

# Critical Thinking *in the* Medical-Surgical Unit

*Skills to Assess, Analyze, and Act*

Shelley Cohen, RN, BS, CEN



*Critical Thinking in the Medical-Surgical Unit: Skills to Assess, Analyze, and Act*  
by Shelley Cohen, RN, BS, CEN

Published by HCPro, Inc. Copyright ©2007 HCPro, Inc.

All rights reserved. Printed in the United States of America. 5 4 3 2 1

ISBN 978-1-57839-965-9

No part of this publication may be reproduced, in any form or by any means, without prior written consent of HCPro, Inc., or the Copyright Clearance Center (978/750-8400). Please notify us immediately if you have received an unauthorized copy.

HCPro, Inc., provides information resources for the healthcare industry.

HCPro, Inc., is not affiliated in any way with The Joint Commission, which owns the JCAHO and Joint Commission trademarks.

Shelley Cohen, RN, BS, CEN, Author

Polly Gerber Zimmermann, RN, MS, MBA, CEN, Contributing Author

Kelly A. Goudreau, DSN, RN, CNS-BC, Contributing Author

Rebecca Hendren, Managing Editor

Emily Sheahan, Group Publisher

Susan Darbyshire, Cover Designer

Mike Mirabello, Senior Graphic Artist

Jean St. Pierre, Director of Operations

Darren Kelly, Production Coordinator

Advice given is general. Readers should consult professional counsel for specific legal, ethical, or clinical questions.

Arrangements can be made for quantity discounts. For more information, contact

HCPro, Inc.

P.O. Box 1168

Marblehead, MA 01945

Telephone: 800/650-6787 or 781/639-1872

Fax: 781/639-2982

E-mail: [customerservice@hcpro.com](mailto:customerservice@hcpro.com)

**Visit HCPro at its World Wide Web sites: [www.bcpro.com](http://www.bcpro.com) and [www.bcmarketplace.com](http://www.bcmarketplace.com)**

# Contents

---

<b>List of figures</b> .....	<b>.vii</b>
<b>About the authors</b> .....	<b>.ix</b>
<b>Introduction: Critical thinking in the medical-surgical unit</b> .....	<b>.xi</b>
Back to basics .....	.xi
Critical thinking and the medical-surgical setting .....	.xii
Assessment .....	.xiii
Attributes of critical thinking during patient care .....	.xiv
Treatment and management of patient care .....	.xvi
Attributes of critical thinking during treatment .....	.xvi
Discharge and implications to long-term outcomes .....	.xviii
Attributes of critical thinking during discharge .....	.xix
Encouraging the development of critical thinking in medical-surgical nurses .....	.xx
<b>Chapter 1: Defining critical thinking</b> .....	<b>.1</b>
Why critical thinking? .....	.1
Becoming a professional nurse .....	.2
Benner's stages of growth .....	.2
So what is critical thinking? .....	.3
Del Bueno's definition of critical thinking .....	.4
<b>Chapter 2: New graduate nurses and critical thinking</b> .....	<b>.7</b>
Why don't new graduates think critically? .....	.7
Stresses for new graduate nurses .....	.7
Strategies to minimize stress .....	.9
New graduates' levels of development .....	.10

## Contents

Prioritization . . . . .	10
Prioritization principles: Assessment . . . . .	11
Prioritization principles: Time management . . . . .	12
Prioritization principles: Administrative . . . . .	13
Identifying worst-case scenarios, stereotypes, and expected abnormal findings . . . . .	13
Worst-case scenarios . . . . .	13
Stereotypes . . . . .	14
Expected abnormal findings . . . . .	14
Ongoing development . . . . .	15

## **Chapter 3: The critical thinking classroom . . . . . 17**

Critical thinking can be taught . . . . .	17
Background preparation . . . . .	18
Teacher preparation . . . . .	18
Consider the learner's motivation . . . . .	18
Generational differences . . . . .	18
Professional nurses' goals . . . . .	19
Setting the stage . . . . .	20
Classroom environment . . . . .	20
Classroom content . . . . .	21
New graduate content . . . . .	21
Teach in the context of clinical application . . . . .	23
Prioritization . . . . .	24
Strategies to teach prioritization . . . . .	25
Use test questions and illustrative stories . . . . .	26
Classroom processes . . . . .	28
Repetition is the mother of all learning . . . . .	28
Use unfolding case scenarios . . . . .	28
Instructional approach and style . . . . .	29
Cooperative learning . . . . .	29
Multi-sensory learning . . . . .	29
Effective use of discussion questions for class interaction . . . . .	30
Exude passion, as well as purpose . . . . .	30

**Chapter 4: Orientation: Bringing critical thinking to the clinical environment . . . . .53**

Moving from the classroom to the bedside . . . . .53  
Beginning orientation . . . . .54  
    Self-assessment . . . . .54  
The role of preceptors . . . . .59  
    How can preceptors teach critical thinking? . . . . .60  
Teachable moments . . . . .63  
    Evaluating skills . . . . .69  
Handling judgment or action errors during orientation . . . . .69  
    Remediation . . . . .71  
Orientation sets critical-thinking expectations . . . . .72

**Chapter 5: Nursing practice that promotes and motivates critical thinking . . . . .75**

Maintaining momentum . . . . .75  
Nurse managers and staff educators . . . . .76  
Making critical thinking part of the culture . . . . .79  
    Job descriptions . . . . .79  
    Clinical guidelines . . . . .80  
    Policy and procedure . . . . .81  
    Performance reviews . . . . .83  
    Goal setting . . . . .85

**Chapter 6: Novice to expert: Setting realistic expectations for critical thinking . . . . .87**

Setting realistic expectations . . . . .87  
Novice to competent: New graduate nurses . . . . .88  
Greatest challenges for new graduate nurses . . . . .90  
    Coaching new graduates through bad patient outcomes . . . . .90  
    Growing collaborative relationships with the medical staff . . . . .91  
    Growing collaborative relationships with the interdisciplinary team . . . . .92  
    When new graduates fail to reach competent levels of critical thinking . . . . .92  
Competent to expert: Experienced nurses . . . . .93  
    Handling experienced nurses who need remediation . . . . .94  
Measuring critical thinking in daily practice . . . . .96

## Contents

<b>Chapter 7: Applying critical thinking to nursing documentation</b> .....	<b>.97</b>
Turning critical thinking into critical writing .....	.97
Examples of critical writing skills for medical-surgical nursing .....	.103
<b>Chapter 8: Relating critical thinking to its higher purpose</b> .....	<b>.107</b>
<b>Chapter 9: Resources and tools</b> .....	<b>.109</b>
Resources and further reading .....	.110
Additional sample questions .....	.113
<b>Nursing education instructional guide</b> .....	<b>.143</b>
Continuing education exam .....	.147
Continuing education evaluation .....	.153

# *List of figures*

---

## **Chapter 3**

Figure 3.1: Teaching critical thinking—Critical thinking course content and prioritization handout . . . . .	33
Figure 3.2: Teaching critical thinking skills—Sample course content, objectives, and scenarios . . . . .	46
Figure 3.3: Teaching critical thinking skills—Classroom tips . . . . .	48
Figure 3.4: Teaching critical thinking skills—Sample self-assessment tool . . . . .	50
Figure 3.5: Teaching critical thinking skills—Handout . . . . .	51

## **Chapter 4**

Figure 4.1: Critical thinking self-assessment tool—General nursing skills . . . . .	55
Figure 4.2: Critical thinking self-assessment tool—Medical-surgical nursing skills . . . . .	57
Figure 4.3: Preceptor tool—Relating skills to critical thinking for new graduate nurses . . . . .	62
Figure 4.4: Preceptor tool—Relating patient observations to critical thinking . . . . .	64
Figure 4.5: Preceptor tool—Promote and support critical thinking . . . . .	67
Figure 4.6: Successful orientation requires critical thinking . . . . .	73

## **Chapter 5**

Figure 5.1: Critical thinking skills assessment—Nurse manager/staff educator tool . . . . .	78
Figure 5.2: Annual performance review—Self-assessment of critical thinking . . . . .	82
Figure 5.3: Goals worksheet . . . . .	84
Figure 5.4: Setting goals for improvement . . . . .	86

## **Chapter 7**

Figure 7.1: Eight common charting errors . . . . .	99
--	----

## List of figures

### Chapter 9

Figure 9.1: Critical thinking skills course—Additional resources handout . . . . .	122
Figure 9.2: Unfolding teaching scenarios for medical-surgical nurses . . . . .	125
Figure 9.3: Medical-surgical unit teachable moments . . . . .	130
Figure 9.4: Critical thinking skills and geriatric patients . . . . .	133
Figure 9.5: Sample agenda . . . . .	135
Figure 9.6: Instructor worksheet—Connecting words to spark critical thinking . . . . .	136
Figure 9.7: Nurse worksheet—Connecting words to spark critical thinking . . . . .	137
Figure 9.8: Worksheet—Relationship to critical thinking . . . . .	138
Figure 9.9: Worksheet—Vital signs . . . . .	139
Figure 9.10: Worksheet—Red flag alerts . . . . .	140
Figure 9.11: Worksheet—Relating nursing care to critical thinking . . . . .	141



# About the authors

---

## Shelley Cohen, RN, BS, CEN

**Shelley Cohen, RN, BS, CEN**, is the founder and president of Health Resources Unlimited, a Tennessee-based healthcare education and consulting company ([www.bru.net](http://www.bru.net)). Through her seminars for nursing professionals, Cohen coaches and educates healthcare workers and leaders across the country to provide the very best in patient care. She frequently presents her work on leadership and triage at national conferences.

When she is not speaking or teaching, Cohen works as a staff emergency department nurse and develops educational plans for a local emergency department, including strategies for new-graduate orientation. She also writes her monthly electronic publications—*Manager Tip of the Month* and *Triage Tip of the Month*—read by thousands of professionals across the United States.

She is an editorial advisor for *Strategies for Nurse Managers*, published by HCPro, Inc., and is a frequent contributor to *Nursing Management* magazine. She is the author of *Critical Thinking in the Emergency Department*, *Critical Thinking in the Obstetrics Unit*, *Critical Thinking in the Pediatric Unit*, and co-authored the book *A Practical Guide to Recruitment and Retention: Skills for Nurse Managers*, all published by HCPro, Inc.

She has a background in emergency, critical care, and occupational medicine. Over the past 30 years, she has worked both as a staff nurse and nurse executive.

When her laptop computer shuts down and her stethoscope comes off, Cohen puts on her child-advocacy hat and, with the help of her husband, Dennis, provides foster care to area children.

## About the authors

### **Contributing author: Polly Gerber Zimmermann, RN, MS, MBA, CEN**

**Polly Gerber Zimmermann, RN, MS, MBA, CEN**, has been in active in emergency and medical-surgical nursing clinical practice for more than 29 years and involved in nurse educating for more than 10 years. She was the senior course manager for the nursing division of the National Center for Advanced Medical Education, and is a tenured assistant professor in the Department of Nursing at the Harry S. Truman College (Chicago). Under her guidance, the school's curriculum instituted an integration of prioritization principles and critical thinking that resulted in the school's students improving from below to above national average results in these areas on standardized test scores.

Zimmermann is a frequent national speaker and has published more than 200 times. In addition, she writes test items that score high in critical thinking for national standardized tests, including HESI, NLN, NCLEX, and Excelsior College (Regents).

She was an associate editor and section editor of the Managers Forum for the Journal of Emergency Nursing for more than 10 years and is a contributing editor; section editor for the emergency section of the *American Journal of Nursing*. She has also been a legal expert/consultant in more than 45 cases.

### **Contributing author: Kelly A. Goudreau, DSN, RN, CNS-BC**

**Kelly A. Goudreau, DSN, RN, CNS-BC**, received her baccalaureate degree in nursing from the University of British Columbia in Vancouver, Canada. She received her masters in nursing with a focus on Clinical Nurse Specialist in adult health from Washington State University and her doctorate of nursing science with a focus on nursing education from the University of Alabama at Birmingham.

Goudreau is the director of education at the Portland Veterans Affairs Medical Center in Portland, OR. She is a board certified Clinical Nurse Specialist in adult health and is currently the president of the National Association of Clinical Nurse Specialists.

# *Critical thinking in the medical-surgical unit*

*By Kelly A. Goudreau, DSN, RN, CNS-BC*

### ***LEARNING OBJECTIVE***

After reading this section, the participant should be able to

- describe the characteristics of the medical-surgical unit that require good decision-making 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 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

## Introduction

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 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 of 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. The tools are not the answer: the answer lies in grasping the concepts of critical thinking.

## 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, 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 why 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 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 sense of teamwork seen in other departments, such as the emergency room or the operating room, is often not as strong in the medical-surgical unit. In part this is due to the constantly changing workforce as nurses rotate into and out of the medical-surgical units, but it is also the nature of the work being done. 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 extraordinary critical thinking skills is imperative. In this environment of rapidly changing, multiple-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 use strategies that aid critical thinking.

Medical-surgical units are as different as they are numerous. The unit may be focused on a specific type of patient (i.e., orthopedic or neurologic) or it may be a mixed unit that takes all types of patients regardless of the illness, need for surgery, or management of a chronic disease and its implications to long-term care. 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 multiple demands.

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

## **Introduction**

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 easy access to extra assistance. This area of nursing practice requires not only critical thinking, but also experience, and it 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 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. The most successful unit shift leaders/charge nurses are those who possess an ability to critically think about multiple factors, the implications of those factors, and their use when making effective decisions. Clearly, this is not a process new graduate nurses are prepared for without extensive experience and learning opportunities. But new graduates will be expected to care for these patients once they are placed in the medical-surgical unit. That too creates a need for critical thinking in even the least experienced nurses as they determine and meet the needs of the patients they receive.

### ***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 unit shift 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 six, four, and two. 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, 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 or not 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.

## **Introduction**

### **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 medical-surgical unit over the last few years that have resulted in a rapid turnover of patients. Patients used to stay in the hospital for many days as their long-term treatment plans were resolved. Now patients are often shifted to a rehabilitation or nursing skilled care unit (NSCU) for finalization of their care, potential transfer to long-term care, or return to the home environment. This multilayered and complex treatment means that medical-surgical nurses both admit and discharge more patients than ever before in a short time-frame, and that care can be fragmented over the long term for patients and their significant others/caregivers.

This environment of rapid turnover presents critical thinkers with the opportunity to demonstrate the ability to make decisions in a fast-paced setting, but it also means that nurses must have a full grasp of patients' conditions and potential outcomes of care that will be affected by the fast turnover of patients to less acute care settings. In an environment where 12-hour shifts are not uncommon and patient stays longer than three days are unusual, it means that nurse-patient interactions often must occur from beginning to end within a single shift. The nurse may care for patients at the beginning, middle, or end of their stay in the facility. In all instances the need to communicate quickly and effectively and the ability to critically analyze a patient's situation are imperative. Relationships with the unit shift leader/charge nurse and peers who have worked with the patient on previous shifts are important to develop and foster. Only through the perspective of collaboration between care providers can the holistic oversight of care be provided.

### ***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.

### **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 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 unit shift 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 him or her on the patient's status, inquires, "Do you know anything about chronic pain patients being given anti-Parkinson's medications in addition to their usual

## Introduction

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 of this patient 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 where a patient goes next include

- discharged home
- 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 or not 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 of the aspects of care needed for a safe management after they leave the facility. It is important that nurses have the time and resources they need to accomplish everything with critical thinking and critical documenting.

### ***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.

## **Introduction**

### **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

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 a patient and family 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.



# *Defining critical thinking*

**By Polly Gerber Zimmermann, RN, MS, MBA, CEN**

## ***LEARNING OBJECTIVE***

After reading this section, the participant should be able to

- identify the key aspects of critical thinking and how nurses develop competency

## **Why critical thinking?**

For educators and nurse leaders, critical thinking is like the weather: Everybody is talking about it, but nobody seems to know what to do about it. Passing the NCLEX only validates that new graduates have the *minimal* amount of knowledge needed to provide safe nursing care. Application of clinical critical thinking and judgment is at the heart of what makes a healthcare provider *nurse* (as a verb) compared to being a technician who completes tasks by rote. Critical thinking is at the core of safe nursing practice, and thus encouraging its development in every nurse should be an aim for all educators.

# Becoming a professional nurse

Nursing is a hands-on profession for which clinical experience plays a crucial role in professional development. Nurses have to progress through various levels before they reach proficiency. Managers and educators need to appreciate that new graduate nurses are at a different level, with different needs, than experienced nurses in their professional critical thinking.

### ***Benner's stages of growth***

Benner (1984) is well known for identifying and describing the five stages through which nurses proceed in their professional growth. Benner's stages are

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

**Advanced beginner:** Can perform adequately with some judgment, 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:** View situation as a whole, rather than its parts. Able to develop a solution.

**Expert:** Intuition and decision-making are instantaneous. Most nurses take at least five years in an area of practice to reach this stage.

So how do you take your inexperienced graduates and set them 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 in 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?

Alfaro-LeFevre (1999) defines critical thinking as careful, deliberate, outcome-focused (results-oriented) thinking that is mastered for a context. Critical thinking is based on 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 continual striving for improvement.

Some of the characteristics of people who display critical thinking include open-mindedness, the ability to see things from more than one perspective, awareness of one's own strengths and weaknesses, and ongoing striving for improvement. 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 ability of nurses to see patients' needs uniquely and respond appropriately, beyond or in spite of the orders. The ability to think critically is developed through ongoing knowledge gathering, experience, reading the literature, and continuous quality improvement by reviewing one's own patient charts. An example of a nurse who displays critical thinking is when a physician orders acetaminophen (Tylenol) for a patient's fever, and the nurse questions 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.

In Croskerry's study (2003), 32 types of misperceptions and biases (cognitive disposition to respond) were identified in clinical decision-making. Everyone is influenced by what they see most often, most recently, or most dramatically. Cognitive errors may be avoided by always striving to consider alternatives; by decreasing reliance on memory (instead, use cognitive aids such as reference books); by using cognitive forcing strategies, such as a protocol; by taking time to think; and by having rapid and reliable feedback and follow-up to avoid repeating errors.

## Chapter 1

The overarching goal is to help shorten new graduate nurses' on-the-job learning curve, and give directed assistance to all nurses in their critical thinking development.

### ***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. 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 with the following four aspects:

- 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 discussed an example from her work on responses to a taped scenario of a one-day postop trauma patient. On the tape shown to nurses, the patient suddenly becomes diaphoretic, pale, short of breath with tachypnea, and holds the right side of the chest, complaining of pain. An ABG result is given showing respiratory alkalosis. The expectation is that nurses will recognize 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. And experienced nurses should anticipate physician orders, such as a portable chest x-ray or an EKG. But Del Bueno found that 75% of inexperienced and 25% of experienced nurses said they would manage the patient's alkalosis by *only* having the patient breathe into a paper bag.

Overall, she found that only 25%–30% of inexperienced nurses (less than one year of clinical experience) had acceptable results. The range of acceptable results was from 12% to 60%, and there was no difference between nurses' performance based on their educational preparation and/or whether they had previous healthcare experience (such as being a technician or an LPN). She found that 65% of experienced nurses had acceptable results, and that the number was higher (85%) in some specialties. Overall, she found that nurses' greatest limitations were in recognition and management of renal and neurological problems.

## References

- Alfaro-LeFevre, R. 1999. *Critical Thinking in Nursing: A Practical Approach*. Philadelphia: WB Saunders.
- Benner P. 1984. *From Novice to Expert*. Menlo Park, CA: Addison-Wesley.
- Brown, S. 2000. "Shock of the new." *Nursing Times* 96 (38): 27.
- Charnley, E. 1999. "Occupational stress in the newly qualified staff nurse." *Nursing Standard* 13 (29): 32–37.
- Croskerry, P. 2003. "The importance of cognitive errors in diagnosis and strategies to minimize them." *Academy of Medicine* 78 (8): 775–780.
- Del Bueno, D. 2001. "Buyer beware: The cost of competence." *Nursing Economics* 19 (6): 259–257.
- Gries, M. 2000. "Don't leave grads lost at sea." *Nursing Spectrum*. Accessed on July 27, 2006 from <http://community.nursingspectrum.com/MagazineArticles/article.cfm?AID=800>.
- Huber, D. 2000. *Leadership and Nursing Care Management*, 2nd ed. Philadelphia: WB Saunders.
- Norris, T. L. 2005. "Making the transition from student to professional nurse." In B. Cherry and S. R. Jacob, *Contemporary Nursing: Issues, Trends, & Management*, 3rd ed. St. Louis: Elsevier/Mosby.
- Tingle, C. A. 2000. "Workplace advocacy as a transition tool." *LSNA Insider*. June.
- Zimmermann, P. G. 2002. "Guiding principles at triage: Advice for new triage nurses." *Journal of Emergency Nursing* 28 (1): 24–33.
- Zimmerman, P. G., and R. D. Herr. 2006. *Triage Nursing Secrets*. St. Louis: Elsevier/Mosby.

