HIGHLAND COMMUNITY COLLEGE

Syllabus

NUR 122 KSPN Nursing Care of Adults I
5 Credit Hours /75 hours of lecture
Prerequisite: Admission to the PN Program
C&I Revision Date: 09/13/2024

Department:

Practical Nursing

Course Description:

This course focuses on the care of adult clients experiencing common medical/surgical health alterations with predictable outcomes. Emphasis is placed on the care of clients with alterations in cardiac output and tissue perfusion, oxygenation, regulation and metabolism, and integument. Principles of pre- and post-operative care, pharmacology and IV therapy are also addressed.

Course Competencies:

Upon completion of the course, the student should be able to:

1. Describe how to perform a focused assessment on adult clients with common alterations in health related to selected body systems.
2. Develop a relationship-centered plan of care that incorporates current evidence and includes cultural, spiritual, and developmentally appropriate interventions for clients with commonly occurring health alterations that have predictable outcomes.
3. Describe the role of members of the health care team in regard to caring for clients with commonly occurring health alterations that have predictable outcomes.
4. Apply a basic level of knowledge of pathophysiology, pharmacology, and nutrition as it relates to adult clients with commonly occurring health alterations that have predictable outcomes.
5. Articulate verbal and nonverbal communication strategies that are used to promote caring, therapeutic relationships with clients and their families.
6. Describe how information technology is used to communicate with members of the health care team by accurately documenting client care in a secure and timely manner.
7. Describe the health education needs experienced by clients with commonly occurring health alterations that have predictable outcomes.
8. Describe strategies that provide quality care in a safe environment for clients, self, and others.
9. Discuss how organizational and time management skills are used when providing care to adult clients.
10. Describe the role of the practical nurse in maintaining personal and professional accountability for the delivery of standard-based, ethical and legal care to clients.

Course Content:

A. Alterations in Fluid and Electrolytes
    1. Recognize alterations in the laboratory values of urine osmolarity, and serum sodium, potassium, chloride, calcium, and phosphorus.
    2. Recognize clinical manifestations of fluid imbalances and alterations in sodium, potassium, chloride, calcium, and phosphorus
    3. Apply knowledge of pathophysiology when planning care for clients with alterations in fluid balance.

4. Apply knowledge of pathophysiology when planning care for clients with alterations in sodium, potassium, chloride, calcium, and phosphorus.
5. Identify priority actions for clients with an alteration in fluid balance or sodium, potassium, chloride, calcium, and phosphorus.

B. Alteration in Oxygenation
1. Recognize components of a focused assessment that should be included when collecting data on adults who have an alteration in oxygenation.
2. Apply knowledge of anatomy, physiology, basic pathophysiology, nutrition, and developmental variations when helping to plan care for adults who have an alteration in oxygenation.
3. Identify priority actions for adults who have an alteration in oxygenation.
4. Apply knowledge of the actions, potential side effects, and nursing implications when administering medications to adults who have an alteration in oxygenation.
5. Recognize alterations in pulse oximetry and other laboratory values related to alterations in oxygenation.
6. Discuss the correct use and functioning of therapeutic devices that support oxygenation.
7. Describe the role of the nurse in providing quality care to adults who have an alteration in oxygenation.
8. Identify health care education and safety needs for adults who have an alteration in oxygenation.
9. Exemplars:
    a. Obstructive disorders (COPD- emphysema, chronic bronchitis; asthma; pulmonary embolism)
    b. Trauma related disorders (pneumothorax, hemothorax)
    c. Infectious & inflammatory disorders (bronchitis, pneumonia, influenza, tuberculosis)
    d. Abnormal cell proliferation disorders (laryngeal cancer, lung cancer)
10. Pharmacology:
    a. Methylxanthines
    b. Mast cell stabilizers
    c. Anticholinergics (inhaled)
    d. Leukotriene modifiers
    e. Beta 2-adrenergic agonists
    f. Antibiotics (penicillin, cephalosporins, tetracyclines, macrolides, fluoroquinolones, monobactams)
    g. Bronchodilators
    h. Expectorants & mucolytics
    i. Antimycobacterial
    j. Adult immunizations
11. Nutrition
    a. Diet for clients with nutritional deficit (high calorie, high protein diet with limitation of empty liquids)
    b. Diets for clients with dyspnea (soft diet, small frequent meals)
    c. Nutrition/ Nutritional supplements (high calorie, low carbohydrate)

C. Alterations in Cardiac Output and Tissue Perfusion
1. Recognize components of a focused assessment that should be included when collecting data on adults who have an alteration in cardiac output and tissue perfusion.
2. Apply knowledge of anatomy, physiology, basic pathophysiology, nutrition, and developmental variations when helping to plan care for adults who have an alteration in cardiac output and tissue perfusion.

3. Identify priority actions for adults who have an alteration in cardiac output and tissue perfusion.
4. Apply knowledge of the actions, potential side effects, and nursing implications when administering medications to adults who have an alteration in cardiac output and tissue perfusion.
5. Recognize alterations in laboratory values related to alterations in cardiac output and tissue perfusion.
6. Discuss the correct use and functioning of therapeutic devices that support cardiac output and tissue perfusion.
7. Describe the role of the nurse in providing quality care to adults who have an alteration in cardiac output and tissue perfusion.
8. Identify health care education and safety needs for adults who have an alteration in cardiac output and tissue perfusion.
9. Exemplars:
    a. Electrical conduction disorders (dysrhythmias and electronic pacing)
    b. Infectious and inflammatory disorders (rheumatic/infective endocarditis, pericarditis, arteritis)
    c. Structural abnormality (Venous stasis, emboli, aneurysms, peripheral vascular disease peripheral arterial disease; valvular heart disease)
    d. Arterial pressure disorders (hypertension, shock (hemodynamic, septic, hypovolemic, anaphylactic))
    e. Ischemic disorders (angina, coronary artery disease, myocardial infarction)
    f. Decreased cardiac output disorders (heart failure, pulmonary edema)
10. Pharmacology
    a. Organic nitrates
    b. Beta- and alpha-adrenergic blockers
    c. Centrally acting alpha agents
    d. Calcium channel blockers
    e. Atropine
    f. Antilipemic
    g. Renin-angiotensin-aldosterone system (RAAS) inhibitors (ACE inhibitors, ARBs, angiotensin II receptor blockers, aldosterone antagonists) OBJ
11. Nutrition
    a. Dietary Approaches to Stop Hypertension (DASH) diet
    b. Therapeutic Lifestyle Changes (TLC) diet
    c. Diets rich in iron, Vitamin B12, and folic acid

D. Alterations in Regulation and Metabolism
1. Recognize components of a focused assessment that should be included when collecting data on adults who have an alteration in regulation and metabolism.
2. Apply knowledge of anatomy, physiology, basic pathophysiology, nutrition, and developmental variations when helping to plan care for adults who have an alteration in regulation and metabolism.
3. Identify priority actions for adults who have an alteration in regulation and metabolism.
4. Apply knowledge of the actions, potential side effects, and nursing implications when administering medications to adults who have an alteration in regulation and metabolism.
5. Recognize alterations in laboratory values related to alterations in regulation and metabolism.
6. Discuss the correct use and functioning of therapeutic devices that support regulation and metabolism.
7. Describe the role of the nurse in providing quality care to adults who have an

alteration in regulation and metabolism.

8. Identify health care education and safety needs for adults who have an alteration in regulation and metabolism.
9. Exemplars:
    a. Adrenal disorders (Addison's disease/Cushing's disease, DI/SIADH, pituitary disorders)
    b. Endocrine/exocrine disorders (diabetes mellitus, thyroid & parathyroid disorders)
10. Pharmacology
    a. Thyroid hormones
    b. Thyrotropin-releasing hormone
    c. Thyroid hormone synthesis inhibitor
    d. Radioactive and nonradioactive iodine
    e. Insulins
    f. Oral hypoglycemic
    g. Glucagon
    h. Antidiuretic hormone preparation
    i. Posterior pituitary hormones
    j. Anterior pituitary hormones/growth hormones
    k. Glucocorticoid and mineralocorticoid hormones
11. Nutrition
    a. Addison's diet (high calorie, high sodium, low potassium diet)
    b. Therapeutic Diets to manage Diabetes Mellitus

E. Alterations in Integument

1. Recognize components of a focused assessment that should be included when collecting data on adults who have an alteration in integument.
2. Apply knowledge of anatomy, physiology, basic pathophysiology, nutrition, and developmental variations when helping to plan care for adults who have an alteration in integument.
3. Identify priority actions for adults who have an alteration in integument.
4. Apply knowledge of the actions, potential side effects, and nursing implications when administering medications to adults who have an alteration in integument.
5. Recognize alterations in laboratory values related to alterations in integument.
6. Discuss the correct use and functioning of therapeutic devices that support integument.
7. Describe the role of the nurse in providing quality care to adults who have an alteration in integument.
8. Identify health care education and safety needs for adults who have an alteration in integument.
9. Exemplars:
    a. Tissue injury disorders (pressure ulcers, burns)
    b. Infectious and inflammatory disorders (cellulitis, herpes zoster)
    c. Abnormal cell proliferation disorders (actinic keratosis, basal and squamous cell cancer, melanoma, dermatitis, psoriasis, skin infections/infestations)
10. Pharmacology
    a. Sulfonamides
    b. Topical antibacterial (nitrofurazone)
    c. Topical chemotherapy
    d. Interferon
11. Nutrition
    a. High calorie, high protein diet
    b. Enteral nutrition

c. Nutritional supplements

F. Pre- and Postoperative Care
1. Differentiate between the various phases of the surgical experience (pre, peri, and postoperative) and identify the role of the nurse in each of these phases.
2. List the responsibilities of the nurse when caring for a client in the immediate pre- and postoperative period.
3. Differentiate between general and regional anesthesia and conscious sedation.
4. Describe the impact drugs used during a surgical procedure can have on drugs given in the immediate postoperative period.
5. Compare and contrast medications commonly given for postoperative pain, nausea, and vomiting.
6. Discuss the legal and ethical issues related to ensuring informed consent.
7. Discuss potential post-surgical and immobility complications and the nurses' role in preventing them (thromboembolic, pneumonia, atelectasis, wound infection, wound dehiscence and evisceration).
8. Intervene to provide a safe environment for the surgical client.
9. Post-surgical and immobility complications (thromboembolic, pneumonia, atelectasis, wound infection, wound dehiscence and evisceration)
10. Pharmacology:
    a. Postoperative pain: Opioid agonists, Agonists-antagonists' opioids, Opioid antagonists
    b. Postoperative nausea and vomiting: Serotonin antagonists, Dopamine antagonists, Anticholinergics, Antihistamines

G. Intermediate/Advanced Nursing Skills
1. Review Principles related to selected skills.
2. Practice client care skills using proper technique while ensuring client safety.
3. Post-mortem care and tissue/organ donation.
4. Glucose monitoring and screening tests.
5. Preventing complications of immobility.
6. Drug calculation.
7. EKG Lead Placement, reading normal strips, reading paced strips and documentation.
8. Tracheostomy suctioning and care, ventilator monitoring, chest tube monitoring, and documentation.
9. Sterile dressing changes and specialized wound care, including wound vacuums.
10. Joint Replacement care (CPM machine, hip precautions)

H. Intravenous Therapy (This content will be included in the course as KSBN makes the necessary regulatory changes in the *Kansas Nurse Practice Act)*
1. Define intravenous fluid therapy (see definition in KAR 60-16-101)
2. Outline the scope of practice of PNs (see description in KAR 60-16-102)
3. Identify the different types of vascular access delivery devices.
4. Discuss age-related considerations.
5. Review the legal implications for intravenous fluid therapy.
6. Review the anatomy and physiology of common sites used for intravenous fluid therapy
7. Review fluid and electrolyte balance considerations that relate to intravenous fluid therapy.
8. Identify infusion equipment used in intravenous fluid therapy.
9. Review clients care necessary to maintain patency of established intravenous lines.
10. Review various types of infusion therapies and selection criteria for their use.
11. Contrast the various types of parenteral solutions and indications for each.
12. Describe infection control and safety measures to be taken to prevent infection and

infiltration.
13. Describe site care and maintenance of various types of intravenous therapies.
14. Describe the process for determining vascular access device selection and placement.
15. Discuss the indications for the insertion of peripheral short catheters.
16. Differentiate between central and peripheral vascular devices and their care.
17. Discuss administration, maintenance, and monitoring of existing central intravenous fluid therapy.
18. Articulate documentation needed in relation to intravenous fluid therapy
19. Provide client education related to need for intravenous fluid therapy and client's role in maintaining patency and preventing infection.

Learning Assessments:

Course competencies will be evaluated by the use of tests, quizzes, worksheets, reflection papers, nursing journal reviews, library research, individual projects, and group projects.

Instructional Materials:

Textbooks: Williams, L. & Hopper, P. (2022). *Understanding Medical Surgical Nursing* (7th ed.). Philadelphia, PA: F.A. Davis Company. ISBN-13: 978-1-7196-4458-7

Doenges, M. & Moorhouse, M. (2019). *Nursing Care Plans: Guidelines for Individualizing Client Care Across the Life Span* (10th ed.). Philadelphia, PA: F.A. Davis Company. ISBN-13: 978-0-8036-6086-1

Polan, E., Taylor, D. (2023). *Journey Across the Life Span: Human Development and Health Promotion* (7th Ed.). Philadelphia, PA: F.A. Davis Company. ISBN 13: 978-1-7196-4591-1

Watkins, C. (2022). *Pharmacology Clear and Simple: A Guide to Drug Classifications and Dosage Calculations* (4th Ed.). Philadelphia, PA: F. A. Davis Company. ISBN 13: 978-1-7196-4474-1

Online: ATI Comprehensive Testing and Review Package for PNs

Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students **must** complete the "Disabilities Self-Identification Form" on ours Disability Services website.

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.

A Note on Harassment, Discrimination and Sexual Misconduct

Highland Community College seeks to assure all community members learn and work in a welcoming and inclusive environment. Title VII, Title IX, and College policy prohibit harassment, discrimination and sexual misconduct. Highland Community College encourages anyone experiencing harassment, discrimination or sexual misconduct to talk to report to the Vice President for Student Services, the Human Resources Director or complete an online report about what happened so that they can get the support they need, and Highland Community College can respond appropriately.

There are both confidential and non-confidential resources and reporting options available to you. Highland Community College is legally obligated to respond to reports of sexual misconduct, and therefore we cannot guarantee the confidentiality of a report, unless made to a confidential resource. Responses may vary from support services to formal investigations. As a faculty member, I am required to report incidents of sexual misconduct and thus cannot guarantee confidentiality. I must provide our Title IX coordinator with relevant details such as the names of those involved in the incident. For more information about policies and resources or reporting options, please review our Equity Grievance Policy.