Critical Thinking in the Medical-Surgical Unit

Give your nurses the confidence and skills they need to think independently and display high levels of clinical judgment.

- Explain the principles of critical thinking
- Provide strategies for coaching new graduates
- Discuss creating and teaching critical thinking classes, from orientation to ongoing nurse development
- Discuss the important role played by preceptors during orientation of new employees and give strategies for encouraging critical thinking skills
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About the Author

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Introduction

Critical Thinking in the Medical-Surgical Unit

Learning objectives
After reading this section, the participant should be able to describe the characteristics of the medical-surgical unit that require effective critical-thinking skills.

Back to Basics

The complexity of care and increasing acuity seen on general medical-surgical units today require critical thinking skills beyond those required even just five years ago. As nursing schools respond to the shortage of nurses by increasing enrollments, decreasing the length of time it takes to become a nurse, and thus increasing the output of new graduates, medical-surgical units are seeing a greater need for graduates to display critical-thinking skills and for strong mentors to help nurses develop those skills.

Medical-surgical units have long been the “proving ground” for new nurse graduates. Although not as firmly ingrained in the culture as it used to be, the medical-surgical unit continues to be the place where new graduates go to truly cement the skills they learned in nursing school before they transition to other roles, such as critical care, community health, or advanced practice. This creates the need for the medical-surgical nurse to be a strong critical thinker and a strong mentor for new nurses entering the profession. This book provides some skills, tools, and tips to assist nurses as they hone this process to make it as natural as breathing. The fundamental concepts of
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critical thinking may be generic for all nurses, regardless of the specialty, but as medical-surgical units see so many new graduates, there is an even greater need for medical-surgical nurses to learn these important skills.

To make the most of this book as your resource for critical thinking, consider taking time to review all the content before you implement the helpful tools. It may be tempting to just start using them immediately, but resist it. It sounds strange to tell you not to immediately use the tools provided, but just like you would not expect a new nurse to understand the relationship between blood loss and delay in blood pressure changes without some foundational knowledge of anatomy and physiology, you too will not be able to fully understand the implications of the tools provided without doing some critical thinking of your own.

Critical thinking is not about a check off list of tasks; it is about confidence in your decision-making that leads to good patient outcomes. The tools provide:

• Methods to evaluate how one does or does not perform critical thinking in their role
• Examples of teaching moments
• Patient scenarios that exemplify critical thinking

As important as the tools are, validating that nurses are applying critical thinking concepts is what matters. This is imperative as the medical-surgical nurse is immersed in a setting where patient complexity is the new norm.

Critical Thinking and the Medical-Surgical Setting

Depending on the unit where you work, there can be a constant stream of chaos as patients move into and out of the unit, or it can be a relative island of calm. Sometimes the unit can be both on the same day. The variety of patients seen and their complexities, the number of admissions and discharges, the flow of patients and staff to and from diagnostic tests, and the
acuity of the situations your patients face are all good reasons we choose to work in a medical-surgical unit. It is these “unknowns” that require nursing staff to display unique qualities and high levels of critical thinking, both as individuals and as part of a team.

The unknowns that make the medical-surgical unit such an interesting place include:

- How many patients will arrive or leave for surgery or procedures?
- When will they arrive or leave and return?
- How many will be high acuity or low acuity?
- How many emergency admissions will arrive?
- How many will require specialized skills such as bariatric patients, elderly patients, or patients in acute renal or cardiac failure?
- How many have the potential for violence?
- How many have the potential for delirium or confusion and are therefore a risk to themselves?

Medical-surgical nurses stand alone much of the time as they deal with the issues presented by their particular patient load. The efficiency, dedication, and cohesiveness of the medical-surgical team serves to motivate as well as to retain staff. However, because many nurses are part of the staff ready to “work their way out of med-surg” to another specialty, this can disrupt the team. What is clear to the nursing professions is that this specialty clearly requires a commitment from the nurse to apply critical-thinking concepts to each and every patient they care for.

Medical-surgical nurses care for a wide variety of patients and need to apply knowledge of a wide variety of conditions. For this reason, the need for exceptional and timely critical thinking skills is imperative. In this environment of rapidly changing patient assignments and constant rotation of peers, the medical-surgical nurse needs to have all the attributes of a critical thinker, and needs to know how to apply these at the bedside.
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Medical-surgical units are as different as they are numerous. The unit may be focused on a specific type of patient demographic (i.e., orthopedic or neurologic), or it may be a combination of a variety of patient types. This broad variety ensures two things: first, that the medical-surgical nurse will never be bored, and second, that the need for critical thinking is essential as the nurse deals with the high expectations of the organization and the patient.

The three main areas in which the medical-surgical nurse will need to apply critical thinking are assessment, treatment/management of patient care, and discharge/implications to long-term outcomes.

Assessment

Whether patients present as direct admits from physicians’ offices, via the emergency department, or directly from the operating room, a sorting process occurs to determine their potential for injury to themselves or others through delirium or other cognitive needs, their potential for demise, or the need to keep them close to the nursing station for more direct observation. Sorting through these patients to determine placement and staff assignments is a challenge that is usually managed by the nurse manager or the unit shift leader/charge nurse.

Once a patient is physically placed in the unit, the charge nurse/team leader must also determine the skills needed by the nurse who will care for this patient as well as the current workload of the nursing staff. Safe patient care is dependent on these leaders who use critical thinking in their decision-making throughout the shift. Because new graduates will be expected to care for these patients once they are placed in the medical-surgical unit, leaders have expectations of all staff to meet their needs.
Attributes of critical thinking during patient care

The following examples demonstrate application of the concepts and approaches of critical thinking at the point of care in the medical-surgical unit. Strategies and attributes of critical thinking during care include the following abilities:

Independent thinker
- Analyzes and initiates the written orders as presented with the patient.
- Recognizes when workload associated with patient volume will require more support and notifies team leader/charge nurse.
- Reconciles medications ordered with those that the patient is known to be taking and ensures that all are accounted for or ordered if necessary.

Evaluates evidence and facts
- The report from the emergency room nurse states that the patient fell down a flight of stairs and broke her hip and arm. At initial assessment when the patient arrived on the unit, the nurse notes a number of large bruises that are in various stages of resolving. The patient lives with a caregiver who is presently staying very close to the patient.

Explores consequences before making decisions or taking action
- A young mother is admitted to the unit and is unable to find anyone to care for her three children, who are ages 6, 4, and 2. Although the hospital does have a policy allowing visitors to stay overnight and the children could be accommodated to some extent, it is not possible to provide the level of care required.

Evaluates policy
- Recognizes that although the visitor is demanding to see the patient now, the patient’s tracking board displays a security icon. The charge nurse is contacted prior to allowing any visitors through the door.

Confident in decisions
- On admission, the patient reports that she feels nauseated. Rather than beginning an immediate assessment, including a mobility assessment,
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the nurse decides to administer an ordered anti-emetic and allow the patient to settle in before the full assessment is done.

Asks pertinent questions

- Understands that no assumptions should be made on admission. Every patient is assessed from head to toe and is asked pertinent questions regarding areas of skin breakdown, poor nutritional status, living conditions, or domestic abuse.
- Asks what medication dosages were taken and whether a dose was taken on the day of admission.
- Asks when the patient last had a bowel movement.

Displays curiosity

- At admission, begins to look at the picture of the patient’s reported living conditions and starts to think about what will be needed in order for the patient to go home when he or she is ready to leave.

 Rejects incorrect information

- Notes that although the caregiver states that the patient has been taking all of his cardiac medications, the patient has +3 edema to the lower extremities and cardiac arrhythmias that would normally be controlled by the medications.

Treatment and Management of Patient Care

There have been many changes in the delivery of patient care on medical-surgical units that have resulted in rapid turnover of patients. In the past, a patient’s hospital stay was extended until his or her problems were resolved. Current practice has shifted this to a concept of stabilizing immediate needs and when possible referring the patient to rehabilitation/nursing skilled care or home health to complete his or her recovery. Some nurses will describe their medical-surgical unit as a “revolving door” with patients coming and going at all times of the shift. Current practice standards for many of these
patients result in a very short time frame for the nurse to prepare the patient and caregiver for the next level of care.

This environment of rapid turnover presents critical thinkers with the challenge of making decisions in a fast-paced setting. In addition, it also means that the nurse must relate all aspects of the patients’ condition and potential outcomes. With the popularity of 12-hour shifts and the fact that patient stays longer than three days are unusual, the nurse-patient relationship may begin and end within a single shift.

This practice environment requires the need for the nurse to communicate quickly and effectively while critically analyzing a patient’s situation. Collaborative relationships with the team leader/charge nurse and peers are vital to safe patient care as information is transferred staff to staff and shift to shift.

**Attributes of critical thinking during treatment**

Strategies and attributes of critical thinking during the care process include the following abilities:

**Independent thinker**
- Identifies and rationalizes which patients need prioritized attention.
- Recognizes the need to call pharmacy to ensure two medications are compatible.

**Evaluates evidence and facts**
- Notes critical lab values, reassesses patient, and approaches provider with information and request for orders.

**Explores consequences before making decisions or taking action**
- A patient who had a knee replacement surgery done two days ago has been less mobile than the physical therapist and the provider would like. The patient is to be discharged tomorrow and has been in bed all day today except for bathroom visits. The patient is taking anticoagulant therapy and has requested a day of rest before going home tomorrow.
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**Evaluates policy**
- Patient is unable to care for herself and has a caregiver. Patient denies that the caregiver is abusing her and stealing her money. Nurse refers to hospital policy requiring all suspected abuse situations to be reported.

**Confident in decisions**
- A provider challenges the nurse about contacting him at 3 a.m. about a change in a patient’s condition. The nurse is able to refer the provider to the specific changes in vital signs and the subsequent discussions with the team leader/charge nurse that triggered the call.
- During a resuscitative effort, a physician orders a dose of medication that is twice the dose recommended by the American Heart Association. Despite the urgent needs of the patient, the nurse reads the order back to the physician and questions the dose.

**Asks pertinent questions**
- The nurse is comfortable saying, “This patient’s vital signs are stable, but there is something that we have not identified yet that is concerning me. How do you feel about my doing an EKG on her?”

**Displays curiosity**
- When caring for a chronic pain patient, the nurse approaches the provider and, while updating her on the patient’s status, inquires, “I have been reading about chronic pain patients being given anti-Parkinson’s medications in addition to their usual dose of narcotics. This patient is demonstrating tolerance of his narcotics, and we have tried almost all of the narcotics available. Do you think this might work for this patient?”

**Rejects incorrect information**
- When reviewing laboratory results in the computer, notes a patient has dangerously low blood sugar. After reevaluating the patient, the nurse performs a finger-stick glucose test and finds the patient to have normal-range blood sugar. Upon discussion with the lab, it is
determined there is another patient with the same first and last name on another unit.

**Discharge and Implications to Long-Term Outcomes**

After the planned treatment has been provided and the patient is ready for discharge, the options for patient disposition include:

- Home, with or without home health care
- Returned/admitted to nursing home as resident
- Admitted to a nursing skilled care facility/rehabilitation unit until well enough to be discharged home
- Transferred to another facility for further care (i.e., a Veterans Administration Medical Center)
- Sent to the morgue

With more patients waiting for an empty bed, there is always a push to move patients out of the unit as efficiently as possible. The added pressure of moving patients in and out of the unit quickly is an additional obstacle for nurses trying to employ critical thinking. As part of the discharge process, nurses need to consider the following:

- Reevaluate vital signs, pain status, neurological status
- Review documentation to ensure completeness and thoroughness
- Patients with limited English proficiency take longer to discharge
- Some discharge instructions are lengthy or complicated
- Time to await appropriate person, other than patient, to review discharge information
- Discharges being held until someone can come to pick them up require ongoing nursing assessments

As mentioned before, the nurse must also consider the home situation of patients and whether they have the physical ability to manage stairs and care
for themselves once home. Does the case manager or social worker need to be involved in the patient’s discharge? The expectation is that the nurse will consider all aspects of care needed for a safe transition from the hospital. Without adequate time or resources, the nurse is challenged with applying critical thinking to the discharge process.

**Attributes of critical thinking during discharge**

Strategies and attributes of critical thinking during the discharge process include the following:

**Independent thinker**
- Recognizes the discharge orders from the provider are premature and the patient will need to wait for an evaluation by the mental health worker, social worker, or case manager.

**Evaluates evidence and facts**
- Although patient claims “I can handle this by myself,” nurse notes patient is unable to demonstrate safe use of crutches. Suggests to provider that the patient be seen by physical therapy for a further assessment before discharge.

**Explores consequences before making decision or taking action**
- Asks who will be driving the patient home prior to administering a narcotic for pain management.

**Confident in decisions**
- Although a particular dressing is ordered for the patient’s burn, the nurse recognizes the fragile skin of the elderly patient and suggests another option that will not require tape on the patient’s skin.

**Asks pertinent questions**
- Asks elderly patient who lives alone, “Is there someone who can help you with these dressing changes when you get home?”
Displays curiosity

- While admitting a patient diagnosed with Guillain-Barre Syndrome, the nurse asks the provider about what clues led him or her to this diagnosis.

Listens to others and is able to give feedback

- Makes sure the patient going home with a PICC line for chemotherapy understands the discharge instructions by asking them to repeat them back. The nurse has the patient demonstrate the correct method of bathing.

Encouraging the Development of Critical Thinking in Medical-Surgical Nurses

Much of the critical thinking needed in the medical-surgical setting comes from work experiences with other nurses and in dealing with particular patient scenarios. Nurses tend to remember specific situations and the cascade of events that occurred to create a particular outcome. It is the shared knowledge of all nurses that can provide the best mentorship to new graduate nurses. Sharing that learned experience with other nurses can increase the critical thinking abilities of peers and provide excellent learning experiences for others. For this reason, all nurses should be actively involved in the orientation and development of both new graduate nurses and experienced nurses who join the unit. Without passing along these clearly remembered cascades, we cannot help others to develop their critical thinking capabilities.

We want medical-surgical nurses who are able to:

- Recognize a problem
- Know what to do
- Know when to do it
- Know how to do it
- Know why they are doing it
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Medical-surgical nurses know what outcomes they want for each patient and recognize how they personally and collectively affect those outcomes. Recognizing the role critical thinking plays in achieving these desired outcomes is the first step to creating and achieving an environment that promotes sound judgments.

It is a privilege to be a medical-surgical nurse and be at the side of patients and families when they are in need of medical care. It takes a special person and comes with a tremendous responsibility and power to make the best decisions with and for the patients who have entrusted their care to us.

Resources

American Academy of Medical-Surgical Nurses (2012). Scope and Standards of Medical-Surgical Nursing Practice. Pitman, New Jersey: AMSN.

Chapter 1

Defining Critical Thinking

Learning objectives
After reading this section, the participant should be able to do the following:
• Identify key aspects of critical thinking
• Explain how nurses develop competency in critical thinking

Why Critical Thinking?

For educators and nurse leaders, critical thinking is like the weather: Everybody talks about it, but nobody seems to know what to do about it. Passing the NCLEX only validates that new graduates have the baseline knowledge needed to provide safe nursing care. It does not, however, validate that they know how to think critically. The application of clinical critical-thinking skills and judgment is what makes a healthcare provider nurse (as a verb) rather than simply serving as an automaton that completes tasks by rote. Critical thinking is at the core of safe nursing practice, so educators should encourage every nurse to develop it.

Becoming a Professional Nurse

Nursing is a hands-on profession. Clinical experience plays a crucial role in professional development, and nurses must progress through various levels of learning before they reach proficiency. Managers and educators should appreciate that new graduate nurses are at a different level—and have different needs—than do experienced nurses in their professional critical thinking.
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**Benner’s stages of growth**

Patricia Benner (1984) identified and described the five stages through which nurses proceed in their professional growth:

**Beginner:** Has little experience and skills, learns by rote, and is completing education requirements.

**Advanced beginner:** Can perform adequately with some judgment; nurses are usually at this stage upon graduation.

**Competent:** Able to foresee long-range goals and are mastering skills. Still lack the experience to make instantaneous decisions based on intuition. Most nurses take up to one year to reach this stage.

**Proficient:** Views the situation as a whole, rather than as many parts. Able to develop a solution.

**Expert:** Has enough experience that intuition and decision-making are instantaneous. Most nurses take at least five years in a particular area of practice to reach this stage.

So how do you set your inexperienced graduates on the road to proficiency? And how do you help your more experienced nurses—who may have been practicing for years, yet you would never label them experts—reach that higher level? This book provides information, strategies, and tools to help you coach nurses at all stages of development as they hone their critical-thinking skills, improve their judgment, and become better nurses. Chapter 3 discusses teaching critical thinking in a classroom setting, and other chapters include ongoing strategies for developing critical thinking in the clinical environment.

The goal of encouraging and developing critical thinking is to help nurses progress effectively through the stages of development. No one wants 10-year nurse employees who have the equivalent of one year of experience simply repeated 10 times.
So What Is Critical Thinking?

*The Foundation for Critical Thinking* offers the following definitions of critical thinking:

- The disciplined, intellectual process of applying skillful reasoning as a guide to belief or action (Norris & Ennis, 1989).
- The ability to think in a systematic and logical manner while remaining open to questioning and reflecting on the reasoning process used to ensure safe nursing practice and quality care.
- Adherence to intellectual standards, proficiency in using reasoning, a commitment to developing and maintaining intellectual traits of the mind and habits of thought, and the competent use of thinking skills and abilities for sound clinical judgments and safe decision-making.

Critical thinking is based on the scientific method; the nursing process; a high level of knowledge, skills, and experience; professional standards; a positive attitude toward learning; and a code of ethics. It includes elements of constant reevaluation, self-correction, and striving for improvement.

People who display critical thinking tend to be open-minded, can see things from more than one perspective, are aware of their own strengths and weaknesses, and strive for improvement continuously. The strategies commonly (and often subconsciously) used in critical thinking include reasoning (inductive reasoning, such as specific to general, or deductive reasoning, such as general to specific), pattern recognition, repetitive hypothesizing, mental representation, and intuition.

In the practical world of clinical nursing, critical thinking is the nurse’s ability to see patients’ unique needs and to respond appropriately, beyond or in spite of the orders. Nurses develop the ability to think critically through ongoing knowledge gathering, experience, reading the literature, and continuous quality improvement by reviewing their own patient charts. For example, when a physician orders acetaminophen (Tylenol) for a patient’s fever, a nurse who displays critical thinking might question the order because
the patient has hepatitis C. A critical thinker goes beyond being a “robo-
nurse” who simply does as he or she is told or focuses on tasks only.

In order to help shorten new graduate nurses’ on-the-job learning curve
and continuously improve the critical-thinking skills of experienced staff,
organizations must focus on developing critical thinking beyond the point of
hire or orientation.

**Del Bueno’s definition of critical thinking**

There are many definitions of critical thinking, and one of the most helpful
is Dorothy Del Bueno’s Performance-Based Development System (2001).
Del Bueno determined that nursing competency involves three skills:
interpersonal skills, technical skills, and critical thinking.

Del Bueno defines critical thinking in a clinical setting based on the following
four questions:

- Can the nurse recognize the patient’s problem?
- Can the nurse safely and effectively manage the problem?
- Does the nurse have a relative sense of urgency?
- Does the nurse do the right thing for the right reason?

Del Bueno offered an example from her work, in which nurses responded to
a recorded scenario involving a one-day postop trauma patient. In the video,
the patient suddenly becomes diaphoretic, pale, and short of breath with
tachypnea, and he holds the right side of the chest, complaining of pain. An
ABG result shared on screen shows respiratory alkalosis. The expectation
is that nurses will recognize that this is a potential pulmonary embolism
or pneumothorax (an alteration in respiration), manage the patient with
oxygen, assess breath sounds, raise the head of the bed, call the physician,
etc. Experienced nurses should anticipate physician orders, such as a portable
chest X-ray or an EKG. In this session, however, Del Bueno found that 75% of
inexperienced and 25% of experienced nurses said that they would manage
the patient’s alkalosis by *only* having the patient breathe into a paper bag.
Without integration of evidence-based and best practices into their own work, nurses are very limited in their ability to apply timely critical thinking. With the rapid feed of medical knowledge and research results, it is imperative to ensure that both the novice and experienced nurse bring the most current knowledge and information to each patient. Foundational knowledge must be matched and complemented with current, pertinent science in order for the nurse to improve patient outcomes with critical thinking.

**References**


6. What observations/considerations should I make in regard to this intervention?

7. Does the patient have any cultural/ethnic beliefs or practices that will affect this procedure/intervention?

8. Will this procedure/intervention negatively affect intra/interfamily privacy issues?
CRITICAL THINKING in the Medical-Surgical Unit
Shelley Cohen RN, MSN, CEN
Second Edition

Give your nurses the confidence and skills they need to think independently and display high levels of clinical judgment. Critical Thinking in the Medical-Surgical Unit is filled with resources and assessment tools, usable by both new and experienced nurses, to build a culture of critical thinking directed toward the best interests of the patient.

This must-have book will help you:

• Explain the principles of critical thinking
• Provide strategies for coaching new graduates
• Discuss creating and teaching critical thinking classes, from orientation to ongoing nurse development
• Discuss the important role played by preceptors during orientation of new employees and give strategies for encouraging critical thinking skills

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