

Critical Thinking in Long-Term Care Nursing

Skills to Assess, Analyze, and Act

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The critical-thinking classroom

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LEARNING OBJECTIVES

After reading this section, the participant should be able to:

 Determine classroom strategies to teach, promote, and support the development of critical thinking

Critical thinking can be taught

The tendency is to view critical thinking as an abstract formula to memorize. Rather, it is a process of applying acquired textbook knowledge to the clinical setting and specific residents. All nurses usually need some initial assistance in applying their knowledge to the situation, particularly for high-volume, high-risk, or infrequent resident presentations with which they have had little familiarity during their education or experience.

Classes that discuss and teach critical thinking can be beneficial for both new graduates and more experienced nurses. New graduates and new hires will benefit from classes held during orientation, but it also may be useful to periodically schedule general-attendance classes so that other nurses may participate.

Background preparation

Teacher preparation

Educators can tend to spend excessive energy on "what" to teach. Just as important is "how" to teach—determining the best way to communicate the information so learning takes place. When planning an educational session, focus less on "What am I going to say today?" and more on "What are my listeners going to learn today?"

Chapter 3

Teaching is not pouring wisdom into passive listeners. The teacher is a guide for active participation through a learning experience. Watch the audience's responses. That is the only way to perceive the need to repeat material, vary the presentation, or illustrate the content's application for this group.

Consider the learner's motivation

Why will attendees be motivated to learn? The driving force for all ordinary behavior is "What's in it for me?" Avoid the *Field of Dreams* approach—i.e., if we plan it, they will come and learn. Instead, use the human tendency toward selfishness—"What's in it for me?"—to teaching's advantage. Further breaking down that number-one motivation reveals the three main aspects people want from education sessions. People want to:

- Get something accomplished/meet their goals
- Receive personal recognition, power, or influence
- Have social interaction and enjoyment

Most of us are usually more influenced by one factor than another, but there are aspects of all three in everyone. Time spent in the classroom should meet all three purposes. Give certificates; have checklists to complete; give personal, positive, public praise; and add humor or games.

Generational differences

Understanding motivational aspects is important when considering today's multigenerational work force. Everyone is influenced by the time in which they were raised, when they developed their mindset, values, priorities, and styles. As the Arab proverb says, "People resemble their times more than they resemble their parents."

Baby Boomers are individuals born between 1946–1964. The average age for registered nurses is 44 to 47. Baby Boomers are more likely to act out of a sense of duty and a drive to accomplish.

Generation Xers are those born between 1965–1980. They want independence and flexibility; they want to know "Why?" (as they focus on results); and they want fun. If an activity is not worthwhile to them, they do not feel a sense of obligation to stick it out and will check out physically and/or mentally.

Generation Y is the generation born between 1981–2006. They are entering the workplace with high expectations for themselves, their employers, and their managers, and expect coaching, training, and support to help them achieve their goals.

Many educators fall into the Baby Boomer age category, whereas new graduate nurses often fall into the Generation X or Generation Y categories. Remember that approaches used for the established work force, or even for you when you were a new graduate, may not work now. It's important to tailor learning experiences to meet the needs of all generations in your classes.

Professional nurses' goals

David Shore (1997) defined what professionals want from their educational offerings: They want to be an ACE. Specifically, they expect Access (to peers, resources, and networking), Credentialing (external validation of what they know and whether it is still correct), and Education (information to make a demonstrable, practical difference in their practice).

Keep these expectations in mind when planning learning experiences. Also note that experienced nurses are very interested in regulations (e.g., "The Centers for Medicare & Medicaid Services requires . . . ") or legal requirements (e.g., "In this case, a nurse was sued for . . . ").

Setting the stage

Classroom environment

The classroom environment plays a key role in your critical-thinking course. Create an atmosphere that awakens the participant's whole brain and senses. Communicate, even on a subconscious level, that this is an enjoyable, desirable place and activity.

Classroom environment

Seating: As much as possible, use a half-circle for small groups, and a fishbone configuration for larger groups. Avoid having a group at a table with stragglers in the row behind. Avoid hiders: participation is necessary for learning.

Use color: One study found that visual aids with color and symbols increased long-term retention by 14–38%.

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Peripheral learning: We use sight for 75% of our learning. While we speak at 125 words per minute, we think at about 600 words per minute. Give the learner something to do with the extra 475-word capacity. When their mind or eyes start to drift, let them fall on educational posters.

If it is a dedicated classroom, make posters that specifically apply to the content that is being taught. If it is a generic classroom, use prevention and healthcare associations' free posters—then even the housekeeping staff learns.

Music: Play upbeat music before class, during breaks, and after class. Baroque is recommended because it matches the rhythm of the heart and enhances learning. Use lively pop music with a distinct beat you can dance to—it will pump up the energy in the room.

Frequent breaks: Experts recommend taking a five-minute "exercise" break every 40–50 minutes, but it's even more effective to take a one-minute break every 25 minutes or so. Set a kitchen timer and, when it dings, announce that it's time for a break and turn on the music. Encourage general arm stretching, walking around, etc. Indicate participation is optional.

After one minute, turn off the music and start class, usually with a joke. These breaks should be in addition to the scheduled longer break midway through the class. Teachers fear these breaks will create a loss of control of the classroom but that does not happen with adults when done with purposeful actions and explanations. Many students indicate "the music break" was one of their favorite aspects of the class.

There are many reasons to take these frequent breaks. Necessary bathroom breaks are then quickly facilitated without disrupting the classroom—and those who straggle back in miss the reward of humor. Exercise increases cognitive functioning, attention, and alertness. It pulls in the kinesthetic learners and individuals who have minor attention-deficit problems.

However, the real purpose for the breaks is to aid learning. People remember the first and the last things—educators call this the primacy and recency effect. More breaks mean more "firsts" and "lasts" to make an impression on one's brain.

Classroom content

New-graduate content

When new graduates are asked about their biggest fears and concerns, they mention concerns about how to handle their many responsibilities (during school they only had to deal with one or two residents), how to handle emergencies (especially a "code"), and how to communicate with physicians/when to call the doctor.

The first step in teaching critical thinking may be to help them develop a plan of action to enable more effective responses when encountering these issues in practice. This will free up their energy to allow them to focus on the subtle resident care assessments and important interventions.

Use some of these tips as a starting point for discussion.

Getting work done

- Provide a cheat sheet form for taking report or for the day's organization.
- Set "drop dead" times within your day (such as "all 9 a.m. medications to be in the residents' bodies by 10 a.m.") as guideposts for your progress in the day's time management.

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- Work ahead. Always assume the unexpected will happen—it does.
- Keep current with your charting. It is harder to recall everything at the end of the day.
- Constantly reprioritize. Don't ask yourself, "What are all the things I should do?" but "What is most important for me to do?"

Emergencies/code

- Get help. For a code, if nothing else, go out in the hall and say, "I need help right now in room X!" in an urgent tone, with a loud, calm voice.
- Learn the facility's system for distinguishing a code from a "do not resuscitate" resident.

Contacting the physician

- Take the initiative and introduce yourself to the physicians who admit frequently to your unit.
- Rehearse introductory statements/scripts for common needs. "Your resident (name) in room X is reporting Y and requesting Z. Do you want to order anything at this time?"

General advice

- Be slow to join a clique.
- Make friends with the unit secretary.
- Make your rounds during the night whether others do or not.
- Make your own list of procedures or skills you have never experienced and let everyone
 on the unit (especially during orientation) know your desire to watch/participate
 in these tasks.

Teach in the context of clinical application

When planning a critical-thinking class for new graduates, experienced nurses, or both, remember that your session will be enhanced when the classroom time is spent applying knowledge to the clinical setting. Do not simply give a theory lecture. Instead, use images from books or sample labs.

For example, you could hold up a picture of a stage III pressure ulcer and ask, "What do you think you do when a resident is found with an area like this?" Or present lab results (see below) and ask which value nurses should take care of first.

Value	Result	Normals
Glucose	193 mg/dL	70–110 mg/dL
BUN	8 mg/dL	10–20 mg/dL
Cr	0.7 mg/dL	0.7–1.2 mg/dL
Sodium	131 mEq/dL	136–145 mEq/dL
Potassium	3.2 mEq/dL	3.5–5.0 mEq/dL
SGOT/ALT	1932 IU/L	13–40 IU/L
SGPT/AST	2360 IU/L	7–60 IU/L
Bilirubin total	2.9 mg/dL	0.2–1.2 mg/dL

Experienced nurses are likely to pick potassium, but new graduate nurses rarely do so. Nurses learn the importance of potassium levels in part from work experience. This exercise will shorten the learning curve. You can also ask additional questions, such as:

- What disease does the resident have?
- How does the resident look?
- Why isn't the sodium level the most important since it is "lower" than the potassium deficiency?

Prioritization

Nurses not only need to know what to do, but the importance and order in which things should be done. Nurses of all experience levels may need help with prioritization for multiple needs within one resident, between multiple residents, and between resident and administrative needs. 巾

Case study

Prioritization doesn't always come naturally

At one associate-degree nursing program, the faculty had assumed students would naturally pick up the concepts of prioritization. The faculty was appalled when the students scored below the national average in this category on a standardized test.

To remedy the problem, the nursing program added classroom time to talk about principles of prioritization, followed by a year-long integration of such principles into future content. By giving the problem a specific focus and emphasis, the school's students now score above national average in prioritization.

The handout developed for the second-year students can be found at the end of this chapter (Figure 3.1). This tool can either be used during critical-thinking classes, or given to attendees as a take-home reminder.

Strategies to teach prioritization

One way to teach prioritization principles is to use sample test questions dealing with prioritization, followed by a discussion of the rationale. For example:

Question: It is most important for the nurse to care for which resident complaint first?

- a. Resident with type II diabetes mellitus with an a.m. blood sugar of 190 mg.
- b. Resident with a K+ of 3.2 mEq who is receiving a K+ rider IVPB and states his arm is sore.
- c. Resident reported to be having a seizure.
- d. Resident with pneumonia being treated with IV antibiotics for one day. Today's WBC is 14,000 mm3.

Answer:

The intended answer is C because a seizure represents an immediate crisis. Follow-up discussion could include the difference if A was hypoglycemic, normal side effects of potassium infusions,

and the fact that D is already being treated. However, discussion should also include the need to look at trends. If this was the resident's third day on antibiotics and the WBC was the same or increasing, we would need to initiate action toward consideration of changing antibiotics.

First rule out the worst-case scenario

Everyone is influenced by what he or she sees most often or most recently. When dealing with a resident presentation, nurses must learn how to rule out the most lethal possible cause first.

One way is to indicate a resident condition seen frequently on the unit or department where the nurses in the particular class work, such as a resident returning to the nursing home after a right total hip replacement. Ask the attendees what is essential for the nurse to do today. Common responses will likely include to manage the pain, assess bowel and breath sounds, and verify PT is initiated.

Next ask what are the worst-case scenarios (i.e., most lethal complications) that could happen with this resident. How would you know if the resident was having those conditions? Discuss pulmonary embolism, severe anemia (requiring transfusion), aspiration pneumonia, sepsis, loss of circulation to the leg, location of the prostethesis, or a secondary condition (myocardial infarction). Often, just the technique of bringing known material into the nurses' conscious awareness helps the process become second nature.

Use test questions and illustrative stories

Another strategy is to use test questions related to a resident presentation, and find out whether nurses assess for the worst-case scenario.

Question: A 96-year-old resident admitted with pneumonia is found crawling out of the bed. What should nurses do first?

- a. Assess the resident's pain level.
- b. Obtain a pulse oximeter reading.
- c. Call for an order for a sedative.
- d. Apply a Posey jacket.

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Answer:

Before you give the correct answer, B, talk about residents' inability to compensate and how the brain is the most sensitive indicator for most things (low glucose, cerebral edema, etc.) Discuss whether they would feel tempted to answer differently if the person was 50 years old. Is the stereotype about all elderly people being a little confused influencing them?

Continue the lesson with a further illustration: A student nurse was told by another nurse to restrain the elderly person, which he did, but then the student nurse checked the pulse oximeter on his own. The resident was 86%.

Another true example of the danger of assuming all elderly people are confused: A resident's daughter stated her mother was more confused than usual. Though the resident's pulse oximeter was 90%, no action was taken till the resident had a small stroke the next day. Diagnostics tests then revealed a small pulmonary embolism and a new stroke caused by a second clot.

Students remember stories—use them to get your point across.

New graduate nurses and more-experienced nurses who lack critical-thinking skills tend to focus on the immediate task and orders rather than what should be done in the bigger picture. They fear acts of commission, such as giving the wrong medication. In doing so, they often commit acts of omission—not doing what they should do.

To train nurses to focus on the bigger picture, start with common situations and discuss as a group what nurses should do:

- The resident has decreased pulses in his or her leg after a knee replacement. The nurse calls the resident, who reassures the nurse that the situation is fine. What should the nurse do when obtaining the same assessment two hours later?
- The resident has neuro checks ordered every two hours. The checks have been fine for the previous eight hours. It is now 2:00 a.m. and the resident is sleeping. What should the nurse do?

Often, inexperienced nurses focus on "assessing" because they are told to assess before acting. However, emphasize the need to act when they sense through assessment that something serious is wrong. Examples of actual legal cases help illustrate this point:

- A nurse charted that the resident's pulse remained 120 all night every hour on the hour, but did nothing (until the resident coded from internal hemorrhage).
- A nurse did not wake up the resident for a neuro assessment since the ABCs were stable, and the resident had some paralysis the following morning.
- A resident's pulse oximeter remained 80% after the physician checked the resident at 1:00 a.m. The resident coded at 6:00 a.m. with respiratory acidosis.

State how important it is to at least tell somebody. Emphasize that it is all right if nurses do not know the etiology or what treatment should be given. Discuss options if one person doesn't respond (such as the charge nurse, a colleague, the nursing supervisor, another resident, the attending physician, etc.).

Role-play what nurses should say in such situations, and remember that a little humility can go a long way. As Sylvia Rayfield (2002) suggests, start with "Help me to understand . . . "

Classroom processes

Repetition is the mother of all learning

Regardless of the style, new material needs reinforcement, and this is especially important for new graduates, as the anxiety of being new adds to the need to hear things more than once. When you teach, say something again, in a slightly different way. Use personal anecdotes, legal cases, or even published literature to illustrate the principle, emotions, and consequences of the lesson. The repetition and variety of methods are penetrating.

Use unfolding case scenarios

This technique is another way to incorporate the process of clinical critical thinking in a classroom setting. It provides the information in staggered amounts, punctuated by questions. The following are examples you can use.

A resident complains of being more tired and short of breath. The resident has peripheral edema with pitting in both feet. An inexperienced nurse might focus on the swollen feet and suggest elevating the feet rather than further assessing for possible congestive heart failure.

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A resident fell three weeks ago and was sent for an x-ray of the right hip and spine. The resident would get in a wheelchair and go to the dining room, activities, and mass prior to the fall. Now the resident refuses to get out of bed or be turned. What would the attendees need to ask?

Remind nurses that they should conduct further assessment as to the reason for refusal. This question was based on a real-life scenario. When the nurse assessed the resident, the left leg was shorter than the right leg and externally rotated. X-ray revealed a left hip fracture requiring surgery.

Instructional approach and style

Cooperative learning

A growing trend in education is to have students teach students because "he who teaches, learns the most." One way to do this is the "think, pair, and share" exercise. Learners are given the general question and provided one minute to think about it and write down their thoughts. The task could be something like, "What are the three most important things to assess for in the first day on an abdominal postoperative resident?" or "What is something that makes it easier to delegate to an aide?"

After the minute is up, the participants then pair up and share their answers. Require each person to verbalize their thoughts to their partner, rather than just agreeing with the first person's statements. After time to share, one person is chosen as the spokesperson for the duo. Use a random selector to decide who shares, such as the person with the earliest birthday in the year, so both pay attention during the sharing.

Have the spokespeople stand and randomly select a few to repeat information from the paired sharing. Another way to change the selection is to use a version of musical chairs, passing a blown-up balloon, or have everyone stand and sit down according to certain criteria.

The advantage of a "think, pair, and share" exercise is that everyone participates. It accommodates those learners who initially need more time to think or have trouble speaking before others. They have rehearsed what they will say and can choose to enhance their response with their partners' comments. You also facilitate interaction with the material because participants must conceive it, write it, speak it, hear it, and work with it.

Multisensory learning

Most learning occurs through visual means, then hearing, with some touch. We all have our preferred style, but everyone will learn best when the logical left side and artistic right side of the brain are engaged.

Make sure your class varies the methods used to ensure multisensory learning. It's been shown that retention goes up to 50% when you hear and see something.

Effective use of discussion questions for class interaction

Throughout all discussions, pose good questions to stimulate thinking. Questions include: How does that work? What does that mean? What is the worst-case scenario here? What else do you need to know to make a decision? What makes this presentation different from the ordinary presentation? What do you want to do next? Why?

Another tip is to use silence. It can be tempting to jump in with the answer to fill the quiet (often awkward) moment that follows after a question. Train yourself to wait 10 seconds to allow time for the learners to respond. Tell the audience why you are waiting. Literally count off your fingers because 10 seconds can seem like an eternity.

It can be particularly effective to wait and not respond even when the right answer is given. This prevents learners from becoming good at reading the instructor rather than thinking about the issue. Alternatives include confirming the answer but asking the person to defend it, or to play the devil's advocate with the correct answer.

In the teaching scenarios, break the information down to what is essential, and also compare similarities or differences with a known concept. "How is this different from . . . ?"

Exude passion, as well as purpose

William Arthur Ward said, "The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires." The key behind great, effective teaching is not knowledge or methodology. It is holding a genuine passion for the material and for teaching.

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When teaching, pull in emotion: We often forget what we think, but almost always remember how something made us feel. The teacher's excitement and belief about the material and its importance is infectious. The learner will either catch it or (at least) respect it.

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SOURCES FOR EXAMPLE CASES

Legal case of the month from the Nurses Service Organization, available at www.nso.com/case

Triage Column/Case Review/Clinical Educator in the Journal of Emergency Nursing

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Teaching critical thinking—Critical-thinking course content and prioritization handout

Determining the need

Two components: history and physical assessment

History

Be disciplined to be consistent and thorough. Consider using a mnemonic.

POSHPATE: History of the chief complaint (Rutenberg, C. 2000. "Telephone triage." *American Journal of Nursing* 100 (3): 77–78, 80–81.)

- P Problem
- O Onset
- S Associated symptoms
- **H** Previous history
- P Precipitating factors
- A Alleviating/aggravating factors
- T Timing
- **E** Etiology
- Document key findings that allowed you to rule out the worst-case scenario or that made you think there was a problem.
- Compare to the resident's normal, especially for a chronic or elderly condition.
 ("You look like you are having a little trouble breathing. Is that how you are feeling?")
- Your concern should be heightened if the resident is concerned enough to complain about an "ordinary" condition (e.g., headache).

Assess before acting

Question: A resident is admitted to the nursing home after a total left knee replacement.

The resident complains of pain. Nurses should first:

- a. Administer the PRN analgesic
- b. Assess for bowel sounds
- c. Obtain a description of the pain including location
- d. Chart vital signs

Answer: C. Do not assume the pain is related to the knee replacement. There could be a pulmonary embolism or a deep-vein thrombosis. Assess location for swelling and shortness of breath.

Teaching critical thinking—Critical-thinking course content and prioritization handout (cont.)

Prioritization with individual residents

Maslow

Self-actualization needs

Esteem needs

Safety needs

Physiologic needs

ABCD: A before B before C before D

A Airway If the resident is talking, the airway is intactB Breathing Normal respirations are quiet and effortless

C Circulation Pink, warm, orientation r/t perfusion

D Disability Pain

Neurological assessment Mental status changes

Quick Tip: 30-2-CAN DO means resident is adequately oxygenated and perfused to allow you to proceed. (Respirations are less than 30; resident is oriented to person and place, and obeys commands.)

Among ABCD, level of severity is considered.

Question: All of these residents complain of being short of breath. Which resident should nurses provide care to first?

- a. Resident with bronchitis who can speak phrases
- b. Resident with emphysema with a PO2 of 92% on 2L/min
- c. Resident three days postoperative with a cough productive of green phlegm
- d. Resident with asthma on whom the nurse cannot auscultate breath sounds

Answer: D

Teaching critical thinking—Critical-thinking course content and prioritization handout (cont.)

Airway

Risk for airway problems

- · Decreased level of consciousness
- Sedated
- Vomiting
- Allergic reactions (unpredictable progression)

Signs of airway distress

- Hoarseness (after smoke inhalation, unrelated to a cold)
- Singed nasal hairs
- Snoring respirations (tongue falling back in an unconscious resident)
- Presence of vomitus, bleeding, secretions
- Edema of the lips/mouth tissues
- Preferred position (tripod)
- Drooling in an adult (throat epiglottis is too swollen to swallow spit,)
- Dysphagia
- Abnormal signs, such as stridor, gurgling, "death rattle" from secretions

Assess

- · Look, listen, feel
- Level of consciousness r/t oxygenation

Interventions

- Reposition
- Suction

Breathing

Assess

- Respiration rate AND depth
- · Symmetrical chest rise and fall

Teaching critical thinking—Critical-thinking course content and prioritization handout (cont.)

- Presence and quality of bilateral breath sounds
- Pulse oximeter

Signs of respiratory problems

- Increased work of breathing (nasal flaring, retractions, expiratory grunting, accessory muscle use, head bobbing)
- Paradoxical respirations
- Jugular vein distention
- Tracheal position
- Abnormal breath sounds (silent chest is the most ominous because air is not moving)
- Color, especially circumoral (cyanosis is a late sign)
- · Lack of integrity in chest wall
- Speaks in words, phrases, incomplete sentences

Related routine aspects to assess

- Is oxygen on properly, correct amount?
- · Peak flow
- Resident's self-rating on the work of the breathing (Borg scale)

Interventions

- Position
- Oxygen
- Ventilation

Circulation

Assess

- Skin color, temperature
- · Perfusion through blanching, capillary refill
- Pulse: rate, rhythm characteristics

Teaching critical thinking—Critical-thinking course content and prioritization handout (cont.)

General rule of thumb: Adults with a radial pulse have \geq 80 systolic (brachial \geq 70; jugular \geq 60); low perfusion; respiratory and heart rate increase first, before blood pressure

Blood pressure: Adults must lose about 1500cc of volume before hypotension onsets

Signs of circulation difficulties

- Early signs and symptoms: loss of consciousness (LOC)
- Uncontrolled bleeding: spurting = arterial
- · Distended jugular veins
- · Distant heart tones
- Pitting dependent edema: pedal, sacral in a bedridden resident
- Most frequent sign of deep-vein thrombosis: unilateral extremity swelling
- Neurovascular (5 Ps)
 - Paresthesia is the early sign; nerves are more sensitive than pulse

Interventions

- IV
 - Is the site intact?
 - Is the dressing intact?
 - Is the infusion "working" at the proper rate?
- Drainage
 - Dressing dry and intact?
- Circulation devices (foot pumps, SCDs, TED hose properly applied)

Disability

Assess

- Alteration of orientation x 3 (scales)
- Alertness
- Neuro checks (Glasgow Coma Scale, PERRLA, movement/strength in all extremities)

Teaching critical thinking—Critical-thinking course content and prioritization handout (cont.)

- Pain
 - Objective score.
 - PQRST.
 - Effect on normal ADL.
 - More concern if the pain wakes the resident up, reaches maximum intensity in the
 first minute, resident can recall the exact moment it started suddenly, or is similar to
 the pain the resident had for a serious etiology (e.g., "This feels like the last time I
 had a heart attack.").
 - If resident states it is the "worst pain in my life" but appears comfortable or has a minor complaint (e.g., sore throat), ask about the person's previous worst pain experience. Any experience is the worst the first time you have it. If compared to significant event, such as childbirth, kidney stone, or broken bone, then accept it.

Assessment guidelines

Consider and rule out the worst-case scenario resident could have with this complaint.

What area or problem is most likely to result with this resident's condition?

Facial surgery Airway/breathing

Broken arm Compartment syndrome, loss of circulation

Diabetes mellitus Hypoglycemia, DKA, HHNK

Fall Head injury; fracture

Question: What assessment is important for a resident with a pressure ulcer?

- a. Albumin
- b. Wound stage
- c. Mobility
- d. All of the above

Answer: D

Teaching critical thinking—Critical-thinking course content and prioritization handout (cont.)

Question: A resident returns four days postoperative from abdominal surgery. Today the resident has a temperature of 103.1°F (39.5°C), 104/60, 110/20. This morning's WBC results are 20,000. It is most important for nurses to:

- a. Administer a PRN antipyretic
- b. Monitor the vital signs every hour
- c. Assess for bowel sounds
- d. Call the physician for antibiotics

Answer: D

Go for the most common problem first. "When you hear hoof beats, think horses, not zebras."

The resident presents with a forearm deformity from falling three hours ago. He complains of severe pain.

What is the most likely explanation? Pain from a fracture.

What must be ruled out? Compartment syndrome, loss of circulation.

How will you assess this? 5 Ps; passive stretching, if relief obtained from analgesic.

Residents before paperwork.

Stop any procedure causing harm.

Question: While the nurse is administering an IV antibiotic, the resident becomes flushed and complains of feeling hot. The nurse should first:

- a. Complete an Adverse Drug Reaction form
- b. Call the doctor for an order for an antihistamine
- c. Stop the infusion
- d. Check the client's allergic history

Answer: C

Teaching critical thinking—Critical-thinking course content and prioritization handout (cont.)

Question: The charge nurse notices the new nursing assistant placing the resident's urine Foley bag on a hook at the height of the resident's chest. What is the best response for the nurse to make?

- a. Move the bag and speak to the assistant now.
- b. Speak to the assistant at the end of the shift.
- c. Discuss the need for additional inservicing with the nurse educator.
- d. Write an incident report and inform the nurse manager.

Answer: A

Medications tend to be a priority, especially for antidiabetic and antibiotic medications because of the lack of effectiveness if not given in a timely manner.

Consider the timing/type of medication

Two antibiotics are ordered for 1:00 p.m. One is every 24 hours, one is every four hours. The nurse should administer the one ordered every four hours first at 1:00 pm to allow for the best interval.

Question: A nurse had been involved with an emergency and is late in administering the team's 9:00 a.m. medications. Which of the 9:00 a.m. medications is most important for the nurse to administer first?

- a. Ampicillin 1000 mg IVPB every six hours
- b. Vancomycin 1 gram IVPB every 36 hours
- c. Lanoxin (digoxin) 0.125 mg daily
- d. Aspirin 81 mg daily

Answer: A

Question: A nurse was involved with another resident's cardiac arrest and is behind schedule with medications. It is now 8:00 a.m. Which medication is most important?

- a. Colace
- b. Ferrous sulfate
- c. Erythromycin po
- d. 70/30 insulin

Answer: D

Teaching critical thinking—Critical-thinking course content and prioritization handout (cont.)

Prioritization principles

Acute before chronic.

Question: Which of the following residents is most important for the nurse to follow up with first?

- a. Reports unilateral blurry central vision for one year
- b. States has a veil starting to come across the vision in one eye
- c. Yellow discharge noted from right eye, relates had it for one day
- d. Complains of itching eyes during the spring

Answer: B

Sudden onset is usually more serious than gradual onset. Actual over potential.

Trends

- Any symptom associated with other definitive changes (e.g., not feeling well, and a fever, and feeling short of breath)
- Any minor symptoms that tend to recur repeatedly or intensify in severity ("nagging" cough that won't go away, smoker)
- Steady progressive decline

Question: Which resident with these findings is most important for the nurse to check on first?

a. Respirations: 16, 18, 20b. Radial pulse: 80, 86, 92

c. Blood pressure: 150/80, 130/78, 110/70

d. Pulse oximeter: 99%, 97%, 96%

Answer: C

Life before limb (systemic before local).

Teaching critical thinking—Critical-thinking course content and prioritization handout (cont.)

Question: Which resident should the nurse take care of first?

- a. Resident with a leaking catheter
- b. Resident with deep-vein thrombosis complaining of shortness of breath.
- c. Resident with low-back pain complaining that it radiates down the right leg.
- d. Resident with chronic arterial insufficiency complaining of leg pain while walking.

Answer: B

Resident demographics

Presence of other risk factors increase this resident's priority

- Elderly (decreased immunity, decreased reserves to fight other stresses)
- Altered immunity (leukemia, HIV+ or AIDS, taking steroids, splenectomy)
- Multiple comorbidities (especially diabetes because less immunity)
- Reaction that has a potential to worsen (overdose, allergic response)

Avoid exposure of susceptible individuals.

Question: The skilled nursing facility will receive a new admission from the emergency department diagnosed with methicillin-resistant Staphylococcus aureus (MRSA). Which of the following residents would be the best choice for a roommate?

- a. A resident with a draining pressure ulcer
- b. A resident with bacterial pneumonia
- c. Another resident with MRSA
- d. Consider a private room

Answer: C

Remember a "known" resident can develop a new problem.

Teaching critical thinking—Critical-thinking course content and prioritization handout (cont.)

Avoid the "Oh my GOD!" distracter (red herring)

Remember to avoid WHO rather than "what."

Just because someone is more demanding or "ranked" higher, they should not distract from a more urgent resident need. Express your limit. "I understand you need me. I have to take care of this urgent need first and then I can work with you."

Question: Which of the following should the nurse take care of first?

- a. The bathroom sink has a leak.
- b. An irate family member is in the hall, demanding to see the supervisor.
- c. A resident is lying on the floor, having fallen and hit her head.
- d. A physician is at the nurses' station and wants to discuss an order.

Answer: C

Remember, prioritization does not mean a person's need is not met. It means first things first so the right care is given to the right person at the right time for the right reason.

Source: Polly Gerber Zimmermann, RN, MS, MBA, CEN

Teaching critical-thinking skills—Sample course content, objectives, and scenarios

Sample course objectives

- 1. Identify four mechanisms or thought processes that are examples of critical thinking.
- 2. List two validations for the need of accurate baseline assessments.
- 3. Describe the nursing home policy on resident reassessments.
- 4. Relate an atypical geriatric patient scenario that involves the cardiopulmonary system.
- 5. Identify two medications commonly prescribed to the geriatric patient that may mask signs/symptoms of shock.
- 6. Relate two responsibilities of the nurse that require critical-thinking skills.
- 7. Describe the use of pertinent negatives and positives in nursing documentation.

Sample course content

- Patient assessment
 - Reviewing collected data and making a decision
 - Using pertinent negatives and positives
 - Common errors
 - How vital are vital signs?
- Documentation
 - When to document
 - What not to document
 - Where to document
- When to call the physician
 - Age-specific concerns
- Red flags of assessment
 - Case scenarios
- · Incorporating policy and procedure

Teaching critical-thinking skills—Sample course content, objectives, and scenarios (cont.)

- · Professional responsibilities
 - Scope of practice
 - Risk management

Sample scenarios for student workbook or discussion

Case 1

Temp 97.4° (rectal) Pulse 118 Respirations 26 Blood Pressure 128/72

Which vital sign is not only out of the normal range, but of most concern to you?

What are you concerned about with this resident?

What should you assess on this patient to determine if there is a potential for demise?

Case 2

Temp 102.4° (oral) Pulse 78 Respirations 14 Blood Pressure 78/52

In the resident, what is of concern to you with these vital signs?

What other information do you need to determine if there is a potential for demise?

Teaching critical-thinking skills—Classroom tips

1. Incorporate anatomy and physiology

- Hand out crayons or colored pencils
- Use applicable anatomy sheets from www.enchantedlearning.com
- Display (via slide or poster) the anatomy section you want students to fill in
- Identify a specific area (for example, the brain) and have students color it a certain color
- When completed, display a correct completed anatomy picture and have learners self-correct their drawings

2. Incorporate policy and procedures

- Identify policy/procedure appropriate to case scenarios you are using
- · Ask if students know where to retrieve/access the policy/procedure
- Emphasize standards of practice

3. Case scenarios

- Use as many as you can fit into the time period
- If multiple specialty areas are in the class, vary the scenarios
- Relate critical-thinking strategies as you go through the cases

4. Documentation

- · Use your standard nursing documentation forms or a printout of your electronic form
- · Give students a case scenario and have them document the resident assessment
- Go around the room and have a few participants read their charts
- Display a correct documentation note for the resident case
- Discuss risk-management concerns related to documentation

5. Resources

- If you can access the Internet in your classroom setting, search for clinical scenarios that have photos (e.g., a rash, lab results) and pose questions to the participants
- Use tools such as crossword puzzles to help participants improve their prioritizing skills

Teaching critical-thinking skills—Classroom tips (cont.)

6. Evaluation

Obtain feedback from participants to determine if they would like a follow-up to this critical-thinking-skills course. Give them course content options and let them check off which they are interested in:

- More anatomy and physiology
- Laboratory results
- IV fluids
- · Critical situation scenarios
- Interventions for an emergency

7. Self-assessment tools

Incorporate a self-assessment tool that participants can complete and use to work with preceptors or managers (Figure 3.4). Consider having participants complete the same form before and after the class to validate the need for the course and to show them how attending has improved their critical-thinking skills.

FIGURE 3.4 Teaching critical-thinking skills—Sample self-asses	ssme	nt to	ol	
Use the following scale to respond to each statement:				
4 = I feel very comfortable with this				
3 = I feel somewhat comfortable with this				
2 = I feel somewhat uncomfortable with this				
1 = I feel very uncomfortable with this				
1. Calling the physician at 3 a.m. regarding a resident's status	4	3	2	1
2. Identifying a resident at risk for an immediate demise	4	3	2	1
3. Initiating emergency measures until help arrives	4	3	2	1
4. Relating changes in vital signs to the individual resident scenario	4	3	2	1
5. Knowing when to bring a resident-care concern to the attention of the charge nurse/team leader	4	3	2	1
6. Identifying age-specific red flags that would alert me to reassess the resident	4	3	2	1
7. Knowing what to document and what not to document	4	3	2	1
8. Identifying resident situations that may be a risk for myself or the organization	4	3	2	1
Verbally relaying to another professional my concerns regarding a resident's status	4	3	2	1

Teaching critical-thinking skills—Handout

Sample pocket card. Print out, fold in half, laminate (if possible), and give to attendees of the critical-thinking class.

Attributes of a critical thinker	When to call the physician
 Asks pertinent questions Assesses statements and arguments Is curious about things Listens to others and is able to give feedback Looks for evidence or proof Examines problems closely Can reject information that is not relevant or is incorrect Wants to find the solution Thinks independently Questions deeply Has intellectual integrity Is confident in rationale for actions Analyzes arguments Evaluates evidence and facts Explores consequences before taking action Recognizes a contradiction Evaluates policy 	 Perfusion problem Pain issue Standing-order concern Atypical presentation complaints Risk-management potential What's going in isn't coming out Negative response to intervention Social concerns/family issues affecting resident care

Reference: Ferrett, S. 1997. Peak Performance: Success in College and Beyond. New York: McGraw-Hill.

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