Contents

CHAPTER 1

Introduction to the Cognitive Skills of Clinical Judgment

This chapter will help you understand the need for change in the NCLEX® and the six clinical judgment cognitive (thinking) skills that serve as the basis for new test item types on the NGN. After a brief review of the *current* NCLEX® design, thinking skills needed to make safe, evidence-based clinical judgment are introduced. General NGN Tips are provided to help you relate each thinking skill with the new exam.

The new NGN item types will be included on the NCLEX® no sooner than 2023 and are described in Chapter 2 of this book. Specific Test-Taking Strategies that will help you correctly answer these new items are provided throughout other chapters of this book and accompany all practice questions in the book and on the Evolve site. Be sure to review this chapter *before* reading the rest of this book or practicing NGN questions!

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What Are the Purpose and Design of the Current NCLEX®?

As you know, prelicensure nursing education programs like the one you're currently in prepare students for eligibility to take either the NCLEX-RN® or the NCLEX-PN® after graduation. These national licensure examinations are developed and updated under the direction of the NCSBN. This organization also oversees the administration of the NCLEX® in the United States, Canada, and a number of other countries.

The primary purpose of the NCSBN is to *protect the public* by providing competency assessments, such as the NCLEX®, that are sound and secure. The NCLEX® is comprehensive and reflects current nursing practice. To ensure examination currency, the NCSBN collects and analyzes nursing practice data every 3 years from thousands of graduates to determine what knowledge and activities are required in their jobs as new nurses. This information is used to develop the content of the NCLEX® and is organized in a new licensure test plan every 3 years (https://www.ncsbn.org/testplans.htm). The test plan is organized by four major Client Needs Categories, some of which have subcategories. In addition, five Integrated Processes are defined and included throughout the NCLEX® Test Plan as shown in Box 1.1.

The NCLEX® currently measures the new graduate's minimum competence in safety to ensure public protection through a variety of test items. Most of the test items (about 95%) are either Multiple Choice or Multiple Response, also known as Select All That Apply (SATA) questions. For each of these item types, client information is presented in a short clinical scenario followed by a question about the nurse's role in client care. Examples of these test item types are presented in Box 1.2.

As you'll notice in the aforementioned test items, each question focuses on what the nurse would do or say in response to specific client data. Only the client information that is the most important, relevant, or, in some cases, of immediate concern to the nurse is presented in the clinical situation. The answer is then selected from a list of choices provided. The narrow focus of these test items does not represent the scope of actual nursing practice and does not allow measurement of clinical judgment. Rather, these types of items reflect whether the candidate can distinguish between right and wrong. At this point in your education, you likely are very familiar with these item types on your course exams.

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BOX 1.1 NCLEX-RN® Test Plan Organizing Concepts

Integrated Processes	Client Needs Categories/Subcategories
Nursing Process[a]	Safe and Effective Care Environment
Teaching and Learning	• Management of Care[b]
Communication and Documentation	• Safety and Infection Control
Caring	Health Promotion and Maintenance
Culture and Spirituality	Psychosocial Integrity
	Physiological Integrity
	• Basic Care and Comfort
	• Pharmacological and Parenteral Therapies[c]
	• Reduction of Risk Potential
	• Physiological Adaptation

[a]This Integrated Process on the NCLEX-PN® Test Plan is the Problem-Solving Process.
[b]This Client Needs subcategory on the NCLEX-PN® Test Plan is Coordinated Care.
[c]This Client Needs subcategory on the NCLEX-PN® Test Plan is Pharmacological Therapies.

BOX 1.2 Examples of Current Multiple Choice and Multiple Response NCLEX® Test Items

Example 1: Multiple Choice Single Response

The nurse is planning care for a client admitted to the hospital with a diagnosis of acute pancreatitis and controlled hypertension. What is the nurse's **priority** for the client's care at this time?

- ☐ Administer an antiemetic medication.
- ☐ Manage the client's acute pain. ↯
- ☐ Monitor the client's blood pressure.
- ☐ Administer supplemental oxygen.

Example 2: Multiple Response (Select All That Apply)

The nurse is assessing an adolescent who was taken to the ED for threatening to commit suicide. What is (are) the **most appropriate** question(s) for the nurse to ask the client at this time? **Select all that apply.**

- ☐ "What made you want to kill yourself?"
- ☐ "Do you have a plan for killing yourself?" ↯
- ☐ "Do you plan to kill yourself with anyone else?" ↯
- ☐ "Is this the first time you've threatened to kill yourself?"
- ☐ "Did you write a suicide note to explain why you are doing this?"

Note: ↯ Indicates correct response(s).

Why Is There a Need for NCLEX® Change?

Although national NCLEX® first-time pass rates for both RN and PN graduates have been above 80% for many years, health care employers continue to report increasing errors in client care and lack of appropriate clinical judgment skills among new nursing graduates. A recent literature review conducted by the NCSBN found that 50% of all nurses have been involved in at least one client error. Sixty percent of those errors were the result of poor clinical judgment. Over 80% of nursing employers are *not* satisfied with the ability of new nursing graduates to make accurate or appropriate clinical decisions regarding client care. In response to these data, the NCSBN began to question if the NCLEX® was measuring "the best thing" to protect the public.

The 2013–2014 Strategic Practice Analysis of activities performed by practicing RNs and RN role experts confirmed the importance of sound clinical judgment skills for

many tasks and activities performed by entry-level nurses. This analysis also highlighted that nurses today make more complex decisions to provide safe care for clients with higher acuity and advanced age.

The NCSBN literature review also found that the nurse's primary practice activity is the ability to problem solve and critically think—thinking processes needed for making appropriate clinical judgments. *Problem solving* is the process of developing and evaluating nursing solutions or approaches to client problems. *Critical thinking* can be described as a process requiring the use of logic and clinical reasoning to identify the strengths and weaknesses of nursing solutions or approaches to client problems. The NCBSN built on these process descriptions to create a definition and model of clinical judgment to be used as a basis for developing new NCLEX® test item types.

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What Is the NCSBN'S Definition and Model of Clinical Judgment?

As a result of the literature review, Strategic Practice Analysis, and input from a variety of nurse clinicians and educators, the NCSBN developed this definition of clinical judgment:

Clinical judgment is defined as the observed outcome of critical thinking and decision making. It is an iterative process that uses nursing knowledge to observe and assess presenting situations, identify a prioritized client concern, and generate the best possible evidence-based solutions in order to deliver safe client care.

So, what does this definition mean for you as a nursing student and future professional nurse? Think about each of these key points in the clinical judgment definition:

- Recognize that clinical judgment is the result or *outcome of thinking* to make decisions about client care when potential or actual health problems occur. The same process of thinking to make clinical decisions occurs repeatedly as you manage client problems *(iterative process)*.
- Acquire and recall *nursing knowledge* to make appropriate clinical judgments. (However, having knowledge does not guarantee that an accurate or appropriate clinical judgment will be made.)
- Learn how to *prioritize* a client's need for care based on the data presented about a clinical situation.
- Be familiar with the *best current evidence* regarding a presented clinical situation so you can come up with possible solutions or approaches for care to keep the client *safe*.

You will want to acquire these skills and a strong knowledge base during your nursing program to be ready for a dynamic, complex health care system and the NGN.

After the NCSBN developed its definition of clinical judgment, the organization created a model of clinical judgment, called the NCSBN Clinical Judgment Measurement Model (NCJMM). As the name implies, this model was created to measure the nursing graduate's ability to make clinical judgments. Although it is not important for you to be familiar with the entire model, it is essential that you master the thinking skills associated with clinical judgment. The NCJMM identifies six cognitive (thinking) skills that are needed for effective professional nursing practice and serve as the basis for the new NGN test item types. These skills are sometimes referred to as Layer 3 of the NCJMM and are introduced in the next section of this chapter.

The NCJMM also identifies factors that influence the ability of nurses to make appropriate clinical judgments. Examples of these Environmental and Individual factors, sometimes referred to as Layer 4 of the NCJMM, are listed in Table 1.1. Individual factors are those related to the nursing graduate candidate taking the NGN.

What Are the Six NCSBN Clinical Judgment Measurement Model Cognitive Skills?

The NGN includes new test item types that measure the six cognitive skills of clinical judgment. Each of these thinking skills, sometimes referred to as cognitive processes,

THINKING SPACE

TABLE 1.1 Example of Environmental and Individual Factors That Influence Clinical Judgment

Examples of Environmental Factors	Examples of Individual Factors
Environment	Knowledge
Medical records	Skills
Time pressure	Specialty
Task complexity	Prior experience
Resources	Level of experience
Cultural considerations	Candidate characteristics
Client observation	
Consequences and risks	

BOX 1.3 Clinical Judgment Cognitive Skills With Key Questions

Recognize Cues: What matters most?
Analyze Cues: What could it mean?
Prioritize Hypotheses: Where do I start?
Generate Solutions: What can I do?
Take Action: What will I do?
Evaluate Outcomes: Did it help?

is introduced in this chapter. Chapters 3 through 8 in this book describe these skills in more detail and present examples of NGN test items that are designed to measure each skill. The six cognitive skills essential for clinical judgment are listed in Box 1.3 with key questions that explain the focus of each skill.

Recognize Cues

For clients in any health care setting, the nurse collects client data from a number of sources. *Cues* are client findings or assessment data that provide information for nurses as a basis for decision making to make appropriate clinical judgments and can be divided into four major types as listed below. Chapter 3 describes these sources of cues in more detail.

- Environmental cues; e.g., presence of family member
- Client observation cues; e.g., signs and symptoms
- Medical record cues; e.g., lab values or vital signs
- Time pressure cues; e.g., rapid clinical decline

In actual clinical practice, the nurse reviews all client findings to determine which data are most important, relevant, and in some cases, of immediate concern. To help you *Recognize Cues,* ask yourself which client data are most important in the presented clinical scenario. Carefully review the client's presenting data, such as vital signs and medical diagnosis, to determine their relevance. For example, a heart rate of 140 bpm would be of immediate concern for a middle-aged adult, but is within the typical range for a newborn.

In some clinical scenarios the client has a history of one or more acute and/or chronic health problems. For example, an older adult with a long history of COPD may have a Pao_2 of 65 mm Hg. This arterial oxygen level is abnormal because it is below the usual range of 80 to 100 mm Hg. However, for *this* client, the low arterial oxygen level is likely not important or of immediate concern because it is expected. Many clients with advanced COPD have chronically low arterial oxygen, but they compensate by using breathing techniques combined with low-flow supplemental oxygen.

NGN TIP

Remember: To *Recognize Cues,* carefully review the client's assessment data like developmental age and history to help determine if findings are relevant or of immediate concern to the nurse.

Analyze Cues

After relevant cues have been identified in a clinical scenario, the nurse organizes and links them to the client's presenting clinical situation. Ask yourself: "What do the relevant client data mean or indicate at this time?" For example, consider a middle-aged

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BOX 1.4 Example of a Thinking Activity That Requires the Ability to *Analyze Cues*

Client Finding	Dehydration	Hypernatremia	Anemia
Generalized weakness			
Acute confusion			
Dry mouth			
Increased heart rate			
Dyspnea on exertion			

BOX 1.5 Example of a Thinking Activity That Requires the Ability to *Analyze Cues*

Client Assessment Finding	Dehydration	Hypernatremia	Anemia
Generalized weakness	X	X	X
Acute confusion	X	X	X
Dry mouth	X	X	
Increased heart rate	X	X	X
Dyspnea on exertion			X

client who had a small bowel resection 2 days ago and began having increasing abdominal pain, distention, vomiting, and absent bowel sounds. These data, when grouped together, are consistent with a postoperative paralytic ileus. To link these assessment findings with an ileus, you need knowledge of pathophysiology, especially signs and symptoms.

In some clinical scenarios, the client may have *multiple* relevant cues that are associated with several different client conditions. The example in Box 1.4 illustrates this type of scenario for an older adult hospitalized for a urinary tract infection and sepsis. In this Thinking Activity, you would need to review each client finding to determine if it is consistent with one or more of the specified client conditions.

In this example, one finding may be linked with two or three client conditions, such as generalized weakness and acute confusion. However, dyspnea on exertion is associated with only one of the listed problems—anemia. The correct responses to the Thinking Activity are found in Box 1.5.

In other clinical scenarios, the client may not be experiencing an actual health problem, but is at risk for one or more potential complications. For example, the woman who recently had a spontaneous vaginal delivery is at risk for postpartum hemorrhage within the first 24 hours, particularly if the uterus becomes boggy (a client observation cue). In some clinical situations then, part of the thinking process to *Analyze Cues* is to identify if cues are linked to or associated with potential complications.

NGN TIP

Remember: To *Analyze Cues,* you are not required to make a medical diagnosis but rather will be expected to connect or link client findings with selected client conditions or health problems, either actual or potential.

Prioritize Hypotheses

After organizing, grouping, and linking relevant client findings with actual or potential client conditions, the next cognitive skill requires you to narrow down what the data mean and prioritize the client's problems or needs. Although you may have learned about priority decision-making models such as the ABCs or Maslow's Hierarchy of Needs, these models are often not very useful in helping you make clinical judgments in more complex clinical situations.

To *Prioritize Hypotheses,* review and evaluate each of the client's needs or health problems in the clinical situation. Then rank them to decide what is *most likely* the priority

health problem. Evaluate factors in the clinical situation such as urgency, risk, difficulty, and time sensitivity for the client. For example, consider this clinical situation:

A 42-year-old postpartum client who just gave birth to a third child in 4 years reports severe "afterbirth pains" of 9/10 on a 0 to 10 pain intensity scale. The client also reports having problems with getting the baby to latch for breast-feeding/chest-feeding. The nurse assesses that the client has a boggy uterus and is saturating a peri-pad every 20 to 30 minutes.

In this example, the client has three problems that you would evaluate and rank in this order:

1. Excessive postpartum bleeding due to boggy uterus
2. Severe abdominal pain due to uterine contractions
3. Difficulty with breast-feeding/chest-feeding due to inability of baby to latch

NGN TIP

Remember: The urgency of a clinical situation and risk to the client are important factors that will help you *Prioritize Hypotheses.*

The priority for this client at this time is to manage excessive postpartum bleeding because the client could become hypovolemic and develop shock. In this situation, managing the client's bleeding is more *urgent* than managing severe pain or breast-feeding/chest-feeding difficulty to prevent the *risk* of a life-threatening complication.

Generate Solutions

After identifying the client's priority problem in a given clinical scenario, you want to think about all the possible actions that can be used to resolve or manage the problem. To assist in selecting the possible actions or approach to care you might include, first determine what outcomes are desired or expected for the client. For example, consider this scenario:

The birth parent of an 11-year-old brings the child to the ED for a right forearm injury experienced as a result of a scooter accident. The nurse observes that the child is crying and guarding the right arm, which is swollen, deformed, and bruised. The child is left-handed. During the head-to-toe assessment, the nurse notes old bruising on the left side of the child's chest and scarring on both upper thighs. Both knees have large abrasions with small stones and dirt embedded in them. The child denies having had any previous accidents or injuries. An x-ray confirms a right nondisplaced metaphyseal ulnar fracture.

In this example, the client has an acute injury and signs of previous injuries, possibly from abuse. The desired outcomes would include that the client:

- States that pain is no more than a 2–3/10 on a 0 to 10 pain intensity scale
- Does not experience compromised neurovascular compromise in the right arm
- Has decreased swelling of the right arm
- Will experience healing of bilateral knee abrasions without infection
- Is safe at home (no neglect or abuse) with the birth parent or other family/significant other

NGN TIP

Remember: To *Generate Solutions* to meet a client's priority needs, determine the client's desired or expected outcomes first.

The next step in this thinking process is to identify multiple potential actions or nursing interventions that could achieve the desired outcomes. Also identify which actions would be avoided or are contraindicated. To develop a list of actions or interventions for this pediatric client, you need knowledge of child development, fracture treatment, child abuse, and pain management.

Some nursing actions may focus on collecting additional information about the client. For instance, the nurse would likely want to interview the birth parent to obtain information about the old bruising and scarring observed on the child's chest and thighs. Other potential actions that could help achieve the desired outcomes in this clinical situation include:

- States that pain is no more than a 2–3/10 on a 0 to 10 pain intensity scale
  - Administer nonopioid pain medication; avoid opioids if possible.
  - Provide distraction for the child, such as an iPad or gaming device.
  - Reassure the child that analgesics will be available as needed after discharge.

- Does not experience compromised neurovascular compromise in the right arm
  - Assist in applying a right synthetic forearm cast.
  - Monitor the child's right arm neurovascular status after cast application.
- Has decreased swelling of the right arm
  - Apply ice pack to arm outside cast and teach child need to use ice for the next 24 hours.
  - Teach child to keep arm elevated as much as possible.
- Will experience healing of bilateral knee abrasions without infection
  - Clean both knees to remove debris and dirt.
  - Apply triple antibiotic cream on open areas and cover with clean gauze.
  - Apply topical lidocaine to knees to decrease pain.
- Is safe at home (no neglect or abuse) with the birth parent or other family/significant other
  - Communicate concern about child's safety to primary health care provider.
  - Consult with the social worker about the child's potential safety risk, family situation, and possible change in placement of the child.
  - Report potential child abuse to Child Protective Services (CPS).

After the list of potential actions has been identified for each desired outcome, determine which actions should be implemented to meet the priority needs of the client in the *Take Action* process.

Take Action

Deciding which action to implement is the focus of this clinical judgment thinking skill. After generating a list of possible interventions, determine the most appropriate intervention or combination of interventions that will resolve or manage the client's priority health problems or concerns. Also determine how each intervention will be implemented. Examples of methods to accomplish or implement interventions include what to communicate, document, perform, administer, teach, or request from a primary health care provider or other member of the health care team.

For example, in the pediatric clinical scenario described in the previous section on *Generate Solutions,* you might request a consultation with the social worker to interview the birth parent about the child's injuries and home situation. Social workers are experts in interviewing and addressing family situations, and can determine if the child's injuries are potentially consistent with abuse.

When deciding on how to implement interventions, avoid memorized textbook methods or procedures. Instead consider the elements of the clinical situation to determine which approach to use. For example, teaching the birth parent about the care of the child after discharge would be appropriate for most situations. However, in the pediatric clinical example, you might *not* want to teach the birth parent about home care after discharge from the ED until it is determined whether the child will go home with the birth parent. If abuse is suspected, the child would be removed from the current family situation.

Evaluate Outcomes

The last clinical judgment thinking skill is to determine if the interventions implemented for the client resolved or effectively managed the health problem(s). The best way to make that determination is to compare what the desired or expected outcomes are with current client findings or observed outcomes. Ask yourself, "Which assessment findings/signs and symptoms indicate that the client's condition has improved?" "Which findings indicate that the client's condition has declined?"

For example, consider this clinical scenario:

A 78-year-old client has been hospitalized for 6 days for exacerbation of chronic heart failure. On admission the client was placed on supplemental oxygen and IV furosemide for peripheral

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NGN TIP

Remember: When deciding to *Take Action,* avoid memorized textbook methods and procedures; instead, customize your action to meet the needs of the client in the clinical scenario.

edema and impending pulmonary edema. The primary health care provider adjusted the client's cardiac medications and restricted salt intake (no added table salt). The nurse preparing for the client's discharge performs a head-to-toe assessment to determine the effectiveness of heart failure management. The nurse documents the following client findings:

- *Lungs clear with no adventitious breath sounds*
- *No shortness of breath when walking short distances*
- *Lost 5 lb (2.3 kg) during hospital stay*
- *Bilateral ankle and foot edema decreased from 3+ to 1+*
- *States planning to continue using table salt at home*

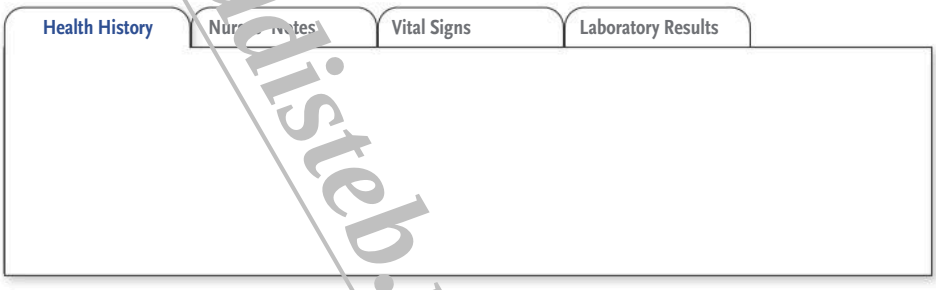
In this example, all of the client assessment data at the time of discharge demonstrate that the interventions used to manage heart failure were effective because the client is improving. However, the client plans to continue using table salt at home, which could contribute to another exacerbation of heart failure. The nurse may need to reinforce teaching about the relationship of sodium to fluid retention or consult with the registered dietitian nutritionist to provide the teaching.

NGN TIP

Remember: To *Evaluate Outcomes*, compare desired or expected client outcomes with current observed outcomes.

How Will the Six Clinical Judgment Skills Be Measured on the NGN?

The new NGN exam is composed of current test item types and new test item types. The total number of test items should range between 85 and 150 total questions. The six NCJMM cognitive skills introduced in this chapter are measured on the NGN through use of a variety of new test item types that are embedded into two types of case studies—the Unfolding Case Study and the Stand-alone item. Both types of cases present a clinical scenario and include part of a medical record similar to the record shown in the figure.



Additional medical record tabs may be included as the scenario requires.

The *Unfolding Case Study* presents the client over time through several phases of care in the clinical scenario. It is often referred to as the NGN Case Study. The time between phases can be minutes, hours, or even days. The client may initially be evaluated in an ED, acute care hospital, clinic, school, or urgent care center. As the scenario changes, or "unfolds," new NGN test items require that the candidate use the information in the current phase of the client's care to answer each question. Nursing candidates can expect to have three NGN Case Studies with six questions each. Each of the six questions represents one of the clinical judgment cognitive skills discussed earlier.

The *Stand-alone item* sometimes referred to as the Stand-alone clinical judgment item, presents a client at one point in time and includes one of the new NGN test item types. Each item measures one or more of the six clinical judgment cognitive skills. Nursing candidates are expected to have varying numbers of Stand-alone items on the NGN, depending on the candidate's ability in taking the exam. However, it is expected that most candidates will have about seven Stand-alone items.

How Can You Prepare for the NGN?

In addition to using this book, other resources such as the *Developing Clinical Judgment* workbooks written by one of this book's authors (D.D.I.) provide thinking exercises to

help you master the six cognitive skills to make appropriate clinical judgments. If you need help with basic NCLEX® test-taking strategies and want beginning practice with NGN test items, two of this book's authors (L.A.S. and A.E.S.) created a book entitled *Clinical Judgment and Test-Taking Strategies.* All of these books are included in the NGN Resource list at the end of this book.

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Another way to prepare for the NGN is to practice multiple test items in the Unfolding Case Study and Stand-alone item formats. NGN practice questions are located at the end of Chapters 3 through 8 of this book. Chapter 9 illustrates Stand-alone and Unfolding Case Studies with appropriate NGN test items. Chapter 10 is a comprehensive NGN Practice Test that includes questions in all specialty areas. Correct answers, rationales, test-taking strategies, specialty content area, selected concepts, and references are available for all NGN practice questions in the book.

In addition to the questions in this book, 50 Stand-alone items and Unfolding Case Studies with accompanying questions are available for your practice on the Elsevier Evolve site. Categories for selection of questions on Evolve include Content Area, Priority Concept, and Clinical Judgment Cognitive Skill.

Now that you have been introduced to the six cognitive skills needed to make appropriate clinical judgment, you are ready to learn about the new NGN test item types. The next chapter describes and illustrates examples of the new NGN test item types.