Western Technical College

10543109 Nursing: Complex Health Alterations I

Course Outcome Summary

Course Information

| Description | Complex Health Alterations I prepares the learner to provide and evaluate care for patients across the lifespan with alterations in cardiovascular, respiratory, endocrine, and hematologic systems as well as patients with fluid/electrolyte and acid-base imbalance, and alterations in comfort. |

| Career Cluster | Health Science |

| Instructional Level | Associate Degree Courses |

| Total Credits | 3 |

Textbooks


Learner Supplies

ATI Comprehensive Assessment & Review Package. **Vendor:** Campus Shop. Required.

Success Abilities

1. Apply mathematical concepts.

2. Demonstrate ability to think critically.

3. Demonstrate ability to value self and work ethically with others in a diverse population.

4. Transfer social and natural science theories into practical applications.
5. Use effective communication skills.

6. Use technology effectively.

Course Competencies

1. Evaluate nursing care for patients with coronary artery disease

   Assessment Strategies
   1.1. Written Objective Test
   1.2. Self Assessment
   1.3. Scenario Response

   Learning Objectives
   1.a. Describe the interrelatedness of the following terms: cardiac output, stroke volume, preload, afterload, contractility, and heart rate.
   1.b. Identify typical assessment findings and describe interdisciplinary and nursing care for patients with coronary heart disease.
   1.c. Describe the relationship between coronary artery disease (CAD) and acute coronary syndrome (ACS).
   1.d. Describe the purpose, significance of results, and nursing responsibilities related to diagnostic studies related to coronary artery disease.
   1.e. Discuss nursing implications for medications and treatments used to prevent and treat coronary heart disease.
   1.f. List commonly used nursing diagnoses for patients with coronary artery disease.

2. Evaluate nursing care for patients with other alterations in the cardiovascular system

   Assessment Strategies
   2.1. Written Objective Test
   2.2. Scenario Response

   Learning Objectives
   2.a. Compare and contrast the manifestations and effects of disorders affecting the large and small vessels, arteries and veins.
   2.b. Explain risk factors for and measures to prevent peripheral vascular disorders and their complications.
   2.c. Explain the nursing implications for medications and other interdisciplinary treatments used for patients with peripheral vascular disorders.
   2.d. Identify typical assessment findings and describe interdisciplinary and nursing care for patients with cardiac dysrhythmias.
   2.e. Compare and contrast the etiology, pathophysiology, and manifestations of common cardiac disorders, including heart failure, structural disorders, and valve disorders.
   2.f. Describe the purpose, significance of results, and nursing responsibilities related to diagnostic studies of the cardiovascular system.
   2.g. Describe the pathophysiology, etiology and clinical manifestations of the child with congestive heart failure and congenital heart disease.
   2.h. List commonly used nursing diagnoses for clients with alterations in the cardiovascular system.

3. Evaluate nursing care for patients with acute alterations in the respiratory system

   Assessment Strategies
   3.1. Written Objective Test
   3.2. Scenario Response

   Learning Objectives
   3.a. Describe variations in respiratory assessment findings throughout the lifespan.
   3.b. Describe the pathophysiology and collaborative management of the following disorders of the upper respiratory tract: Nasal fracture and epistaxis.
   3.c. Describe the collaborative management (to include psychosocial assessment, lab and other diagnostic assessment, drug therapy, smoking cessation, identification of risk factors, nutrition, community
resources and teaching) of the patient with a problem of the lower respiratory tract.

3.d. Discuss the collaborative management (to include psychosocial assessment, lab and other diagnostic assessment, drug therapy, smoking cessation, identification of risk factors, nutrition, community resources and teaching) of the patient with an acute problem of the lower respiratory tract.

3.e. Recognize the pathophysiology, etiology and clinical manifestations of the following infectious respiratory tract problems: rhinitis, sinusitis, pharyngitis, tonsillitis, laryngitis, influenza, pneumonia and tuberculosis (TB), and empyema.

3.f. Describe the pathophysiology, risk factors, etiology and collaborative management of the patient with critical respiratory problems such as: pulmonary embolism, acute respiratory failure, acute respiratory distress syndrome, and chest trauma.

3.g. Identify priority nursing care for a patient requiring mechanical ventilation.

3.h. Describe the etiology, pathophysiology, clinical manifestation, and treatment for the following pediatric disorders: Croup and epiglottitis.

4. Evaluate nursing care for patients with chronic alterations in the respiratory system

Assessment Strategies
4.1. Self Assessment
4.2. Written Objective Test

Learning Objectives
4.a. Summarize variations in respiratory assessment findings throughout the lifespan.
4.b. Describe the pathophysiology and collaborative management for obstructive sleep apnea.
4.c. Describe the pathophysiology, etiology, clinical manifestations, and collaborative management of laryngeal cancer and lung cancer.
4.d. Discuss the collaborative management (to include psychosocial assessment, lab and other diagnostic assessment, drug therapy, smoking cessation, identification of risk factors, nutrition, community resources and teaching) of the patient with a chronic problem of the lower respiratory tract.
4.e. Describe the etiology, pathophysiology, clinical manifestation, and treatment for cystic fibrosis and asthma.

5. Evaluate nursing care for patients with alterations in hematology

Assessment Strategies
5.1. in an oral, written or performance assessment
5.2. Self Assessment
5.3. Written Objective Test

Learning Objectives
5.a. Describe the purpose, significance of results, and nursing responsibilities related to diagnostic studies of the hematologic system.
5.b. Differentiate between normal and abnormal hematologic laboratory values.
5.c. Explain nursing implications for medications and other treatments prescribed for hematologic disorders.
5.d. Differentiate nursing care for a client who is neutropenic from other common hematologic diseases.
5.e. Describe the pathophysiology, etiology, and collaborative management (to include lab and diagnostic tests, drug therapy, surgical management, and home care management/teaching) of venous thromboembolism.
5.f. Describe the pathophysiology, clinical manifestations, and nursing and collaborative management of the following anemias: immune hemolytic anemia, iron deficiency anemia, vitamin B12 deficiency anemia, folic acid deficiency anemia and aplastic anemia.
5.g. Describe the major types of leukemia and the most common treatment modalities and nursing interventions.
5.h. Differentiate Hodgkin’s lymphoma and non-Hodgkin’s lymphomas.
5.i. List commonly used nursing diagnoses for clients with hematologic disorders.
5.j. Compare and contrast the pathophysiology, manifestations, and management of bleeding disorders.

6. Evaluate nursing care for patients with alterations in the endocrine system

Assessment Strategies
6.1. in an oral, written or performance assessment
6.2. Written Objective Test
6.3. Scenario Response
6.4. Self Assessment
Learning Objectives
6.a. Compare and contrast the pathophysiology and key features of the following pituitary and posterior pituitary gland disorders: Hypopituitarism, hyperpituitarism, diabetes insipidus (DI) and syndrome of inappropriate antidiuretic hormone (SIADH).
6.b. Compare and contrast the pathophysiology and key features of the following adrenal gland disorders: Adrenal gland hypofunction (Addison's), adrenal gland hyperfunction (hypercortisolism/Cushing's) and pheochromocytoma.
6.c. Describe the collaborative management of the pituitary and adrenal gland disorders (to include lab and diagnostic tests, drug therapy, medical and surgical management and community based care).
6.d. Describe the pathophysiology, etiology, and key features of the following thyroid and parathyroid gland disorders: Hyperthyroidism (Grave's), hypothyroidism (myxedema), thyroiditis, thyroid cancer, hyperparathyroidism and hypoparathyroidism.
6.e. Describe the collaborative management of the thyroid and parathyroid glands disorders (to include lab and diagnostic tests, drug therapy, medical and surgical management and community based care).
6.f. Explain the pathological changes in diabetes mellitus that lead to the symptoms and complications associated with the disease.
6.g. Correlate nursing interventions with associated laboratory data for patients with health problems related to diabetes.
6.h. Describe age related changes of the endocrine system.
6.i. List commonly used nursing diagnosis for clients with endocrine disorders.

7. Evaluate nursing care for patients with alterations in fluid and electrolyte balance

Assessment Strategies
7.1. in an oral, written or performance assessment
7.2. Scenario Response
7.3. Written Objective Test

Learning Objectives
7.a. Describe the functions and regulatory mechanisms that maintain water and electrolyte balance in the body.
7.b. Describe the expected blood osmolarity responses when isotonic, hypertonic, or hypotonic intravenous fluids are infused
7.c. Describe patient and family teaching about diet and medications used to restore, promote, and maintain fluid, and electrolyte balance.
7.d. Explain the relationships between antidiuretic hormone, urine output volume, and osmolarity.
7.e. Differentiate between the pathophysiology of isotonic, hypertonic and hypotonic dehydration and overhydration.
7.f. Compare and contrast the causes, effects, and care of patients across the lifespan, with fluid volume or electrolyte imbalance.
7.g. Explain the pathophysiology and manifestations of imbalances of sodium, potassium, calcium, magnesium, and phosphorous.
7.h. Describe collaborative management for imbalances of sodium, potassium, calcium, magnesium, and phosphorous.
7.i. Describe procedures used to screen, diagnose, and treat clients with alterations in fluid and electrolyte balance.
7.j. List commonly used nursing diagnoses for patients with fluid and electrolyte disorders.

8. Evaluate nursing care for patients with alterations in acid-base balance

Assessment Strategies
8.1. in an oral, written or performance assessment
8.2. Written Objective Test

Learning Objectives
8.a. Describe patient and family teaching about diet and medications used to restore, promote, and maintain acid-base balance.
8.b. Describe the causes and effects of acid-base imbalances.
8.c. Compare the roles of the respiratory system and the renal system in maintaining acid base balance.
8.d. Describe procedures used to screen, diagnose, and treat clients with alterations in acid-base balance.
8.e. List commonly used nursing diagnoses for patients with acid base disorders.
9. Evaluate nursing care for patients with pain and alterations in comfort

Assessment Strategies
9.1. in an oral, written or performance assessment
9.2. Written Objective Test
9.3. Scenario Response
9.4. Self Assessment

Learning Objectives
9.a. Describe the developmental, cultural and psychosocial components contributing to the pain experience.
9.b. Describe the collaborative management of acute and chronic pain for patients across the lifespan, including medications, surgery, transcutaneous electrical nerve stimulation, and complementary therapy.
9.c. Select methods used to evaluate patient’s pain and response to pain management across the lifespan.
9.d. Explain the management of acute and chronic pain beyond hospitalization to include community management and teaching.
9.e. List commonly used nursing diagnoses for patients with pain.