CHAPTER 1

The NCLEX-RN® Examination

http://evolve.elsevier.com/Silvestri/comprehensiveRN/

The Pyramid to Success

Saunders Comprehensive Review for the NCLEX-RN® Examination

About This Resource and the NCLEX-RN® Examination

Welcome to the *Pyramid to Success* and *Saunders Comprehensive Review for the NCLEX-RN® Examination.* This resource is specially designed to help you begin your successful journey to the peak of the pyramid, becoming a registered nurse. As you begin your journey, you will be introduced to all of the important points regarding the NCLEX-RN examination and the process of testing, and to unique and special tips regarding how to prepare yourself for this important examination. You will read what a nursing graduate who recently passed the NCLEX-RN examination has to say about the test. Important test-taking strategies are detailed. These details will guide you in selecting the correct option or assist you in making an educated guess if you are not entirely sure about the correct answer. Each unit in this book begins with the Pyramid to Success. The Pyramid to Success addresses specific points related to the NCLEX-RN examination. Client Needs as identified in the test plan framework for the examination are listed, as are learning objectives for the unit. Pyramid Terms are key words that are defined in the glossary at the end of the book and set in color throughout each chapter to direct your attention to significant points for the examination.

This resource provides you with nursing content review, including the content identified in the current NCLEX test plan, and practice questions. Throughout each chapter, you will find Pyramid Point bullets that identify areas most likely to be tested on the NCLEX-RN examination. Read each chapter, and identify your strengths and areas that are in need of further review.

The book contains 945 NCLEX-style questions. The Evolve site accompanying this book contains all of the questions from the book plus additional Evolve questions for a total of more than 5200 practice questions. The types of practice questions include multiple choice; fill-in-the-blank; multiple-response; ordered-response (also known as drag and drop); questions that contain a figure, chart/exhibit, or graphic option item; audio or video item formats; and case studies (testlets). In addition, the new Next Generation NCLEX® (NGN) question types are also provided on the accompanying Evolve site. Examples of question types can be located throughout this chapter.

Test your strengths and abilities by taking all practice tests provided in this book and on the accompanying Evolve site. Be sure to read all rationales and test-taking

strategies. The rationale provides you with significant information regarding the correct and incorrect options. The test-taking strategy provides you with the logical path to selecting the correct option. reference source and page number are provided so that you can easily find information you need to review in another Elsevier text. You may also review in the content review sections of this book. Each question in the book and on the accompanying Evolve site is coded on the basis of the Level of Cognitive Ability, the Client Needs category, the Integrated Process, Content Area being tested, and a Health Problem, if applicable. The Health Problem code allows you to filter and select questions based on a disease process. For example, if heart failure is the area of interest, you can select "Adult Health, Cardiovascular, Heart Failure" on the Evolve site. In addition, two Priority Concepts that relate to the content of the question are identified. This code is helpful for students specifically whose curriculum is concept-based. Additionally, information about all of the special features of this resource and the question types is located in the preface of this book.

Other Resources in the Saunders Pyramid to Success

There are several other resources in the Saunders Pyramid to Success program. These include the following: *The Saunders Q&A Review for the NCLEX-RN® Examination, The HESI/Saunders Online Review for the NCLEX-RN® Examination, Saunders Strategies for Test Success: Passing Nursing School and the NCLEX® Exam, Saunders Q&A Review Cards for the NCLEX-RN® Exam,* and *Saunders RNtertainment for the NCLEX-RN® Exam.*

All of these resources in the Saunders Pyramid to Success are described in the preface of this book and can be obtained online by visiting http://elsevierhealth.com or by calling 800-545-2522.

Let's begin our journey through the Pyramid to Success.

Examination Process

An important step in the Pyramid to Success is to become as familiar as possible with the examination process. Candidates facing the challenge of this examination can experience significant anxiety. Knowing what the examination is all about and knowing what you will encounter during the process of testing will assist in alleviating fear and anxiety. The information contained in this chapter was obtained from the NCSBN Web site (www.ncsbn.org) and from the NCSBN 2019 test plan for the NCLEX-RN and includes some procedures related to registering for the exam, testing procedures, and the answers to the questions most commonly asked by nursing students and graduates preparing to take the NCLEX. You can obtain additional information regarding the test and its development by accessing the NCSBN Web site and clicking on the NCLEX Exam tab or by writing to the National Council of State Boards of Nursing, 111 East Wacker Drive, Suite 2900, Chicago, IL 60601. You are encouraged to access the NCSBN Web site, because this site provides you with the most up-to-date and valuable information about the NCLEX and other resources available to an NCLEX candidate. You are also encouraged to access the most up-to-date *Candidate Bulletin.* This document provides you with everything you need to know about registration procedures and scheduling a test date.

Computer Adaptive Testing

The acronym *CAT* stands for computer adaptive test, which means that the examination is created as the test-taker answers each question. All the test questions are categorized on the basis of the test plan structure and the level of difficulty of the question. As you answer a question, the computer determines your competency based on the answer you selected. If you selected a correct answer, the computer scans the question bank and selects a more difficult question. If you selected an incorrect answer, the computer scans the question bank and selects an easier question. This process continues until all test plan requirements are met and a reliable pass-or-fail decision is made.

When taking a CAT, once an answer is recorded, all subsequent questions administered depend, to an extent, on the answer selected for that question. Skipping and returning to earlier questions are not compatible with the logical methodology of a CAT. The inability to skip questions or go back to change previous answers will not be a disadvantage to you; you will not fall into that "trap" of changing a correct answer to an incorrect one with the CAT system.

If you are faced with a question that contains unfamiliar content, you may need to guess at the answer. There is no penalty for guessing, but you need to make an educated guess. With most of the questions, the answer will be right there in front of you. If you need to guess, use your nursing knowledge and clinical experiences to their fullest extent and all of the test-taking strategies you have practiced in this review program.

You do not need any computer experience to take this examination. A keyboard tutorial is provided and administered to all test-takers at the start of the examination. The tutorial will instruct you on the use of the on-screen optional calculator, the use of the mouse, and how to record an answer. The tutorial provides instructions on how to respond to all question types on this examination. This tutorial is also provided on the NCSBN Web site, and you are encouraged to view the tutorial when you are preparing for the NCLEX examination. In addition, at the testing site, a test administrator is present to assist in explaining the use of the computer to ensure your full understanding of how to proceed.

Development of the Test Plan

The test plan for the NCLEX-RN examination is developed by the NCSBN. The examination is a national examination; the NCSBN considers the legal scope of nursing practice as governed by state laws and regulations, including the Nurse Practice Act, and uses these laws to define the areas on the examination that will assess the competence of the test-taker for licensure.

The NCSBN also conducts an important study every 3 years, known as a *practice analysis study*, that is conducted to link the examination to nursing practice. The results of this study determine the framework for the test plan for the examination. The participants in this study include newly licensed registered nurses from all types of generalist nursing education programs. From a list of nursing care activities (activity statements) provided, the participants are asked about the applicability, frequency, and importance of performing these activities in relation to client safety. A panel of content experts at the NCSBN analyzes the results of the study and makes

decisions regarding the test plan framework. The results of this recently conducted study provided the structure for the test plan implemented in April 2019.

Test Plan

The content of the NCLEX-RN examination reflects the activities identified in the practice analysis study conducted by the NCSBN. The questions are written to address Level of Cognitive Ability, Client Needs, and Integrated Processes as identified in the test plan developed by the NCSBN.

Level of Cognitive Ability

Levels of cognitive ability include knowledge, understanding, applying, analyzing, synthesizing, evaluating, and creating. The practice of nursing requires complex thought processing and critical thinking in decision making. Therefore, you will not encounter any knowledge or understanding questions on the NCLEX. Questions on this examination are written at the applying level or at higher levels of cognitive ability. Table 1-1 provides descriptions and examples of each level of cognitive ability. Box 1-1 presents an example of a question that requires you to apply data.

Table 1-1

Levels of Cognitive Ability: Descriptions and Examples

Level	Description and Example
Knowledge	Recalling information from memorizing. Example: A normal blood glucose level is 70 to 99 mg/dL (3.9 to 5.5 mmol/L).
Understanding	Recognizing the meaning of information. Example: A blood glucose level of 60 mg/dL (3.34 mmol/L) is lower than the normal reference range.
Applying	Carrying out an appropriate action based on information. Example: Administering 10 to 15 g of carbohydrate such as a 1⁄2 glass of fruit juice to treat mild hypoglycemia.
Analyzing	Examining a broad concept and breaking it down into smaller parts. Example: The broad concept is mild hypoglycemia and the smaller concepts are the signs and symptoms of mild hypoglycemia, such as hunger, irritability, weakness, headache, or blood glucose level lower than 70 mg/dL (3.9 mmol/L). So, for example, the question may present information that you need to interpret as mild hypoglycemia. Then, the question asks you to select the option(s) that identify the appropriate nursing action(s) to correct hypoglycemia.
Synthesizing	Examining smaller parts or information and determining the broad concept. Example: The smaller concepts are manifestations such as polyuria, polydipsia, polyphagia, vomiting, abdominal pain, weakness, confusion, and Kussmaul respirations. The broad concept is diabetic ketoacidosis (DKA). So, for example, the question may provide specific information about the manifestations of DKA. You need to interpret these manifestations as DKA. Then, the question asks you to select the option(s) that identify the appropriate nursing action(s), based on your interpretation that the client is experiencing DKA.
Evaluating	Making judgments, conclusions, or validations based on evidence. Example: Determining that treatment for mild hypoglycemia was effective if the blood glucose level returned to a normal level between 70 to 99 mg/dL (3.9 to 5.5 mmol/L) after a specified time period.
Creating	Generating or producing a new outcome or plan by putting parts of information together. Example: Designing a safe and individualized plan of care with the interprofessional health care team for a client with diabetes mellitus that meets the client's physiological, psychosocial, and health maintenance needs.

Reference: Ignatavicius, Workman (2018), pp. 1331-1333.

Adapted from *Understanding Bloom's (and Anderson and Krathwohl's) taxonomy, 2015*, ProEdit, Inc. http://www.proedit.com/understanding-blooms-and-anderson-and-krathwohls-taxonomy/

Box 1-1

Level of Cognitive Ability: Applying

The nurse notes blanching, coolness, and edema at the peripheral intravenous (IV) site. On the basis of these findings, the nurse should implement which action?

1. Remove the IV.
2. Apply a warm compress.
3. Check for a blood return.
4. Measure the area of infiltration.

Answer: 1

This question requires that you focus on the **data in the question** and determine that the client is experiencing an infiltration. Next, you need to consider the harmful effects of infiltration and determine the action to implement. Because infiltration can be damaging to the surrounding tissue, the appropriate action is to remove the IV to prevent any further damage. Once the IV is removed, further action should be taken depending on the medication infusing at the time of infiltration based on agency protocol, but may include aspiration of the fluid from the site, injection of an antidote, application of warm or cool compresses for specified time intervals, and elevation of the extremity.

Client Needs

The NCSBN identifies a test plan framework based on Client Needs, which includes 4 major categories. Some of these categories are divided further into subcategories. The Client Needs categories are Safe and Effective Care Environment, Health Promotion and Maintenance, Psychosocial Integrity, and Physiological Integrity (Table 1-2).

Table 1-2

Client Needs Categories and Percentage of Questions on the NCLEX-RN Examination

Client Needs Category and Subcategory	Percentage of Questions
Safe and Effective Care Environment	
Management of Care	17-23
Safety and Infection Control	9-15
Health Promotion and Maintenance	6-12
Psychosocial Integrity	6-12
Physiological Integrity	
Basic Care and Comfort	6-12
Pharmacological and Parenteral Therapies	12-18
Reduction of Risk Potential	9-15
Physiological Adaptation	11-17

From National Council of State Boards of Nursing: *2019 NCLEX-RN® examination: Test plan for the National Council Licensure Examination for Registered Nurses*Chicago, 2018, National Council of State Boards of Nursing.

Safe and Effective Care Environment

The Safe and Effective Care Environment category includes 2 subcategories: Management of Care, and Safety and Infection Control. According to the NCSBN, Management of Care addresses prioritizing care and providing and directing nursing care that will ensure a safe care delivery setting to protect clients and health care personnel. The NCSBN indicates that Safety and Infection Control addresses content that will protect clients and health care personnel from health and environmental hazards within health care facilities and in community settings. Box 1-2 presents examples of questions that address these 2 subcategories.

Box 1-2

Safe and Effective Care Environment

Management of Care

The nurse has received the client assignment for the day. Which client should the nurse assess **first**?

1. The client who needs to receive subcutaneous insulin before breakfast
2. The client who has a nasogastric tube attached to intermittent suction
3. The client who is 2 days postoperative and is complaining of incisional pain
4. The client who has a blood glucose level of 50 mg/dL (2.8 mmol/L) and complaints of blurred vision

Answer: 4

This question addresses the subcategory Management of Care in the Client Needs category Safe and Effective Care Environment. Note the **strategic word**, *first*, so you need to establish priorities by comparing the needs of each client and deciding which need is urgent. The client described in the correct option has a low blood glucose level and symptoms reflective of hypoglycemia. This client should be

assessed first so that treatment can be implemented. Although the clients in options 1, 2, and 3 have needs that require assessment, their assessments can wait until the client in the correct option is stabilized.

Safety and Infection Control

The nurse prepares to care for a client on contact precautions who has a hospital-acquired infection caused by methicillin-resistant *Staphylococcus aureus* (MRSA). The client has an abdominal wound that requires irrigation and has a tracheostomy attached to a mechanical ventilator, which requires frequent suctioning. The nurse should assemble which necessary protective items before entering the client's room?

1. Gloves and gown
2. Gloves and face shield
3. Gloves, gown, and face shield
4. Gloves, gown, and shoe protectors

Answer: 3

This question addresses the subcategory Safety and Infection Control in the Client Needs category Safe and Effective Care Environment. It addresses content related to protecting oneself from contracting an infection and requires that you consider the methods of possible transmission of infection, based on the client's condition. Note the **data in the question**. Because of the potential for splashes of infective material occurring during the wound irrigation or suctioning of the tracheostomy, option 3 is correct.

Health Promotion and Maintenance

The Health Promotion and Maintenance category addresses the principles related to growth and development. According to the NCSBN, this Client Needs category also addresses content required to assist the individual to prevent health problems; to recognize alterations in health; and to develop health practices that promote and support optimal wellness. See Box 1-3 for an example of a question in this Client Needs category.

Box 1-3

Health Promotion and Maintenance

The nurse is choosing age-appropriate toys for a toddler. Which toy is the **best** choice for this age?

1. Puzzle
2. Toy soldiers
3. Large stacking blocks
4. A card game with large pictures

Answer: 3

This question addresses the Client Needs category Health Promotion and Maintenance and specifically relates to the principles of growth and development of a toddler. Note the **strategic word**, *best.* Toddlers like to master activities independently, such as stacking blocks. Because toddlers do not have the developmental ability to determine what could be harmful, toys that are safe need to be provided. A puzzle and toy soldiers provide objects that can be placed in the mouth and may be harmful for a toddler. A card game with large pictures may require cooperative play, which is more appropriate for a school-age child.

Psychosocial Integrity

The Psychosocial Integrity category addresses content required to promote and support the ability of the client to cope, adapt, and problem-solve during stressful events. The NCSBN also indicates that this Client Needs category addresses the emotional, mental, and social well-being of the client experiencing stressful events and care for the client with an acute or chronic mental illness. See Box 1-4 for an example of a question in this Client Needs category.

Box 1-4

Psychosocial Integrity

A client with end-stage chronic obstructive pulmonary disease has selected guided imagery to help cope with psychological stress. Which client statement indicates an understanding of this stress-reduction measure?

1. "This will help only if I play music at the same time."
2. "This will work for me only if I am alone in a quiet area."
3. "I need to do this only when I lie down in case I fall asleep."
4. "The best thing about this is that I can use it anywhere, anytime."

Answer: 4

This question addresses the Client Needs category Psychosocial Integrity and the content addresses coping mechanisms. Focus on the **subject**, a characteristic of guided imagery. Guided imagery involves the client creating an image in the mind, concentrating on the image, and gradually becoming less aware of the offending stimulus. It can be done anytime and anywhere; some clients may use other relaxation techniques or play music with it.

Physiological Integrity

The Physiological Integrity category includes 4 subcategories: Basic Care and Comfort, Pharmacological and Parenteral Therapies, Reduction of Risk Potential, and Physiological Adaptation. The NCSBN describes these subcategories as follows. Basic Care and Comfort addresses content for providing comfort and assistance to the client in the performance of activities of daily living. Pharmacological and Parenteral Therapies addresses content for administering medications and parenteral therapies, such as intravenous therapies and parenteral nutrition, and

administering blood and blood products. Reduction of Risk Potential addresses content for preventing complications or health problems related to the client's condition or any prescribed treatments or procedures. Physiological Adaptation addresses content for managing and providing care to clients with acute, chronic, or life-threatening conditions. See Box 1-5 for examples of questions in this Client Needs category.

Box 1-5

Physiological Integrity

Basic Care and Comfort

A client with Parkinson's disease develops akinesia while ambulating, increasing the risk for falls. Which suggestion should the nurse provide to the client to alleviate this problem?

1. Use a wheelchair to move around.
2. Stand erect and use a cane to ambulate.
3. Keep the feet close together while ambulating and use a walker.
4. Consciously think about walking over imaginary lines on the floor.

Answer: 4

This question addresses the subcategory Basic Care and Comfort in the Client Needs category Physiological Integrity and addresses client mobility and promoting assistance in an activity of daily living to maintain safety. Focus on the **subject**, akinesia. Clients with Parkinson's disease can develop bradykinesia (slow movement) or akinesia (freezing or no movement). Having these clients imagine lines on the floor to walk over can keep them moving forward while remaining safe.

Pharmacological and Parenteral Therapies

The nurse monitors a client receiving digoxin for which **early** manifestation of digoxin toxicity?

1. Anorexia
2. Facial pain
3. Photophobia
4. Yellow color perception

Answer: 1

This question addresses the subcategory Pharmacological and Parenteral Therapies in the Client Needs category Physiological Integrity. Note the **strategic word**, *early*. Digoxin is a cardiac glycoside that is used to manage and treat heart failure and to control ventricular rates in clients with atrial fibrillation. The most common early manifestations of toxicity include gastrointestinal disturbances such as anorexia, nausea, and vomiting. Neurological abnormalities can also occur early and include fatigue, headache, depression, weakness, drowsiness, confusion, and nightmares.

Facial pain, personality changes, and ocular disturbances (photophobia, diplopia, light flashes, halos around bright objects, yellow or green color perception) are also signs of toxicity, but are not early signs.

Reduction of Risk Potential

A magnetic resonance imaging (MRI) study is prescribed for a client with a suspected brain tumor. The nurse should implement which action to prepare the client for this test?

1. Shave the groin for insertion of a femoral catheter.
2. Remove all metal-containing objects from the client.
3. Keep the client NPO (nothing by mouth) for 6 hours before the test.
4. Instruct the client in inhalation techniques for the administration of the radioisotope.

Answer: 2

This question addresses the subcategory Reduction of Risk Potential in the Client Needs category Physiological Integrity, and the nurse's responsibilities in preparing the client for the diagnostic test. Focus on the **subject**, preparing a client for an MRI. In an MRI study, radiofrequency pulses in a magnetic field are converted into pictures. All metal objects, such as rings, bracelets, hairpins, and watches, should be removed. In addition, a history should be taken to ascertain whether the client has any internal metallic devices, such as orthopedic hardware, pacemakers, or shrapnel. A femoral catheter is not used for this diagnostic test. An intravenous (IV) catheter may be inserted if a contrast agent is prescribed. Additionally, shaving is not a common practice because of the risk for microabrasions and infection. If needed, hair may be clipped away from a surgical or insertion site. NPO status is not necessary for an MRI study of the head. Inhalation of the radioisotope may be prescribed with other types of scans but is not a part of the procedures for an MRI.

Physiological Adaptation

A client with renal insufficiency has a magnesium level of 3.5 mEq/L 1.44 mmol/L). On the basis of this laboratory result, the nurse interprets which sign as significant?

1. Hyperpnea
2. Drowsiness
3. Hypertension
4. Physical hyperactivity

Answer: 2

This question addresses the subcategory Physiological Adaptation in the Client Needs category Physiological Integrity. It addresses an alteration in body systems. Focus on the **data in the question**. The normal magnesium level is 1.8 to 2.6 mEq/L (0.74 to 1.07 mmol/L). A magnesium level of 3.5 mEq/L (1.44 mmol/L). indicates hypermagnesemia. Neurological manifestations begin to occur when magnesium levels are elevated and are noted as symptoms of neurological depression, such as drowsiness, sedation, lethargy, respiratory depression, muscle weakness, and areflexia. Bradycardia and hypotension also occur.

Integrated Processes

The NCSBN identifies five processes in the test plan that are fundamental to the practice of nursing. These processes are incorporated throughout the major categories of Client Needs. The Integrated Process subcategories are Caring, Communication and Documentation, Nursing Process (Assessment, Analysis, Planning, Implementation, and Evaluation), Culture and Spirituality, and Teaching and Learning. See Box 1-6 for an example of a question that incorporates the Integrated Process of Caring.

Box 1-6

Integrated Processes

A client is scheduled for angioplasty. The client says to the nurse, "I'm so afraid that it will hurt and will make me worse off than I am." Which response by the nurse is therapeutic?

1. "Can you tell me what you understand about the procedure?"
2. "Your fears are a sign that you really should have this procedure."
3. "Those are very normal fears, but please be assured that everything will be okay."
4. "Try not to worry. This is a well-known and easy procedure for the cardiologist."

Answer: 1

This question addresses the subcategory Caring in the category of Integrated Processes. The correct option utilizes a **therapeutic communication technique** that explores the client's feelings, determines the level of client understanding about the procedure, and displays caring. Option 2 demeans the client and does not encourage further sharing by the client. Option 3 does not address the client's fears, provides false reassurance, and puts the client's feelings on hold. Option 4 diminishes the client's feelings by directing attention away from the client and toward the health care provider's importance.

Types of Questions on the Examination

The types of questions that may be administered on the examination include multiple-choice; fill-in-the-blank; multiple-response; ordered-response (also known as drag and drop); image (hot spot) questions; figure, chart/exhibit, or graphic option items; and audio or video item formats. You may also be administered some Next Generation NCLEX® (NGN) questions, which may be a part of the NCSBN research study. A pilot study on NGN questions is being conducted by the NCSBN, and results demonstrate that there is an asymmetrical relationship between knowledge and clinical judgment; thus, recall of learned material is not translating to safety and efficacy in practice. This is the impetus behind these new item types. Research on these new item types is still being conducted. The candidate will be informed if the

questions are research items and will be given the option to answer them or to decline. Regardless, you need to focus and use critical thinking and clinical judgment skills to answer these correctly. These NGN question types can include CLOZE items, enhanced multiple response, enhanced hot spots, extended drag and drop, dynamic exhibits, and constructed response. Additionally, case studies may accompany some question types, and media may be integrated in these questions. These new item types are intended to evaluate a candidate's ability to utilize the dynamic skill of clinical judgment, rather than knowledge or recall alone.

Some questions may require you to use the mouse and cursor on the computer. For example, you may be presented with a picture that displays the arterial vessels of an adult client. In this picture, you may be asked to "point and click" (using the mouse) on the area (hot spot) where the dorsalis pedis pulse could be felt. With the NGN questions, you receive matrix-type items and may be asked to highlight answers. You may also be asked to enter short answer information and to provide a short rationale for your answer selections, such as with the CLOZE or constructed response item types.

In all types of questions, the answer is scored as either right or wrong. Credit is not given for a partially correct answer. In addition, all question types may include pictures, graphics, tables, charts, sound, or rich media scenarios using video or virtual simulation. The NCSBN provides specific directions for you to follow with all question types to guide you in your process of testing. Be sure to read these directions as they appear on the computer screen. Examples of some of these types of questions are noted in this chapter. All question types are provided in this book and on the accompanying Evolve site.

Multiple-Choice Questions

Many of the questions that you will be asked to answer will be in the multiple-choice format. These questions provide you with data about a client situation and four answers, or options.

Fill-in-the-Blank Questions

Fill-in-the-blank questions may ask you to perform a medication calculation, determine an intravenous flow rate, or calculate an intake or output record on a client. You will need to type only a number (your answer) in the answer box. If the question requires rounding the answer, this needs to be performed at the end of the calculation. The rules for rounding an answer are described in the tutorial provided by the NCSBN and are also provided in the specific question on the computer screen. In addition, you must type in a decimal point if necessary. See Box 1-7 for an example.

Box 1-7

Fill-in-the-Blank Question

A prescription reads: acetaminophen liquid, 650 mg orally every 4 hours PRN for pain. The medication label reads: 500 mg/15 mL. The nurse prepares how many

milliliters to administer one dose? **Fill in the blank. Record your answer using one decimal place.**

Answer: 19.5 mL

Formula:

$$\frac{Desired}{Available} \times volume = mL$$

$$\frac{650\,mg}{500\,mg} \times 15\,mL = 19.5\,mL$$

In this question, you need to focus on the **subject**, mL per dose, and use the formula for calculating a medication dose. When the dose is determined, you will need to type your numeric answer in the answer box. Always follow the specific directions noted on the computer screen. Also, remember that there will be an on-screen calculator on the computer for your use.

Multiple-Response Questions

For a multiple-response question, you will be asked to select or check all of the options, such as nursing interventions, that relate to the information in the question. In these question types, there may be 1 correct answer, there may be more than 1 correct answer, or all answers could be correct. No partial credit is given for correct selections. You need to do exactly as the question asks, which will be to select all of the options that apply. See Box 1-8 for an example.

Box 1-8

Multiple-Response Question

The emergency department nurse is caring for a child suspected of acute epiglottitis. Which interventions apply in the care of the child? **Select all that apply.**

- ☐ 1. Obtain a throat culture.
- ☑ 2. Auscultate lung sounds.
- ☑ 3. Prepare the child for a chest x-ray.

☐ 4. Maintain the child in a supine position.

☑ 5. Obtain a pediatric-size tracheostomy tray.

☑ 6. Place the child on an oxygen saturation monitor.

In a multiple-response question, you will be asked to select or check all of the options, such as interventions, that relate to the information in the question. Focus on the **subject**, interventions for the child with suspected acute epiglottitis. To answer this question, recall that acute epiglottitis is a serious obstructive inflammatory process that requires immediate intervention and that airway patency is a priority. Auscultating lung sounds allows the nurse to obtain information about airway patency without causing further airway compromise by examining the throat. Examination of the throat with a tongue depressor or attempting to obtain a throat culture is contraindicated because the examination can precipitate further obstruction. A lateral neck and chest x-ray is obtained to determine the degree of obstruction, if present. To reduce respiratory distress, the child should sit upright. The child is placed on an oxygen saturation monitor to monitor oxygenation status. Tracheostomy and intubation may be necessary if respiratory distress is severe. Remember to follow the specific directions given on the computer screen.

Ordered-Response Questions

In this type of question, you will be asked to use the computer mouse to drag and drop your nursing actions in order of priority. Information will be presented in a question and, based on the data, you need to determine what you will do first, second, third, and so forth. The unordered options will be located in boxes on the left side of the screen, and you need to move all options in order of priority to ordered-response boxes to the right side of the screen. Specific directions for moving the options are provided with the question. See Figure 1-1 for an example. These type of practice questions are located on the accompanying Evolve site.

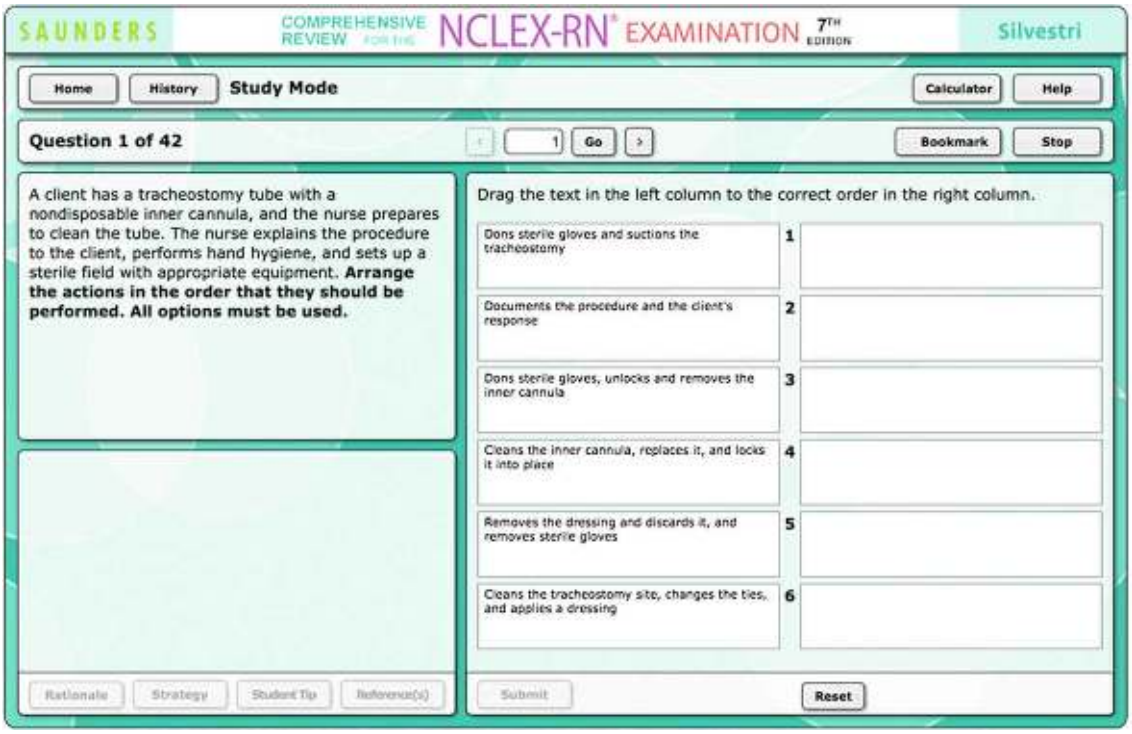


FIG. 1-1 Example of an ordered-response question.

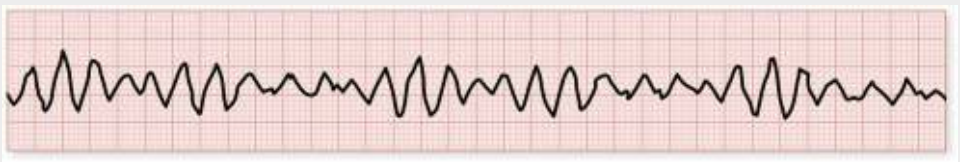
Figure or Hot Spot Questions

A question with a picture or graphic will ask you to answer the question based on the picture or graphic. The question could contain a chart, a table, or a figure or illustration. You also may be asked to use the computer mouse to point and click on a specific area in the visual. A chart, table, figure, or illustration may appear in any type of question, including a multiple-choice question. See Box 1-9 for an example.

Box 1-9

Figure Question

A client who experienced a myocardial infarction is being monitored via cardiac telemetry. The nurse notes the sudden onset of this cardiac rhythm on the monitor **(refer to figure)** and **immediately** takes which action?



1. Takes the client's blood pressure
2. Initiates cardiopulmonary resuscitation (CPR)

3. Places a nitroglycerin tablet under the client's tongue
4. Continues to monitor the client and then contacts the cardiologist

Answer: 2

This question requires you to identify the cardiac rhythm, and then determine the priority nursing action. Note the **strategic word**, *immediately.* This cardiac rhythm identifies a coarse ventricular fibrillation (VF). The goals of treatment are to terminate VF promptly and to convert it to an organized rhythm. The primary health care provider, cardiologist, or an Advanced Cardiac Life Support (ACLS)–qualified nurse must immediately defibrillate the client. If a defibrillator is not readily available, CPR is initiated until the defibrillator arrives. Options 1, 3, and 4 are incorrect actions and delay lifesaving treatment.

Chart/Exhibit Questions

In this type of question, you will be presented with a problem and a chart or exhibit. You will be provided with tabs or buttons that you need to click to obtain the information needed to answer the question. A prompt or message will appear that will indicate the need to click on a tab or button. See Box 1-10 for an example.

Box 1-10

Chart/Exhibit Question

The nurse reviews the history and physical examination documented in the medical record of a client requesting a prescription for oral contraceptives. The nurse determines that oral contraceptives are contraindicated because of which documented items? **Refer to chart. Select all that apply.**

Client's Chart

History and Physical	Medications	Diagnostic Results
Item 1: Has admitting diagnosis of renal calculi Item 2: Past medical history: deep vein thrombosis with associated thrombophlebitis Item 3: Hypertension Item 4: Hyperlipidemia Item 5: Prediabetes	Item 6: Multivitamin orally daily Item 7: Lisinopril 40 mg orally daily Item 8: Atorvastatin 10 mg orally daily Item 9: Metformin 500 mg orally twice daily	Item 10: Renal ultrasound shows no hydronephrosis, low probability of renal artery stenosis Item 11: Insert a space Complete blood cell (CBC) shows white blood cells (WBC) 15,000 mm^3 (15×10^9/L), hemoglobin (Hgb) 16 g/dL (60 mmol/L), hematocrit (Hct) 47% (0.47), platelets 450,000 mm^3 (450×10^9/L)

Answer: Items 2, 3, 4, 11

This chart/exhibit question provides you with data from the client's medical record. Focus on the **subject**, the item(s) that are a contraindication to the use of oral contraceptives. Oral contraceptives are contraindicated in women with a history of any of the following: thrombophlebitis and thromboembolic disorders, cardiovascular or cerebrovascular diseases (including stroke), any estrogen-dependent cancer or breast cancer, benign or malignant liver tumors, impaired liver function, hypertension, and diabetes mellitus with vascular involvement. Adverse

effects of oral contraceptives include increased risk of superficial and deep venous thrombosis, pulmonary embolism, thrombotic stroke (or other types of strokes), myocardial infarction, and accelerations of preexisting breast tumors. Item 2 is a thromboembolic disorder with associated thrombophlebitis. Items 3 and 4 are cardiovascular diseases. The medications the client is taking are not specific contraindications to oral contraceptives. The normal WBC is 5000-10,000 mm^3 (5-10 × 10^9/L). The normal Hgb for a male is 14-18 g/dL (140-180 mmol/L) and 12-16 g/dL (120-160 mmol/L) for a female. The normal Hct for a male is 42-52% (0.42-0.52) and 37-47% (0.37-0.47) for a female. The normal platelet count is 150,000-400,000 mm^3 (150-400 × 10^9/L). Item 11 has components that are contraindicated; of note is that this client has polycythemia, which is a thromboembolic disorder and therefore is contraindicated for the use of oral contraceptives.

Graphic Item Option Questions

In this type of question, the option selections will be pictures rather than text. You will need to use the computer mouse to click on the option that represents your answer choice. See Box 1-11 for an example.

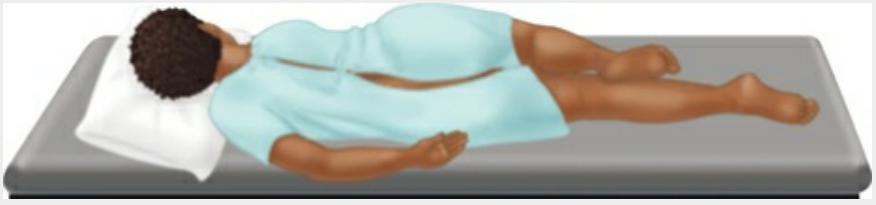
Box 1-11

Graphic Item Option Question

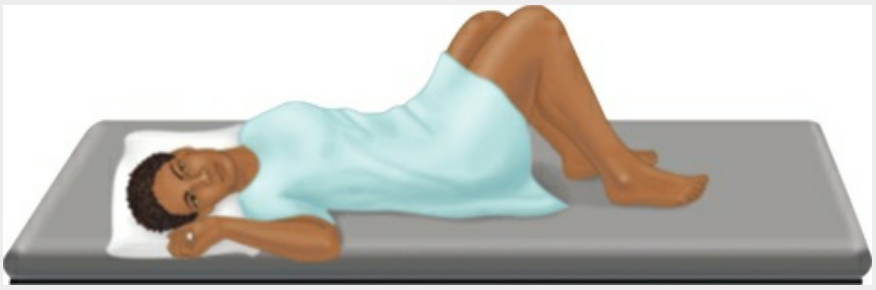
The nurse should place the client in which position to administer an enema? **(Refer to the figures in 1 to 4.)**

1.

2.



3.



4.

Answer: 2

This question requires you to select the picture that represents your answer choice. Focus on the **subject**, the position for administering an enema. To administer an enema, the nurse assists the client into the left side-lying (Sims') position with the right knee flexed. This position allows the enema solution to flow downward by gravity along the natural curve of the sigmoid colon and rectum, improving the retention of solution. Option 1 is a prone position. Option 3 is a dorsal recumbent position. Option 4 is a supine position.

Audio Questions

Audio questions will require listening to a sound to answer the question. These questions will prompt you to use the headset provided and to click on the sound icon. You will be able to click on the volume button to adjust the volume to your comfort level, and you will be able to listen to the sound as many times as necessary. Content examples include, but are not limited to, various lung sounds, heart sounds, or bowel sounds. Examples of this question type are located on the accompanying Evolve site (Fig. 1-2).

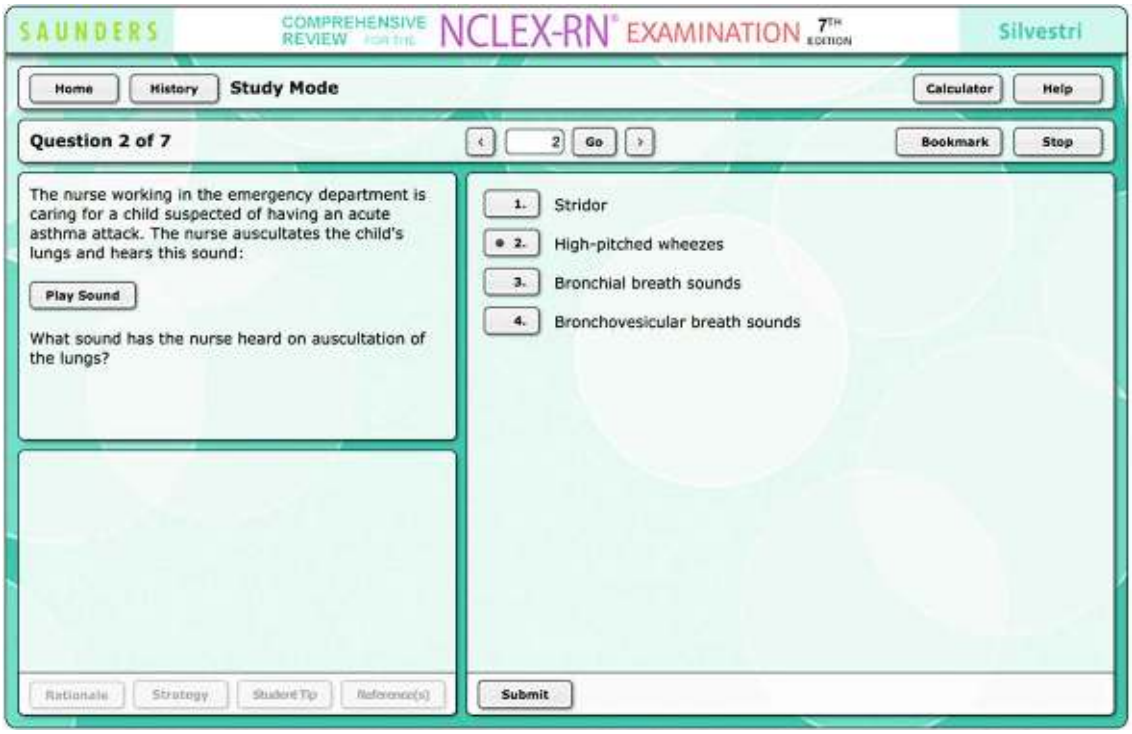


FIG. 1-2 Example of an audio question.

Video Questions

Video questions will require viewing of an animation or video clip to answer the question. These questions will prompt you to click on the video icon. There may be sound associated with the animation and video, in which case you will be prompted to use the headset. Content examples include, but are not limited to, assessment techniques, nursing procedures, or communication skills. Examples of this question type are located on the accompanying Evolve site (Fig. 1-3).

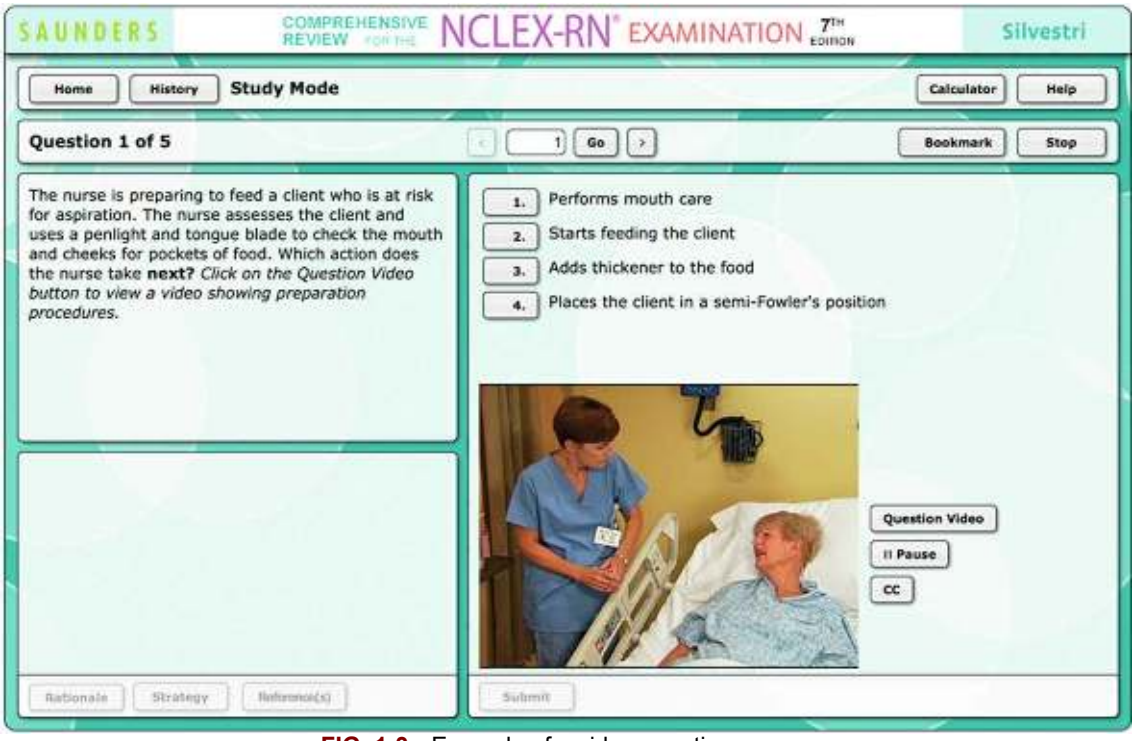


FIG. 1-3 Example of a video question.

Next Generation NCLEX (NGN) Item Types

These NGN question item types that may be used on the NCLEX exam can include, but are not limited to, CLOZE, enhanced multiple selection, enhanced hot spots, extended drag and drop, dynamic exhibits and constructed response, highlighting items, and matrix items. Additionally, case studies may accompany some question types. You are encouraged to access www.ncsbn.org for the most current information on these test items, their description, and how they will be presented.

An enhanced multiple-response question is similar to a multiple-choice question in that it usually allows more than one option to be chosen. The difference is that an enhanced multiple-response question presents a long list of options. The NCLEX examination committee has not yet provided specific information as to how these question types will be presented. An example of one way they may be presented can be located in Box 1-12.

Box 1-12

NGN Items: Case Study With Enhanced Multiple Response, CLOZE Item, Dynamic Exhibit, and Constructed Response

Victoria Machane, 76 years old, is brought to the emergency department by her son, Michael. Michael tells the nurse that Victoria has not been able to tolerate any physical activity and that when she tries to do something she tires very easily. Victoria began to experience shortness of breath and a cough that started this morning, and Michael states that his mother's skin looked pale and gray. On assessment, the nurse notes that Victoria exhibits shortness of breath on exertion;

she is coughing and expectorating frothy white mucus. Her pulse rate is 102 beats/min, and her blood pressure is 164/98 mm Hg. The nurse auscultates Victoria's lung sounds and notes the presence of bilateral crackles in the lower lobes. Victoria is hospitalized. Her current home medications include betaxolol hydrochloride for glaucoma and glimepiride for type 2 diabetes mellitus. She also takes over-the-counter hydroxyaluminum sodium carbonate to help prevent acid indigestion. Heart failure is diagnosed. In addition to the medication that Victoria takes at home, the following medications are prescribed: captopril, furosemide, metoprolol, and digoxin.

Enhanced Multiple Response

The nurse reviews Victoria's admission data and prepares to collaborate with the interprofessional health care team about Victoria's plan of care. What should the nurse discuss with the team? **Select all that apply.**

1. Victoria's age as a risk for falls.
2. The need for respiratory treatments.
3. Victoria's inability to tolerate activity.
4. That the antacid could affect the absorption of digoxin.
5. That metoprolol may mask symptoms of hypoglycemia.
6. That the antacid must be used with caution in clients with glaucoma.
7. That potential systemic side effects of betaxolol hydrochloride include heart failure.
8. That betaxolol hydrochloride may contribute to hypertension when taken with the newly prescribed medications.

Answer: 1, 2, 3, 4, 5, 7

Victoria is 76 years of age. In addition to her age, her poor respiratory status and inability to tolerate activity place her at risk for falls. These factors require implementing a plan of care that will meet her needs. Antacids increase the digoxin level by increasing digoxin absorption or bioavailability. Antacids also decrease the absorption of captopril. However, antacids are not a concern in clients with glaucoma. Ophthalmic beta blockers can have additive therapeutic or adverse effects when given with systemically administered beta blockers or other cardiovascular medications. Toxic reactions to beta blockers are rare but primarily involve the cardiovascular system. Symptoms include bradycardia, cardiac failure, hypotension, and bronchospasm. Treatment involves discontinuation of the medication and supportive care (e.g., administration of adrenergic and anticholinergic medications). In addition, the nonselective beta blockers can interfere with the normal responses to hypoglycemia, such as tremor, tachycardia, and nervousness, in essence masking the signs and symptoms of hypoglycemia. Hypotension is more likely than hypertension in clients taking beta-blocker medications.

On the following morning (day 2 of hospitalization), the nurse checks Victoria's vital signs and notes a blood pressure (BP) of 98/64 mm Hg and a heart rate of 62 beats per minute. On review of the laboratory data, the nurse notes the following:

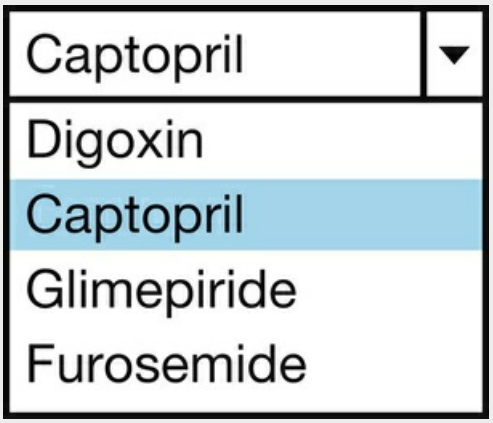
Hemoglobin 14 g/dL (140 g/L)

Hematocrit 41% (0.41)
White blood cell count 7,000 mm^3 (7×10^9/L)
Sodium 145 mEq/L (145 mmol/L)
Potassium 3.6 mEq/L (3.6 mmol/L)
Blood urea nitrogen 20 mg/dL (7.1 mmol/L)
Creatinine 1.1 mg/dL (97 mcmol/L)
Blood glucose 99 mg/dL (5.5 mmol/L)

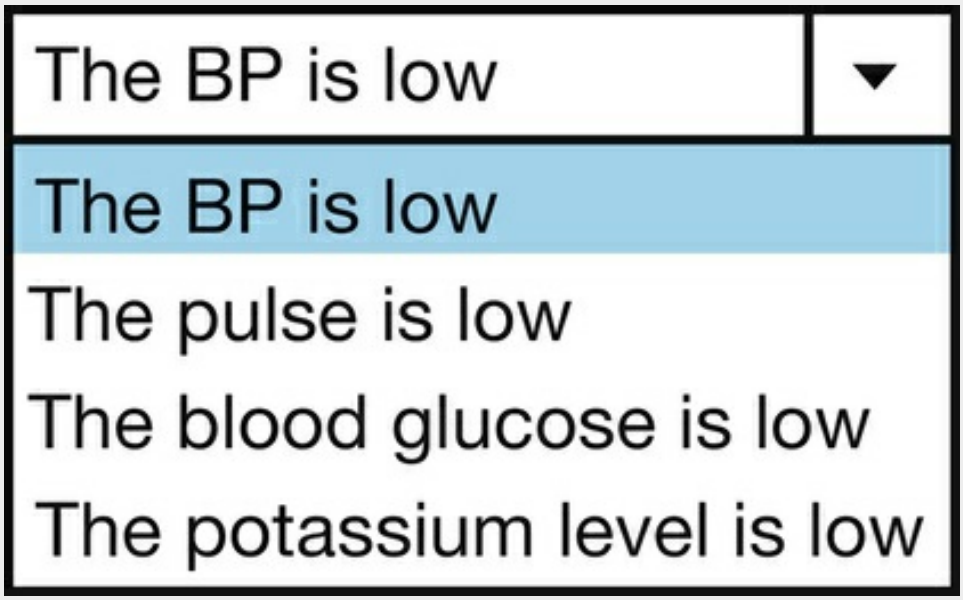
CLOZE Item

Which medication would be of **most** concern and require clarification prior to administration? **Complete the following sentences by choosing from the dropdown lists**.

The nurse should not administer the **(Select one)**



Because **(Select one)**



Captopril is an angiotensin-converting enzyme (ACE) inhibitor. The main side/adverse effects of this medication are cough, hypotension, hyperkalemia, and tachycardia. Other side effects associated with ACE inhibitors include headache, dizziness, fatigue, insomnia, and weight loss. Victoria's BP is low at 98/64 mm Hg. Digoxin is a cardiac glycoside and would require clarification about administration if the pulse were below 60 beats per minute or if she were showing signs of toxicity. Victoria's pulse rate is 62 beats per minute. Glimepiride is used to manage blood glucose levels and would require clarification about administration if the blood glucose was low. Victoria's blood glucose is normal 70 to 99 mg/dL (3.9 to 5.5 mmol/L). Furosemide is a diuretic. Although the nurse would monitor for a drop in BP in the client receiving furosemide, the primary concern is hypokalemia. Victoria's potassium level is normal (normal level is 3.5-5.0 mEq/L [3.5-5.0 mmol/L]).

Dynamic Exhibit and Constructed Response

Day 3 of Victoria's Hospitalization

It is reported that Victoria had a comfortable night. Shortness of breath has subsided, and vital signs are stable. Her color is pale, but she is showing no signs of respiratory compromise. She still has bilateral crackles in the lower lobes with no expectoration of mucus. The nurse prepares to administer morning medications to Victoria.

What assessment is unnecessary before administering the digoxin? **Enter the assessment in the box below.**

Time:	1000
Assessment plan:	Check morning digoxin level
	Check apical pulse rate
	Check pedal pulses
	Check for gastrointestinal discomfort
	Check for visual disturbances
Interventions:	Assist with morning care
	Monitor tolerance to activities
	Assist to bedside chair
	Monitor vital signs and laboratory results
	Teach Victoria about home care and prescribed medications

Check pedal pulses

Enter the rationale for included assessments in the box below.

- Digoxin is withheld if the pulse is not within the 60 to 100 bpm range because of the risk for decreased cardiac output if administered.
- Digoxin levels are routinely checked to monitor for subtherapeutic, therapeutic, supratherapeutic, and toxic levels.
- Monitoring for early and late signs of digoxin toxicity are integral to the safety of a client on digoxin.

Digoxin is a cardiac glycoside. It will decrease the heart rate and could affect the heart rhythm. Therefore, the nurse would check the client's apical pulse immediately before administering the medication. If the pulse is slower than 60 or greater than 100 bpm, the digoxin is withheld and the primary health care provider or cardiologist is notified. It is not necessary to check the pedal pulses before administering the digoxin. The nurse would also check the morning digoxin level to

ensure that the level is in a therapeutic range. Gastrointestinal disturbances are early signs of digoxin toxicity, so the nurse would assess the client for any discomfort. Visual disturbances are also signs of digoxin toxicity, so the nurse would assess the client for these disturbances.

CLOZE Item

The CLOZE item type is similar to a short-answer type question. In this type of question, you will need to select a response from a drop-down menu. See Box 1-12 for an example.

Dynamic Exhibit and Constructed Response

A constructed response is a type of open-ended question that requires a short-answer response. The answer is constructed using information that can be found in a dynamic exhibit, such as a case study. See Box 1-12 for an example.

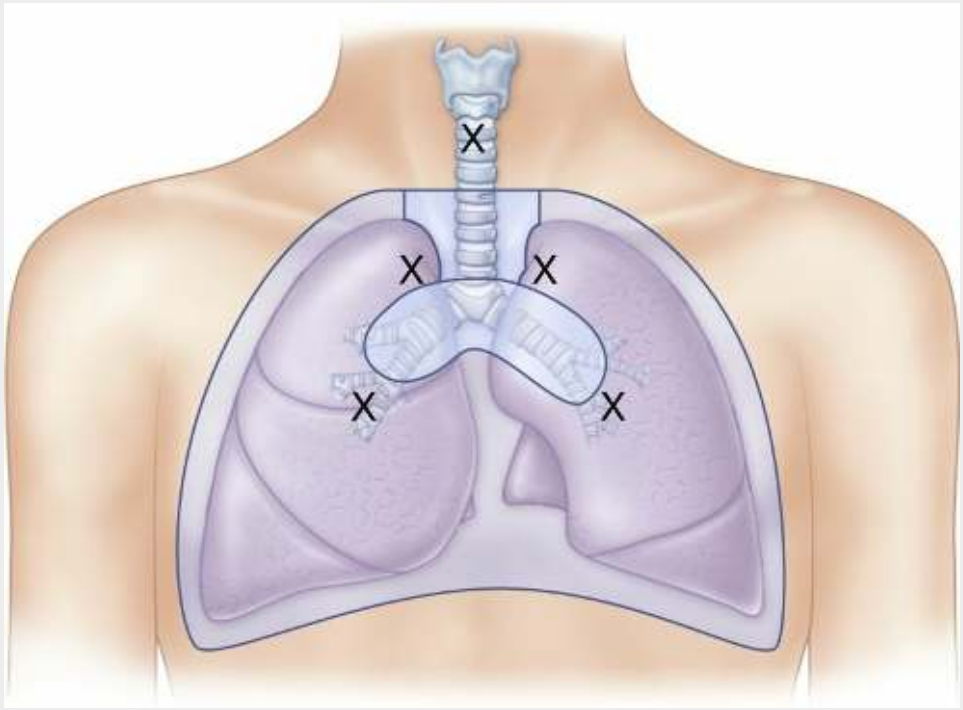
Enhanced Hot Spots

An enhanced hot spot question may presented in various ways. This question type could include an exhibit, a case study, assessment data or other information, or a figure in which you may need to use the mouse and cursor and point and click to locations as asked in the question. An enhanced hot spot may also ask you to highlight specific information. See Box 1-13 for an example.

Box 1-13

NGN Item: Enhanced Hot Spot

Which areas should the nurse place the stethoscope to check the right bronchovesicular breath sounds, the left bronchovesicular breath sounds, the right vesicular breath sounds, the left vesicular breath sounds, and the bronchial breath sounds?



Use the mouse to select each area, place the cursor on the area, and click. Five areas need to be selected to answer this question.

Three types of breath sounds are considered normal in certain parts of the thorax. These include vesicular, bronchovesicular, and bronchial. These breath sounds should be clear to auscultation. Bronchial breath sounds are located over the trachea. Bronchovesicular breath sounds are located over the main bronchi. Vesicular breath sounds are located over the lesser bronchi, bronchioles, and lobes.

Extended Drag and Drop

There are various ways in which extended drag and drop question types will be presented. An extended drag and drop question will provide you with several pieces of specific information and will ask you to order that information into the correct order of action or placement. See Box 1-14 for an example.

Box 1-14

NGN Item: Extended Drag and Drop

The nurse is preparing assignments for the day for the eight clients below and needs to assign clients to a registered nurse (RN), a licensed practical nurse (LPN), and an assistive personnel (AP). Drag each client to the **most appropriate** health care provider.

Clients
A client requiring a platelet transfusion.
A client requiring a colostomy irrigation.
A client receiving continuous tube feedings.
A client with respiratory failure on a mechanical ventilator.
A client who requires frequent ambulation and has a steady gait.
A client who requires a bed bath and range of motion exercises.
A client who requires hourly pulse and blood pressure measurements.
A client requiring abdominal wound irrigations and dressing changes every 3 hours.

Answer

RN Assignment	LPN Assignment	AP Assignment
A client requiring a platelet transfusion.	A client requiring a colostomy irrigation.	A client who requires frequent ambulation and has a steady gait.
A client with respiratory failure on a mechanical ventilator.	A client receiving continuous tube feedings.	A client who requires a bed bath and range-of-motion exercises.
	A client requiring abdominal wound irrigations and dressing changes every 3 hours.	A client who requires hourly pulse and blood pressure measurements.

The nurse must determine the most appropriate assignment based on the education and skills of the health care provider and the needs of the client. *In general,* noninvasive interventions, such as skin care, range-of-motion exercises, ambulation, grooming, and hygiene measures, can be assigned to the AP. *In general,* a LPN or vocational nurse (VN) can perform not only the tasks that a AP can perform but also certain invasive tasks, such as dressing changes, wound irrigations, tube feedings, colostomy irrigations, suctioning, urinary catheterization, and medication administration (oral, subcutaneous, intramuscular, and selected piggyback medications), according to the education and job description of the LPN or VN. The LPN or VN can also review with the client teaching plans that were initiated by the registered nurse. A registered nurse can perform the tasks that an LPN or VN can perform and is responsible for assessment and planning care, initiating teaching, and administering medications intravenously.

Highlighting Items

These items present data pertinent to a client case, and asks the student to highlight the information that requires follow-up. See Box 1-15 for an example.

Box 1-15

NGN Item: Highlighting Item

The nurse is assessing a male client admitted 1 day ago for newly diagnosed type 2 diabetes mellitus. Clinical findings are noted below.

	Current	12 hours ago	24 hours ago
Blood pressure	122/68 mmHg	128/70 mmHg	130/70 mmHg
Pulse	122 beats per minute (bpm)	110 bpm	108 bpm
Respirations	24 breaths per minute (bpm)	22 bpm	22 bpm
Oral temperature	36.2C (97.1F)	36.4C (97.5F)	36.2C (97.1F)
Capillary glucose	410 mg/dL (23.4 mmol/L)	360 mg/dL (20.57 mmol/L)	400 mg/dL (22.85 mmol/L)
Serum glucose	425 mg/dL(25.2 mmol/L)	360 mg/dL (20.57 mmol/L)	410 mg/dL(23.4 mmol/L)
Serum potassium	2.8 mEq/L (2.8 mmol/L)	3.2 mEq/L (3.2 mmol/L)	3.6 mEq/L (3.6 mmol/L)
Urine output	23 mL/hr	30 mL/hr	40 mL/hr

Which of the findings would be essential to follow up on?

Click on the finding that would be essential to follow up on to highlight it. Highlight only findings that require follow-up. To deselect, click the finding again.

Answer:

	Current	12 hours ago	24 hours ago
Blood pressure	122/68 mmHg	128/70 mmHg	130/70 mmHg
Pulse	122 bpm	110 bpm	108 bpm
Respirations	24 bpm	22 bpm	22 bpm
Oral temperature	36.2C (97.1F)	36.4C (97.5F)	36.2C (97.1F)
Capillary glucose	410 mg/dL(22.8 mmol/L)	360 mg/dl (20.0 mmol/L)	400 mg/dl (22.3 mmol/L)
Serum glucose	425 mg/dL(23.7 mmol/L)	360 mg/dl (20.0 mmol/L)	410 mg/dl (22.8 mmol/L)
Serum potassium	2.8mEq/L(2.8 mmol/L)	3.2mEq/L(3.2 mmol/L)	3.6mEq/L(3.6 mmol/L)
Urine output	23mL/hr	30mL/hr	40mL/hr

With newly diagnosed type 2 diabetes mellitus, the client is at risk for diabetic ketoacidosis or hyperglycemic hyperosmolar non-ketotic syndrome, both of which can lead to hypovolemia and shock. The blood pressure has remained stable for this client but is declining. At this time, it does not require further follow-up. The pulse rate has increased significantly since admission, and is a sign of hypovolemia, which is a finding that should be addressed. The respiratory rate is slightly elevated and should be addressed early on because this is a sensitive indicator of fluid status. The capillary glucose and serum glucose levels at each of the timepoints has been elevated, and an intervention is required to address this abnormality. The serum potassium level was within the normal range initially but has decreased since admission and is now at a critical level. This could be due to the client's treatment, which likely involves insulin. This requires follow-up because of the risks associated with hypokalemia. The urine output has steadily decreased and could be an indicator of hypovolemia, and therefore requires follow-up. The temperature is normal and does not require follow-up.

Matrix Items

These items present data regarding a client, and may ask the student to select actions that are essential, nonessential, and contraindicated. See Box 1-16 for an example.

Box 1-16

NGN Item: Matrix Item

The nurse notes that there has been an increase in the number of central-line–associated blood stream infections (CLABSIs) that developed in the clients being cared for on the nursing unit. How should the nurse proceed to implement a quality improvement program? **For each action below, click to specify whether the action would be**:

Indicated: An action that the nurse should take to resolve the problem

Nonessential: An action that the nurse could take without harming the client, but the action would not be likely to address the problem

Contraindicated: An action that could harm the client and should not be taken

Action	Indicated	Nonessential	Contraindicated
1 Collect identifying client information			X
2 Note the mental status of the client		X	
3 Note primary and secondary diagnoses of client's affected	X		
4 Note the type and location of IV catheter used	X		
5 Note the type of IV dressings being used	X		
6 Note the medication types being infused		X	
7 Note frequency of assessments of IV sites	X		
8 Note the expected duration of the IV site		X	
9 Note care procedures to the IV site	X		
10 Note frequency of changing IV sites	X		

Quality improvement, also known as performance improvement, focuses on processes or systems that significantly contribute to client safety and effective client care outcomes; criteria are used to monitor outcomes of care and to determine the need for change to improve the quality of care. If the nurse notes a particular problem, such as an increase in the CLABSIs, the nurse should collect data about the problem. This should include information such as the primary and secondary diagnoses of the clients developing the infection, the type and location of IV catheters being used, the site of the catheter, IV site dressings being used, frequency of assessment and methods of care to the IV site, and length of time that the IV catheter was inserted. Once these data are collected and analyzed, the nurse should examine evidence-based practice protocols to identify the best practices for care to IV sites to prevent infection. These practices can then be implemented and followed by evaluation of results based on the evidence-based practice protocols used. Collecting identifying client information is contraindicated because of client confidentiality and is unnecessary in this quality improvement effort. Noting the mental status of the client can be done but is not likely to address the problem. Noting the types of medications being infused can also be done but will not address the problem of IV site infection. Although it is helpful to know the expected duration of the IV site, this information does not change infection control practices in managing the IV site and is therefore considered a nonessential action.

Case Studies (Testlets) and NGN Items

Case Studies and NGN Item Types are included in this resource and can be located in the Evolve site accompanying this book. These are specially designed to simulate the NCLEX experience of testing for these Next Generation NCLEX (NGN) Item Types. Refer to the Evolve site for practice with these question types.

The NCSBN Practice Test Questions for the NCLEX

The NCSBN provides a practice test for candidates that is composed of previously used NCLEX questions that are no longer a part of the NCLEX. This exam simulates the look of the real exam and provides the candidate with practice for the NCLEX. This practice test can be purchased through the NCSBN at www.ncsbn.org

Registering to Take the Examination

It is important to obtain an NCLEX Examination Candidate Bulletin from the NCSBN Web site at www.ncsbn.org, because this bulletin provides all of the information you need to register for and schedule your examination. It also provides you with Web site and telephone information for NCLEX examination contacts. The initial step in the registration process is to submit an application to the state board of nursing in the state in which you intend to obtain licensure. You need to obtain information from the board of nursing regarding the specific registration process, because the process may vary from state to state. Then, use the NCLEX Examination Candidate Bulletin as your guide to complete the registration process.

Following the registration instructions and completing the registration forms precisely and accurately are important. Registration forms not properly completed or not accompanied by the proper fees in the required method of payment will be returned to you and will delay testing. You must pay a fee for taking the examination; you also may have to pay additional fees to the board of nursing in the state in which you are applying.

Authorization to Test Form and Scheduling an Appointment

Once you are eligible to test, you will receive an Authorization to Test (ATT) form. You cannot make an appointment until you receive an ATT form. Note the validity dates on the ATT form, and schedule a testing date and time before the expiration date on the ATT form. The NCLEX Examination Candidate Bulletin provides you with the directions for scheduling an appointment; you do not have to take the examination in the same state in which you are seeking licensure.

The ATT form contains important information, including your test authorization number, candidate identification number, and validity date. You need to take your ATT form to the testing center on the day of your examination. You will not be admitted to the examination if you do not have it.

Changing Your Appointment

If for any reason you need to change your appointment to test, you can make the change on the candidate Web site or by calling candidate services. Refer to the NCLEX Examination Candidate Bulletin for this contact information and other important procedures for canceling and changing an appointment. If you fail to arrive for the examination or fail to cancel your appointment to test without providing appropriate notice, you will forfeit your examination fee and your ATT

form will be invalidated. This information will be reported to the board of nursing in the state in which you have applied for licensure, and you will be required to register and pay the testing fees again.

Day of the Examination

It is important that you arrive at the testing center at least 30 minutes before the test is scheduled. If you arrive late for the scheduled testing appointment, you may be required to forfeit your examination appointment. If it is necessary to forfeit your appointment, you will need to reregister for the examination and pay an additional fee. The board of nursing will be notified that you did not take the test. A few days before your scheduled date of testing, take the time to drive to the testing center to determine its exact location, the length of time required to arrive at that destination, and any potential obstacles that might delay you, such as road construction, traffic, or parking sites.

In addition to the ATT form, you must have proper identification (ID) such as a U.S. driver's license, passport, U.S. state ID, or U.S. military ID to be admitted to take the examination. All acceptable identification must be valid and not expired and contain a photograph and signature (in English). In addition, the first and last names on the ID must match the ATT form. According to the NCSBN guidelines, any name discrepancies require legal documentation, such as a marriage license, divorce decree, or court action legal name change. Refer to the NCLEX Examination Candidate Bulletin for acceptable forms of identification.

Testing Accommodations

If you require testing accommodations, you should contact the board of nursing before submitting a registration form. The board of nursing will provide the procedures for the request. The board of nursing must authorize testing accommodations. Following board of nursing approval, the NCSBN reviews the requested accommodations and must approve the request. If the request is approved, the candidate will be notified and provided the procedure for registering for and scheduling the examination.

Testing Center

The testing center is designed to ensure complete security of the testing process. Strict candidate identification requirements have been established. You will be asked to read the rules related to testing. A digital fingerprint and palm vein print will be taken. A digital signature and photograph will also be taken at the testing center. These identity confirmations will accompany the NCLEX exam results. In addition, if you leave the testing room for any reason, you may be required to perform these identity confirmation procedures again to be readmitted to the room.

Personal belongings are not allowed in the testing room; all electronic devices must be placed in a sealable bag provided by the test administrator and kept in a locker. Any evidence of tampering with the bag could result in the need to report the incident and test cancellation. A locker and locker key will be provided for you;

however, storage space is limited, so you must plan accordingly. In addition, the testing center will not assume responsibility for your personal belongings. The testing waiting areas are generally small; friends or family members who accompany you are not permitted to wait in the testing center while you are taking the examination.

Once you have completed the admission process, the test administrator will escort you to the assigned computer. You will be seated at an individual workspace area that includes computer equipment, appropriate lighting, an erasable note board, and a marker. No items, including unauthorized scratch paper, are allowed into the testing room. Eating, drinking, or the use of tobacco is not allowed in the testing room. You will be observed at all times by the test administrator while taking the examination. In addition, video and audio recordings of all test sessions are made. The testing center has no control over the sounds made by typing on the computer by others. If these sounds are distracting, raise your hand to summon the test administrator. Earplugs are available on request.

You must follow the directions given by the testing center staff and must remain seated during the test except when authorized to leave. If you think that you have a problem with the computer, need a clean note board, need to take a break, or need the test administrator for any reason, you must raise your hand. You are also encouraged to access the NCSBN candidate Web site to obtain additional information about the physical environment of the testing center and to view a virtual tour of the testing center.

Testing Time

The maximum testing time is 6 hours; this period includes the tutorial, the sample items, all breaks, and the examination. All breaks are optional. The first optional break will be offered after 2 hours of testing. The second optional break is offered after 3.5 hours of testing. Remember that all breaks count against testing time. If you take a break, you must leave the testing room, and when you return you may be required to perform identity confirmation procedures to be readmitted.

Length of the Examination

The minimum number of questions that you will need to answer is 75. Of these 75 questions, 60 will be operational (scored) questions and 15 will be pretest (unscored) questions. The maximum number of questions in the test is 265.

The pretest questions are questions that may be presented as scored questions on future examinations. These pretest questions are not identified as such. In other words, you do not know which questions are the pretest (unscored) questions; however, these pretest (unscored) questions will be administered among the first 75 questions in the test.

Pass-or-Fail Decisions

All examination questions are categorized by test plan area and level of difficulty. This is an important point to keep in mind when you consider how the computer

makes a pass-or-fail decision, because a pass-or-fail decision is not based on a percentage of correctly answered questions.

The NCSBN indicates that a pass-or-fail decision is governed by three different scenarios. The first scenario is the 95% Confidence Interval Rule, in which the computer stops administering test questions when it is 95% certain that the test-taker's ability is clearly above the passing standard or clearly below the passing standard. The second scenario is known as the Maximum-Length Exam, in which the final ability estimate of the test-taker is considered. If the final ability estimate is above the passing standard, the test-taker passes; if it is below the passing standard, the test-taker fails.

The third scenario is the Run-Out-Of-Time (R.O.O.T) Rule. If the examination ends because the test-taker ran out of time, the computer may not have enough information with 95% certainty to make a clear pass-or-fail decision. If this is the case, the computer will review the test-taker's performance during testing. If the test-taker has not answered the minimum number of required questions, the test-taker fails. If the test-taker's ability estimate was consistently above the passing standard on the last 60 questions, the test-taker passes. If the test-taker's ability estimate falls below the passing standard, even once, the test-taker fails. Additional information about pass-or-fail decisions can be found in the NCLEX Examination Candidate Bulletin located at www.ncsbn.org.

Completing the Examination

When the examination has ended, you will complete a brief computer-delivered questionnaire about your testing experience. After you complete this questionnaire, you need to raise your hand to summon the test administrator. The test administrator will collect and inventory all note boards and then permit you to leave.

Processing Results

Every computerized examination is scored twice, once by the computer at the testing center and again after the examination is transmitted to the test scoring center. No results are released at the testing center; testing center staff do not have access to examination results. The board of nursing receives your result, and your result will be mailed to you approximately 6 weeks after you take the examination. In some states, an unofficial result can be obtained via the Quick Results Service 2 business days after taking the examination. There is a fee for this service, and information about obtaining your NCLEX result by this method can be obtained on the NCSBN Web site under candidate services.

Candidate Performance Report

A candidate performance report is provided to a test-taker who failed the examination. This report provides the test-taker with information about her or his strengths and weaknesses in relation to the test plan framework and provides a guide for studying and retaking the examination. If a retake is necessary, the

candidate must wait 45 days between examination administration, depending on state procedures. Test-takers should refer to the state board of nursing in the state in which licensure is sought for procedures regarding when the examination can be taken again.

Interstate Endorsement and Nurse Licensure Compact

Because the NCLEX-RN examination is a national examination, you can apply to take the examination in any state. When licensure is received, you can apply for interstate endorsement, which is obtaining another license in another state to practice nursing in that state. The procedures and requirements for interstate endorsement may vary from state to state, and these procedures can be obtained from the state board of nursing in the state in which endorsement is sought. It may be possible to practice nursing in another state under the mutual recognition model of nursing licensure if the state has enacted a Nurse Licensure Compact. To obtain information about the Nurse Licensure Compact and the states that are part of this interstate compact, access the NCSBN Web site at www.ncsbn.org.

The Foreign-Educated Nurse

An important first step in the process of obtaining information about becoming a registered nurse in the United States is to access the NCSBN Web site at www.ncsbn.org and obtain information provided for international nurses in the NCLEX Web site link. The NCSBN provides information about some of the documents you need to obtain as an international nurse seeking licensure in the United States and about credentialing agencies. Refer to Box 1-17 for a listing of some of these documents. The NCSBN also provides information regarding the requirements for education and English proficiency, and immigration requirements such as visas and VisaScreen. You are encouraged to access the NCSBN Web site to obtain the most current information about seeking licensure as a registered nurse in the United States.

Box 1-17

Foreign-Educated Nurse: Some Documents Needed to Obtain Licensure

1. Proof of citizenship or lawful alien status
2. Work visa
3. VisaScreen certificate
4. Commission on Graduates of Foreign Nursing Schools (CGFNS) certificate
5. Criminal background check documents
6. Official transcripts of educational credentials sent directly to credentialing agency or board of nursing from home country school of nursing

7. Validation of a comparable nursing education as that provided in U.S. nursing programs; this may include theoretical instruction and clinical practice in a variety of nursing areas including, but not limited to, medical nursing, surgical nursing, pediatric nursing, maternity and newborn nursing, community and public health nursing, and mental health nursing
8. Validation of safe professional nursing practice in home country
9. Copy of nursing license or diploma or both
10. Proof of proficiency in the English language
11. Photograph(s)
12. Social Security number
13. Application and fees

An important factor to consider as you pursue this process is that some requirements may vary from state to state. You need to contact the board of nursing in the state in which you are planning to obtain licensure to determine the specific requirements and documents that you need to submit.

Boards of nursing can decide either to use a credentialing agency to evaluate your documents or to review your documents at the specific state board, known as in-house evaluation. When you contact the board of nursing in the state in which you intend to work as a nurse, inform them that you were educated outside of the United States and ask that they send you an application to apply for licensure by examination. Be sure to specify that you are applying for registered nurse (RN) licensure. You should also ask about the specific documents needed to become eligible to take the NCLEX exam. You can obtain contact information for each state board of nursing through the NCSBN Web site at www.ncsbn.org. In addition, you can write to the NCSBN regarding the NCLEX exam. The address is 111 East Wacker Drive, Suite 2900, Chicago, IL 60601. The telephone number for the NCSBN is 1-866-293-9600; international telephone is 011 1 312 525 3600; the fax number is 1-312-279-1032.