

It's Time to "Take Action" in the Classroom

Maryland Nursing Workforce Center
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April 12, 2022; 12-1:30pm

Purpose and Objectives

Purpose - *This session will guide the nurse educator through the process of enhancing classroom teaching strategies to promote the development of Clinical Judgement.*

Objectives:

1. Describe the concept of “Small Teaching.”
2. Create a list of ways to engage in the classroom by making small changes, to promote Clinical Judgement.
3. Begin to infuse Clinical Judgement terminology when designing class discussions, presentations, and lecture-level objectives.
4. Include one classroom strategy, each week, to promote Clinical Judgement.

Background

❖ NCSBN – April 2023

- ❖ No changes in length (5 hours), delivery method (CAT), or unscored items (15)
- ❖ Adding 3 Case Studies to NCLEX-RN exam
 - ❖ Each Case Study will contain 6 NGN questions, formatted using NGN item types
 - ❖ Items within Case Study are not adaptive
- ❖ After minimum # of items, adding new NGN standalone item types

UPDATES

Design Specification	NCLEX Today	Next Generation NCLEX (NGN)
Total Items (min-max)	75-145	85-150
Total Scored Items (min – max)	60-130	70-135
Case Studies	N/A	3 (18 items)
Standalone Items (traditional + bowtie + trend, etc.)	60-130**	52-117**

Item Types

Figure 2

Overview of Item Types on NGN Organized by Response Type Grouping

All current NCLEX item types plus:

Extended Multiple Response:

- Select All That Apply
- Select N
- Multiple Response Grouping

Matrix/Grid:

- Multiple Response
- Multiple Choice

Drag-and-Drop:

- Cloze
- Rationale

Drop Down

- Cloze
- Rationale
- In Table

Highlight:

- In Text
- In Table

Bowtie

Trend:

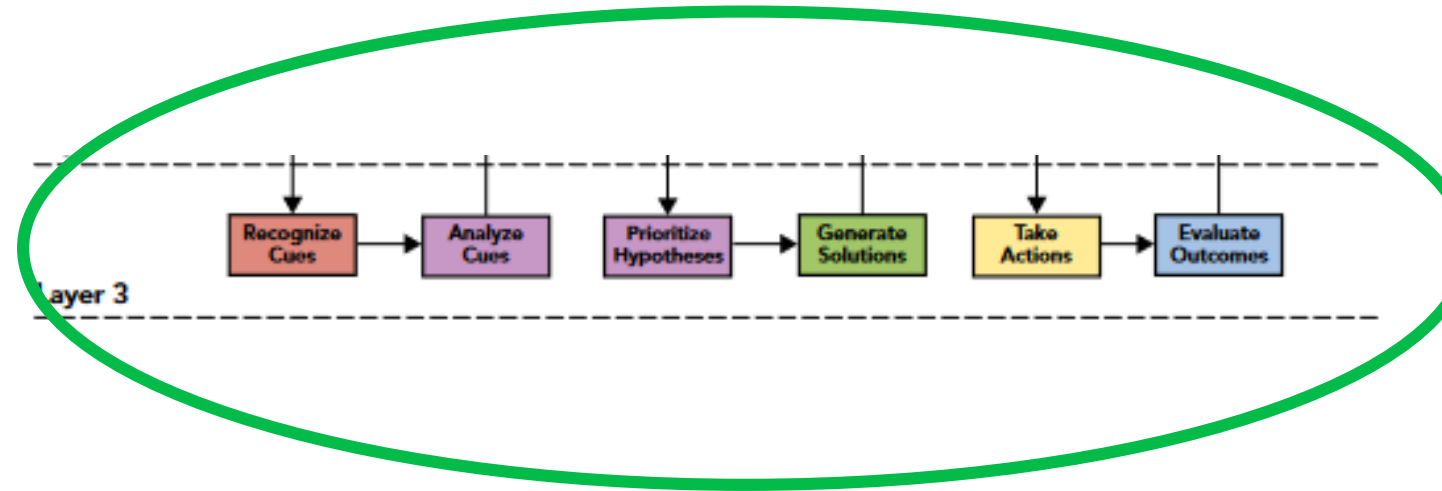
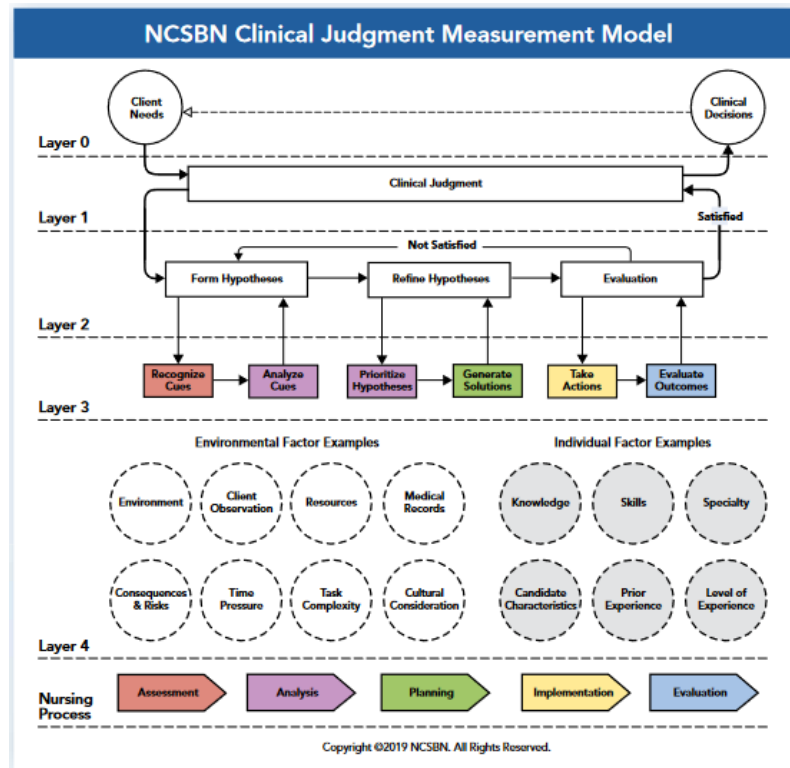
- Can contain ALL new item types except Bowtie

NCSBN Clinical Judgement Measurement Model (NCJMM)

NCJMM – measuring CJ

Focus on Layer 3 –

Case Study: 1 question/step



https://www.ncsbn.org/NGN_Winter22_English_Final.pdf

Background Content – Sept 2021

1. Analyze use of active learning in course content
2. Examples of new ways to present information
3. Infusing NGN ...

Now it's time to "Take Action"



UNIVERSITY of MARYLAND
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School of Nursing

**Infusing NGN into the Classroom:
First Steps**

Kathy Martin, DNP, RN, CNE
Maryland Nursing Workforce Center - NGN Summit
September 9, 2021

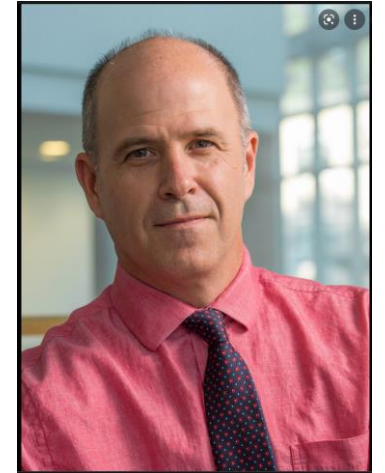
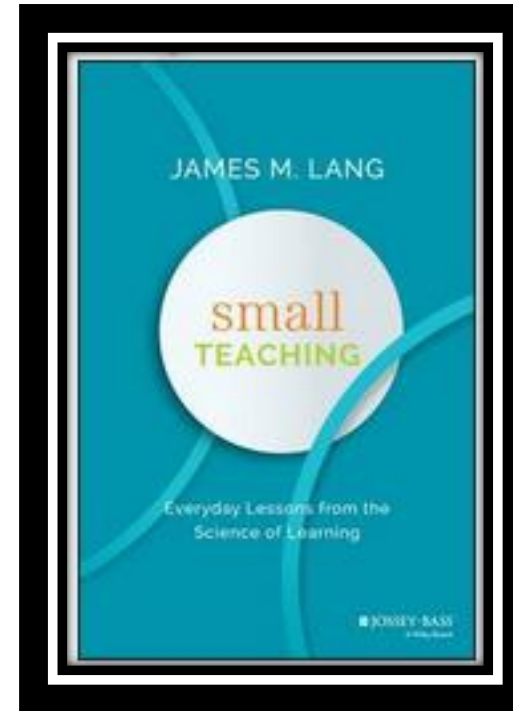


“Small Teaching: Everyday Lessons from the Science of Learning” – James Lang

Synthesis of scientific insights → translated into classroom strategies

3 sections:

1. Knowledge
2. Understanding
3. Inspiration



“Small Teaching”

1. Knowledge

- a. Retrieving
- b. Predicting
- c. Interleaving

2. Understanding

- a. Connecting
- b. Practicing
- c. Self-explaining

3. Inspiration

- a. Motivating
- b. Growing
- c. Expanding

“Small Teaching”

Knowledge – promotion of long-term memories

❖ *Retrieving (Chapter 1)*

- ❖ **Key Takeaway** - “Put as simply as possible, the retrieval effect means that if you want to retrieve knowledge from your memory, you have to practice retrieving knowledge from your memory” (p. 20).
- ❖ **Ideas** – opening question (something from previous week), write highlights of required reading, closing question (“Muddiest Point”), quizzes or practice questions

❖ *Predicting (Chapter 2)*

- ❖ **Key Takeaway** - “Making predictions about material that you wish to learn increases your ability to understand that material and retrieve it later” (p. 43).
- ❖ **Ideas** – provide information in context, ask for predictions (start from current knowledge → what’s next?)

❖ *Interleaving (Chapter 3)*

- ❖ **Key Takeaway** - Interleaving “involves two related activities that promote high levels of long-term retention: (a) spacing out learning sessions over time; and (b) mixing up your practice of skills you are seeking to develop” (p. 65).
- ❖ **Ideas** – applying new content to novel context, cumulative exams, mix up topics when studying

“Small Teaching”

Understanding

❖ *Connecting (Chapter 4)*

❖ **Key Takeaway** - “For the connections to be meaningful and effective, the students have to form them. Your task is to create an environment that facilitates the formation of those connections rather than simply lecturing at them about connections” (Lang, 2016, p. 98).

❖ Ideas – concept maps, minute thesis, sharing of clinical experiences

❖ *Practicing (Chapter 5)*

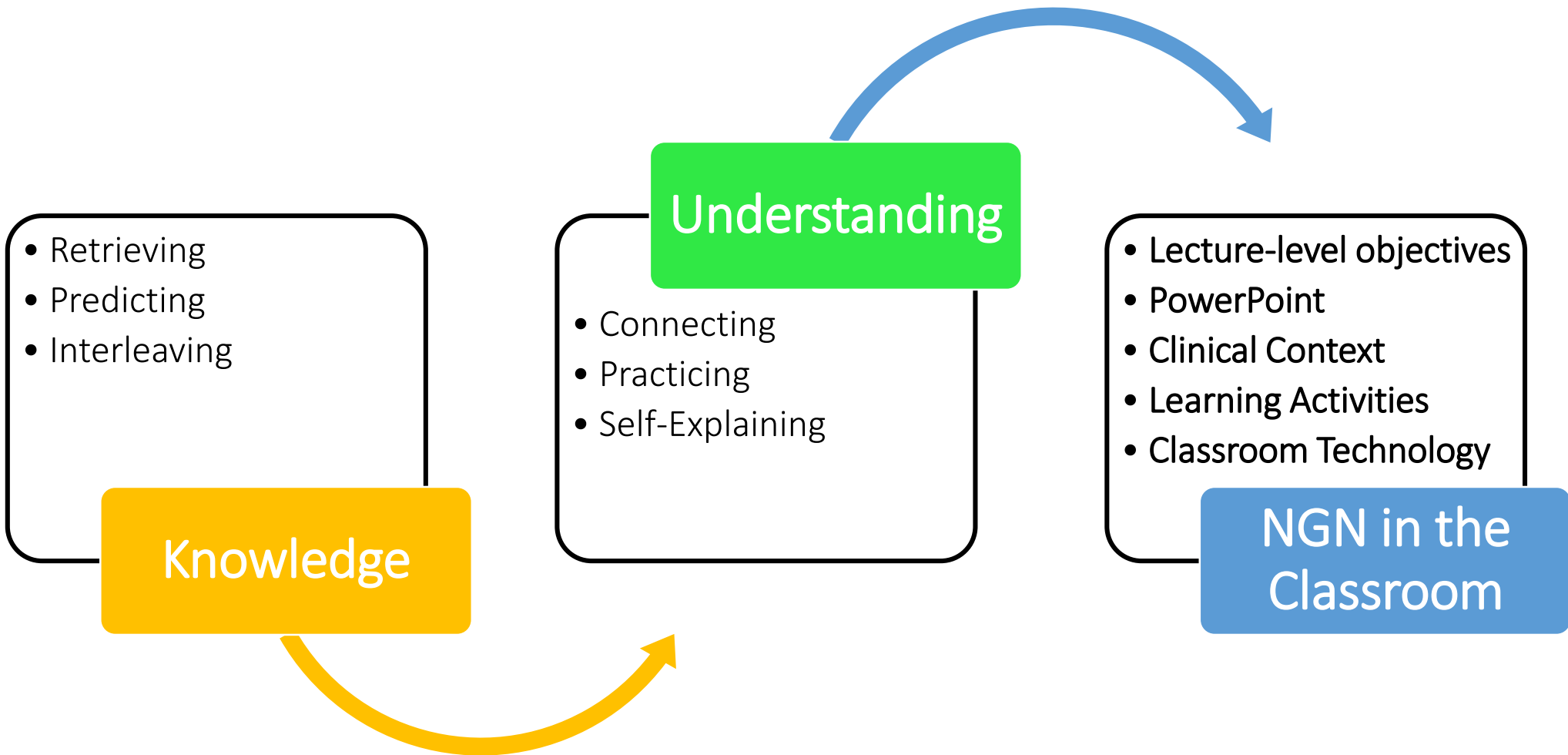
❖ **Key Takeaway** - “Whatever cognitive skills you are seeking to instill in your students, and that you will be assessing for a grade, the students should have time to practice in class” (p. 117).

❖ Ideas - Repeated practice, contextual learning, reflection, sample test questions in class, provide ways to organize/manipulate information

❖ *Self-explaining (Chapter 6)*

❖ **Key Takeaway** - “Learners benefit from explaining out loud (to themselves or others) what they are doing during the completion of a learning task” (p. 138).

❖ Ideas – paraphrasing, peer instruction, think out loud “tell me what you were thinking”



How to Use “Small Teaching” to Promote CJ – Lecture Objectives

Applying Lecture Objectives to Study Practices	Lecture Topics	Clinical Judgement Considerations - ADDED
Understand pathophysiology concepts and the mechanism of disease development	<ul style="list-style-type: none"> •Blood components •Normal hemostasis physiology, i.e., intrinsic vs extrinsic pathways •Hemostasis Pathophysiology (see objective #2 below for specific disorders) 	<p>Recognize Cues - normal vs. abnormal?</p> <p>Analyze Cues - What's relevant/important?</p> <p>Prioritize Hypotheses - What's going on?</p> <p>What is the likely condition I have assessed?</p>
Create connections between pathophysiology concepts and patient specific findings: risk factors, signs and symptoms and lab/diagnostic tests	<ul style="list-style-type: none"> •Excessive clotting (Deep vein thrombosis) •Inadequate clotting (Thrombocytopenia) •Gas Exchange/Transport (Anemia) 	
Differentiate between select pathophysiologic concepts that impact patients in different ways	Various types of anemias: Microcytic, macrocytic and normocytic (see anemia table)	
Understand the following pharmacological principles for select medications: classifications, mechanism of action, side effects, adverse reactions	Medications listed in Med Table	<p>Recognize Cues - What will I assess - before, during and after administration of the medication?</p> <p>Analyze Cues - Is it safe to administer this medication (5 Rights)? Is this the right medication for the situation I've assessed?</p> <p>Prioritize Hypotheses - Do I understand what symptoms I am treating, and why?</p> <p>Generate Solutions - Are there alternatives to this medication?</p> <p>Take Action - Do I know how to administer this medication, by this route?</p> <p>Evaluate Outcomes - Did the medication result in improvement or deterioration of the patient's symptoms?</p> <p>Does the dose need to be held, repeated?</p> <p>Document evaluation.</p>
Apply principles of the nursing process to administer pharmacological treatment modalities	Medications listed in Med Table	
Anticipate and respond to complications associated with select pathophysiological processes and pharmacological treatment modalities	<p>Refer to Med Table & PPTs & focus on:</p> <ul style="list-style-type: none"> •Patho – Complications of Thrombocytopenia and DVT •Pharm - antiplatelet and anticoagulants adverse reactions 	
Consider how pathophysiology concepts and pharmacological treatments impact or inform the clinical presentation of patients: socioeconomic status, culture, race, and age	Focus on how risks of anticoagulation therapy affect different patient populations	

How to Use “Small Teaching” to Promote CJ – Presentations

Knowledge: retrieving, predicting and interleaving

❖ First few minutes of class, have students recall information from prior week (Sli.do):

Chronic Neuro Recap - The nurse assesses the following symptoms: tremors, rigidity, slowness of movement and unsteady gait. Which condition is the client most likely experiencing?

Multiple Sclerosis
 0%

Guillain-Barre Syndrome
 0%

Parkinson Disease 0%

NGN – BOW TIE

- Seen after the minimum number of questions – 85 (max. 150)
- 3 parts
 - Middle first – what is the condition...?
 - Then left side – Priority Actions to Take
 - Last right – Parameter to Monitor



Sample Bow-tie Item

The nurse in the emergency department (ED) is caring for a 70-year-old female client.

Client Information: History and Physical

1205: Client accompanied to ED by daughter; right-sided stroke with facial drooping noted. Right-sided hemiparesis and incontinence apparent. Daughter reports client recently had an influenza infection. Lung sounds are clear, apical pulse is regular. Bowel sounds are active in all 4 quadrants, skin is warm and dry. Incontinent of urine 2 times in the ED. Daughter reports that the client is typically continent of urine. Capillary refill (right) of 3 seconds. Pupils (right) equal, reactive to light. Vital signs: T 97.3° F (36.4° C), P 126, RR 18, SpO₂ 98% (room air). Capillary blood glucose obtained per protocol: 70 mg/dL (3.9 mmol/L). ED Physician notified.

The nurse is reviewing the client's assessment data to prepare the client's plan of care.

Complete this diagram by dragging from the choices below to specify what condition the client is most likely experiencing, 2 actions the nurse should take to address that condition, and 2 parameters the nurse should monitor to assess the client's progress.

Action to Take	Condition Most Likely Experiencing	Parameter to Monitor
<ul style="list-style-type: none"> Monitor a respiratory rate for 30 seconds Obtain a pulse oximetry reading at 2, 4, 6, and 8 hours Check for a patent airway Obtain vital signs per protocol Place on oxygen for 24 hours Place on a chest for 24 hours 	<ul style="list-style-type: none"> Intoxication Respiratory Distress Low Blood Glucose Fluid overload Low Blood Pressure Low Blood Oxygen 	<ul style="list-style-type: none"> Temperature Urine Output Weight Gain Urine Specific Gravity Heart Rate Blood Pressure

Predicting....

- ❖ During class ask – what will happen next?
 - ❖ Example 1 – free text
 - ❖ Example 2 – Ext. MR

Example 1

slido



Share one assessment of a worsening clinical picture, in a patient with increasing ICP...

Example 2

The nurse assess acute changes in level of consciousness, in a patient with an acute head injury. Select from the list the top 3 priority assessments to observe and document? Select All that Apply

Presence of photophobia

0%

Respiration

0%

Body temperature

0%

Pupil reaction to light

0%

Tinnitus

0%

Motor function

0%

NGN – EXTENDED MULTIPLE RESPONSE (N)


- Test taker is given number (N) of correct responses
- List of options may be up to 10
- Scoring - +/- (you will earn a point for every correct response, and lose a point for every incorrect response)
- Score for this question 0-3 (never a negative score)

How to Use “Small Teaching” to Promote CJ - Clinical Context

Interleaving – mix things up

- ❖ Relate to work of nurse...their “future selves”
- ❖ After a mini-lecture, provide short case study
- ❖ Use a transition slide as a cue

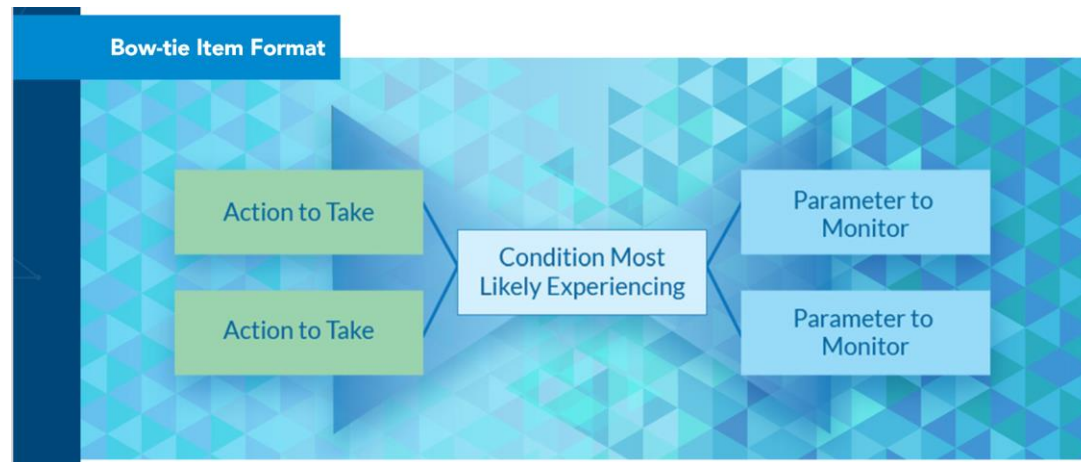
HOW WILL YOU USE THIS INFORMATION – AS A REGISTERED NURSE?



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How to Use “Small Teaching” to Promote CJ - Learning Activities

- ❖ Use CJM as framework for assignments



Sample Bow-tie Item

The nurse in the emergency department (ED) is caring for a 79-year-old female client.

Nurses' Notes **History and Physical**

1215: Client accompanied to ED by daughter, right-sided ptosis with facial drooping noted. Right-sided hemiparesis and expressive aphasia present. Daughter reports client recently had an influenza infection. Lung sounds are clear, apical pulse is irregular. Bowel sounds are active in all 4 quadrants, skin is warm and dry. Incontinent of urine 2 times in the ED, daughter reports that the client is typically continent of urine. Capillary refill sluggish at 3 seconds. Peripheral pulses palpable, 2+. Vital signs: T 97.5° F (36.4° C), P 126, RR 18, BP 188/90, pulse oximetry reading 90% on room air. Capillary blood glucose obtained per protocol, 76 mg/dL (4.2 mmol/L). ED Physician notified.

The nurse is reviewing the client's assessment data to prepare the client's plan of care.

➤ Complete the diagram by dragging from the choices below to specify what condition the client is most likely experiencing, 2 actions the nurses should take to address that condition, and 2 parameters the nurse should monitor to assess the client's progress.

Actions to Take	Potential Conditions	Parameters to Monitor
Request a prescription for an oral steroid.	Bell's palsy	temperature
Administer oxygen at 2 L/min via nasal cannula.	hypoglycemia	urinary output
Insert a peripheral venous access device (VAD).	ischemic stroke	neurologic status
Obtain a urine sample for urinalysis and culture and sensitivity (C & S).	urinary tract infection (UTI)	serum glucose level
Request an order for 50% dextrose in water to be administered intravenously.		electrocardiogram (ECG) rhythm

TOKENS (orange circle) are placed over the 'Actions to Take' and 'Potential Conditions' columns. **TARGET** (orange circle) is placed over the 'Condition Most Likely Experiencing' box in the diagram above.

Case Study Assignment - ExamSoft

Choose enalapril's mechanism of action: 1 and

The rationale for treating the pathology changes in this patient: 2

1.

Blocks angiotensin II receptors

Blocks the conversion of angiotensin I to angiotensin II ✓

2.

This action increases peripheral arterial resistance, resulting in reduction of BP

This action prevents the vasoconstrictive action of angiotensin II, resulting in reduction of BP ✓

- ❖ Assignment – previously was a paper
- ❖ This set of questions uses Cloze (Drop Down) format
- ❖ Knowledge question and Rationale

Case Study Assignment - ExamSoft

Select the appropriate medical diagnosis, Peripheral Artery (Occlusive) Disease or Acute MRSA Cellulitis for the signs/symptoms listed. If the s/s is presented by both Peripheral Artery (Occlusive) Disease AND Acute MRSA Cellulitis, mark < BOTH > for your answer choice.

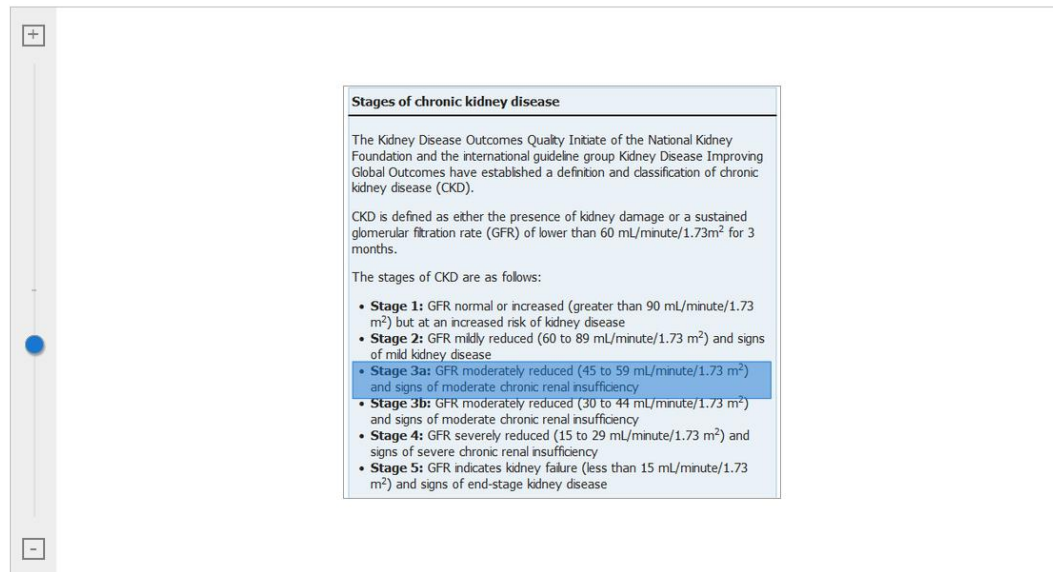
Pain with ambulation	<u>1</u>
Fever and chills	<u>2</u>
Affected extremity edema	<u>3</u>
Increased heart rate	<u>4</u>
Pallor of affected extremity with elevation	<u>5</u>
Absent pedal pulses	<u>6</u>

- ❖ This set of questions uses Cloze (Drop-Down) format
- ❖ CJM Step 3 - Prioritize Hypotheses

Case Study Assignment - ExamSoft

Place your pin on the **statement** in the reference below that best indicates Mr. Hadley's stage of chronic kidney disease, based on the most recent Creatinine Clearance (CrCl = GFR) level.

(Hot Spot: To earn credit for this question, the point of your pin must be placed directly on the words of the statement that answers the question prompt.)



Stages of chronic kidney disease

The Kidney Disease Outcomes Quality Initiative of the National Kidney Foundation and the international guideline group Kidney Disease Improving Global Outcomes have established a definition and classification of chronic kidney disease (CKD).

CKD is defined as either the presence of kidney damage or a sustained glomerular filtration rate (GFR) of lower than 60 mL/minute/1.73m² for 3 months.

The stages of CKD are as follows:

- **Stage 1:** GFR normal or increased (greater than 90 mL/minute/1.73 m²) but at an increased risk of kidney disease
- **Stage 2:** GFR mildly reduced (60 to 89 mL/minute/1.73 m²) and signs of mild kidney disease
- **Stage 3a:** GFR moderately reduced (45 to 59 mL/minute/1.73 m²) and signs of moderate chronic renal insufficiency
- **Stage 3b:** GFR moderately reduced (30 to 44 mL/minute/1.73 m²) and signs of moderate chronic renal insufficiency
- **Stage 4:** GFR severely reduced (15 to 29 mL/minute/1.73 m²) and signs of severe chronic renal insufficiency
- **Stage 5:** GFR indicates kidney failure (less than 15 mL/minute/1.73 m²) and signs of end-stage kidney disease

❖ This set of questions uses Hot Spot

❖ CJM Step 2 – Analyze Cues

How to Use “Small Teaching” to Promote CJ – Self-Explaining

CJM Step 5 – Take Action

- ❖ Provide opportunities to explain difficult concepts
 - ❖ Patient education
 - ❖ Provide topics – small groups
 - ❖ Generate excitement in scenario – complexity

- ❖ Role Play
 - ❖ Nurse and patient roles
 - ❖ Medication administration

- ❖ Teach basic nursing skills in the context of a “real patient”
 - ❖ Use DocuCare to create case in HER
 - ❖ Skills are individualized for patient
 - ❖ *Rationales are shared*
 - ❖ Problem-solving is group activity

How to Use “Small Teaching” to Promote CJ – Classroom Technology

Connecting-

Audience Response System – Apps

- ❖ Sli.do
- ❖ Poll Everywhere
 - ❖ Anonymous

Practicing-

- ❖ Short quizzes
- ❖ *Recall* activities
 - ❖ 5 Minute Paper
- ❖ Work in pairs/small teams
- ❖ Discussion Board
 - ❖ Weekly practice questions, via LMS

References

- ❖ Betts, J., Muntean, W., Kim, D. and Kao, S. (Winter, 2022). Next generation NCLEX: Test design. https://www.ncsbn.org/NGN_Winter22_English_Final.pdf
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- ❖ Tucker, C. A. & Bradshaw, M. J. (2017). Clinical reasoning: Action-focused thinking. In Bradshaw, M. J. & Hultquist, B. L. (Eds.). *Innovative teaching strategies in nursing and health-related professions (7th ed., pp.71-82)*. Jones and Bartlett.
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