who is neutropenic has a decrease in the level of white blood cells (WBCs) and is susceptible to infection and/or disease. To ensure the safety of the client with neutropenia, the nurse will place the client in reverse isolation, administer granulocyte colony-stimulating factor (G-CSF) as ordered, and administer a broad-spectrum antibiotic as ordered. Standard precautions should be used for all clients and this does not ensure safety of the neutropenic client.
B) A client who is neutropenic has a decrease in the level of white blood cells (WBCs) and is susceptible to infection and/or disease. To ensure the safety of the client with neutropenia, the nurse will place the client in reverse isolation, administer granulocyte colony-stimulating factor (G-CSF) as ordered, and administer a broad-spectrum antibiotic as ordered. Standard precautions should be used for all clients and this does not ensure safety of the neutropenic client.
C) A client who is neutropenic has a decrease in the level of white blood cells (WBCs) and is susceptible to infection and/or disease. To ensure the safety of the client with neutropenia, the nurse will place the client in reverse isolation, administer granulocyte colony-stimulating factor (G-CSF) as ordered, and administer a broad-spectrum antibiotic as ordered. Standard precautions should be used for all clients and this does not ensure safety of the neutropenic client.
D) A client who is neutropenic has a decrease in the level of white blood cells (WBCs) and is susceptible to infection and/or disease. To ensure the safety of the client with neutropenia, the nurse will place the client in reverse isolation, administer granulocyte colony-stimulating factor (G-CSF) as ordered, and administer a broad-spectrum antibiotic as ordered. Standard precautions should be used for all clients and this does not ensure safety of the neutropenic client.
E) A client who is neutropenic has a decrease in the level of white blood cells (WBCs) and is susceptible to infection and/or disease. To ensure the safety of the client with neutropenia, the nurse will place the client in reverse isolation, administer granulocyte colony-stimulating factor (G-CSF) as ordered, and administer a broad-spectrum antibiotic as ordered. Standard precautions should be used for all clients and this does not ensure safety of the neutropenic client.
Page Ref: 101
Cognitive Level: Analyzing
Client Need: Safe and Effective Care Environment
Client Need Sub: Safety and Infection Control
Nursing Process: Implementation
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with leukemia.

QSEN Competencies: I.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: 2.6.2 Identify collaborative therapies used by interdisciplinary teams.

15) A nurse is planning care for a client with leukemia. The nurse chooses "Risk for Bleeding" as the nursing diagnosis. Which interventions support this nursing diagnosis?
Select all that apply.
A) Educate client in use of soft toothbrush for oral care.
B) Use non-electric razor when providing grooming for client.
C) Limit parenteral injections.
D) Apply pressure to arterial puncture sites for 5 minutes.
E) Encourage client to deep breathe and huff cough frequently.
Answer: A, C
Explanation: A) The client at risk for bleeding has specific interventions to which the nurse should adhere. The nurse should educate the client in the use of soft toothbrush and the use of an electric razor to avoid bleeding. The nurse should also limit the use of parenteral injections and apply 15-20 minutes of pressure to any arterial puncture sites. The nurse should discourage the client to forcefully cough to prevent further bleeding.
B) The client at risk for bleeding has specific interventions to which the nurse should adhere. The nurse should educate the client in the use of soft toothbrush and the use of an electric razor to avoid bleeding. The nurse should also limit the use of parenteral injections and apply 15-20 minutes of pressure to any arterial puncture sites. The nurse should discourage the client to forcefully cough to prevent further bleeding.
C) The client at risk for bleeding has specific interventions to which the nurse should adhere. The nurse should educate the client in the use of soft toothbrush and the use of an electric razor to avoid bleeding. The nurse should also limit the use of parenteral injections and apply 15-20 minutes of pressure to any arterial puncture sites. The nurse should discourage the client to forcefully cough to prevent further bleeding.
D) The client at risk for bleeding has specific interventions to which the nurse should adhere. The nurse should educate the client in the use of soft toothbrush and the use of an electric razor to avoid bleeding. The nurse should also limit the use of parenteral injections and apply 15-20 minutes of pressure to any arterial puncture sites. The nurse should discourage the client to forcefully cough to prevent further bleeding.
E) The client at risk for bleeding has specific interventions to which the nurse should adhere. The nurse should educate the client in the use of soft toothbrush and the use of an electric razor to avoid bleeding. The nurse should also limit the use of parenteral injections and apply 15-20 minutes of pressure to any arterial puncture sites. The nurse should discourage the client to forcefully cough to prevent further bleeding.
Page Ref: 101
Cognitive Level: Applying
Client Need: Safe and Effective Care Environment
Client Need Sub: Safety and Infection Control
Nursing Process: Implementation
Learning Outcome: 4. Formulate priority nursing diagnoses appropriate for an individual with leukemia.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.6.3 Apply the nursing process to provide culturally competent care across the life span.

Exemplar 2.6 Lung Cancer

1) The student nurse is questioning the instructor about the different types of chemotherapeutic agents used to treat cancer. Which statement by the instructor best explains why lung cancers are less sensitive to antineoplastic agents than other types of cancers?
A) "Lung cancer cells have a low growth fraction, so they are less sensitive to antineoplastic agents."
B) "Lung cancer cells grow in a high-oxygen environment, so they are not very sensitive to antineoplastic agents."
C) "Lung cancer cells have been growing for a long time before detection, so they are less sensitive to antineoplastic agents."
D) "Lung cancer cells have a very erratic cell cycle, so they are not very sensitive to antineoplastic agents."
Answer: A
Explanation: A) Growth fraction is a ratio of the number of replicating cells to the number of resting cells. Antineoplastic drugs are much more toxic to tissues and tumors with high growth fractions. Breast and lung cancers have low growth fractions. Lung cancer cells may grow for a long time before detection, but this is not the primary reason they are less susceptible to antineoplastic agents. A high-oxygen environment is not the reason why lung cancer cells are less sensitive to antineoplastic agents. Lung cancer cells do not have a very erratic cell cycle.
B) Growth fraction is a ratio of the number of replicating cells to the number of resting cells. Antineoplastic drugs are much more toxic to tissues and tumors with high growth fractions. Breast and lung cancers have low growth fractions. Lung cancer cells may grow for a long time before detection, but this is not the primary reason they are less susceptible to antineoplastic agents. A high-oxygen environment is not the reason why lung cancer cells are less sensitive to antineoplastic agents. Lung cancer cells do not have a very erratic cell cycle.
C) Growth fraction is a ratio of the number of replicating cells to the number of resting cells. Antineoplastic drugs are much more toxic to tissues and tumors with high growth fractions.

Breast and lung cancers have low growth fractions. Lung cancer cells may grow for a long time before detection, but this is not the primary reason they are less susceptible to antineoplastic agents. A high-oxygen environment is not the reason why lung cancer cells are less sensitive to antineoplastic agents. Lung cancer cells do not have a very erratic cell cycle.
D) Growth fraction is a ratio of the number of replicating cells to the number of resting cells. Antineoplastic drugs are much more toxic to tissues and tumors with high growth fractions. Breast and lung cancers have low growth fractions. Lung cancer cells may grow for a long time before detection, but this is not the primary reason they are less susceptible to antineoplastic agents. A high-oxygen environment is not the reason why lung cancer cells are less sensitive to antineoplastic agents. Lung cancer cells do not have a very erratic cell cycle.
Page Ref: 108
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
Nursing Process: Implementation
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of lung cancer.

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: 2.7.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

2) The nurse is caring for a client in a community clinic who wishes to quit smoking. The client asks the nurse, "If I quit smoking, will my risk of lung cancer be the same as a nonsmoker?" Which is the best response by the nurse?
A) "No one knows for sure what the risk is for someone who quits smoking."
B) "Your risk of lung cancer will be equal to that of a non-smoker."
C) "Your risk of lung cancer will decline if you quit, but it will remain higher than a non-smoker's."
D) "Your risk of lung cancer will never drop because the damage has already been done."
Answer: C
Explanation: A) While the client's risk for lung cancer will diminish sharply upon quitting smoking, it will not drop to the level of someone who never smoked. Another factor when calculating risk is the client's exposure to secondhand smoke, which also increases risk. Although damage has been done, the client's risk will drop dramatically upon quitting smoking. The risk for someone who quits is known to be dramatically less than for someone who continues to smoke.
B) While the client's risk for lung cancer will diminish sharply upon quitting smoking, it will not drop to the level of someone who never smoked. Another factor when calculating risk is the client's exposure to secondhand smoke, which also increases risk. Although damage has been done, the client's risk will drop dramatically upon quitting smoking. The risk for someone who quits is known to be dramatically less than for someone who continues to smoke.
C) While the client's risk for lung cancer will diminish sharply upon quitting smoking, it will not drop to the level of someone who never smoked. Another factor when calculating risk is the client's exposure to secondhand smoke, which also increases risk. Although damage has been done, the client's risk will drop dramatically upon quitting smoking. The risk for someone who quits is known to be dramatically less than for someone who continues to smoke.
D) While the client's risk for lung cancer will diminish sharply upon quitting smoking, it will not drop to the level of someone who never smoked. Another factor when calculating risk is the client's exposure to secondhand smoke, which also increases risk. Although damage has been done, the client's risk will drop dramatically upon quitting smoking. The risk for someone who quits is known to be dramatically less than for someone who continues to smoke.
Page Ref: 105
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 2. Identify risk factors and prevention methods associated with lung cancer.

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: 2.7.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

3) A male Hispanic client has had a lung biopsy. The results indicate a poor prognosis for the client. The family is at the client's bedside and begins to moan and cry loudly. The health care provider has told the nurse that he needs to have the consent form signed for surgery. The client has asked the nurse to allow the family private time. What should the nurse do at this time?
A) Ask the family to come back later.
B) Have the doctor get the consent with the family present.
C) Provide the client and family privacy.
D) Take the client to another room.
Answer: C
Explanation: A) As the client advocate, the nurse would allow this family to bond according to their customs. Asking the family to leave may cause extreme stress to the client and family. It would not be appropriate for the doctor to try to explain the surgery while the family is grieving. Taking the client to another room would deprive the client from participating in his family's customs.
B) As the client advocate, the nurse would allow this family to bond according to their customs. Asking the family to leave may cause extreme stress to the client and family. It would not be appropriate for the doctor to try to explain the surgery while the family is grieving. Taking the client to another room would deprive the client from participating in his family's customs.
C) As the client advocate, the nurse would allow this family to bond according to their customs. Asking the family to leave may cause extreme stress to the client and family. It would not be appropriate for the doctor to try to explain the surgery while the family is grieving. Taking the client to another room would deprive the client from participating in his family's customs.
D) As the client advocate, the nurse would allow this family to bond according to their customs. Asking the family to leave may cause extreme stress to the client and family. It would not be appropriate for the doctor to try to explain the surgery while the family is grieving. Taking the client to another room would deprive the client from participating in his family's customs.
Page Ref: 110
Cognitive Level: Applying
Client Need: Psychosocial Integrity
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 3. Illustrate the nursing process in providing culturally competent care across the life span for individuals with lung cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.7.3 Apply the nursing process to provide culturally competent care across the life span.

4) The nurse is planning care to address ineffective airway clearance for a client with lung cancer. Which interventions should the nurse include in the client's plan of care?
Select all that apply.
A) Increase fluid intake to 3000 mL per day.
B) Turn, cough, and deep breathe every 2 hours.
C) Chest percussion every 8 hours
D) Smoking cessation education
E) Administer pneumococcal vaccine.
Answer: A, B, C
Explanation: A) An adequate fluid intake is needed. Clients with pneumonia should increase their fluid intake in order to decrease the viscosity of respiratory secretions. Turning, coughing, deep breathing and chest percussion can help clear secretions. Administering the pneumococcal vaccine and educating the client on smoking cessation are important in treating a client with pneumonia, but they would be aligned with a different nursing diagnosis.
B) An adequate fluid intake is needed. Clients with pneumonia should increase their fluid intake in order to decrease the viscosity of respiratory secretions. Turning, coughing, deep breathing and chest percussion can help clear secretions. Administering the pneumococcal vaccine and educating the client on smoking cessation are important in treating a client with pneumonia, but they would be aligned with a different nursing diagnosis.
C) An adequate fluid intake is needed. Clients with pneumonia should increase their fluid intake in order to decrease the viscosity of respiratory secretions. Turning, coughing, deep breathing and chest percussion can help clear secretions. Administering the pneumococcal vaccine and educating the client on smoking cessation are important in treating a client with pneumonia, but they would be aligned with a different nursing diagnosis.
D) An adequate fluid intake is needed. Clients with pneumonia should increase their fluid intake in order to decrease the viscosity of respiratory secretions. Turning, coughing, deep breathing and chest percussion can help clear secretions. Administering the pneumococcal vaccine and educating the client on smoking cessation are important in treating a client with pneumonia, but they would be aligned with a different nursing diagnosis.
E) An adequate fluid intake is needed. Clients with pneumonia should increase their fluid intake in order to decrease the viscosity of respiratory secretions. Turning, coughing, deep breathing and chest percussion can help clear secretions. Administering the pneumococcal vaccine and educating the client on smoking cessation are important in treating a client with pneumonia, but they would be aligned with a different nursing diagnosis.
Page Ref: 109
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Planning
Learning Outcome: 4. Formulate priority nursing diagnoses appropriate for an individual with lung cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care

- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.7.3 Apply the nursing process to provide culturally competent care across the life span.

5) The nurse is caring for an older adult client who is very thin and emaciated. The client reports new onset of shortness of breath. A chest x-ray reveals a spot on the lungs that the physician believes is an inoperable lung cancer. Due to the client's poor nutritional status, chemotherapy is not an option. The health care provider also believes that the location of the cancer would make radiation therapy unsuccessful. In advocating for this client, what should the nurse encourage the healthcare team to do?
A) Provide palliative care to keep the client comfortable without diagnostic testing.
B) Perform any procedure necessary to diagnose the client properly.
C) Promote the use of blood tests to diagnose the suspected cancer.
D) Determine the client's and family's wishes regarding diagnostic testing.
Answer: D
Explanation: A) An older adult emaciated client may have few options for treatment of cancer, if confirmed. The best course of treatment may be palliative care, but it is the choice of the client and family that should direct the plan of care and choices of diagnostic testing.
B) An older adult emaciated client may have few options for treatment of cancer, if confirmed. The best course of treatment may be palliative care, but it is the choice of the client and family that should direct the plan of care and choices of diagnostic testing.
C) An older adult emaciated client may have few options for treatment of cancer, if confirmed. The best course of treatment may be palliative care, but it is the choice of the client and family that should direct the plan of care and choices of diagnostic testing.
D) An older adult emaciated client may have few options for treatment of cancer, if confirmed. The best course of treatment may be palliative care, but it is the choice of the client and family that should direct the plan of care and choices of diagnostic testing.
Page Ref: 110
Cognitive Level: Analyzing
Client Need: Psychosocial Integrity
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 6. Plan evidence-based care for an individual with lung cancer and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.7.2 Identify collaborative therapies used by interdisciplinary teams.

6) A nurse is caring for a client recovering from a wedge resection of the left lung for a tumor. What would be appropriate goals for the nursing diagnosis of ineffective airway clearance? Select all that apply.
A) Minimize accumulation of fluid.
B) Participation in care by the client
C) Maintain a patent airway.
D) Maintain current weight.
E) Express feelings and concerns.
Answer: A, C
Explanation: A) All of the outcomes for this client are viable, but appropriate outcomes for the diagnosis of ineffective airway clearance are maintaining a patent airway and minimizing the accumulation of fluid.
B) All of the outcomes for this client are viable, but appropriate outcomes for the diagnosis of ineffective airway clearance are maintaining a patent airway and minimizing the accumulation of fluid.
C) All of the outcomes for this client are viable, but appropriate outcomes for the diagnosis of ineffective airway clearance are maintaining a patent airway and minimizing the accumulation of fluid.
D) All of the outcomes for this client are viable, but appropriate outcomes for the diagnosis of ineffective airway clearance are maintaining a patent airway and minimizing the accumulation of fluid.
E) All of the outcomes for this client are viable, but appropriate outcomes for the diagnosis of ineffective airway clearance are maintaining a patent airway and minimizing the accumulation of fluid.
Page Ref: 109
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Planning
Learning Outcome: 7. Evaluate expected outcomes for an individual with lung cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.7.3 Apply the nursing process to provide culturally competent care across the life span.

7) The nurse is caring for a client who is undergoing diagnostic tests to rule out lung cancer. The client asks the nurse why a computed tomography (CT) scan was ordered. What is the best response by the nurse?
A) "The doctor prefers this test."
B) "To rule out the possibility that your problems are caused by pneumonia."
C) "It is more specific in diagnosing your condition."
D) "Why are you concerned about this test?"
Answer: C
Explanation: A) Computed tomography (CT) is used to evaluate and localize tumors, particularly tumors in the lung parenchyma and pleura. It also is done before needle biopsy to localize the tumor. In addition, CT scanning can detect distant tumor metastasis and evaluate tumor response to treatment. A chest x-ray can be used to diagnose pneumonia. The client's question is valid and should not be minimized by asking why the client is having concerns about the test.
B) Computed tomography (CT) is used to evaluate and localize tumors, particularly tumors in the lung parenchyma and pleura. It also is done before needle biopsy to localize the tumor. In addition, CT scanning can detect distant tumor metastasis and evaluate tumor response to treatment. A chest x-ray can be used to diagnose pneumonia. The client's question is valid and should not be minimized by asking why the client is having concerns about the test.
C) Computed tomography (CT) is used to evaluate and localize tumors, particularly tumors in the lung parenchyma and pleura. It also is done before needle biopsy to localize the tumor. In addition, CT scanning can detect distant tumor metastasis and evaluate tumor response to treatment. A chest x-ray can be used to diagnose pneumonia. The client's question is valid and should not be minimized by asking why the client is having concerns about the test.
D) Computed tomography (CT) is used to evaluate and localize tumors, particularly tumors in the lung parenchyma and pleura. It also is done before needle biopsy to localize the tumor. In addition, CT scanning can detect distant tumor metastasis and evaluate tumor response to treatment. A chest x-ray can be used to diagnose pneumonia. The client's question is valid and should not be minimized by asking why the client is having concerns about the test.
Page Ref: 108
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Reduction of Risk Potential
Nursing Process: Implementation
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with lung cancer.

QSEN Competencies: I.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: 2.7.2 Identify collaborative therapies used by interdisciplinary teams.

Exemplar 2.7 Prostate Cancer

1) A nurse is screening a client for prostate cancer. Which assessment findings would cause the nurse to suspect that the client has prostate cancer?
Select all that apply.
A) Fatigue
B) Upper extremity weakness
C) Back pain
D) Hematuria
E) Scrotal edema
Answer: A, C, D
Explanation: A) Unfortunately, many clients with prostate cancer remain undiagnosed until the cancer is well established. Hematuria, back pain, bilateral lower extremity weakness, and fatigue are symptoms associated with prostate cancer.
B) Unfortunately, many clients with prostate cancer remain undiagnosed until the cancer is well established. Hematuria, back pain, bilateral lower extremity weakness, and fatigue are symptoms associated with prostate cancer.
C) Unfortunately, many clients with prostate cancer remain undiagnosed until the cancer is well established. Hematuria, back pain, bilateral lower extremity weakness, and fatigue are symptoms associated with prostate cancer.
D) Unfortunately, many clients with prostate cancer remain undiagnosed until the cancer is well established. Hematuria, back pain, bilateral lower extremity weakness, and fatigue are symptoms associated with prostate cancer.
E) Unfortunately, many clients with prostate cancer remain undiagnosed until the cancer is well established. Hematuria, back pain, bilateral lower extremity weakness, and fatigue are symptoms associated with prostate cancer.
Page Ref: 114
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of prostate cancer.

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: 2.8.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

2) The nurse is preparing an educational program on risk factors for the development of prostate cancer. Which information will the nurse include as being the greatest risk factor for developing prostate cancer?
A) The client's age
B) A family history
C) A history of a vasectomy
D) A diet high in fat
Answer: A
Explanation: A) The greatest risk for developing prostate cancer is age. Prostate cancer affects one out of every eight men over the age of 60. Genetics, vasectomy, and a diet high in fat are also risk factors.
B) The greatest risk for developing prostate cancer is age. Prostate cancer affects one out of every eight men over the age of 60. Genetics, vasectomy, and a diet high in fat are also risk factors.
C) The greatest risk for developing prostate cancer is age. Prostate cancer affects one out of every eight men over the age of 60. Genetics, vasectomy, and a diet high in fat are also risk factors.
D) The greatest risk for developing prostate cancer is age. Prostate cancer affects one out of every eight men over the age of 60. Genetics, vasectomy, and a diet high in fat are also risk factors.
Page Ref: 113
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 2. Identify risk factors and prevention methods associated with prostate cancer.

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: 2.8.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

3) While receiving discharge teaching, an adult client recovering from a prostatectomy is distressed to learn that episodes of incontinence may occur. Which should the nurse teach the client to help minimize incontinence?
A) Proper administration of incontinence medication
B) Steps to change the Foley catheter bag every day
C) Fluid restriction
D) Kegel exercises
Answer: D
Explanation: A) Urinary incontinence after surgery is not unexpected. Teaching the client Kegel exercises is the best way to help him eliminate or reduce occasions of stress incontinence. Restricting fluids may cause further urinary problems and is not advised. Medication and Foley catheters are not appropriate long-term treatments for this complication.
B) Urinary incontinence after surgery is not unexpected. Teaching the client Kegel exercises is the best way to help him eliminate or reduce occasions of stress incontinence. Restricting fluids may cause further urinary problems and is not advised. Medication and Foley catheters are not appropriate long-term treatments for this complication.
C) Urinary incontinence after surgery is not unexpected. Teaching the client Kegel exercises is the best way to help him eliminate or reduce occasions of stress incontinence. Restricting fluids may cause further urinary problems and is not advised. Medication and Foley catheters are not appropriate long-term treatments for this complication.
D) Urinary incontinence after surgery is not unexpected. Teaching the client Kegel exercises is the best way to help him eliminate or reduce occasions of stress incontinence. Restricting fluids may cause further urinary problems and is not advised. Medication and Foley catheters are not appropriate long-term treatments for this complication.
Page Ref: 114
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Reduction of Risk Potential
Nursing Process: Implementation
Learning Outcome: 3. Illustrate the nursing process in providing culturally competent care across the life span for individuals with prostate cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.8.3 Apply the nursing process to provide culturally competent care across the life span.

4) The nurse is planning care for a client scheduled for a prostatectomy. The client's spouse wants to know if the client will have any limitations after the surgery. Which diagnoses should the nurse use to plan this client's care?
Select all that apply.
A) Constipation
B) Pain
C) Impaired Urinary Elimination
D) Risk for Falls
E) Sexual Dysfunction
Answer: B, C, E
Explanation: A) Following a prostatectomy, the client is most at risk for pain, sexual dysfunction, and urinary stress incontinence. There is no reason to suspect that this client is at risk for constipation or falls.
B) Following a prostatectomy, the client is most at risk for pain, sexual dysfunction, and urinary stress incontinence. There is no reason to suspect that this client is at risk for constipation or falls.
C) Following a prostatectomy, the client is most at risk for pain, sexual dysfunction, and urinary stress incontinence. There is no reason to suspect that this client is at risk for constipation or falls.
D) Following a prostatectomy, the client is most at risk for pain, sexual dysfunction, and urinary stress incontinence. There is no reason to suspect that this client is at risk for constipation or falls.
E) Following a prostatectomy, the client is most at risk for pain, sexual dysfunction, and urinary stress incontinence. There is no reason to suspect that this client is at risk for constipation or falls.
Page Ref: 116
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Planning
Learning Outcome: 4. Formulate priority nursing diagnoses appropriate for an individual with prostate cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.8.3 Apply the nursing process to provide culturally competent care across the life span.

5) A client is scheduled to undergo a prostate biopsy. The client asks the nurse what is expected immediately following the procedure. Which response by the nurse is the most appropriate?
A) "You will need to avoid strenuous activity for 24 hours."
B) "Your sexual partners will need to be notified."
C) "You will likely experience discomfort for 24-48 hours after the procedure."
D) "You will not have any restrictions following the biopsy."
Answer: C
Explanation: A) The client may experience discomfort for 1-2 days after the procedure. Strenuous activity is avoided only for about 4 hours. The client must restrict activity for only a short period after the procedure. There is no need to notify sexual partners following the procedure.
B) The client may experience discomfort for 1-2 days after the procedure. Strenuous activity is avoided only for about 4 hours. The client must restrict activity for only a short period after the procedure. There is no need to notify sexual partners following the procedure.
C) The client may experience discomfort for 1-2 days after the procedure. Strenuous activity is avoided only for about 4 hours. The client must restrict activity for only a short period after the procedure. There is no need to notify sexual partners following the procedure.
D) The client may experience discomfort for 1-2 days after the procedure. Strenuous activity is avoided only for about 4 hours. The client must restrict activity for only a short period after the procedure. There is no need to notify sexual partners following the procedure.
Page Ref: 117-118
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Implementation
Learning Outcome: 6. Plan evidence-based care for an individual with prostate cancer and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.8.2 Identify collaborative therapies used by interdisciplinary teams.

6) The nurse is caring for a client who has a continuous bladder irrigation running following a prostatectomy. During the shift, a total of 1500 mL of irrigant is infused. The Foley bag is emptied twice for the shift with totals of 850 mL and 950 mL. What is the client's actual urine output for the shift?
A) 300 mL
B) 250 mL
C) 100 mL
D) 950 mL
Answer: A
Explanation: A) The total infused is 1500 mL. The total drained is 1800 mL. The total, or true output, is 300mL greater than the input.
B) The total infused is 1500 mL. The total drained is 1800 mL. The total, or true output, is 300mL greater than the input.
C) The total infused is 1500 mL. The total drained is 1800 mL. The total, or true output, is 300mL greater than the input.
D) The total infused is 1500 mL. The total drained is 1800 mL. The total, or true output, is 300mL greater than the input.
Page Ref: 117
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Implementation
Learning Outcome: 7. Evaluate expected outcomes for an individual with prostate cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.8.3 Apply the nursing process to provide culturally competent care across the life span.

7) The nurse is caring for a client who returns to the unit following transurethral resection of the prostate due to prostate cancer with a three-way Foley catheter in place. The client states that he has the urge to urinate and wants the catheter removed. The nurse knows that this feeling is caused by spasms. Which response by the nurse is the most appropriate?
A) "This must be a complication, because the Foley catheter is supposed to evacuate clots that cause the sensation you are describing."
B) "The spasm is an unexpected finding because the procedure does not invade the urethra."
C) "The sensation is caused by the silicone used in the catheter. I will speak to the doctor about switching to a different catheter."
D) "This is an expected sensation, but the Foley catheter must remain in place."
Answer: D
Explanation: A) Clients with a three-way Foley catheter usually complain of sensations of having to void despite the presence of the catheter. This urge to void is caused by the pressure exerted by the balloon in the internal sphincter of the bladder and the wide diameter of the catheter that is used for the purpose of irrigation. Antispasmodics may be prescribed for the client with a three-way irrigation catheter. Spasms are not a complication of the catheter but rather an expected finding. The procedure does invade the urethra. The substance that the catheter is made of does not affect spasms.
B) Clients with a three-way Foley catheter usually complain of sensations of having to void despite the presence of the catheter. This urge to void is caused by the pressure exerted by the balloon in the internal sphincter of the bladder and the wide diameter of the catheter that is used for the purpose of irrigation. Antispasmodics may be prescribed for the client with a three-way irrigation catheter. Spasms are not a complication of the catheter but rather an expected finding. The procedure does invade the urethra. The substance that the catheter is made of does not affect spasms.
C) Clients with a three-way Foley catheter usually complain of sensations of having to void despite the presence of the catheter. This urge to void is caused by the pressure exerted by the balloon in the internal sphincter of the bladder and the wide diameter of the catheter that is used for the purpose of irrigation. Antispasmodics may be prescribed for the client with a three-way irrigation catheter. Spasms are not a complication of the catheter but rather an expected finding. The procedure does invade the urethra. The substance that the catheter is made of does not affect spasms.
D) Clients with a three-way Foley catheter usually complain of sensations of having to void despite the presence of the catheter. This urge to void is caused by the pressure exerted by the balloon in the internal sphincter of the bladder and the wide diameter of the catheter that is used for the purpose of irrigation. Antispasmodics may be prescribed for the client with a three-way irrigation catheter. Spasms are not a complication of the catheter but rather an expected finding. The procedure does invade the urethra. The substance that the catheter is made of does not affect spasms.
Page Ref: 117
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Implementation
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with prostate cancer.

QSEN Competencies: I.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: 2.8.2 Identify collaborative therapies used by interdisciplinary teams.

8) The nursing is preparing to discharge a client recovering from prostate surgery for cancer. What should the nurse emphasize when teaching this client?
A) "You may drive yourself home."
B) "Avoid strenuous activity and heavy lifting for 2 weeks."
C) "It is quite common to notice blood in your urine following this type of surgery."
D) "Reduce your fluid intake so you won't need to void as often."
Answer: C
Explanation: A) Blood in the urine is fairly common after surgery. The healing period after prostate surgery is 4-8 weeks, and the client should avoid strenuous activity during this time. Continued increase in fluid intake will help the urine to remain dilute and reduce the risk of clot formation. The client should not drive after surgery for at least 2 weeks.
B) Blood in the urine is fairly common after surgery. The healing period after prostate surgery is 4-8 weeks, and the client should avoid strenuous activity during this time. Continued increase in fluid intake will help the urine to remain dilute and reduce the risk of clot formation. The client should not drive after surgery for at least 2 weeks.
C) Blood in the urine is fairly common after surgery. The healing period after prostate surgery is 4-8 weeks, and the client should avoid strenuous activity during this time. Continued increase in fluid intake will help the urine to remain dilute and reduce the risk of clot formation. The client should not drive after surgery for at least 2 weeks.
D) Blood in the urine is fairly common after surgery. The healing period after prostate surgery is 4-8 weeks, and the client should avoid strenuous activity during this time. Continued increase in fluid intake will help the urine to remain dilute and reduce the risk of clot formation. The client should not drive after surgery for at least 2 weeks.
Page Ref: 118
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 6. Plan evidence-based care for an individual with prostate cancer and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.8.2 Identify collaborative therapies used by interdisciplinary teams.

9) A nursing instructor is teaching a group of student nurses about the cultural implications of prostate cancer. Which statement will the nursing instructor include?
A) "African-American men are at lowest risk for prostate cancer."
B) "Asian- and Native American men have the highest risk for developing prostate cancer."
C) "Approximately one in eight men ages 70 and older will be diagnosed with prostate cancer."
D) "A diet low in dairy increases a man's risk for developing prostate cancer."
Answer: C
Explanation: A) African-Americans have the highest incidence of prostate cancer in the United States and the world, with rates greater than 60% higher than those seen in Whites. Asian- and Native American men have the lowest risk for prostate cancer. Approximately one in eight men ages 70 and older will be diagnosed with prostate cancer. A diet high in dairy increases a man's risk for developing prostate cancer.
B) African-Americans have the highest incidence of prostate cancer in the United States and the world, with rates greater than 60% higher than those seen in Whites. Asian- and Native American men have the lowest risk for prostate cancer. Approximately one in eight men ages 70 and older will be diagnosed with prostate cancer. A diet high in dairy increases a man's risk for developing prostate cancer.
C) African-Americans have the highest incidence of prostate cancer in the United States and the world, with rates greater than 60% higher than those seen in Whites. Asian- and Native American men have the lowest risk for prostate cancer. Approximately one in eight men ages 70 and older will be diagnosed with prostate cancer. A diet high in dairy increases a man's risk for developing prostate cancer.
D) African-Americans have the highest incidence of prostate cancer in the United States and the world, with rates greater than 60% higher than those seen in Whites. Asian- and Native American men have the lowest risk for prostate cancer. Approximately one in eight men ages 70 and older will be diagnosed with prostate cancer. A diet high in dairy increases a man's risk for developing prostate cancer.
Page Ref: 113
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Assessment
Learning Outcome: 3. Illustrate the nursing process in providing culturally competent care across the life span for individuals with prostate cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.8.3 Apply the nursing process to provide culturally competent care across the life span.

10) The nurse is assessing a client for symptoms of prostate cancer. Which symptoms would indicate the client is experiencing an enlarged prostate?
Select all that apply.
A) Hematuria
B) Dysuria
C) Nerve pain
D) Bone pain
E) Bowel or bladder dysfunction
Answer: A, B
Explanation: A) Symptoms of an enlarged prostate include hematuria, dysuria, reduction in urinary stream, nocturia, frequency of urination, and abnormal size of prostate on digital exam. The other choices are nerve impingement or metastatic symptoms.
B) Symptoms of an enlarged prostate include hematuria, dysuria, reduction in urinary stream, nocturia, frequency of urination, and abnormal size of prostate on digital exam. The other choices are nerve impingement or metastatic symptoms.
C) Symptoms of an enlarged prostate include hematuria, dysuria, reduction in urinary stream, nocturia, frequency of urination, and abnormal size of prostate on digital exam. The other choices are nerve impingement or metastatic symptoms.
D) Symptoms of an enlarged prostate include hematuria, dysuria, reduction in urinary stream, nocturia, frequency of urination, and abnormal size of prostate on digital exam. The other choices are nerve impingement or metastatic symptoms.
E) Symptoms of an enlarged prostate include hematuria, dysuria, reduction in urinary stream, nocturia, frequency of urination, and abnormal size of prostate on digital exam. The other choices are nerve impingement or metastatic symptoms.
Page Ref: 113
Cognitive Level: Understanding
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of prostate cancer.

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: 2.8.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

11) A client with prostate cancer is being discharged from the hospital. Which educational topic is inappropriate for this client?
A) Provide information on doses of complementary herbs.
B) Teach the client and his family noninvasive methods of pain control.
C) Stress the importance of keeping client appointments with healthcare providers.
D) Provide the client and the client's family information on support groups.
Answer: A
Explanation: A) When providing discharge instructions to the client with prostate cancer, the nurse will teach the client and his family noninvasive methods of pain control and stress the importance of keeping client appointments with healthcare providers. The nurse will also provide the client and his family information on support groups. The nurse does not have authorization to provide information on doses of complementary herbs.
B) When providing discharge instructions to the client with prostate cancer, the nurse will teach the client and his family noninvasive methods of pain control and stress the importance of keeping client appointments with healthcare providers. The nurse will also provide the client and his family information on support groups. The nurse does not have authorization to provide information on doses of complementary herbs.
C) When providing discharge instructions to the client with prostate cancer, the nurse will teach the client and his family noninvasive methods of pain control and stress the importance of keeping client appointments with healthcare providers. The nurse will also provide the client and his family information on support groups. The nurse does not have authorization to provide information on doses of complementary herbs.
D) When providing discharge instructions to the client with prostate cancer, the nurse will teach the client and his family noninvasive methods of pain control and stress the importance of keeping client appointments with healthcare providers. The nurse will also provide the client and his family information on support groups. The nurse does not have authorization to provide information on doses of complementary herbs.
Page Ref: 118
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation
Learning Outcome: 7. Evaluate expected outcomes for an individual with prostate cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.8.3 Apply the nursing process to provide culturally competent care across the life span.

Exemplar 2.8 Sickle Cell Disease

1) Parents of a newborn infant are concerned that their baby may have sickle cell disease. The nurse reviews the medical record and finds that both parents have the sickle cell trait. Which is the best response for the nurse to give the parents?
A) "Since neither of you actually has sickle cell disease, your baby is not at risk."
B) "Your baby has the disease, as you both carry the trait."
C) "As you both have the sickle cell trait, your baby will be tested for the disease."
D) "Have you talked to a genetic counselor about your concerns?"
Answer: C
Explanation: A) Sickle cell disease is an autosomal recessive disorder. Both parents must have the trait in order for a child to have a 25% chance of having this disease. The most appropriate response by the nurse is to tell the parents the baby will be tested for the disease.
B) Sickle cell disease is an autosomal recessive disorder. Both parents must have the trait in order for a child to have a 25% chance of having this disease. The most appropriate response by the nurse is to tell the parents the baby will be tested for the disease.
C) Sickle cell disease is an autosomal recessive disorder. Both parents must have the trait in order for a child to have a 25% chance of having this disease. The most appropriate response by the nurse is to tell the parents the baby will be tested for the disease.
D) Sickle cell disease is an autosomal recessive disorder. Both parents must have the trait in order for a child to have a 25% chance of having this disease. The most appropriate response by the nurse is to tell the parents the baby will be tested for the disease.
Page Ref: 120
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of sickle cell disease.

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: 2.9.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

2) A nurse educator is teaching a group of parents how to prevent a sickle cell crisis in the child with sickle cell disease. What should the nurse instruct about the precipitating factors that could contribute to a sickle cell crisis?
Select all that apply.
A) Increased fluid intake
B) Altitude
C) Fever
D) Vomiting
E) Regular exercise
Answer: B, C, D
Explanation: A) Fever, vomiting, and altitude are some of the precipitating factors that contribute to a sickle cell crisis. Regular exercise and increased fluid intake are recommended activities for a child with sickle cell disease and will not contribute to a sickle cell crisis.
B) Fever, vomiting, and altitude are some of the precipitating factors that contribute to a sickle cell crisis. Regular exercise and increased fluid intake are recommended activities for a child with sickle cell disease and will not contribute to a sickle cell crisis.
C) Fever, vomiting, and altitude are some of the precipitating factors that contribute to a sickle cell crisis. Regular exercise and increased fluid intake are recommended activities for a child with sickle cell disease and will not contribute to a sickle cell crisis.
D) Fever, vomiting, and altitude are some of the precipitating factors that contribute to a sickle cell crisis. Regular exercise and increased fluid intake are recommended activities for a child with sickle cell disease and will not contribute to a sickle cell crisis.
E) Fever, vomiting, and altitude are some of the precipitating factors that contribute to a sickle cell crisis. Regular exercise and increased fluid intake are recommended activities for a child with sickle cell disease and will not contribute to a sickle cell crisis.
Page Ref: 120-121
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 2. Identify risk factors and prevention methods associated with sickle cell.

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: 2.8.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

3) The nurse is assigned to care for a child with sickle cell disease who is being admitted with splenic sequestration crisis. Which room would be the most appropriate for this child?
A) Private room
B) Semi-private room
C) Contact-isolation room
D) Airborne-isolation room
Answer: A
Explanation: A) Splenic sequestration can be life-threatening, and there is profound anemia. The child should not be placed in a room with any child who might have an infectious illness. A private room is appropriate for this child. The child should not be exposed to other children with potentially infectious illnesses, so a semi-private room is not appropriate. The child is not contagious; therefore, neither airborne nor contact isolation is necessary.
B) Splenic sequestration can be life-threatening, and there is profound anemia. The child should not be placed in a room with any child who might have an infectious illness. A private room is appropriate for this child. The child should not be exposed to other children with potentially infectious illnesses, so a semi-private room is not appropriate. The child is not contagious; therefore, neither airborne nor contact isolation is necessary.
C) Splenic sequestration can be life-threatening, and there is profound anemia. The child should not be placed in a room with any child who might have an infectious illness. A private room is appropriate for this child. The child should not be exposed to other children with potentially infectious illnesses, so a semi-private room is not appropriate. The child is not contagious; therefore, neither airborne nor contact isolation is necessary.
D) Splenic sequestration can be life-threatening, and there is profound anemia. The child should not be placed in a room with any child who might have an infectious illness. A private room is appropriate for this child. The child should not be exposed to other children with potentially infectious illnesses, so a semi-private room is not appropriate. The child is not contagious; therefore, neither airborne nor contact isolation is necessary.
Page Ref: 121
Cognitive Level: Applying
Client Need: Safe and Effective Care Environment
Client Need Sub: Safety and Infection Control
Nursing Process: Implementation
Learning Outcome: 3. Illustrate the nursing process in providing culturally competent care across the life span for individuals with sickle cell disease.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.9.3 Apply the nursing process to provide culturally competent care across the life span.

4) A client in sickle cell crisis reports taking a recent skiing trip that caused a respiratory infection from the cold weather. The client reports a pain level of 8 on a pain scale from 0 to 10. Which nursing diagnosis is a priority for this client?
A) Fluid Volume Excess
B) Risk for Self-Mutilation
C) Knowledge Deficit
D) Acute Pain
Answer: D
Explanation: A) The priority for this client would be pain. The client has reportedly been skiing, which would be in an area of high altitude, which is contraindicated for someone with sickle cell. This client appears to have a knowledge deficit about self-care. This diagnosis, however, does not take priority. There is no evidence from the information given that the client has fluid volume excess or is at risk for self-mutilation.
B) The priority for this client would be pain. The client has reportedly been skiing, which would be in an area of high altitude, which is contraindicated for someone with sickle cell. This client appears to have a knowledge deficit about self-care. This diagnosis, however, does not take priority. There is no evidence from the information given that the client has fluid volume excess or is at risk for self-mutilation.
C) The priority for this client would be pain. The client has reportedly been skiing, which would be in an area of high altitude, which is contraindicated for someone with sickle cell. This client appears to have a knowledge deficit about self-care. This diagnosis, however, does not take priority. There is no evidence from the information given that the client has fluid volume excess or is at risk for self-mutilation.
D) The priority for this client would be pain. The client has reportedly been skiing, which would be in an area of high altitude, which is contraindicated for someone with sickle cell. This client appears to have a knowledge deficit about self-care. This diagnosis, however, does not take priority. There is no evidence from the information given that the client has fluid volume excess or is at risk for self-mutilation.
Page Ref: 124
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Planning
Learning Outcome: 4. Formulate priority nursing diagnoses appropriate for an individual with sickle cell disease.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.9.3 Apply the nursing process to provide culturally competent care across the life span.

5) A client is admitted to the emergency department in a sickle cell crisis. The nurse assesses the client and documents the following clinical findings: temperature 102°F, O2 saturation of 89%, and complaints of severe abdominal pain. Based on the assessment findings, which intervention is the greatest priority?
A) Apply oxygen per nasal cannula at 3 L/minute.
B) Assess and document peripheral pulses.
C) Administer morphine sulfate 10 mg IM.
D) Administer Tylenol 650 mg by mouth.
Answer: A
Explanation: A) Hypoxia is often the cause of a sickle cell crisis from the clumping of damaged RBCs, which creates an obstruction and hypoxia distal to the clumping. Administering the oxygen will improve the pain and increase the oxygen saturation of body tissues. Therefore, applying the oxygen should be the first action by the nurse. Although the temperature is elevated, and will increase oxygen demands in the body by increased basal metabolic activity, administering Tylenol is not the first action the nurse should take, because a sickle cell crisis is caused by oxygen deprivation in tissues, not by the fever. Morphine sulfate is a narcotic for pain, but it should be given after the oxygen is started, since the symptoms are caused by hypoxia. The morphine will decrease the pain and decrease metabolic oxygen needs by decreasing basal metabolic rates; therefore, supply is increased and demand is increased. Full body assessment, including peripheral pulses, is significant to identify the location of the potential obstruction, but this is secondary to treating the hypoxia that is known to be present from the sickling of the cells during sickle cell crisis.
B) Hypoxia is often the cause of a sickle cell crisis from the clumping of damaged RBCs, which creates an obstruction and hypoxia distal to the clumping. Administering the oxygen will improve the pain and increase the oxygen saturation of body tissues. Therefore, applying the oxygen should be the first action by the nurse. Although the temperature is elevated, and will increase oxygen demands in the body by increased basal metabolic activity, administering Tylenol is not the first action the nurse should take, because a sickle cell crisis is caused by oxygen deprivation in tissues, not by the fever. Morphine sulfate is a narcotic for pain, but it should be given after the oxygen is started, since the symptoms are caused by hypoxia. The morphine will decrease the pain and decrease metabolic oxygen needs by decreasing basal metabolic rates; therefore, supply is increased and demand is increased. Full body assessment, including peripheral pulses, is significant to identify the location of the potential obstruction, but this is secondary to treating the hypoxia that is known to be present from the sickling of the cells during sickle cell crisis.

C) Hypoxia is often the cause of a sickle cell crisis from the clumping of damaged RBCs, which creates an obstruction and hypoxia distal to the clumping. Administering the oxygen will improve the pain and increase the oxygen saturation of body tissues. Therefore, applying the oxygen should be the first action by the nurse. Although the temperature is elevated, and will increase oxygen demands in the body by increased basal metabolic activity, administering Tylenol is not the first action the nurse should take, because a sickle cell crisis is caused by oxygen deprivation in tissues, not by the fever. Morphine sulfate is a narcotic for pain, but it should be given after the oxygen is started, since the symptoms are caused by hypoxia. The morphine will decrease the pain and decrease metabolic oxygen needs by decreasing basal metabolic rates; therefore, supply is increased and demand is increased. Full body assessment, including peripheral pulses, is significant to identify the location of the potential obstruction, but this is secondary to treating the hypoxia that is known to be present from the sickling of the cells during sickle cell crisis.
D) Hypoxia is often the cause of a sickle cell crisis from the clumping of damaged RBCs, which creates an obstruction and hypoxia distal to the clumping. Administering the oxygen will improve the pain and increase the oxygen saturation of body tissues. Therefore, applying the oxygen should be the first action by the nurse. Although the temperature is elevated, and will increase oxygen demands in the body by increased basal metabolic activity, administering Tylenol is not the first action the nurse should take, because a sickle cell crisis is caused by oxygen deprivation in tissues, not by the fever. Morphine sulfate is a narcotic for pain, but it should be given after the oxygen is started, since the symptoms are caused by hypoxia. The morphine will decrease the pain and decrease metabolic oxygen needs by decreasing basal metabolic rates; therefore, supply is increased and demand is increased. Full body assessment, including peripheral pulses, is significant to identify the location of the potential obstruction, but this is secondary to treating the hypoxia that is known to be present from the sickling of the cells during sickle cell crisis.
Page Ref: 123
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Implementation
Learning Outcome: 6. Plan evidence-based care for an individual with sickle cell disease and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.9.2 Identify collaborative therapies used by interdisciplinary teams.

6) The nurse is planning care for a young child who is admitted with sickle cell crisis. The parents are with the child, and neither has much information about the disease. When planning care for this family, the nurse will set which goal with this family?
A) The child will drink adequate amounts of fluid each day.
B) The child will play outside in the sun.
C) The family will not have the child vaccinated.
D) The family will plan vacations in high-altitude areas.
Answer: A
Explanation: A) For the client with sickle cell disease, dehydration can lead to life-threatening consequences. The client's oral intake should be adjusted as necessary to keep the child well hydrated. Teach clients and parents how to monitor intake and output, and provide client teaching regarding fluid management. Playing outdoors in the sun can lead to dehydration, which can precipitate a crisis. Oxygen supply at high altitudes is too low for the client with sickle cell disease. The family should be taught to select low-altitude areas for vacation. Infection and illnesses with fever will increase the body's demand for oxygen, so it is important for the family to keep up with the child's immunization schedule.
B) For the client with sickle cell disease, dehydration can lead to life-threatening consequences. The client's oral intake should be adjusted as necessary to keep the child well hydrated. Teach clients and parents how to monitor intake and output, and provide client teaching regarding fluid management. Playing outdoors in the sun can lead to dehydration, which can precipitate a crisis. Oxygen supply at high altitudes is too low for the client with sickle cell disease. The family should be taught to select low-altitude areas for vacation. Infection and illnesses with fever will increase the body's demand for oxygen, so it is important for the family to keep up with the child's immunization schedule.
C) For the client with sickle cell disease, dehydration can lead to life-threatening consequences. The client's oral intake should be adjusted as necessary to keep the child well hydrated. Teach clients and parents how to monitor intake and output, and provide client teaching regarding fluid management. Playing outdoors in the sun can lead to dehydration, which can precipitate a crisis. Oxygen supply at high altitudes is too low for the client with sickle cell disease. The family should be taught to select low-altitude areas for vacation. Infection and illnesses with fever will increase the body's demand for oxygen, so it is important for the family to keep up with the child's immunization schedule.
D) For the client with sickle cell disease, dehydration can lead to life-threatening consequences. The client's oral intake should be adjusted as necessary to keep the child well hydrated. Teach clients and parents how to monitor intake and output, and provide client teaching regarding fluid management. Playing outdoors in the sun can lead to dehydration, which can precipitate a crisis. Oxygen supply at high altitudes is too low for the client with sickle cell disease. The family should be taught to select low-altitude areas for vacation. Infection and illnesses with fever will increase the body's demand for oxygen, so it is important for the family to keep up with the child's immunization schedule.
Page Ref: 125
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Planning
Learning Outcome: 7. Evaluate expected outcomes for an individual with sickle cell disease.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.9.3 Apply the nursing process to provide culturally competent care across the life span.

7) The nurse is caring for a client who was admitted to a medical-surgical unit in a sickle cell crisis. Which medication should the nurse expect to administer to this client?
A) Acetaminophen (Tylenol)
B) Ibuprofen (Advil)
C) Meperidine (Demerol)
D) Hydroxyurea
Answer: D
Explanation: A) Hydroxyurea decreases production of abnormal blood cells and leads to a lesser amount of pain being experienced. Meperidine is not used for pain control for client in sickle cell crisis, because it can cause seizures. Acetaminophen or ibuprofen is used for mild pain, and would not be effective for the severe pain experienced by a client in sickle cell pain crisis.
B) Hydroxyurea decreases production of abnormal blood cells and leads to a lesser amount of pain being experienced. Meperidine is not used for pain control for client in sickle cell crisis, because it can cause seizures. Acetaminophen or ibuprofen is used for mild pain, and would not be effective for the severe pain experienced by a client in sickle cell pain crisis.
C) Hydroxyurea decreases production of abnormal blood cells and leads to a lesser amount of pain being experienced. Meperidine is not used for pain control for client in sickle cell crisis, because it can cause seizures. Acetaminophen or ibuprofen is used for mild pain, and would not be effective for the severe pain experienced by a client in sickle cell pain crisis.
D) Hydroxyurea decreases production of abnormal blood cells and leads to a lesser amount of pain being experienced. Meperidine is not used for pain control for client in sickle cell crisis, because it can cause seizures. Acetaminophen or ibuprofen is used for mild pain, and would not be effective for the severe pain experienced by a child in sickle cell pain crisis.
Page Ref: 122
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
Nursing Process: Implementation
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with sickle cell disease.

QSEN Competencies: I.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: 2.9.2 Identify collaborative therapies used by interdisciplinary teams.

8) The nurse is providing care to a client who is receiving treatment for sickle cell disease. The client is at risk for infection. Which medication does the nurse expect to administer to this client?
A) Acetaminophen
B) Penicillin
C) Morphine sulfate
D) Tamoxifen
Answer: B
Explanation: A) Prophylactic penicillin is often prescribed to clients who are diagnosed with sickle cell disease due to the increased risk for infection. Morphine and acetaminophen may be given for the pain the client experiences during a sickle cell crisis. Tamoxifen is a medication used to treat breast cancer.
B) Prophylactic penicillin is often prescribed to clients who are diagnosed with sickle cell disease due to the increased risk for infection. Morphine and acetaminophen may be given for the pain the client experiences during a sickle cell crisis. Tamoxifen is a medication used to treat breast cancer.
C) Prophylactic penicillin is often prescribed to clients who are diagnosed with sickle cell disease due to the increased risk for infection. Morphine and acetaminophen may be given for the pain the client experiences during a sickle cell crisis. Tamoxifen is a medication used to treat breast cancer.
D) Prophylactic penicillin is often prescribed to clients who are diagnosed with sickle cell disease due to the increased risk for infection. Morphine and acetaminophen may be given for the pain the client experiences during a sickle cell crisis. Tamoxifen is a medication used to treat breast cancer.
Page Ref: 122
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Pharmacological and Parenteral Therapies
Nursing Process: Planning
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with sickle cell disease.

QSEN Competencies: I.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: 2.9.2 Identify collaborative therapies used by interdisciplinary teams.

9) A pediatric nurse is educating the client with sickle cell disease and the client's family regarding the genetic implications of the disease. Which information is inappropriate for the nurse to share with the client's family?
A) If both parents have the trait, then with each pregnancy, the risk of having a child with the disease is 50%.
B) The disorder is transmitted as an autosomal recessive genetic defect.
C) The sickle cell gene may have originated to protect against lethal forms of malaria.
D) In African-Americans, sickle cell disease occurs in 1 out of every 500 births.
Answer: A
Explanation: A) In educating the client and the client's parents regarding sickle cell disease, the nurse will state that the disorder is transmitted as an autosomal recessive genetic defect. If both parents have the trait, then with each pregnancy, the risk of having a child with the disease is 25%, not 50%. The sickle cell gene may have originated to protect against lethal forms of malaria. In African-Americans, sickle cell disease occurs in 1 out of every 500 births.
B) In educating the client and the client's parents regarding sickle cell disease, the nurse will state that the disorder is transmitted as an autosomal recessive genetic defect. If both parents have the trait, then with each pregnancy, the risk of having a child with the disease is 25%, not 50%. The sickle cell gene may have originated to protect against lethal forms of malaria. In African-Americans, sickle cell disease occurs in 1 out of every 500 births.
C) In educating the client and the client's parents regarding sickle cell disease, the nurse will state that the disorder is transmitted as an autosomal recessive genetic defect. If both parents have the trait, then with each pregnancy, the risk of having a child with the disease is 25%, not 50%. The sickle cell gene may have originated to protect against lethal forms of malaria. In African-Americans, sickle cell disease occurs in 1 out of every 500 births.
D) In educating the client and the client's parents regarding sickle cell disease, the nurse will state that the disorder is transmitted as an autosomal recessive genetic defect. If both parents have the trait, then with each pregnancy, the risk of having a child with the disease is 25%, not 50%. The sickle cell gene may have originated to protect against lethal forms of malaria. In African-Americans, sickle cell disease occurs in 1 out of every 500 births.
Page Ref: 120
Cognitive Level: Understanding
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of sickle cell disease.

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: 2.9.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

10) An emergency department nurse is caring for a child in a sickle cell crisis. The nurse suspects the etiology of the crisis as being thrombotic in nature due to which clinical manifestations?
Select all that apply.
A) The client has profound pallor and fatigue.
B) The client is in extreme pain.
C) The client has profound hypotension and shock.
D) The client has a fever.
E) The client's chest CT reveals a pulmonary infarct.
Answer: B, D
Explanation: A) A thrombotic sickle cell crisis is manifested by extreme pain and fever. The client in profound hypotension and shock likely has splenic sequestration as the etiology, not thrombosis. The client with a pulmonary infarct likely has Acute Chest Syndrome, not thrombosis. The client with profound pallor and fatigue likely is in an aplastic crisis, not thrombosis.
B) A thrombotic sickle cell crisis is manifested by extreme pain and fever. The client in profound hypotension and shock likely has splenic sequestration as the etiology, not thrombosis. The client with a pulmonary infarct likely has Acute Chest Syndrome, not thrombosis. The client with profound pallor and fatigue likely is in an aplastic crisis, not thrombosis.
C) A thrombotic sickle cell crisis is manifested by extreme pain and fever. The client in profound hypotension and shock likely has splenic sequestration as the etiology, not thrombosis. The client with a pulmonary infarct likely has Acute Chest Syndrome, not thrombosis. The client with profound pallor and fatigue likely is in an aplastic crisis, not thrombosis.
D) A thrombotic sickle cell crisis is manifested by extreme pain and fever. The client in profound hypotension and shock likely has splenic sequestration as the etiology, not thrombosis. The client with a pulmonary infarct likely has Acute Chest Syndrome, not thrombosis. The client with profound pallor and fatigue likely is in an aplastic crisis, not thrombosis.
E) A thrombotic sickle cell crisis is manifested by extreme pain and fever. The client in profound hypotension and shock likely has splenic sequestration as the etiology, not thrombosis. The client with a pulmonary infarct likely has Acute Chest Syndrome, not thrombosis. The client with profound pallor and fatigue likely is in an aplastic crisis, not thrombosis.
Page Ref: 121
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of sickle cell disease.

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: 2.9.1 Differentiate the pathophysiology, etiology, risk factors,

prevention, and clinical manifestations.

11) A nurse is planning care for a client with sickle cell disease and chooses "Acute Pain" as the nursing diagnosis. Which intervention is inappropriate for the nurse to include in this plan of care?
A) Administer ordered analgesic medications around the clock.
B) Place patient in position of comfort.
C) Use heat or cold packs as tolerated.
D) Support the client's joints and extremities with pillows.
Answer: C
Explanation: A) The client with sickle cell disease who is in a sickle cell crisis will likely have extreme pain. To aid in caring for this client, the nurse will administer ordered analgesic medications around the clock, place the patient in position of comfort, and support the client's joints and extremities with pillows. The use of heat or cold packs is contraindicated in the sickle cell client. Ischemic tissue is fragile and has reduced sensation, increasing the risk of burn injury from hot compresses, whereas cold compresses promote sickling.
B) The client with sickle cell disease who is in a sickle cell crisis will likely have extreme pain. To aid in caring for this client, the nurse will administer ordered analgesic medications around the clock, place the patient in position of comfort, and support the client's joints and extremities with pillows. The use of heat or cold packs is contraindicated in the sickle cell client. Ischemic tissue is fragile and has reduced sensation, increasing the risk of burn injury from hot compresses, whereas cold compresses promote sickling.
C) The client with sickle cell disease who is in a sickle cell crisis will likely have extreme pain. To aid in caring for this client, the nurse will administer ordered analgesic medications around the clock, place the patient in position of comfort, and support the client's joints and extremities with pillows. The use of heat or cold packs is contraindicated in the sickle cell client. Ischemic tissue is fragile and has reduced sensation, increasing the risk of burn injury from hot compresses, whereas cold compresses promote sickling.
D) The client with sickle cell disease who is in a sickle cell crisis will likely have extreme pain. To aid in caring for this client, the nurse will administer ordered analgesic medications around the clock, place the patient in position of comfort, and support the client's joints and extremities with pillows. The use of heat or cold packs is contraindicated in the sickle cell client. Ischemic tissue is fragile and has reduced sensation, increasing the risk of burn injury from hot compresses, whereas cold compresses promote sickling.
Page Ref: 125
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Implementation
Learning Outcome: 4. Formulate priority nursing diagnoses appropriate for an individual with sickle cell disease.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support

- involvement of family and friends
- transition and continuity

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: 2.9.3 Apply the nursing process to provide culturally competent care across the life span.

Exemplar 2.9 Skin Cancer

1) During an assessment, the nurse notes leukoplakia when examining the client's mouth. The client is a smoker and explains to the nurse that it has been there for more than a month. After documenting the finding and informing the healthcare provider, what should the nurse anticipate next?
A) Antifungal medication will be prescribed.
B) A biopsy will be performed.
C) An order to provide thorough mouth care
D) A dental consult
Answer: B
Explanation: A) Leukoplakia is a smooth irregular white patch found on the tongue, lips, cheeks, or oral mucosa that can be rubbed off with force and is considered a precursor to oral cancer. A patch that lasts more than 2 weeks is generally biopsied. Mouth care and antifungal medication would not address the possibility of oral cancer. A dental consult may be advised, but a biopsy would take priority.
B) Leukoplakia is a smooth irregular white patch found on the tongue, lips, cheeks, or oral mucosa that can be rubbed off with force and is considered a precursor to oral cancer. A patch that lasts more than 2 weeks is generally biopsied. Mouth care and antifungal medication would not address the possibility of oral cancer. A dental consult may be advised, but a biopsy would take priority.
C) Leukoplakia is a smooth irregular white patch found on the tongue, lips, cheeks, or oral mucosa that can be rubbed off with force and is considered a precursor to oral cancer. A patch that lasts more than 2 weeks is generally biopsied. Mouth care and antifungal medication would not address the possibility of oral cancer. A dental consult may be advised, but a biopsy would take priority.
D) Leukoplakia is a smooth irregular white patch found on the tongue, lips, cheeks, or oral mucosa that can be rubbed off with force and is considered a precursor to oral cancer. A patch that lasts more than 2 weeks is generally biopsied. Mouth care and antifungal medication would not address the possibility of oral cancer. A dental consult may be advised, but a biopsy would take priority.
Page Ref: 134
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Reduction of Risk Potential
Nursing Process: Implementation
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of skin cancer.

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: 2.10.1 Differentiate the pathophysiology, etiology, risk factors,

prevention, and clinical manifestations.

2) During a routine physical examination of a client's lungs, the nurse notes a small, fleshy bump on the client's upper chest. What should the nurse suspect as the cause of this finding on the client's skin?
A) Squamous cell carcinoma
B) Basal cell carcinoma
C) Actinic keratosis
D) Malignant melanoma
Answer: B
Explanation: A) Basal cell carcinoma often presents as a small, fleshy bump. Squamous cell carcinoma most often appears as a flesh-colored, erythematous, indurated scaly plaque. Malignant melanoma manifests as black, brown, or multicolored nodules or plaques. Actinic keratosis is a precancerous condition. The lesion appears as a sore, rough, scaly plaque.
B) Basal cell carcinoma often presents as a small, fleshy bump. Squamous cell carcinoma most often appears as a flesh-colored, erythematous, indurated scaly plaque. Malignant melanoma manifests as black, brown, or multicolored nodules or plaques. Actinic keratosis is a precancerous condition. The lesion appears as a sore, rough, scaly plaque.
C) Basal cell carcinoma often presents as a small, fleshy bump. Squamous cell carcinoma most often appears as a flesh-colored, erythematous, indurated scaly plaque. Malignant melanoma manifests as black, brown, or multicolored nodules or plaques. Actinic keratosis is a precancerous condition. The lesion appears as a sore, rough, scaly plaque.
D) Basal cell carcinoma often presents as a small, fleshy bump. Squamous cell carcinoma most often appears as a flesh-colored, erythematous, indurated scaly plaque. Malignant melanoma manifests as black, brown, or multicolored nodules or plaques. Actinic keratosis is a precancerous condition. The lesion appears as a sore, rough, scaly plaque.
Page Ref: 129
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of skin cancer.

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: 2.10.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

3) A client shows the nurse a new sore on the forearm that has been increasing in size and will not heal. Which characteristics could indicate to the nurse that this sore is a malignant neoplasm? Select all that apply.
A) Invasive
B) Slow-growing
C) Localized
D) Immovable
E) Noncohesive
Answer: A, D, E
Explanation: A) Malignant neoplasms are invasive, noncohesive, characterized by rapid growth, and not always easy to remove. They do not stop at the tissue border but invade and destroy surrounding tissues, metastasize to distant sites, and can recur. Benign neoplasms are local, cohesive, encapsulated, characterized by slow growth, and easily removed. They have well-defined borders, push other tissues out of the way, and do not recur.
B) Malignant neoplasms are invasive, noncohesive, characterized by rapid growth, and not always easy to remove. They do not stop at the tissue border but invade and destroy surrounding tissues, metastasize to distant sites, and can recur. Benign neoplasms are local, cohesive, encapsulated, characterized by slow growth, and easily removed. They have well-defined borders, push other tissues out of the way, and do not recur.
C) Malignant neoplasms are invasive, noncohesive, characterized by rapid growth, and not always easy to remove. They do not stop at the tissue border but invade and destroy surrounding tissues, metastasize to distant sites, and can recur. Benign neoplasms are local, cohesive, encapsulated, characterized by slow growth, and easily removed. They have well-defined borders, push other tissues out of the way, and do not recur.
D) Malignant neoplasms are invasive, noncohesive, characterized by rapid growth, and not always easy to remove. They do not stop at the tissue border but invade and destroy surrounding tissues, metastasize to distant sites, and can recur. Benign neoplasms are local, cohesive, encapsulated, characterized by slow growth, and easily removed. They have well-defined borders, push other tissues out of the way, and do not recur.
E) Malignant neoplasms are invasive, noncohesive, characterized by rapid growth, and not always easy to remove. They do not stop at the tissue border but invade and destroy surrounding tissues, metastasize to distant sites, and can recur. Benign neoplasms are local, cohesive, encapsulated, characterized by slow growth, and easily removed. They have well-defined borders, push other tissues out of the way, and do not recur.
Page Ref: 129
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 1. Describe the pathophysiology, etiology, clinical manifestations, and direct and indirect causes of skin cancer.

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: 2.10.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

4) The nurse is teaching a group of community members about preventing skin cancer. Which participant would be at the greatest risk for skin cancer?
A) A 25-year-old lifeguard at the community pool who wears sunscreen
B) A baby underneath a large beach umbrella
C) A 60-year-old farmer who wears a cap when working
D) A teenager who wears a ski outfit when skiing
Answer: C
Explanation: A) The older adult client has had more years of living to increase the risk of skin cancer from exposure to the sun. In addition, the farmer wears a cap, but no mention is made of protectant sunscreens or long-sleeved shirts and pants. The lifeguard, baby, and teenager have lesser risk because there are physical barriers to the sun identified in each option: sunscreen, umbrella, and ski outfit.
B) The older adult client has had more years of living to increase the risk of skin cancer from exposure to the sun. In addition, the farmer wears a cap, but no mention is made of protectant sunscreens or long-sleeved shirts and pants. The lifeguard, baby, and teenager have lesser risk because there are physical barriers to the sun identified in each option: sunscreen, umbrella, and ski outfit.
C) The older adult client has had more years of living to increase the risk of skin cancer from exposure to the sun. In addition, the farmer wears a cap, but no mention is made of protectant sunscreens or long-sleeved shirts and pants. The lifeguard, baby, and teenager have lesser risk because there are physical barriers to the sun identified in each option: sunscreen, umbrella, and ski outfit.
D) The older adult client has had more years of living to increase the risk of skin cancer from exposure to the sun. In addition, the farmer wears a cap, but no mention is made of protectant sunscreens or long-sleeved shirts and pants. The lifeguard, baby, and teenager have lesser risk because there are physical barriers to the sun identified in each option: sunscreen, umbrella, and ski outfit.
Page Ref: 131
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Assessment
Learning Outcome: 2. Identify risk factors and prevention methods associated with skin cancer.

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: 2.10.1 Differentiate the pathophysiology, etiology, risk factors,

prevention, and clinical manifestations.

5) An African-American client tells the nurse of plans to bask in the sun on an upcoming vacation. The nurse questions the client about sunscreen use. Which response indicates the client needs further education?
A) "I don't need sunscreen because I am dark-skinned already."
B) "I will avoid the sun between the peak hours of 10 am and 4 pm."
C) "I can still experience sun damage despite my dark skin tones."
D) "The melanocytes in my skin provide me with increased protection from the sun."
Answer: A
Explanation: A) While the melanocytes in darker skin offer increased protection, the risk for skin cancer remains and sunscreen should be worn. The other client responses are correct.
B) While the melanocytes in darker skin offer increased protection, the risk for skin cancer remains and sunscreen should be worn. The other client responses are correct.
C) While the melanocytes in darker skin offer increased protection, the risk for skin cancer remains and sunscreen should be worn. The other client responses are correct.
D) While the melanocytes in darker skin offer increased protection, the risk for skin cancer remains and sunscreen should be worn. The other client responses are correct.
Page Ref: 131-132
Cognitive Level: Analyzing
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Evaluation
Learning Outcome: 3. Illustrate the nursing process in providing culturally competent care across the life span for individuals with skin cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.10.3 Apply the nursing process to provide culturally competent care across the life span.

6) The nurse is caring for an older adolescent client diagnosed with malignant melanoma. Which nursing diagnoses would be appropriate when planning this client's care?
Select all that apply.
A) Impaired Skin Integrity
B) Risk for Compromised Human Dignity
C) Anxiety
D) Risk for Acute Confusion
E) Disturbed Body Image
Answer: A, C, E
Explanation: A) Any client will likely experience anxiety and impaired skin integrity related to the diagnosis of skin cancer. The client will not likely have compromised human dignity or a risk for acute confusion. Disturbed body image could be an issue if the lesion is large.
B) Any client will likely experience anxiety and impaired skin integrity related to the diagnosis of skin cancer. The client will not likely have compromised human dignity or a risk for acute confusion. Disturbed body image could be an issue if the lesion is large.
C) Any client will likely experience anxiety and impaired skin integrity related to the diagnosis of skin cancer. The client will not likely have compromised human dignity or a risk for acute confusion. Disturbed body image could be an issue if the lesion is large.
D) Any client will likely experience anxiety and impaired skin integrity related to the diagnosis of skin cancer. The client will not likely have compromised human dignity or a risk for acute confusion. Disturbed body image could be an issue if the lesion is large.
E) Any client will likely experience anxiety and impaired skin integrity related to the diagnosis of skin cancer. The client will not likely have compromised human dignity or a risk for acute confusion. Disturbed body image could be an issue if the lesion is large.
Page Ref: 136
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Basic Care and Comfort
Nursing Process: Planning
Learning Outcome: 4. Formulate priority nursing diagnoses appropriate for an individual with skin cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.10.3 Apply the nursing process to provide culturally competent care across the life span.

7) The nurse is talking to a group of young adults about decreasing the risk for skin cancer. A young woman asks the nurse about the safety of ultraviolet light tanning salons. Which response by the nurse is most appropriate?
A) "Using tanning beds without clothing contaminates skin and leads to infections."
B) "Tanning from ultraviolet light is safer than sunshine."
C) "Using sunscreen will prevent skin cancers, even in tanning beds."
D) "Skin damage from ultraviolet light is more likely than from indirect sunlight."
Answer: D
Explanation: A) Ultraviolet light exposure greatly increases risk of skin cancer, both basal cell and melanoma types. While direct sunshine contains ultraviolet light, the amount is decreased in indirect light. The use of sunscreen can reduce the risk of cancer but not prevent it, especially in tanning beds where the ultraviolet light is intensified. That using tanning beds without clothing causes infection may or may not be true, depending on the disinfectant methods used.
B) Ultraviolet light exposure greatly increases risk of skin cancer, both basal cell and melanoma types. While direct sunshine contains ultraviolet light, the amount is decreased in indirect light. The use of sunscreen can reduce the risk of cancer but not prevent it, especially in tanning beds where the ultraviolet light is intensified. That using tanning beds without clothing causes infection may or may not be true, depending on the disinfectant methods used.
C) Ultraviolet light exposure greatly increases risk of skin cancer, both basal cell and melanoma types. While direct sunshine contains ultraviolet light, the amount is decreased in indirect light. The use of sunscreen can reduce the risk of cancer but not prevent it, especially in tanning beds where the ultraviolet light is intensified. That using tanning beds without clothing causes infection may or may not be true, depending on the disinfectant methods used.
D) Ultraviolet light exposure greatly increases risk of skin cancer, both basal cell and melanoma types. While direct sunshine contains ultraviolet light, the amount is decreased in indirect light. The use of sunscreen can reduce the risk of cancer but not prevent it, especially in tanning beds where the ultraviolet light is intensified. That using tanning beds without clothing causes infection may or may not be true, depending on the disinfectant methods used.
Page Ref: 131
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 2. Identify risk factors and prevention methods associated with skin cancer.

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: 2.10.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

8) A client is scheduled to have a suspected cancerous lesion removed from the arm. When planning care for this client, which outcome would be a priority?
A) The client will make nutritional changes.
B) The client will experience minimal pain after healing.
C) The client will heal without signs of infection.
D) The client will not need to make lifestyle changes.
Answer: C
Explanation: A) Following removal of a skin lesion, the nurse directs care aimed at the prevention of infection while the skin heals. The client should not experience pain after healing and will need to make lifestyle changes to prevent further occurrences of skin cancer. Nutritional changes may or may not be needed; however, prevention of infection is the priority.
B) Following removal of a skin lesion, the nurse directs care aimed at the prevention of infection while the skin heals. The client should not experience pain after healing and will need to make lifestyle changes to prevent further occurrences of skin cancer. Nutritional changes may or may not be needed; however, prevention of infection is the priority.
C) Following removal of a skin lesion, the nurse directs care aimed at the prevention of infection while the skin heals. The client should not experience pain after healing and will need to make lifestyle changes to prevent further occurrences of skin cancer. Nutritional changes may or may not be needed; however, prevention of infection is the priority.
D) Following removal of a skin lesion, the nurse directs care aimed at the prevention of infection while the skin heals. The client should not experience pain after healing and will need to make lifestyle changes to prevent further occurrences of skin cancer. Nutritional changes may or may not be needed; however, prevention of infection is the priority.
Page Ref: 136
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Reduction of Risk Potential
Nursing Process: Planning
Learning Outcome: 7. Evaluate expected outcomes for an individual with skin cancer.

QSEN Competencies: I.A.1 Integrate understanding of multiple dimensions of patient centered care:

- patient/family/community preferences, values
- coordination and integration of care
- information, communication, and education
- physical comfort and emotional support
- involvement of family and friends
- transition and continuity

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: 2.10.3 Apply the nursing process to provide culturally competent care

across the life span.

9) The nurse is reviewing the medical records for several clients who will be seen in the clinic today. According to the ABCD rule, which client may require removal of the skin lesion?
A) A client with a lesion that is symmetrical with an irregular border, a single color, and increased diameter
B) A client with a lesion that is symmetrical, with a smooth border, a single color, and diameter that has stayed the same
C) A client with a lesion that is asymmetrical with a regular border, two colors, and decreased diameter
D) A client with a lesion that is asymmetrical with an irregular border, two colors, and increased diameter
Answer: D
Explanation: A) To meet all four criteria for removal of a lesion, the lesion will be asymmetrical, have irregular borders, show color change or more than one color, and have increased in diameter.
B) To meet all four criteria for removal of a lesion, the lesion will be asymmetrical, have irregular borders, show color change or more than one color, and have increased in diameter.
C) To meet all four criteria for removal of a lesion, the lesion will be asymmetrical, have irregular borders, show color change or more than one color, and have increased in diameter.
D) To meet all four criteria for removal of a lesion, the lesion will be asymmetrical, have irregular borders, show color change or more than one color, and have increased in diameter.
Page Ref: 134
Cognitive Level: Analyzing
Client Need: Physiological Integrity
Client Need Sub: Reduction of Risk Potential
Nursing Process: Evaluation
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with skin cancer.

QSEN Competencies: I.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: 2.10.2 Identify collaborative therapies used by interdisciplinary teams.

10) The nurse is caring for a client who has recently been diagnosed with skin cancer. The client is tearful and states, "How did I get skin cancer? I don't believe in tanning!" Which response by the nurse is indicated at this time?
A) "Can you tell me more about your feelings?"
B) "This is unusual, as skin cancer normally only occurs in sunbathers."
C) "Sun exposure can happen as we carry out our daily activities."
D) "We frequently never find out why cancer strikes."
Answer: C
Explanation: A) Sun exposure occurs as we carry out our daily activities. Riding in the car, going in and out of buildings, and so on permit sun exposure. The client is asking for information; the other options do not provide adequate or correct information.
B) Sun exposure occurs as we carry out our daily activities. Riding in the car, going in and out of buildings, and so on permit sun exposure. The client is asking for information; the other options do not provide adequate or correct information.
C) Sun exposure occurs as we carry out our daily activities. Riding in the car, going in and out of buildings, and so on permit sun exposure. The client is asking for information; the other options do not provide adequate or correct information.
D) Sun exposure occurs as we carry out our daily activities. Riding in the car, going in and out of buildings, and so on permit sun exposure. The client is asking for information; the other options do not provide adequate or correct information.
Page Ref: 131
Cognitive Level: Applying
Client Need: Health Promotion and Maintenance
Client Need Sub:
Nursing Process: Implementation
Learning Outcome: 6. Plan evidence-based care for an individual with skin cancer and his or her family in collaboration with other members of the healthcare team.

QSEN Competencies: III.A.2 Describe EBP to include the components of research evidence, clinical expertise and patient/family values.
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: 2.10.2 Identify collaborative therapies used by interdisciplinary teams.

11) A nurse working in an outpatient dermatology clinic is caring for a client who has been diagnosed with a lentigo maligna. Which statement is inappropriate for the nurse to include in the client's teaching plan?
A) The lesion is also called Robertson freckle.
B) The lesion is a precursor to melanoma.
C) The lesion is a tan or black patch on the skin that looks like a freckle.
D) The lesion grows slowly, becoming mottled, dark, thick, and nodular.
Answer: A
Explanation: A) A lentigo maligna, also called a Hutchinson freckle, is a precursor to melanoma. The lesion is a tan or black patch on the skin that looks like a freckle. The lesion grows slowly, and becomes mottled, dark, thick, and nodular.
B) A lentigo maligna, also called a Hutchinson freckle, is a precursor to melanoma. The lesion is a tan or black patch on the skin that looks like a freckle. The lesion grows slowly, and becomes mottled, dark, thick, and nodular.
C) A lentigo maligna, also called a Hutchinson freckle, is a precursor to melanoma. The lesion is a tan or black patch on the skin that looks like a freckle. The lesion grows slowly, and becomes mottled, dark, thick, and nodular.
D) A lentigo maligna, also called a Hutchinson freckle, is a precursor to melanoma. The lesion is a tan or black patch on the skin that looks like a freckle. The lesion grows slowly, and becomes mottled, dark, thick, and nodular.
Page Ref: 128
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 2. Identify risk factors and prevention methods associated with skin cancer.

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: 2.10.1 Differentiate the pathophysiology, etiology, risk factors, prevention, and clinical manifestations.

12) A client presents to the primary care clinic for an annual physical. The nurse caring for the client notes that the client's healthcare provider uses the ABCD mnemonic to assess suspicious skin lesions. What does the "D" in ABCD represent?
A) Diameter of lesion greater than 8mm
B) Distance of lesion to an additional lesion
C) Diameter of lesion greater than 6mm
D) Depth of lesion
Answer: C
Explanation: A) The ABCD rule is used to assess suspicious lesions:
Asymmetry (One half of the nevus does not match the other half.)
Border irregularity (Edges are ragged, blurred, or notched.)
Color variation or dark black color
Diameter greater than 6 mm (size of a pencil eraser)
B) The ABCD rule is used to assess suspicious lesions:
Asymmetry (One half of the nevus does not match the other half.)
Border irregularity (Edges are ragged, blurred, or notched.)
Color variation or dark black color
Diameter greater than 6 mm (size of a pencil eraser)
C) The ABCD rule is used to assess suspicious lesions:
Asymmetry (One half of the nevus does not match the other half.)
Border irregularity (Edges are ragged, blurred, or notched.)
Color variation or dark black color
Diameter greater than 6 mm (size of a pencil eraser)
D) The ABCD rule is used to assess suspicious lesions:
Asymmetry (One half of the nevus does not match the other half.)
Border irregularity (Edges are ragged, blurred, or notched.)
Color variation or dark black color
Diameter greater than 6 mm (size of a pencil eraser)
Page Ref: 134
Cognitive Level: Applying
Client Need: Physiological Integrity
Client Need Sub: Physiological Adaptation
Nursing Process: Assessment
Learning Outcome: 5. Summarize therapies used by interdisciplinary teams in the collaborative care of an individual with skin cancer.

QSEN Competencies: I.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: 2.10.2 Identify collaborative therapies used by interdisciplinary teams.