

NCLEX-RN®  
DETAILED  
TEST PLAN



# 2010 NCLEX-RN® Detailed Test Plan

Effective | April 2010

Candidate Version

### **Mission Statement**

The National Council of State Boards of Nursing, composed of member boards, provides leadership to advance regulatory excellence for public protection.

### **Purpose and Functions**

The purpose of the National Council of State Boards of Nursing (NCSBN<sup>®</sup>) is to provide an organization through which boards of nursing act and counsel together on matters of common interest and concern affecting the public health, safety and welfare, including the development of licensing examinations in nursing.

The major functions of NCSBN include developing the NCLEX-RN<sup>®</sup> and NCLEX-PN<sup>®</sup> examinations, performing policy analysis and promoting uniformity in relationship to the regulation of nursing practice, disseminating data related to NCSBN's purpose and serving as a forum for information exchange for NCSBN members.

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# National Council of State Boards of Nursing

## *2010 NCLEX-RN® Detailed Test Plan*

### Candidate Version

#### **Prepared by**

Anne Wendt, PhD, RN, CAE

Lorraine Kenny, MS, RN

Lisa Schultz, MSN, RN

#### **Approved by**

National Council of State Boards of Nursing (NCSBN®)

NCLEX® Examination Committee

2010

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## I. Background

The Candidate Detailed Test Plan for the National Council Licensure Examination for Registered Nurses (NCLEX-RN®) was developed by the National Council of State Boards of Nursing, Inc. (NCSBN®). The purpose of this document is to provide more detailed information about the content areas tested in the NCLEX-RN examination than is provided in the basic NCLEX-RN Test Plan.

This booklet contains the:

- 2010 NCLEX-RN® Test Plan;
- Information on testing requirements and sample examination questions (items); and
- Bibliography.

### About the 2010 NCLEX-RN® Test Plan (Section II)

The test plan is reviewed and approved by the NCLEX® Examination Committee every three years. Multiple resources are used, including the recent practice analysis of registered nurses, and expert opinions of the NCLEX® Examination Committee, NCSBN content staff, and boards of nursing (NCSBN's member boards) to ensure that the test plan is consistent with state nurse practice acts. Following the endorsement of proposed revisions by the NCLEX® Examination Committee, the test plan document is presented for approval to the Delegate Assembly, which is the decision-making body of NCSBN.

### About the 2010 NCLEX-RN® Detailed Test Plan (Section III)

The detailed test plan serves a variety of purposes. It is used to guide candidates preparing for the examination, to direct item writers in the development of items and to facilitate the classification of examination items. Two versions of the detailed test plan have been created: Item Writer/Item Reviewer/Nurse Educator version and Candidate version. The Candidate version that is provided in this document offers a more thorough and comprehensive listing of content for each client needs category and subcategory outlined in the test plan. Sample items are provided at the end of each category, which are specific to the client needs category being reviewed in that section. The Item Writer/Item Reviewer/Nurse Educator version of the detailed test plan provides the same comprehensive listing of content and sample items for each client needs category and subcategory outlined in the test plan. In addition, the Item Writer/Item Reviewer/Nurse Educator version also provides an item writing tutorial with sample case scenarios to provide nurse educators with hands-on experience in writing NCLEX® style test questions.

For up-to-date information on the NCLEX-RN examination, visit the NCSBN Web site at <http://www.ncsbn.org>.

## II. 2010 NCLEX-RN® Test Plan

### Test Plan for the National Council Licensure Examination for Registered Nurses (NCLEX-RN® Examination)

#### Introduction

Entry into the practice of nursing is regulated by the licensing authorities within each of the NCSBN member board jurisdictions (state, commonwealth and territorial boards of nursing). To ensure public protection, each jurisdiction requires candidates for licensure to pass an examination that measures the competencies needed to perform safely and effectively as a newly licensed, entry-level registered nurse (RN). NCSBN develops a licensure examination, the National Council Licensure Examination for Registered Nurses (NCLEX-RN®), which is used by member board jurisdictions to assist in making licensure decisions.

Several steps occur in the development of the NCLEX-RN Test Plan. The first step is conducting a practice analysis that is used to collect data on the current practice of the entry-level nurse (*Report of Findings from the 2008 RN Practice Analysis: Linking the NCLEX-RN® Examination to Practice*, NCSBN, 2009). A total of 12,000 newly licensed RNs are asked about the frequency and importance of performing 155 nursing care activities. Nursing care activities are then analyzed in relation to the frequency of performance, impact on maintaining client safety and client care settings where the activities are performed. This analysis guides the development of a framework for entry-level nursing practice that incorporates specific client needs, as well as processes fundamental to the practice of nursing. The second step is the development of the NCLEX-RN Test Plan, which guides the selection of content and behaviors to be tested.

The NCLEX-RN Test Plan provides a concise summary of the content and scope of the licensing examination. It serves as a guide for examination development as well as candidate preparation. Each NCLEX-RN examination is based on the test plan. The NCLEX examination assesses the knowledge, skills and abilities that are essential for the nurse to use in order to meet the needs of clients requiring the promotion, maintenance or restoration of health. The following sections describe beliefs about people and nursing that are integral to the examination, cognitive abilities that will be tested in the examination and specific components of the NCLEX-RN Test Plan.

#### Beliefs

Beliefs about people and nursing underlie the NCLEX-RN Test Plan. People are finite beings with varying capacities to function in society. They are unique individuals who have defined systems of daily living reflecting their values, motives and lifestyles. Additionally, people have the right to make decisions regarding their health care needs and to participate in meeting those needs.

Nursing is both an art and a science, founded on a professional body of knowledge that integrates concepts from the liberal arts, and the biological, physical, psychological and social sciences. It is a learned profession based on an understanding of the human condition across the life span and the relationships of an individual with others and within the environment. Nursing is a dynamic, continually evolving discipline that employs critical thinking

to integrate increasingly complex knowledge, skills, technologies and client care activities into evidence-based nursing practice. The goal of nursing for client care in any setting is preventing illness; alleviating suffering; protecting, promoting and restoring health; and promoting dignity in dying.

The RN provides a unique, comprehensive assessment of the health status of the client (individual, family or group), and then develops and implements an explicit plan of care. The nurse assists clients in the promotion of health; in coping with health problems; in adapting to and/or recovering from the effects of disease or injury; and in supporting the right to a dignified death. The RN is accountable for abiding by all applicable member board jurisdiction statutes related to nursing practice.

## Classification of Cognitive Levels

Bloom's taxonomy for the cognitive domain is used as a basis for writing and coding items for the examination (Bloom, et al., 1956; Anderson & Krathwohl, 2001). Since the practice of nursing requires application of knowledge, skills and abilities, the majority of items are written at the application or higher levels of cognitive ability, which requires more complex thought processing.

## Test Plan Structure

The framework of Client Needs was selected for the examination because it provides a universal structure for defining nursing actions and competencies, and focuses on clients in all settings.

## Client Needs

The content of the NCLEX-RN Test Plan is organized into four major Client Needs categories. Two of the four categories are divided into subcategories:

### **Safe and Effective Care Environment**

- Management of Care
- Safety and Infection Control

### **Health Promotion and Maintenance**

### **Psychosocial Integrity**

### **Physiological Integrity**

- Basic Care and Comfort
- Pharmacological and Parenteral Therapies
- Reduction of Risk Potential
- Physiological Adaptation

## Integrated Processes

The following processes are fundamental to the practice of nursing and are integrated throughout the Client Needs categories and subcategories:

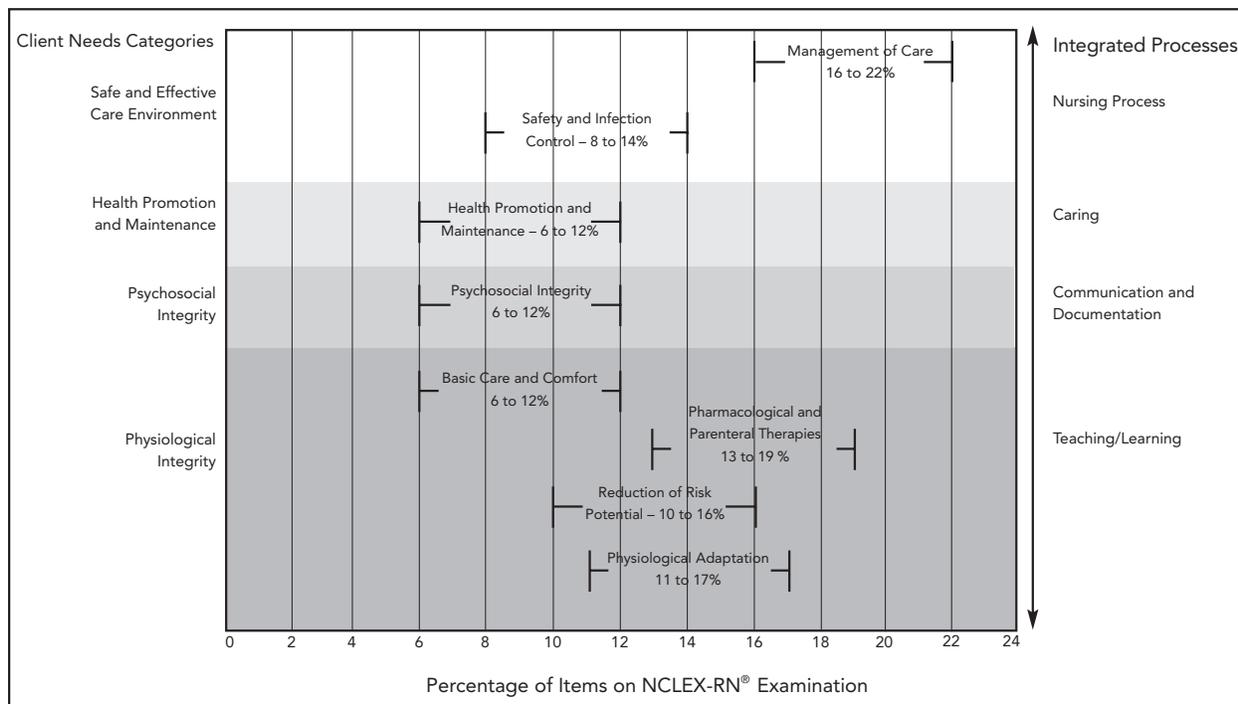
- **Nursing Process** – a scientific, clinical reasoning approach to client care that includes assessment, analysis, planning, implementation and evaluation.
- **Caring** – interaction of the nurse and client in an atmosphere of mutual respect and trust. In this collaborative environment, the nurse provides encouragement, hope, support and compassion to help achieve desired outcomes.
- **Communication and Documentation** – verbal and nonverbal interactions between the nurse and the client, the client’s significant others and the other members of the health care team. Events and activities associated with client care are validated in written and/or electronic records that reflect standards of practice and accountability in the provision of care.
- **Teaching/Learning** – facilitation of the acquisition of knowledge, skills and attitudes promoting a change in behavior.

## Distribution of Content

The percentage of test questions assigned to each Client Needs category and subcategory of the NCLEX-RN Test Plan is based on the results of the *Report of Findings from the 2008 RN Practice Analysis: Linking the NCLEX-RN® Examination to Practice* (NCSBN, 2009) and expert judgment provided by members of the NCLEX® Examination Committee.

Client Needs	Percentage of Items from Each Category/Subcategory
<b>Safe and Effective Care Environment</b>	
■ Management of Care	16-22%
■ Safety and Infection Control	8-14%
<b>Health Promotion and Maintenance</b>	6-12%
<b>Psychosocial Integrity</b>	6-12%
<b>Physiological Integrity</b>	
■ Basic Care and Comfort	6-12%
■ Pharmacological and Parenteral Therapies	13-19%
■ Reduction of Risk Potential	10-16%
■ Physiological Adaptation	11-17%

## Distribution of Content for the NCLEX-RN® Test Plan



## Overview of Content

All content categories and subcategories reflect client needs across the life span in a variety of settings.

### Safe and Effective Care Environment

The nurse promotes achievement of client outcomes by providing and directing nursing care that enhances the care delivery setting in order to protect clients and other health care personnel.

- **Management of Care** – providing and directing nursing care that enhances the care delivery setting to protect clients and health care personnel.

Related content includes, but is **not limited** to:

- Advance Directives
- Advocacy
- Case Management
- Client Rights
- Collaboration with Interdisciplinary Team
- Concepts of Management
- Confidentiality/Information Security
- Consultation
- Continuity of Care
- Delegation
- Establishing Priorities
- Ethical Practice
- Informed Consent
- Information Technology
- Legal Rights and Responsibilities
- Performance Improvement (Quality Improvement)
- Referrals
- Supervision

- **Safety and Infection Control** – protecting clients and health care personnel from health and environmental hazards.

Related content includes, but is **not limited** to:

- Accident/Injury Prevention
- Emergency Response Plan
- Ergonomic Principles
- Error Prevention
- Handling Hazardous and Infectious Materials
- Home Safety
- Reporting of Incident/Event/Irregular Occurrence/Variance
- Safe Use of Equipment
- Security Plan
- Standard Precautions/Transmission-Based Precautions/Surgical Asepsis
- Use of Restraints/Safety Devices

## Health Promotion and Maintenance

The nurse provides and directs nursing care of the client that incorporates the knowledge of expected growth and development principles, prevention and/or early detection of health problems, and strategies to achieve optimal health.

Related content includes, but is **not limited** to:

- Aging Process
- Ante/Intra/Postpartum and Newborn Care
- Developmental Stages and Transitions
- Health and Wellness
- Health Promotion/Disease Prevention
- Health Screening
- High Risk Behaviors
- Lifestyle Choices
- Principles of Teaching/Learning
- Self-Care
- Techniques of Physical Assessment

## Psychosocial Integrity

The nurse provides and directs nursing care that promotes and supports the emotional, mental and social well-being of the client experiencing stressful events, as well as clients with acute or chronic mental illness.

Related content includes, but is **not limited** to:

- Abuse/Neglect
- Behavioral Interventions
- Chemical and Other Dependencies
- Coping Mechanisms
- Crisis Intervention
- Cultural Diversity
- End of Life Care
- Family Dynamics
- Grief and Loss
- Mental Health Concepts
- Religious and Spiritual Influences on Health
- Sensory/Perceptual Alterations
- Stress Management
- Support Systems
- Therapeutic Communication
- Therapeutic Environment

## Physiological Integrity

The nurse promotes physical health and wellness by providing care and comfort, reducing client risk potential and managing health alterations.

- **Basic Care and Comfort** – providing comfort and assistance in the performance of activities of daily living.

Related content includes, but is **not limited** to:

- Assistive Devices
- Elimination
- Mobility/Immobility
- Non-Pharmacological Comfort Interventions
- Nutrition and Oral Hydration
- Personal Hygiene
- Rest and Sleep

- **Pharmacological and Parenteral Therapies** – providing care related to the administration of medications and parenteral therapies.

Related content includes, but is **not limited** to:

- Adverse Effects/Contraindications /Side Effects/Interactions
- Blood and Blood Products
- Central Venous Access Devices
- Dosage Calculation
- Expected Actions/Outcomes
- Medication Administration
- Parenteral/Intravenous Therapies
- Pharmacological Pain Management
- Total Parenteral Nutrition

- **Reduction of Risk Potential** – reducing the likelihood that clients will develop complications or health problems related to existing conditions, treatments or procedures.

Related content includes, but is **not limited** to:

- Changes/Abnormalities in Vital Signs
- Diagnostic Tests
- Laboratory Values
- Potential for Alterations in Body Systems
- Potential for Complications of Diagnostic Tests/Treatments/Procedures
- Potential for Complications from Surgical Procedures and Health Alterations
- System Specific Assessments
- Therapeutic Procedures

- **Physiological Adaptation** – managing and providing care for clients with acute, chronic or life-threatening physical health conditions.

Related content includes, but is **not limited** to:

- Alterations in Body Systems
- Fluid and Electrolyte Imbalances
- Hemodynamics
- Illness Management
- Medical Emergencies
- Pathophysiology
- Unexpected Response to Therapies



### III. 2010 NCLEX-RN® Detailed Test Plan

#### Detailed Test Plan for the National Council Licensure Examination for Registered Nurses (NCLEX-RN® Examination)

The NCLEX-RN Test Plan in the previous section provides a general outline of the categories and subcategories of the examination. The *2010 NCLEX-RN® Detailed Test Plan (Candidate Version)* is used to guide the direction of examination content to be followed by NCLEX® candidates preparing to take the examination.

The activity statements used in the *Report of Findings from the 2008 Practice Analysis: Linking the NCLEX-RN® Examination to Practice* (NCSBN, 2009) preface each of the eight content categories and are identified throughout the detailed test plan by an asterisk (\*). NCSBN performs an analysis of those activities used frequently and identified as important by entry-level nurses to ensure client safety. This is called a practice analysis; it provides data to support the NCLEX examination as a reliable, valid measure of competent, entry-level nursing practice. The practice analysis is conducted at least every three years.

All task statements in the *2010 NCLEX-RN® Detailed Test Plan* require the nurse to apply the fundamental principles of clinical decision making and critical thinking to nursing practice. The detailed test plan also makes the assumption that the nurse integrates concepts from the following bodies' of knowledge:

- Social Sciences (psychology and sociology);
- Biological Sciences (anatomy, physiology, biology and microbiology); and
- Physical Sciences (chemistry and physics).

In addition, the following concepts are utilized throughout the four major client needs categories and subcategories of the test plan:

- Nursing process;
- Caring;
- Communication and documentation; and
- Teaching and learning.

*Note: There are certain inconsistencies throughout this document related to word usage and punctuation. Sentences or phrases marked by an asterisk are activity statements taken directly from the Report of Findings from the 2008 RN Practice Analysis: Linking the NCLEX-RN® Examination to Practice. In order to provide proper attribution to the original survey these statements have not been altered to fit the overall grammatical style of this document. In addition, the term "client" refers to an individual, family or group. "Clients" are the same as "residents" or "patients."*

## Safe and Effective Care Environment

### Management of Care

- **Management of Care** – The nurse provides and directs nursing care that enhances the care delivery setting to protect the client and health care personnel.

MANAGEMENT OF CARE
Related Activity Statements from the 2008 RN Practice Analysis of Newly Licensed Registered Nurses in the U.S. and Member Board Jurisdictions
<ul style="list-style-type: none"> <li>■ Integrate advance directives into client plan of care</li> <li>■ Act as a client advocate</li> <li>■ Initiate, evaluate, and update plan of care, care map, clinical pathway used to guide and evaluate client care</li> <li>■ Incorporate evidence-based practice/research results when providing care</li> <li>■ Educate client and staff about client rights and responsibilities (e.g., ethical/legal issues)</li> <li>■ Collaborate with healthcare members in other disciplines when providing client care</li> <li>■ Manage conflict among clients and health care staff</li> <li>■ Maintain client confidentiality/privacy</li> <li>■ Provide and receive report on assigned clients</li> <li>■ Use approved abbreviations and standard terminology when documenting care</li> <li>■ Perform procedures necessary to safely admit, transfer, or discharge a client</li> <li>■ Maintain continuity of care between/among healthcare agencies</li> <li>■ Assess/triage client(s) to prioritize the order of care delivery</li> <li>■ Prioritize workload to manage time effectively</li> <li>■ Recognize ethical dilemmas and take appropriate action</li> <li>■ Practices in a manner consistent with a code of ethics for registered nurses</li> <li>■ Verify that the client comprehends and consents to care/procedures, including procedures requiring informed consent</li> <li>■ Receive and/or transcribe health care provider orders</li> <li>■ Use information technology (e.g., computer, video, books) to enhance the care provided to a client</li> <li>■ Use emerging technology in managing client health care (e.g., telehealth, electronic records)</li> <li>■ Recognize limitations of self/others, seek assistance and/or begin corrective measures at the earliest opportunity</li> <li>■ Comply with state and/or federal regulations for reporting client conditions (e.g., abuse/neglect, communicable disease, gun shot wound, dog bite)</li> <li>■ Report unsafe practice of health care personnel to internal/external entities and intervene as appropriate (e.g. substance abuse, improper care, staffing practices)</li> <li>■ Provide care within the legal scope of practice</li> <li>■ Participate in performance improvement/quality assurance process (e.g., collect data or participate on a team)</li> <li>■ Recognize the need for referrals and obtain necessary orders</li> <li>■ Supervise care provided by others (e.g., LPN/VN, assistive personnel, other RNs)</li> </ul>

Related content includes, but is **not limited** to:

### **Advance Directives**

- Assess client and/or staff member knowledge of advance directives (e.g., living will, health care proxy, Durable Power of Attorney for Health Care [DPAHC])
- Integrate advance directives into client plan of care\*
- Provide client with information about advance directives

### **Advocacy**

- Discuss identified treatment options with client and respect their decisions
- Provide information on advocacy to staff members
- Act as a client advocate\*
- Utilize advocacy resources appropriately (e.g., social worker, chain of command, interpreter)

### **Case Management**

- Explore resources available to assist client in achieving or maintaining independence
- Assess client need for supplies and equipment (e.g., oxygen, suction machine, wound care supplies)
- Plan safe, cost effective care for the client
- Plan individualized care for client based on need (e.g., client diagnosis, self-care ability, prescribed treatments)
- Provide client with information on discharge procedures to home, hospice, or community setting
- Initiate, evaluate, and update plan of care, care map, clinical pathway used to guide and evaluate client care\*
- Incorporate evidence-based practice/research results when providing care\*
- Evaluate and revise client plan of care as needed (e.g., change in client status)

### **Client Rights**

- Recognize client right to refuse treatment/procedures
- Discuss treatment options/decisions with client
- Educate client and staff about client rights and responsibilities (e.g., ethical/legal issues)\*
- Evaluate client/staff understanding of client rights

### **Collaboration with Interdisciplinary Team**

- Identify need for interdisciplinary conferences
- Identify significant information to report to other disciplines (e.g., health care provider, pharmacist, social worker, respiratory therapist)
- Review plan of care to ensure continuity across disciplines
- Collaborate with healthcare members in other disciplines when providing client care\*
- Serve as resource person to other staff

**Concepts of Management**

- Identify roles/responsibilities of health care team members
- Plan overall strategies to address client problems
- Act as liaison between client and others (e.g., coordinate care, manage care)
- Manage conflict among clients and health care staff\*
- Evaluate management outcomes

**Confidentiality/Information Security**

- Assess staff member and client understanding of confidentiality requirements (e.g., HIPAA)
- Maintain client confidentiality/privacy\*
- Intervene appropriately when confidentiality has been breached by staff members

**Consultation**

- Assess need for consultation with other health care providers
- Initiate consultations (e.g., another care provider, social services)
- Use clinical decision making/critical thinking in consultation situations
- Evaluate outcomes of consultation and need for revising care should client needs change

**Continuity of Care**

- Provide and receive report on assigned clients\*
- Use documents to record and communicate client information (e.g., medical record, referral/transfer form)
- Use approved abbreviations and standard terminology when documenting care\*
- Perform procedures necessary to safely admit, transfer, or discharge a client\*
- Maintain continuity of care between/among healthcare agencies\*
- Follow up on unresolved issues regarding client care (e.g., laboratory results, client requests)

**Delegation**

- Identify tasks for delegation based on client needs
- Ensure appropriate education, skills and experience of personnel performing delegated task
- Communicate task to be completed and client concerns that need to be reported immediately
- Utilize five rights of delegation (e.g., right task, right circumstances, right person, right direction or communication, right supervision or feedback)
- Evaluate delegated tasks to ensure correct completion of activity

**Establishing Priorities**

- Assess/triage client(s) to prioritize the order of care delivery\*
- Apply knowledge of pathophysiology when establishing priorities for interventions with multiple clients
- Prioritize workload to manage time effectively\*
- Evaluate plan of care for multiple clients and revise plan of care as needed

**Ethical Practice**

- Recognize ethical dilemmas and take appropriate action\*
- Inform client/staff members of ethical issues affecting client care
- Practices in a manner consistent with a code of ethics for registered nurses\*
- Evaluate outcomes of interventions to promote ethical practice

**Informed Consent**

- Identify appropriate person to provide informed consent for client (e.g., client, parent, legal guardian)
- Provide written materials in client's spoken language, when possible
- Describe components of informed consent
- Participate in obtaining informed consent
- Verify that the client comprehends and consents to care/procedures, including procedures requiring informed consent\*

**Information Technology**

- Receive and/or transcribe health care provider orders\*
- Use information technology (e.g., computer, video, books) to enhance the care provided to a client\*
- Apply knowledge of facility regulations when accessing client records
- Access data for client through online databases and journals
- Enter computer documentation accurately, completely and in a timely manner
- Use emerging technology in managing client health care (e.g., telehealth, electronic records)\*

**Legal Rights and Responsibilities**

- Identify legal issues affecting client (e.g., refusing treatment)
- Identify and manage client valuables according to facility/agency policy
- Recognize limitations of self/others, seek assistance and/or begin corrective measures at the earliest opportunity\*
- Review facility policy and state mandates prior to agreeing to serve as an interpreter for staff or primary health care provider
- Educate client/staff on legal issues
- Comply with state and/or federal regulations for reporting client conditions (e.g., abuse/neglect, communicable disease, gun shot wound, dog bite)\*
- Report unsafe practice of health care personnel to internal/external entities and intervene as appropriate (e.g. substance abuse, improper care, staffing practices)\*
- Provide care within the legal scope of practice\*

**Performance Improvement (Quality Improvement)**

- Define performance improvement/quality assurance activities
- Participate in performance improvement/quality assurance process (e.g., collect data or participate on a team)\*
- Report identified client care issues/problems to appropriate personnel (e.g., nurse manager, risk manager)
- Utilize research and other references for performance improvement actions
- Evaluate the impact of performance improvement measures on client care and resource utilization

**Referrals**

- Assess the need to refer clients for assistance with actual or potential problems (e.g., physical therapy, speech therapy)
- Recognize the need for referrals and obtain necessary orders\*
- Identify community resources for client (e.g., respite care, social services, shelters)
- Identify which documents to include when referring a client (e.g., medical record, referral form)

**Supervision**

- Supervise care provided by others (e.g., LPN/VN, assistive personnel, other RNs)\*
- Evaluate ability of staff members to perform assigned tasks for the position (e.g., job description, scope of practice, training, experience)
- Evaluate effectiveness of staff member's time management skills

**Sample Item**

The nurse is caring for a client in a long term care facility. The client's spouse asks the nurse for information regarding the client's treatment plan. Which of the following responses would be **most** appropriate for the nurse to make?

- a. "I cannot give you information on any client." **(key)**
- b. "Can you verify the client's date of birth?"
- c. "Let me ask the primary health care provider to speak with you."
- d. "You should speak directly with the client about the treatment plan."

**(Key)** is used throughout this document to denote the correct answer(s) for the exam item.

## Safety and Infection Control

- **Safety and Infection Control** – The nurse protects clients and health care personnel from health and environmental hazards.

SAFETY AND INFECTION CONTROL
<b>Related Activity Statements from the 2008 RN Practice Analysis of Newly Licensed Registered Nurses in the U.S. and Member Board Jurisdictions</b>
<ul style="list-style-type: none"> <li>■ Protect client from injury (e.g., falls, electrical hazards)</li> <li>■ Implement emergency response plans (e.g., internal/external disaster )</li> <li>■ Use ergonomic principles when providing care (e.g., assistive devices, proper lifting)</li> <li>■ Assess for client allergies/sensitivities and intervene as needed (e.g., food, latex, environmental allergies)</li> <li>■ Ensure proper identification of client when providing care</li> <li>■ Verify appropriateness and/or accuracy of a treatment order</li> <li>■ Follow procedures for handling biohazardous materials</li> <li>■ Educate client on home safety issues</li> <li>■ Acknowledge and document practice error (e.g. incident report for medication error)</li> <li>■ Facilitate appropriate and safe use of equipment</li> <li>■ Participate in institution security plan (e.g., newborn nursery security, bomb threats)</li> <li>■ Apply principles of infection control (e.g., hand hygiene, room assignment, isolation, aseptic/sterile technique, universal/standard precautions)</li> <li>■ Educate client and staff regarding infection control measures</li> <li>■ Comply with federal/state/institutional requirements regarding the use of client restraints and/or safety devices</li> </ul>

Related content includes, but is **not limited** to:

### Accident/Injury Prevention

- Determine client/staff member knowledge of safety procedures
- Identify factors that influence accident/injury prevention (e.g., age, developmental stage, lifestyle, mental status)
- Identify deficits that may impede client safety (e.g., visual, hearing, sensory/perceptual)
- Identify and verify prescriptions for treatments that may contribute to an accident or injury (does not include medication)
- Identify and facilitate correct use of infant and child car seats
- Provide client with appropriate method to signal staff members

- Protect client from injury (e.g., falls, electrical hazards)\*
- Review necessary modifications with client to reduce stress on specific muscle or skeletal groups (e.g., frequent changing of position, routine stretching of the shoulders, neck, arms, hands, fingers)
- Implement seizure precautions for at-risk clients
- Make appropriate room assignment for cognitively impaired client

### **Emergency Response Plan**

- Identify which client(s) to recommend for discharge in a disaster situation
- Identify nursing roles in disaster planning
- Use clinical decision-making/critical thinking for emergency response plan
- Implement emergency response plans (e.g., internal/external disaster)\*
- Participate in disaster planning activities/drills

### **Ergonomic Principles**

- Assess client ability to balance, transfer and use assistive devices prior to planning care (e.g., crutches, walker)
- Provide instruction and information to client about body positions that eliminate potential for repetitive stress injuries
- Use ergonomic principles when providing care (e.g., assistive devices, proper lifting)\*

### **Error Prevention**

- Assess for client allergies/sensitivities and intervene as needed (e.g., food, latex, environmental allergies)\*
- Ensure proper identification of client when providing care\*
- Verify appropriateness and/or accuracy of a treatment order\*

### **Handling Hazardous and Infectious Materials**

- Identify biohazardous, flammable and infectious materials
- Follow procedures for handling biohazardous materials\*
- Demonstrate safe handling techniques to staff and client
- Ensure safe implementation of internal radiation therapy

### **Home Safety**

- Assess need for client home modifications (e.g., lighting, handrails, kitchen safety)
- Apply knowledge of client pathophysiology to home safety interventions
- Educate client on home safety issues\*
- Encourage the client to use protective equipment when using devices that can cause injury (e.g., home disposal of syringes)
- Evaluate client care environment for fire/environmental hazard

### **Reporting of Incident/Event/Irregular Occurrence/Variance**

- Identify need/situation where reporting of incident/event/irregular occurrence/variance is appropriate
- Acknowledge and document practice error (e.g. incident report for medication error)\*
- Evaluate response to error/event/occurrence

**Safe Use of Equipment**

- Inspect equipment for safety hazards (e.g., frayed electrical cords, loose/missing parts)
- Teach client about the safe use of equipment needed for health care
- Facilitate appropriate and safe use of equipment\*
- Remove malfunctioning equipment from client care area and report the problem to appropriate personnel

**Security Plan**

- Use clinical decision making/critical thinking in situations related to security planning
- Apply principles of triage and evacuation procedures/protocols
- Participate in institution security plan (e.g., newborn nursery security, bomb threats)\*

**Standard Precautions/Transmission-Based Precautions/Surgical Asepsis**

- Assess client care area for sources of infection
- Understand communicable diseases and the modes of organism transmission (e.g., airborne, droplet, contact)
- Apply principles of infection control (e.g., hand hygiene, room assignment, isolation, aseptic/sterile technique, universal/standard precautions)\*
- Follow correct policy and procedures when reporting a client with a communicable disease
- Educate client and staff regarding infection control measures\*
- Utilize appropriate precautions for immunocompromised clients
- Use correct techniques to apply and remove mask, gloves, gown, protective eyewear
- Use appropriate technique to set up a sterile field/maintain asepsis (e.g., gloves, mask, sterile supplies)
- Evaluate infection control precautions implemented by staff members
- Evaluate whether aseptic technique is performed correctly

**Use of Restraints/Safety Devices**

- Assess appropriateness of the type of restraint/safety device used
- Comply with federal/state/institutional requirements regarding the use of client restraints and/or safety devices\*
- Monitor/evaluate client response to restraints/safety device

**Sample Item**

The nurse is caring for a client who has streptococcal pneumonia. Which of the following infection control precautions should the nurse implement?

- a. Request the dietary department provide disposable utensils on the client's meal tray.
- b. Wear a surgical mask when obtaining the client's vital signs. **(key)**
- c. Remove fresh flowers from the client's room.
- d. Place the client in a private room with monitored negative air pressure.

## Health Promotion and Maintenance

- **Health Promotion and Maintenance** – The nurse provides and directs nursing care of the client that incorporates knowledge of expected growth and development principles; prevention and/or early detection of health problems; and strategies to achieve optimal health.

HEALTH PROMOTION AND MAINTENANCE
Related Activity Statements from the 2008 RN Practice Analysis of Newly Licensed Registered Nurses in the U.S. and Member Board Jurisdictions
<ul style="list-style-type: none"> <li>■ Provide care and education that meets the special needs of the infant client 1 month to 1 year</li> <li>■ Provide care and education that meets the special needs of the preschool client ages 1 year to 4 years</li> <li>■ Provide care and education that meets the special needs of the school age client ages 5 to 12 years</li> <li>■ Provide care and education that meets the special needs of the adolescent client ages 13 to 18 years</li> <li>■ Provide care and education that meets the special needs of the adult client ages 19 to 64 years</li> <li>■ Provide care and education that meets the special needs of the older adult client ages 65 to 85 years</li> <li>■ Provide care and education that meets the special needs of the older adult, over 85 years</li> <li>■ Provide pre-natal care and education</li> <li>■ Provide post-partum care and education</li> <li>■ Provide newborn care and education</li> <li>■ Assess and teach client about health risks based on known population or community characteristics</li> <li>■ Plan and/or participate in the education of individuals in the community (e.g., health fairs, school education)</li> <li>■ Provide information about healthy behaviors and health promotion/maintenance recommendations (e.g., physician visits, immunizations)</li> <li>■ Perform targeted screening examination (e.g., scoliosis, vision and hearing assessments)</li> <li>■ Provide information for prevention of high risk health behaviors (e.g., smoking cessation, safe sexual practices, drug education)</li> <li>■ Assess readiness to learn, learning preferences and barriers to learning</li> <li>■ Assess client understanding of and ability to manage self care in the home environment (e.g. community resources)</li> <li>■ Perform comprehensive health assessment</li> </ul>

Related content includes, but is **not limited** to:

### **Aging Process**

- Assess client reactions to expected age-related changes
- Provide care and education that meets the special needs of the infant client 1 month to 1 year\*
- Provide care and education that meets the special needs of the preschool client ages 1 year to 4 years\*
- Provide care and education that meets the special needs of the school age client ages 5 to 12 years\*
- Provide care and education that meets the special needs of the adolescent client ages 13 to 18 years\*
- Provide care and education that meets the special needs of the adult client ages 19 to 64 years\*
- Provide care and education that meets the special needs of the older adult client ages 65 to 85 years\*
- Provide care and education that meets the special needs of the older adult, over 85 years\*

### **Ante/Intra/Postpartum and Newborn Care**

- Assess client psychosocial response to pregnancy (e.g., support systems, perception of pregnancy, coping mechanisms)
- Assess client for symptoms of postpartum complications (e.g., hemorrhage, infection)
- Recognize cultural differences in childbearing practices
- Calculate expected delivery date
- Check fetal heart rate during routine pre-natal exams
- Assist client with performing/learning newborn care (e.g., feeding)
- Provide pre-natal care and education\*
- Provide intrapartum care and education (e.g., care provided during labor and birth)
- Provide post-partum care and education\*
- Provide newborn care and education\*
- Provide discharge instructions (e.g., post-partum and newborn care)
- Evaluate client ability to care for the newborn

### **Developmental Stages and Transitions**

- Identify expected physical, cognitive and psychosocial stages of development
- Identify expected body image changes associated with client developmental age (e.g., aging, pregnancy)
- Identify family structures and roles of family members (e.g., nuclear, blended, adoptive)
- Compare client development to expected age/developmental stage and report any deviations
- Assess impact of change on family system (e.g., one-parent family, divorce, ill family member)
- Recognize cultural and religious influences that may impact family functioning
- Assist client to cope with life transitions (e.g., attachment to newborn, parenting, puberty, retirement)

- Modify approaches to care in accordance with client developmental stage (use age appropriate explanations of procedures and treatments)
- Provide education to client/staff members about expected age-related changes and age specific growth and development (e.g., developmental stages)
- Evaluate client achievement of expected developmental level (e.g., developmental milestones)
- Evaluate impact of expected body image changes on client and family

**Health and Wellness**

- Assess client perception of health status
- Assess client knowledge of immunization schedules and educate as needed
- Identify client health-oriented behaviors
- Identify precautions and contraindications to immunizations
- Apply knowledge of nutrition to assessing client weight
- Encourage client participation in appropriate behavior modification programs related to health and wellness (e.g., smoking cessation, stress management)
- Assist client to identify/participate in activities fitting client age, preference, physical capacity and psychosocial/behavior/physical development
- Evaluate and treat side effects/allergic reactions/adverse reactions to immunizations

**Health Promotion/Disease Prevention**

- Identify risk factors for disease/illness (e.g., age, gender, ethnicity, lifestyle)
- Assess and teach client about health risks based on known population or community characteristics\*
- Plan and/or participate in the education of individuals in the community (e.g., health fairs, school education)\*
- Educate client on actions to promote/maintain health and prevent disease (e.g., smoking cessation, diet, weight loss)
- Integrate complementary therapies into health promotion activities for the well client
- Provide information about healthy behaviors and health promotion/maintenance recommendations (e.g., physician visits, immunizations)\*
- Provide follow-up to the client following participation in health promotion program (e.g., diet counseling)
- Assist client in maintaining an optimum level of health
- Evaluate client understanding of health promotion behaviors/activities (e.g., weight control, exercise actions)

**Health Screening**

- Apply knowledge of pathophysiology to health screening
- Identify risk factors linked to ethnicity (e.g., hypertension, diabetes)
- Perform health history/health and risk assessments (e.g., lifestyle, family and genetic history)
- Perform targeted screening examination (e.g., scoliosis, vision and hearing assessments)\*
- Utilize appropriate procedure and interviewing techniques when taking the client health history

**High Risk Behaviors**

- Assess client lifestyle practice risks that may impact health (e.g., excessive sun exposure, lack of regular exercise)
- Assist client to identify behaviors/risks that may impact health (e.g., fatigue, calcium deficiency)
- Provide information for prevention of high risk health behaviors (e.g., smoking cessation, safe sexual practices, drug education)\*

**Lifestyle Choices**

- Assess client lifestyle choices (e.g., home schooling, rural or urban living)
- Assess client attitudes/perceptions on sexuality
- Assess client need/desire for contraception
- Identify contraindications to chosen contraceptive method (e.g., smoking, compliance, medical conditions)
- Identify expected outcomes for family planning methods
- Recognize client who is socially or environmentally isolated
- Respect client sexual identity and personal choices/lifestyle (e.g., sexual orientation)
- Educate client on sexuality issues (e.g., family planning, safe sexual practices, menopause, impotence)
- Evaluate client alternative or homeopathic health care practices (e.g., massage therapy, acupuncture, herbal medicine and minerals)

**Principles of Teaching/Learning**

- Assess readiness to learn, learning preferences and barriers to learning\*
- Select appropriate teaching methods (e.g., lecture, written materials)
- Evaluate client understanding of the information provided

**Self Care**

- Assess client understanding of and ability to manage self care in the home environment (e.g. community resources)\*
- Consider client self care needs before developing or revising care plan
- Assist primary caregivers working with client to meet self-care goals

**Techniques of Physical Assessment**

- Apply knowledge of nursing procedures and psychomotor skills to techniques of physical assessment
- Choose physical assessment equipment and technique appropriate for client (e.g., age of client, measurement of vital signs)
- Perform comprehensive health assessment\*

**Sample Item**

The nurse is teaching a client about contraception. Which of the following information should the nurse include?

- a. "Emergency contraception is most effective if used within 72 hours of unprotected intercourse." **(key)**
- b. "If used correctly, a birth control patch will protect you from contracting a sexually transmitted disease (STD)."
- c. "If you use an intrauterine device for contraception, it will need to be replaced every year."
- d. "You cannot use medroxyprogesterone (Depo Provera) if you smoke cigarettes."

## Psychosocial Integrity

- **Psychosocial Integrity** – The nurse provides and directs nursing care that promotes and supports the emotional, mental and social well being of the client experiencing stressful events, as well as clients with acute or chronic mental illness.

### PSYCHOSOCIAL INTEGRITY

#### Related Activity Statements from the 2008 RN Practice Analysis of Newly Licensed Registered Nurses in the U.S. and Member Board Jurisdictions

- Assess client for potential or actual abuse/neglect and intervene when appropriate
- Incorporate behavioral management techniques when caring for a client (e.g., positive reinforcement, setting limits)
- Assess client for drug/alcohol related dependencies, withdrawal, or toxicities and intervene when appropriate
- Provide support to client in coping with life changes (e.g., loss, new diagnosis, role change, stress)
- Assess the potential for violence and initiate/maintain safety precautions (e.g., suicide, homicide, self-destructive behavior)
- Incorporate client cultural practice and beliefs when planning and providing care
- Provide end of life care and education to clients (e.g., hospice)
- Recognize impact of illness/disease on individual/family lifestyle
- Assess family dynamics in order to determine plan of care (e.g., structure, bonding, communication, boundaries, coping mechanisms)
- Provide care and education for acute and chronic behavioral health issues (e.g., anxiety, depression, dementia, eating disorders)
- Assess psychosocial, spiritual, and occupational factors affecting care and plan interventions as appropriate
- Address client needs based on visual, auditory, or cognitive distortions (e.g., hallucinations)
- Recognize non-verbal cues to physical and/or psychological stressors
- Establish and maintain a therapeutic relationship with client
- Use therapeutic communication techniques to provide support to client
- Provide a therapeutic environment for clients with emotional/behavioral issues

Related content includes, but is **not limited** to:

### **Abuse/Neglect**

- Assess client for potential or actual abuse/neglect and intervene when appropriate\*
- Identify risk factors for domestic, child, elder abuse/neglect and sexual abuse
- Plan interventions for victims/suspected victims of abuse
- Counsel victims/suspected victims of abuse and their families on coping strategies
- Provide safe environment for abused/neglected client
- Evaluate client response to interventions

### **Behavioral Interventions**

- Assess client appearance, mood, and psychomotor behavior and identify/respond to inappropriate/abnormal behavior
- Assist client with achieving and maintaining self-control of behavior (e.g., contract, behavior modification)
- Assist client to develop and use strategies to decrease anxiety
- Orient client to reality
- Participate in group sessions (e.g., support groups)
- Incorporate behavioral management techniques when caring for a client (e.g., positive reinforcement, setting limits)\*
- Evaluate client response to treatment plan

### **Chemical and Other Dependencies**

- Assess client reactions to the diagnosis/treatment of substance-related disorder
- Assess client for drug/alcohol related dependencies, withdrawal, or toxicities and intervene when appropriate\*
- Plan and provide care to client experiencing substance-related withdrawal or toxicity (e.g., nicotine, opioid, sedative)
- Provide information on substance abuse diagnosis and treatment plan to client
- Provide care and/or support for a client with non-substance related dependencies (e.g., gambling, sexual addiction)
- Provide symptom management for clients experiencing withdrawal or toxicity
- Encourage client to participate in support groups (e.g., Alcoholics Anonymous, Narcotics Anonymous)
- Evaluate client response to treatment plan and revise as needed

### **Coping Mechanisms**

- Assess client support systems and available resources
- Assess client ability to adapt to temporary/permanent role changes
- Assess client reaction to diagnosis of acute or chronic mental illness (e.g., rationalization, hopefulness, anger)
- Identify situations which may necessitate role changes for client (e.g., spouse with chronic illness, death of parent)

- Provide information to client on stress management techniques (e.g. relaxation techniques, exercise, meditation)
- Provide support to the client with unexpected altered body image (e.g., alopecia)
- Provide support to client in coping with life changes (e.g., loss, new diagnosis, role change, stress)\*
- Evaluate constructive use of defense mechanisms by client
- Evaluate whether client has successfully adapted to situational role changes (e.g. accept dependency on others)

### **Crisis Intervention**

- Assess the potential for violence and initiate/maintain safety precautions (e.g., suicide, homicide, self-destructive behavior)\*
- Identify client in crisis
- Use crisis intervention techniques to assist client in coping
- Apply knowledge of client psychopathology to crisis intervention
- Guide client to resources for recovery from crisis (e.g., social supports)

### **Cultural Diversity**

- Assess importance of client culture/ethnicity when planning/providing/evaluating care
- Recognize cultural issues that may impact client understanding/acceptance of psychiatric diagnosis
- Identify clients who do not understand English
- Incorporate client cultural practice and beliefs when planning and providing care\*
- Respect cultural background/practices of the client (does not include dietary preferences)
- Use appropriate interpreters to assist in achieving client understanding
- Evaluate and document how client language needs were met

### **End of Life Care**

- Assess client ability to cope with end-of-life interventions
- Identify end of life needs of client (e.g., financial concerns, fear, loss of control, role changes)
- Recognize need for and provide psychosocial support to family/caregiver
- Assist client in resolution of end-of-life issues
- Provide end of life care and education to clients (e.g., hospice)\*

### **Family Dynamics**

- Recognize impact of illness/disease on individual/family lifestyle\*
- Assess barriers/stressors that impact family functioning (e.g., meeting client care needs, divorce)
- Assess family dynamics in order to determine plan of care (e.g., structure, bonding, communication, boundaries, coping mechanisms)\*
- Assess parental techniques related to discipline
- Encourage client participation in group/family therapy
- Assist client to integrate new members into family structure (e.g., new infant, blended family)
- Evaluate resources available to assist family functioning

**Grief and Loss**

- Assist client in coping with suffering, grief, loss, dying, and bereavement
- Support the client in anticipatory grieving
- Inform client of expected reactions to grief and loss (e.g., denial, fear)
- Provide client with resources to adjust to loss/bereavement (e.g., individual counseling, support groups)
- Evaluate client coping and fears related to grief and loss

**Mental Health Concepts**

- Identify signs and symptoms of impaired cognition (e.g., memory loss, poor hygiene)
- Recognize signs and symptoms of acute and chronic mental illness (e.g., schizophrenia, depression, bipolar disorder)
- Recognize client use of defense mechanisms
- Explore why client is refusing/not following treatment plan (e.g., non-adherence)
- Assess client for alterations in mood, judgment, cognition and reasoning
- Apply knowledge of client psychopathology to mental health concepts applied in individual/group/family therapy
- Provide care and education for acute and chronic behavioral health issues (e.g., anxiety, depression, dementia, eating disorders)\*
- Evaluate client ability to adhere to treatment plan
- Evaluate client abnormal response to the aging process (e.g., depression)

**Religious and Spiritual Influences on Health**

- Identify the emotional problems of client or client needs that are related to religious/spiritual beliefs (e.g., spiritual distress, conflict between recommended treatment and beliefs)
- Assess psychosocial, spiritual, and occupational factors affecting care and plan interventions, as appropriate\*
- Assess and plan interventions that meet the client emotional and spiritual needs
- Evaluate whether client religious/spiritual needs are met

**Sensory/Perceptual Alterations**

- Identify time, place and stimuli surrounding the appearance of symptoms
- Address client needs based on visual, auditory or cognitive distortions (e.g., hallucinations)\*
- Assist client to develop strategies for dealing with sensory and thought disturbances
- Provide care in a nonthreatening and nonjudgmental manner
- Provide reality-based diversions

**Stress Management**

- Recognize nonverbal cues to physical and/or psychological stressors\*
- Assess stressors, including environmental, that affect client care (e.g., noise, fear, uncertainty, change, lack of knowledge)
- Implement measures to reduce environmental stressors (e.g., noise, temperature, pollution)
- Evaluate client use of stress management techniques

**Support Systems**

- Assist family to plan care for client with impaired cognition (e.g., Alzheimer's disease)
- Encourage client involvement in the health care decision-making process
- Evaluate client feelings about the diagnosis/treatment plan

**Therapeutic Communication**

- Assess verbal and non-verbal client communication needs
- Respect client personal values and beliefs
- Allow time to communicate with client
- Establish and maintain a therapeutic relationship with client\*
- Use therapeutic communication techniques to provide support to client\*
- Encourage client to verbalize feelings (e.g., fear, discomfort)
- Evaluate effectiveness of communication with client

**Therapeutic Environment**

- Identify external factors that may interfere with client recovery (e.g., stressors, family dynamics)
- Make client room assignments that support the therapeutic milieu
- Provide a therapeutic environment for clients with emotional/behavioral issues\*

**Sample Item**

The nurse is caring for a female client who was brought to the emergency department (ED) by the spouse. Based on the client's injuries, the nurse suspects the client may have been physically abused. Which of the following actions would be **most** appropriate for the nurse to take?

- a. Question the client about the possibility of abuse when the spouse is not in the room. **(key)**
- b. Explain to the client that the client will have to speak with a police officer to rule out the possibility of abuse.
- c. Explain to the spouse that the client's injuries appear to be the result of physical abuse.
- d. Ask the client and the spouse how long they have been married.

## Physiological Integrity

### Basic Care and Comfort

- **Basic Care and Comfort** – The nurse provides comfort and assistance in the performance of activities of daily living.

<b>BASIC CARE AND COMFORT</b> <b>Related Activity Statements from the 2008 RN Practice Analysis of Newly Licensed Registered Nurses in the U.S. and Member Board Jurisdictions</b>
<ul style="list-style-type: none"> <li>■ Assist client to compensate for a physical or sensory impairment (e.g., assistive devices, positioning, compensatory techniques)</li> <li>■ Assess and manage client with an alteration in elimination (e.g., bowel, urinary)</li> <li>■ Perform irrigations (e.g., of bladder, ear, eye)</li> <li>■ Perform skin assessment and implement measures to maintain skin integrity and prevent skin breakdown (e.g., turning, repositioning, pressure-relieving support surfaces)</li> <li>■ Apply, maintain or remove orthopedic devices (e.g., traction, splints, braces, casts)</li> <li>■ Apply and maintain devices used to promote venous return (e.g., anti-embolic stockings, sequential compression devices)</li> <li>■ Promote circulation (e.g., active or passive range of motion, positioning and mobilization)</li> <li>■ Assess client need for pain management and intervene as needed using non-pharmacological comfort measures</li> <li>■ Provide therapies for comfort and treatment of inflammation, swelling (e.g., apply heat and cold treatments, elevate limb)</li> <li>■ Calculate client intake and output</li> <li>■ Provide client nutrition through continuous or intermittent tube feedings</li> <li>■ Manage the client who has an alteration in nutritional intake (e.g., adjust diet, monitor height and weight, change delivery to include method, time and food preferences)</li> <li>■ Assess and intervene in client performance of activities of daily living (ADL) and instrumental activities of daily living (IADL)</li> <li>■ Perform post-mortem care</li> <li>■ Assess client need for sleep/rest and intervene as needed</li> </ul>

Related content includes, but is **not limited** to:

#### **Assistive Devices**

- Assess client for actual/potential difficulty with communication and speech/vision/hearing problems
- Assess client use of assistive devices (e.g., prosthetic limbs, hearing aid)
- Assist client to compensate for a physical or sensory impairment (e.g., assistive devices, positioning, compensatory techniques)\*

\*Activity Statements used in the 2008 RN Practice Analysis

- Manage client who uses assistive devices or prostheses (e.g., eating utensils, telecommunication devices, dentures)
- Evaluate correct use of assistive devices by client

### **Elimination**

- Assess and manage client with an alteration in elimination (e.g., bowel, urinary)\*
- Perform irrigations (e.g., of bladder, ear, eye)\*
- Provide skin care to clients who are incontinent (e.g., wash frequently, barrier creams/ointments)
- Use alternative methods to promote voiding
- Evaluate whether client elimination is restored/maintained

### **Mobility/Immobility**

- Identify complications of immobility (e.g., skin breakdown, contractures)
- Assess client for mobility, gait, strength and motor skills
- Perform skin assessment and implement measures to maintain skin integrity and prevent skin breakdown (e.g., turning, repositioning, pressure-relieving support surfaces)\*
- Apply knowledge of nursing procedures and psychomotor skills when providing care to clients with immobility
- Apply, maintain or remove orthopedic devices (e.g., traction, splints, braces, casts)\*
- Apply and maintain devices used to promote venous return (e.g., anti-embolic stockings, sequential compression devices)\*
- Educate client regarding proper methods used when repositioning an immobilized client
- Maintain client correct body alignment
- Maintain/correct adjustment of client traction device (e.g., external fixation device, halo traction, skeletal traction)
- Promote circulation (e.g., active or passive range of motion, positioning and mobilization)\*
- Evaluate client response to interventions to prevent complications from immobility

### **Non-Pharmacological Comfort Interventions**

- Assess client need for alternative and/or complementary therapy
- Assess client need for palliative care
- Assess client need for pain management and intervene as needed using non-pharmacological comfort measures\*
- Recognize differences in client perception and response to pain
- Apply knowledge of pathophysiology to non-pharmacological comfort/palliative care interventions
- Incorporate alternative/complementary therapies into client plan of care (e.g., music therapy, relaxation therapy)
- Counsel client regarding palliative care
- Respect client palliative care choices
- Assist client in receiving appropriate end of life physical symptom management
- Plan measures to provide comfort interventions to clients with anticipated or actual impaired comfort

- Provide therapies for comfort and treatment of inflammation, swelling (e.g., apply heat and cold treatments, elevate limb)\*
- Evaluate client response to non-pharmacological interventions (e.g., pain rating scale, verbal reports)
- Evaluate client outcomes of alternative and/or complementary therapy practices
- Evaluate outcome of palliative care interventions

### **Nutrition and Oral Hydration**

- Assess client ability to eat (e.g., chew, swallow)
- Assess client for actual/potential specific food and medication interactions
- Consider client choices regarding meeting nutritional requirements and/or maintaining dietary restrictions, including mention of specific food items
- Monitor client hydration status (e.g., edema, signs and symptoms of dehydration)
- Calculate client intake and output\*
- Initiate calorie counts for clients
- Apply knowledge of mathematics to client nutrition (e.g., body mass index [BMI])
- Promote client independence in eating
- Provide/maintain special diets based on the client diagnosis/nutritional needs and cultural considerations (e.g., low sodium, high protein, calorie restrictions)
- Provide nutritional supplements as needed (e.g., high protein drinks)
- Provide client nutrition through continuous or intermittent tube feedings\*
- Manage the client who has an alteration in nutritional intake (e.g., adjust diet, monitor height and weight, change delivery to include method, time and food preferences)\*
- Evaluate side effects of client tube feedings and intervene, as needed (e.g., diarrhea, dehydration)
- Evaluate impact of disease/illness on nutritional status of client

### **Personal Hygiene**

- Assess client for personal hygiene habits/routine
- Assess and intervene in client performance of activities of daily living (ADL) and instrumental activities of daily living (IADL)\*
- Provide information to client on required adaptations for performing activities of daily living (e.g., shower chair, hand rails)
- Perform post-mortem care\*

### **Rest and Sleep**

- Assess client need for sleep/rest and intervene, as needed\*
- Apply knowledge of client pathophysiology to rest and sleep interventions
- Schedule client care activities to promote adequate rest

**Sample Item**

The nurse is teaching a client with gastroesophageal reflux disease (GERD) about dietary and lifestyle modifications. Which of the following information should the nurse include in the teaching? **Select all that apply.**

- a. Maintain a high-protein, low-fat diet. **(key)**
- b. Avoid snacks between meals.
- c. Sleep with the head of the bed elevated. **(key)**
- d. Stay upright for 2 to 3 hours after eating. **(key)**
- e. Decrease daily intake of sodium.

## Pharmacological and Parenteral Therapies

- **Pharmacological and Parenteral Therapies** – The nurse provides care related to the administration of medications and parenteral therapies.

<b>PHARMACOLOGICAL AND PARENTERAL THERAPIES</b> <b>Related Activity Statements from the 2008 RN Practice Analysis of Newly Licensed Registered Nurses in the U.S. and Member Board Jurisdictions</b>
<ul style="list-style-type: none"><li>■ Manage client experiencing side effects and adverse reactions of medication</li><li>■ Administer blood products and evaluate client response</li><li>■ Access venous access devices, including tunneled, implanted and central lines</li><li>■ Perform calculations needed for medication administration</li><li>■ Evaluate therapeutic effect of medications</li><li>■ Educate client about medications</li><li>■ Prepare and administer medications, using rights of medication administration</li><li>■ Review pertinent data prior to medication administration (e.g., vital signs, lab results, allergies, potential interactions)</li><li>■ Titrate dosage of medication based on assessment and ordered parameters (e.g., giving insulin according to blood glucose levels, titrating medication to maintain a specific blood pressure)</li><li>■ Evaluate appropriateness/accuracy of medication order for client per institution policy including reconciling orders</li><li>■ Insert, maintain, and remove a peripheral intravenous line</li><li>■ Monitor intravenous infusion and maintain site (e.g., central, PICC, epidural and venous access)</li><li>■ Use pharmacological measures for pain management as needed</li><li>■ Comply with requirements governing controlled substances</li><li>■ Administer parenteral nutrition and evaluate client response (e.g., TPN)</li></ul>

Related content includes, but is **not limited** to:

### **Adverse Effects/Contraindications/Side Effects/Interactions**

- Identify a contraindication to the administration of a medication to the client
- Identify actual and potential incompatibilities of prescribed client medications
- Identify symptoms/evidence of an allergic reaction (e.g., to medications)
- Assess client for actual or potential side effects and adverse effects of medications (e.g., prescribed, over-the-counter, herbal supplements, preexisting condition)
- Provide information to client on common side effects/adverse effects/potential interactions of medications and when to notify primary health care provider
- Notify primary health care provider of side effects, adverse effects and contraindications of medications and parenteral therapy
- Document side effects and adverse effects of medications and parenteral therapy
- Monitor for anticipated interactions among the client prescribed medications and fluids (e.g., oral, IV, subcutaneous, IM, topical prescriptions)
- Manage client experiencing side effects and adverse reactions of medication\*
- Evaluate and document client response to actions taken to counteract side effects and adverse effects of medications and parenteral therapy

### **Blood and Blood Products**

- Identify client according to facility/agency policy prior to administration of red blood cells/blood products (e.g., prescription for administration, correct type, correct client, cross matching complete, consent obtained)
- Check client for appropriate venous access for red blood cell/blood product administration (e.g., correct gauge needle, integrity of access site)
- Document necessary information on the administration of red blood cells/blood products
- Administer blood products and evaluate client response\*

### **Central Venous Access Devices**

- Educate client on the reason for and care of venous access device
- Access venous access devices, including tunneled, implanted and central lines\*
- Provide care for client with a central venous access device (e.g., port-a-cath, Hickman)

### **Dosage Calculation**

- Perform calculations needed for medication administration\*
- Use clinical decision making/critical thinking when calculating dosages

### **Expected Actions/Outcomes**

- Obtain information on prescribed medication for client (e.g., review formulary, consult pharmacist)
- Use clinical decision making/critical thinking when addressing expected effects/outcomes of medications (e.g., oral, intradermal, subcutaneous, IM, topical)
- Evaluate client use of medications over time (e.g., prescription, over-the-counter, home remedies)
- Evaluate therapeutic effect of medications\*

**Medication Administration**

- Educate client about medications\*
- Educate client on medication self-administration procedures
- Prepare and administer medications, using rights of medication administration\*
- Review pertinent data prior to medication administration (e.g., vital signs, lab results, allergies, potential interactions)\*
- Mix medications from two vials when necessary (e.g., insulin)
- Administer and document medications given by common routes (e.g., oral, topical)
- Administer and document medications given by parenteral routes (e.g., intravenous, intramuscular, subcutaneous)
- Titrate dosage of medication based on assessment and ordered parameters (e.g., giving insulin according to blood glucose levels, titrating medication to maintain a specific blood pressure)\*
- Dispose of unused medications according to facility/agency policy
- Evaluate appropriateness/accuracy of medication order for client per institution policy, including reconciling orders\*

**Parenteral/Intravenous Therapies**

- Identify appropriate veins that should be accessed for various therapies
- Educate client on the need for intermittent parenteral fluid therapy
- Apply knowledge and concepts of mathematics/nursing procedures/psychomotor skills when caring for a client receiving intravenous and parenteral therapy
- Prepare client for intravenous catheter insertion
- Insert, maintain and remove a peripheral intravenous line\*
- Monitor the use of an infusion pump (e.g., IV, patient-controlled analgesia (PCA) device)
- Monitor intravenous infusion and maintain site (e.g., central, PICC, epidural and venous access)\*
- Evaluate client response to intermittent parenteral fluid therapy

**Pharmacological Pain Management**

- Assess client need for administration of a PRN pain medication (e.g., oral, topical, subcutaneous, IM, IV)
- Administer and document pharmacological pain management appropriate for client age and diagnoses (e.g., pregnancy, children, older adults)
- Use pharmacological measures for pain management as needed\*
- Comply with requirements governing controlled substances\*
- Evaluate and document client use and response to pain medications

**Total Parenteral Nutrition (TPN)**

- Identify side effects/adverse events related to TPN and intervene as appropriate (e.g., hyperglycemia, fluid imbalance, infection)
- Educate client on the need for and use of TPN
- Apply knowledge of nursing procedures and psychomotor skills when caring for a client receiving TPN
- Apply knowledge of client pathophysiology and mathematics to TPN interventions
- Administer parenteral nutrition and evaluate client response (e.g., TPN)\*

**Sample Item**

The nurse is caring for a client who has a prescription for gentamicin (Garamycin) 2 mg/kg, IV, every 8 hours. The client weighs 143 lb. The nurse has Garamycin 100 mg in 50 ml of solution available. How many ml should the nurse administer to the client with each dose?

**Record your answer using a whole number.**

65 ml (**key**)

## Reduction of Risk Potential

- **Reduction of Risk Potential** – The nurse reduces the likelihood that clients will develop complications or health problems related to existing conditions, treatments or procedures.

REDUCTION OF RISK POTENTIAL
<b>Related Activity Statements from the 2008 RN Practice Analysis of Newly Licensed Registered Nurses in the U.S. and Member Board Jurisdictions</b>
<ul style="list-style-type: none"> <li>■ Assess and respond to changes in client vital signs</li> <li>■ Perform diagnostic testing (e.g., electrocardiogram, oxygen saturation, glucose monitoring)</li> <li>■ Evaluate the results of diagnostic testing and intervene as needed</li> <li>■ Obtain blood specimens peripherally or through central line</li> <li>■ Obtain specimens other than blood for diagnostic testing (e.g., wound, stool, urine specimens)</li> <li>■ Insert, maintain, and remove nasogastric tubes and/or urethral catheters</li> <li>■ Use precautions to prevent injury and/or complications associated with a procedure or diagnosis</li> <li>■ Evaluate responses to procedures and treatments</li> <li>■ Recognize trends and changes in client condition and intervene appropriately</li> <li>■ Perform focused assessment and re-assessment (e.g., gastrointestinal, respiratory, cardiac)</li> <li>■ Educate client about treatments and procedures</li> <li>■ Provide pre and/or postoperative education</li> <li>■ Provide preoperative care</li> <li>■ Provide intraoperative care</li> <li>■ Manage client during and following procedure with moderate sedation</li> </ul>

Related content includes, but is **not limited** to:

### Changes/Abnormalities in Vital Signs

- Assess and respond to changes in client vital signs\*
- Apply knowledge needed to perform related nursing procedures and psychomotor skills when assessing vital signs
- Apply knowledge of client pathophysiology when measuring vital signs
- Evaluate invasive monitoring data (e.g., pulmonary artery pressure, intracranial pressure)

\*Activity Statements used in the 2008 RN Practice Analysis

**Diagnostic Tests**

- Apply knowledge of related nursing procedures and psychomotor skills when caring for clients undergoing diagnostic testing
- Compare client diagnostic findings with pre-test results
- Perform diagnostic testing (e.g., electrocardiogram, oxygen saturation, glucose monitoring)\*
- Perform fetal heart monitoring
- Monitor results of maternal and fetal diagnostic tests (e.g., non-stress test, amniocentesis, ultrasound)
- Evaluate the results of diagnostic testing and intervene as needed\*

**Laboratory Values**

- Identify laboratory values for ABGs (pH, PO<sub>2</sub>, PCO<sub>2</sub>, SaO<sub>2</sub>, HCO<sub>3</sub>), BUN, cholesterol (total) glucose, hematocrit, hemoglobin, glycosylated hemoglobin (HgbA<sub>1C</sub>), platelets, potassium, sodium, WBC, creatinine, PT, PTT & APTT, INR
- Recognize deviations from normal for values of albumin (blood), ALT (SGPT), AST (SGOT), ammonia, bilirubin, bleeding time, calcium (total), cholesterol (HDL & LDL), digoxin, ESR, lithium, magnesium, phosphorous/phosphate, protein (total), urine (specific gravity, albumin, pH, WBC)
- Educate client about the purpose and procedure of prescribed laboratory tests
- Obtain blood specimens peripherally or through central line\*
- Obtain specimens other than blood for diagnostic testing (e.g., wound, stool, urine specimens)\*
- Monitor client laboratory values (e.g., glucose testing results for the client with diabetes)
- Notify primary health care provider about laboratory test results

**Potential for Alterations in Body Systems**

- Identify client potential for aspiration (e.g., feeding tube, sedation, swallowing difficulties)
- Identify client potential for skin breakdown (e.g., immobility, nutritional status, incontinence)
- Identify client with increased risk for insufficient vascular perfusion (e.g., immobilized limb, post surgery, diabetes)
- Educate client on methods to prevent complications associated with activity level/diagnosed illness/disease (e.g., contractures, foot care for client with diabetes mellitus)
- Compare current client data to baseline client data (e.g., symptoms of illness/disease)
- Monitor client output for changes from baseline (e.g., nasogastric [NG] tube, emesis, stools, urine)

**Potential for Complications of Diagnostic Tests/Treatments/Procedures**

- Assess client for an abnormal response following a diagnostic test/procedure (e.g., dysrhythmia following cardiac catheterization)
- Apply knowledge of nursing procedures and psychomotor skills when caring for a client with potential for complications
- Monitor client for signs of bleeding
- Position client to prevent complications following tests/treatments/procedures (e.g., elevate head of bed, immobilize extremity)
- Insert, maintain, and remove nasogastric tubes and/or urethral catheters\*
- Maintain tube patency (e.g., NG tube for decompression, chest tubes)

- Use precautions to prevent injury and/or complications associated with a procedure or diagnosis\*
- Provide care for client undergoing electroconvulsive therapy (e.g., monitor airway, assess for side effects, teach client about procedure)
- Intervene to manage potential circulatory complications (e.g., hemorrhage, embolus, shock)
- Intervene to prevent aspiration (e.g., check NG tube placement)
- Intervene to prevent potential neurological complications (e.g., foot drop, numbness, tingling)
- Evaluate responses to procedures and treatments\*

### **Potential for Complications from Surgical Procedures and Health Alterations**

- Apply knowledge of pathophysiology to monitoring for complications (e.g., recognize signs of thrombocytopenia)
- Evaluate client response to post-operative interventions to prevent complications (e.g., prevent aspiration, promote venous return, promote mobility)

### **System Specific Assessment**

- Assess client for abnormal peripheral pulses after a procedure or treatment
- Assess client for abnormal neurological status (e.g., level of consciousness, muscle strength, mobility)
- Assess client for peripheral edema
- Assess client for signs of hypoglycemia or hyperglycemia
- Identify factors that result in delayed wound healing
- Recognize trends and changes in client condition and intervene appropriately\*
- Perform a risk assessment (e.g., sensory impairment, potential for falls, level of mobility, skin integrity)
- Perform focused assessment and re-assessment (e.g., gastrointestinal, respiratory, cardiac)\*

### **Therapeutic Procedures**

- Assess client response to recovery from local, regional or general anesthesia
- Apply knowledge of related nursing procedures and psychomotor skills when caring for clients undergoing therapeutic procedures
- Educate client about treatments and procedures\*
- Educate client about home management of care (tracheostomy and ostomy)
- Use precautions to prevent further injury when moving a client with a musculoskeletal condition (e.g., log-rolling, abduction pillow)
- Monitor client before, during, and after a procedure/surgery (e.g., casted extremity)
- Monitor effective functioning of therapeutic devices (e.g., chest tube, drainage tubes, wound drainage devices, continuous bladder irrigation)
- Provide pre and/or postoperative education\*
- Provide preoperative care\*
- Provide intraoperative care\*
- Manage client during and following procedure with moderate sedation\*

**Sample Item**

The nurse has taught a client who is scheduled for a colonoscopy. Which of the following statements by the client would require follow up?

- a. "I will not be able to eat or drink anything for 24 hours before the procedure." **(key)**
- b. "I may experience abdominal cramping after the procedure."
- c. "I will be sedated during the procedure."
- d. "I will be placed in the knee-chest position for the procedure."

## Physiological Adaptation

- **Physiological Adaptations** – The nurse manages and provides care for clients with acute, chronic or life threatening physical health conditions.

<b>PHYSIOLOGICAL ADAPTATION</b> <b>Related Activity Statements from the 2008 RN Practice Analysis of Newly Licensed Registered Nurses in the U.S. and Member Board Jurisdictions</b>
<ul style="list-style-type: none"> <li>■ Assist with invasive procedures (e.g., central line placement )</li> <li>■ Implement and monitor phototherapy</li> <li>■ Maintain desired temperature of client (e.g., cooling and/or warming blanket)</li> <li>■ Monitor and care for clients on a ventilator</li> <li>■ Monitor and maintain devices and equipment used for drainage (e.g., surgical wound drains, chest tube suction, negative pressure wound therapy)</li> <li>■ Perform and manage care of client receiving peritoneal dialysis</li> <li>■ Perform suctioning (e.g. oral, nasopharyngeal, endotracheal, tracheal)</li> <li>■ Provide wound care and/or assist with dressing change</li> <li>■ Provide ostomy care and education (e.g. tracheal, enteral)</li> <li>■ Provide pulmonary hygiene (e.g., chest physiotherapy, incentive spirometry)</li> <li>■ Provide postoperative care</li> <li>■ Manage the care of the client with a fluid and electrolyte imbalance</li> <li>■ Monitor and maintain arterial lines</li> <li>■ Manage the care of a client with a pacing device (e.g., pacemaker, biventricular pacemaker, implantable cardioverter defibrillator)</li> <li>■ Manage the care of a client on telemetry</li> <li>■ Manage the care of a client receiving hemodialysis</li> <li>■ Manage the care of a client with alteration in hemodynamics, tissue perfusion and hemostasis (e.g., cerebral, cardiac, peripheral)</li> <li>■ Manage the care of a client with impaired ventilation/oxygenation</li> <li>■ Evaluate the effectiveness of the treatment regimen for a client with an acute or chronic diagnosis</li> <li>■ Perform emergency care procedures (e.g., cardio-pulmonary resuscitation, abdominal thrust maneuver, respiratory support, automated external defibrillator)</li> <li>■ Identify pathophysiology related to an acute or chronic condition (e.g., signs and symptoms)</li> <li>■ Recognize signs and symptoms of complications and intervene appropriately when providing client care</li> </ul>

Related content includes, but is **not limited** to:

### **Alterations in Body Systems**

- Assess adaptation of client to health alteration, illness and/or disease
- Assess tube drainage during the time the client has an alteration in body system (e.g., amount, color)
- Assess client for signs and symptoms of adverse effects of radiation therapy
- Identify signs of potential prenatal complications
- Identify signs, symptoms and incubation periods of infectious diseases
- Apply knowledge of nursing procedures, pathophysiology and psychomotor skills when caring for a client with an alteration in body systems
- Educate client about managing health problems (e.g., chronic illness)
- Assist with invasive procedures (e.g., central line placement )\*
- Implement and monitor phototherapy\*
- Implement interventions to address side/adverse effects of radiation therapy (e.g., dietary modifications, avoid sunlight)
- Maintain desired temperature of client (e.g., cooling and/or warming blanket)\*
- Monitor and care for clients on a ventilator\*
- Monitor wounds for signs and symptoms of infection
- Monitor and maintain devices and equipment used for drainage (e.g., surgical wound drains, chest tube suction, negative pressure wound therapy)\*
- Perform and manage care of client receiving peritoneal dialysis\*
- Perform suctioning (e.g. oral, nasopharyngeal, endotracheal, tracheal)\*
- Promote client progress toward recovery from an alteration in body systems
- Provide wound care and/or assist with dressing change\*
- Provide ostomy care and education (e.g. tracheal, enteral)\*
- Provide care to client who has experienced a seizure
- Provide care of client with an infectious disease
- Provide pulmonary hygiene (e.g., chest physiotherapy, incentive spirometry)\*
- Provide care for client experiencing complications of pregnancy/labor and/or delivery (e.g., eclampsia, precipitous labor, hemorrhage)
- Provide care for client experiencing increased intracranial pressure
- Provide postoperative care\*
- Remove sutures or staples
- Evaluate client response to surgery
- Evaluate achievement of client treatment goals
- Evaluate client response to treatment for an infectious disease (e.g., acquired immune deficiency syndrome [AIDS], tuberculosis [TB])
- Evaluate and monitor client response to radiation therapy

### **Fluid and Electrolyte Imbalances**

- Identify signs and symptoms of client fluid and/or electrolyte imbalance
- Apply knowledge of pathophysiology when caring for client with fluid and electrolyte imbalances
- Manage the care of the client with a fluid and electrolyte imbalance\*
- Evaluate client response to interventions to correct fluid or electrolyte imbalance

**Hemodynamics**

- Assess client for decreased cardiac output (e.g., diminished peripheral pulses, hypotension)
- Identify cardiac rhythm strip abnormalities (e.g., sinus bradycardia, premature ventricular contractions [PVCs], ventricular tachycardia, fibrillation)
- Apply knowledge of pathophysiology to interventions in response to client abnormal hemodynamics
- Provide client with strategies to manage decreased cardiac output (e.g., frequent rest periods, limit activities)
- Intervene to improve client cardiovascular status (e.g., initiate protocol to manage cardiac arrhythmias, monitor pacemaker functions)
- Monitor and maintain arterial lines\*
- Manage the care of a client with a pacing device (e.g., pacemaker, biventricular pacemaker, implantable cardioverter defibrillator)\*
- Manage the care of a client on telemetry\*
- Manage the care of a client receiving hemodialysis\*
- Manage the care of a client with alteration in hemodynamics, tissue perfusion and hemostasis (e.g., cerebral, cardiac, peripheral)\*

**Illness Management**

- Identify client data that needs to be reported immediately
- Apply knowledge of client pathophysiology to illness management
- Educate client about managing illness (e.g., AIDS, chronic illnesses)
- Implement interventions to manage client recovering from an illness
- Perform gastric lavage
- Promote and provide continuity of care in illness management activities (e.g., cast placement)
- Manage the care of a client with impaired ventilation/oxygenation\*
- Evaluate the effectiveness of the treatment regimen for a client with an acute or chronic diagnosis\*

**Medical Emergencies**

- Apply knowledge of pathophysiology when caring for a client experiencing a medical emergency
- Apply knowledge of nursing procedures and psychomotor skills when caring for a client experiencing a medical emergency
- Explain emergency interventions to client
- Notify primary health care provider about client unexpected response/emergency situation
- Perform emergency care procedures (e.g., cardio-pulmonary resuscitation, abdominal thrust maneuver, respiratory support, automated external defibrillator)\*
- Provide emergency care for wound disruption (e.g., evisceration, dehiscence)
- Evaluate and document client response to emergency interventions (e.g., restoration of breathing, pulse)

**Pathophysiology**

- Identify pathophysiology related to an acute or chronic condition (e.g., signs and symptoms)\*
- Understand general principles of pathophysiology (e.g., injury and repair, immunity, cellular structure)

**Unexpected Response to Therapies**

- Assess client for unexpected adverse response to therapy (e.g., increased intracranial pressure, hemorrhage)
- Recognize signs and symptoms of complications and intervene appropriately when providing client care\*
- Promote recovery of client from unexpected response to therapy (e.g., urinary tract infection)

**Sample Item**

The nurse is assessing a client with hyperthyroidism. Which of the following findings would the nurse expect to observe? **Select all that apply.**

- a. increased appetite **(key)**
- b. lethargy
- c. diarrhea **(key)**
- d. exophthalmos **(key)**
- e. weight gain
- f. cold intolerance

## IV. Administration of the NCLEX-RN® Examination

### Examination Length

The NCLEX-RN® examination is a variable length computerized adaptive test. It is not offered in paper-and-pencil or oral examination formats and can be anywhere from 75 to 265 items long. Of these items, 15 are pretest items that are not scored. The time limit for the exam is specified in the candidate bulletin. It is important to note that the time allotted for the examination **includes** the tutorial, sample items, all breaks (restroom, stretching, etc.) and the examination. All breaks are optional.

The length of the examination is determined by the candidate's responses to the items. After the minimum number of items has been answered, testing stops when the candidate's ability is determined to be either above or below the passing standard with 95 percent certainty. Depending upon the particular pattern of correct and incorrect responses, different candidates will take different numbers of items and therefore use varying amounts of time. The examination will stop when the maximum number of items has been taken or when the time limit has been reached. Remember, it is in the candidate's best interest to maintain a reasonable pace of spending only one or two minutes on each item. The candidates should select a pace that will permit them to complete the examination within the allotted time should the maximum number of items be administered.

It is important to understand that the length of the candidate's examination is not an indication of a pass or fail result. A candidate with a relatively short examination may pass or fail just as the candidate with a long examination may pass or fail. Regardless of the length of the examination, each candidate is given an examination that conforms to the NCLEX® test plan and has ample opportunity to demonstrate his or her ability.

### The Passing Standard

The NCSBN Board of Directors (BOD) reevaluates the passing standard once every three years. The criterion that the BOD uses to set the standard is the minimum level of ability required for safe and effective entry-level nursing practice.

To assist the BOD in making this decision, they are provided with information on:

1. The results of a standard setting exercise performed by a panel of experts with the assistance of professional psychometricians;
2. The historical record of the passing standard with summaries of the candidate performance associated with those standards;
3. The results of a standard setting survey sent to educators and employers; and
4. Information describing the educational readiness of high school graduates who express an interest in nursing.

Once the passing standard is set, it is imposed uniformly on every test record according to the procedures laid out in the Scoring the NCLEX® Examination section. To pass an NCLEX examination, a candidate must perform **above** the passing standard. There is no fixed percentage of candidates that pass or fail each examination.

## Similar Items

Occasionally, a candidate may receive an item that seems to be very similar to an item received earlier in the examination. This could happen for a variety of reasons. For example, several items could be about similar symptoms, diseases or disorders, yet address different phases of the nursing process. Alternatively, a pretest (unscored) item could be about content similar to an operational (scored) item. It is **incorrect** to assume that a second item, which is similar in content to a previously administered item, is administered because the candidate answered the first item incorrectly. The candidate is instructed to always select the answer believed to be correct for each item administered. All examinations conform to their respective test plan.

## Reviewing Answers and Guessing

The items are presented to the candidate one at a time on a computer screen. Each item can be viewed as long as the candidate likes, but it is not possible to go back to a previous item once the answer is selected and confirmed by pressing the <NEXT> button. Every item must be answered even if the candidate is not sure of the right answer. The computer will not allow the candidate to go on to the next item without answering the one on the screen. If the candidate is unsure of the correct answer, the best guess is made and the candidate moves on to the next item. After an answer to an item is selected, the candidate has a chance to think about the answer and change it if necessary. However, once the candidate confirms the answer and goes on to the next item, the candidate will not be allowed to go back to any previous item on the examination.

Please note that rapid guessing can drastically lower the score. Some test preparation companies have realized that on certain pencil and paper tests, unanswered items are marked as wrong. To improve the candidate's score when they are running out of time, these companies sometimes advocate rapid guessing (perhaps without even reading the item) in the hope that the candidate will get at least a few items correct. On any adaptive test, this can be disastrous. It has the effect of giving the candidate easier items which he or she will likely also get wrong. The best advice is to (1) maintain a reasonable pace, perhaps one item every minute or two; and (2) carefully read and consider each item before answering. It is better to run out of time than to engage in rapid guessing.

## Scoring the NCLEX® Examination

### Computerized Adaptive Testing (CAT)

The NCLEX examination is different than a traditional pencil and paper examination. Typically, pencil and paper examinations administer the same items to every candidate, thus ensuring that the difficulty of the examination is the same across the board. Because the difficulty of the examination is constant, the percentage correct is the indicator of the candidate's ability. One disadvantage of this approach is that it is inefficient. It requires the high ability candidates to answer all the easy items on the examination. Obviously asking high ability candidates easy items provides very little information about his or her ability. Another disadvantage is that guessing can artificially inflate the scores of low ability candidates. This happens because low ability candidates will be given some difficult items. In the case of multiple-choice items, candidates can answer these items correctly 25 percent of the time for reasons that have nothing to do with his or her ability (there are only four choices).

Instead, the NCLEX examination uses CAT to administer the items. CAT is able to produce test results that are more stable using fewer items by targeting items to the candidate's ability. Although everyone's first item is relatively easy, subsequent items are better targeted. This is accomplished by reestimating the candidate's ability every time an item is answered. Using the candidate's most current ability estimate, the computer searches the item bank for an item that has a degree of difficulty that is approximately equal to that ability estimate. As a result, the candidate should have a 50-50 chance of answering this item correctly. After the candidate answers this item, the computer reestimates the candidate's ability and selects the next item using the same procedures. This process continues until it is clear (with 95 percent certainty) that the candidate's ability is above or below the passing standard. Be aware that both those who pass and those who fail tend to answer approximately 50 percent of the items correctly. This is because the computer presents all candidates with items that are matched to his or her ability.

The candidate's ability estimate is based upon both the percentage that was answered correctly (approximately 50 percent in most cases) and the difficulty of the items that were administered. Imagine the items lined up, from easiest to most difficult. If we asked candidates the easiest items, they would answer most of them correctly. If we asked them the most difficult items, they would probably answer most of them incorrectly. Somewhere between those two extremes is a point at which each candidate goes from getting more answers right than wrong. This is the point at which each candidate answers 50 percent correctly. Items harder than that would probably be answered incorrectly; items easier than that would probably be answered correctly. CAT procedures permit that point to be found for each candidate without having to ask all the items in the extremes.

## Pretest Items

For CAT to work effectively, the difficulty of each item must be known in advance. The degree of difficulty is determined by administering the items as pretest items to a large sample of NCLEX candidates. Because the difficulty of these pretest items is not known in advance, these items are not included when estimating the candidate's ability or making pass-fail decisions. When enough responses are collected, the pretest items are statistically analyzed and calibrated. If they meet the NCLEX statistical standards, they can be administered in future examinations as scored items. There are 15 pretest items on every NCLEX-RN examination. It is impossible to distinguish operational items from pretest items, so candidates are asked to do their best on every item.

## Additional Constraints

In addition to targeting items to the candidate's ability, the computer implements two additional constraints. First, it prevents a candidate from receiving for a second time any item that he or she has seen within the last year (on a previous attempt). Second, it ensures that the items administered to the candidate meet the test plan specifications with regard to the proportion of items that must be from the different test plan categories. Every test must meet the test plan specifications.

## Passing and Failing

As mentioned earlier, to pass the NCLEX, the candidate's performance on the examination must be **above** the passing standard. Ideally, NCSBN wants to be at least 95 percent certain of pass-fail decisions. Therefore after the minimum number of items has been answered, the computer will stop when it is 95 percent certain that the candidate's ability is above or below the passing standard. If the ability is below the standard, the candidate fails. Candidates with very high or very low abilities tend to receive minimum length tests.

However, some candidates will have a true ability that is so close to the passing standard that even 1,000 items would not be enough to arrive at a decision with 95 percent confidence. It would also be impractical to administer 1,000 items. Therefore, a maximum number of items have been established (see Examination Length) for each type of examination. When these candidates answer the maximum of items, their ability estimates are rather precise, but not enough to make a decision with 95 percent certainty. Because in these cases the precision is quite good, the 95 percent certainty requirement is waived. If a candidate's ability estimate is above the passing standard, he or she passes; if it is at or below the passing standard, the candidate fails.

If the examination ends because time runs out, it means that the candidate has not demonstrated with 95 percent certainty that he or she is clearly above or below the passing standard, nor has the candidate answered the maximum number of items. Because the primary mission of boards of nursing is to protect the public, it can be argued that candidates should not pass when they have not demonstrated that they are competent. However, the response patterns for some of these people have indicated that there are candidates that have appeared to have a true ability that is above passing and who have been performing consistently above the passing standard. A mechanism is provided for these candidates to pass. The key word here is "consistently." If a candidate's performance has been consistently above the passing standard, then he or she will pass, despite having run out of time.

## Scoring Items

The majority of items in the NCLEX examination are multiple-choice, but there are other formats as well. Items are scored as either right or wrong. There is no partial credit. For updated information on the administration of the examination, visit the NCSBN Web site at [www.ncsbn.org](http://www.ncsbn.org).

## Types of Items on the NCLEX-RN® Examination

During the administration of the NCLEX-RN examination candidates will be required to respond to items in a variety of formats. These formats may include, but are not limited to: multiple choice, multiple response, fill-in-the-blank calculation, drag and drop, and/or hot spots. All item types may include multimedia, such as charts, tables, graphics, sound and video.

For more information, please visit the NCSBN Web site at [www.ncsbn.org](http://www.ncsbn.org) to review Information about Alternate Item Formats.

## NCLEX® Examination Terminology

On the NCLEX examination, a prescription is defined as orders, interventions, remedies or treatments ordered or directed by an authorized health care provider.

## Confidentiality

Candidates should be aware and understand that the disclosure of any examination materials, including the nature or content of examination items, before, during or after the examination, is a violation of law. Violations of confidentiality and/or candidates' rules can result in criminal prosecution or civil liability and/or disciplinary actions by the licensing agency, including the denial of licensure.

## Tutorial

Each NCLEX-RN candidate is provided information on how to answer examination items. A tutorial is given at the beginning of the examination explaining the various formats that candidates may see on the examination. More information on alternate item formats is available at the NCSBN Web site at [www.ncsbn.org](http://www.ncsbn.org). The following are examples of how screens in the tutorial may appear. Examples of possible item formats include:

### Multiple-Choice (one answer):

**Practice Item Type #1: Multiple-Choice Item**

In this item type, you will be presented with a question and asked to select the best answer from four options. The options are preceded by circles. You can select only one option as your answer. You may use either the mouse or the number keypad to select your answer. To use the number keypad on your computer, press the appropriate number on your keyboard, either 1, 2, 3, or 4.

For the practice item below, the correct answer is option 3. Select option 3 now. If you selected a different answer, change it by selecting option 3. Note that your previous choice is deselected and that you can select only one option.

Click **Next (N)** to confirm your answer and move to the next practice item.

What color is an orange?

- 1. Blue
- 2. Brown
- 3. Orange
- 4. Pink

Select the best response. Click the Next (N) button or the Enter key to confirm answer and proceed.

Item 1 of 6

## Fill-in-the-Blank:

### Practice Item Type #3: Fill-in-the-Blank Item

In this item type, you will be presented with a question and asked to calculate and type in your answer. Type only a number as your answer, including a decimal point if appropriate. To change your answer, use the backspace key to delete the number and type another number. **Note that you will not be permitted to enter any characters other than those needed to form a number. If you try to type any other characters, you will be presented with a message box asking you to try again.**

To use the Calculator, click on the Calculator button on the bottom right hand corner of the screen. To enter numbers in the calculator, you can use the mouse to click on the calculator's buttons or use the number keypad on your keyboard. Enter the numbers slowly. If you double click too quickly to enter a number like "33", the calculator may not register that second "3". When you are finished with the calculator, you can close the calculator by clicking on the X in the top right corner of the calculator.

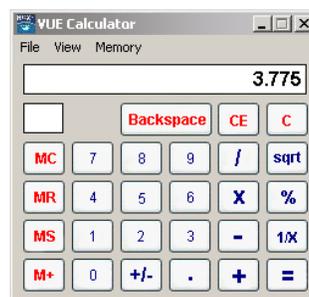
For the practice item below, first open the calculator. Second, compute a total weight by adding the weight of four pumpkins. Third, compute the average by dividing the total weight by the number of pumpkins (4). The division symbol is  $\div$ . Your calculator should now read 3.775.

Note that you do not have to type in the unit of measurement, "kilograms" in this example. **Also, should rounding be necessary, perform the rounding at the end of the calculation.** Please type 3.8 as your answer.

Click **Next (N)** to confirm your answer and move to the next practice item.

The weights of four pumpkins in kilograms are: 4.22, 4.15, 3.40, 3.33. What is the average (mean) of the pumpkins' weight? Record your answer using one decimal place.

Answer:  kilograms



Click the Next (N) button or the Enter key to confirm answer and proceed.

Item 3 of 6

Previous (P)

Next (N)

Calculator (C)

**Exhibit Item:****Practice Item Type #5: Exhibit Item**

In this item type, you will be presented with a problem and an exhibit. You will need to read the information in the exhibit to answer the problem. Click on the Exhibit button at the bottom of the screen. Each exhibit contains information behind three tabs. Click on each tab to read the information presented.

For the practice item below, the exhibit should contain the three tabs listed below. Each tab contains the monthly receipts for purchasing bakery supplies.

- Storage/Packaging Materials
- Baking Ingredients
- Miscellaneous Supplies

The question asks you to find the most expensive item that is listed in the exhibit. The most expensive item is the storage bin, which is on the storage/packaging materials list. Therefore, option 2 below is the correct answer.

Click **Next (N)** to confirm your answer and move to the next practice item.

The owner of a bakery would like to know which of the supplies is most expensive. Based upon receipts from the past month, which item was the most expensive? Click on the exhibit button below for additional information.

- 1. baking trays
- 2. storage bin
- 3. flour
- 4. pastry molds

Storage/Packaging Materials		Baking Ingredients	Miscellaneous Supplies
1 of 3			
Close [L]			
Tile [I]			
<b>Storage/Packaging</b>			
<b>Item</b>	<b>Charge</b>		
10" cake boxes	\$55.00		
Paper bags - large	\$20.85		
Bread bags	\$25.50		
Package labels	\$10.99		
Storage bin	\$175.00		
<b>TOTAL</b>	<b>\$287.34</b>		

Select the best response. Click the Next (N) button or the Enter key to confirm answer and proceed.

Item 5 of 6

Previous [E]

Next [N]

Exhibit [X]

Calculator [Q]

### Hot Spot:

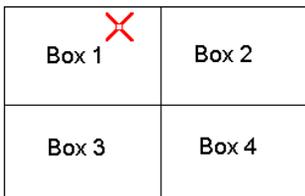
**Practice Item Type #4: Hot Spot Item**

In this item type, you will be presented with a problem and a figure. You will be asked to use the mouse to select an area of the figure. To select an area, place the cursor on the area you want to select, then click on the left mouse button. An X will appear to show your answer. To deselect your answer, place the cursor on the X and click again. Your answer will be deselected. To change your answer, point the cursor to another area and click.

For the practice item below, the correct answer is Box 1. Use the mouse to select Box 1.

Click **Next (N)** to confirm your answer and move to the next practice item.

The following figure contains four boxes. Which box is in the upper-left hand corner?



Click in the figure to indicate your selection. Click the Next (N) button or the Enter key to confirm answer and proceed.

Item 4 of 6

Previous (P)

Next (N)

Calculator (C)

## Multiple-Response:

### Practice Item Type #2: Multiple-Response Item

In this item type, you will be presented with a question and a list of options and asked to select all the options that apply. Note that there may be one or more correct answers. So, you must select all options that apply.

Note how this item type differs from the single-response multiple-choice item you saw earlier. In this item type, the options are preceded by square boxes and you can check more than one box. In the previous item type, the options are circles and you can only select one option.

For the practice item below, the correct options are *Apple* and *Banana* (options 1 and 2). Please use your mouse to check *Apple* and *Banana* now. The check mark indicates that you have selected that response option. To deselect the response, click on the box again. The check mark will disappear, indicating that you have deselected that response.

Click **Next (N)** to confirm your answer and move to the next practice item.

Which of the following are names of fruits? **Select all that apply.**

- 1. Apple
- 2. Banana
- 3. Cow
- 4. Dog
- 5. Elephant

Select all that apply. Click the Next (N) button or the Enter key to confirm answer and proceed.

Item 2 of 6

Previous (P)

Next (N)

Calculator (C)

### Drag and Drop/Ordered Response Item:

**Practice Item Type #6: Drag and Drop/Ordered Response Item**

In this item type, you will be presented with a problem and a list of options. You will be asked to place the options in a specified order, such as numerical, alphabetical or chronological.

The unordered options will appear in a box on the left side of your screen. To place the options in a new order, click on an option and drag it to the box on the right side of your screen. You may also highlight the option in the left hand box and then click the arrow key that points to the box on the right to move the option. These two methods may also be used to rearrange the order of options once they have been placed in the right hand box. To complete the item, you must move **all** options from the left hand box to the right hand box.

For the practice item below, you should move the list of months (by dragging or using the arrow button) to the right so that it is in alphabetical order: *April, February, January, June, March, May*. That is, *April* should be at the top, and *May* should be at the bottom. If you do not have the months in this order, please re-arrange them now. You can re-arrange them by dragging the option to the correct location or by using the arrow buttons.

Click **Next (N)** to confirm your answer and proceed.

The first six months of the year appear in a list below. Please arrange these months in alphabetical order. **All options must be used.**

Unordered Options

March

May

Ordered Response

April

February

January

June

← → ↑ ↓

Click the Next (N) button or the Enter key to confirm answer and proceed.

Previous (P) Next (N) Calculator (C)

Item 6 of 6

To receive updated information, visit the NCSBN Web site at <http://www.ncsbn.org>.

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National Council of State Boards of Nursing  
111 E. Wacker Drive, Suite 2900  
Chicago, IL 60601-4277 USA  
312.525.3600 | [www.ncsbn.org](http://www.ncsbn.org)  
+1.312.525.3600 International Calls  
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312.279.1036 Testing Services Fax