

Next Generation NCLEX Action Model Training

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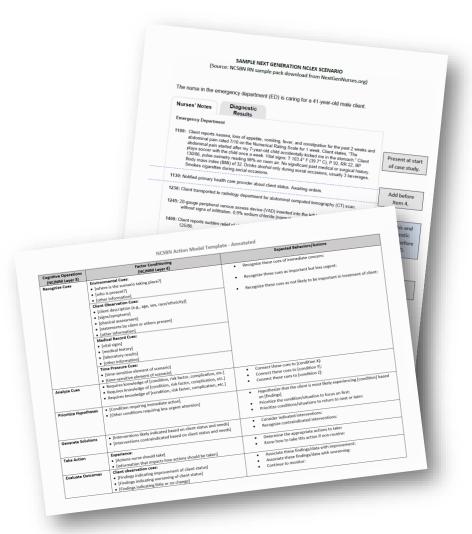
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Overview

- Review of NCSBN Clinical Judgment Measurement Model
- 2. Writing a successful case study scenario
- Using the NCSBN Action Model to create case studies
- 4. Some "low tech" workarounds
- 5. NCSBN Resources and Updates
- 6. Your questions







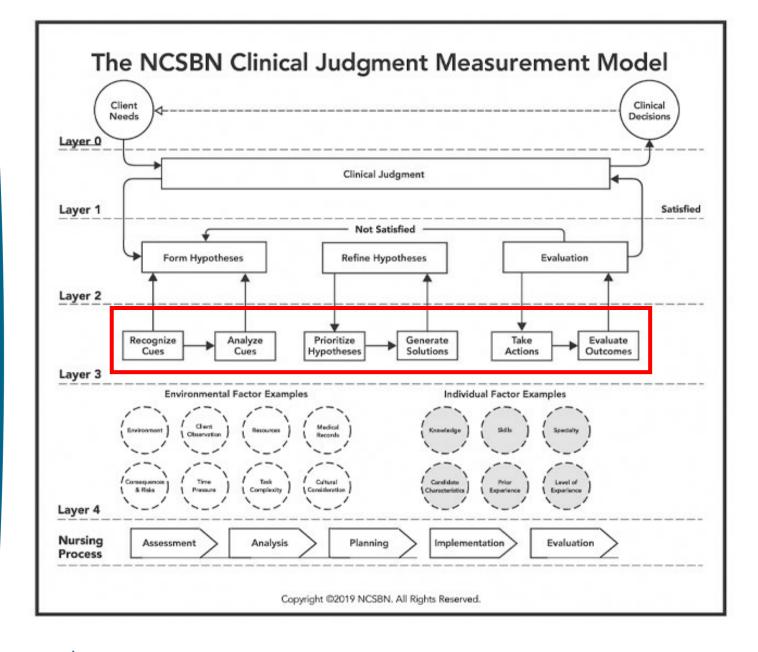


NGN News - Winter 2019

Topic: The NGN Clinical Judgment Measurement Model

2019 | PUBLICATION





NGN Case Study

- Real-world scenario
- Six test items, each targeting a different aspect of clinical judgment



Real-world scenario PLUS...



Do not connect cues with hypotheses just yet.











Identifying expected outcomes and using hypotheses to define a set of interventions for the expected outcomes.



interventions—not just the best one—that connect to those goals. Potential solutions could include collecting additional information.

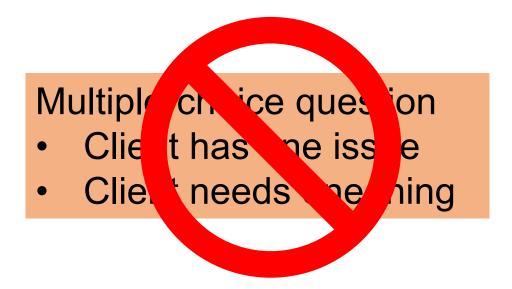








Think real-world!



Clinical judgment scenario

- Multiple issues
- Multiple needs
- Some things more important/urgent than others
- Some info that might not matter
- Need for prioritization



The nurse in the long-term care facility is caring for a 19-year-old client.

Nurses' Notes

History and Physical

Vital Signs

Laboratory Results

1100: Client has piloerection on the arms and legs and diaphoresis on the forehead. Client is wearing new, low-top athletic shoes purchased by the client's parents instead of prescribed foot splints. During abdominal palpation, a semi-firm mass is noted in the left lower quadrant (LLQ). Bladder is nonpalpable.

Nurses' Notes

History and Physical

Vital Signs

Laboratory Results

Body System	Findings
Neurological	spinal cord injury at C4 from a gunshot injury 2 years ago; uses sip-and-puff wheelchair
Pulmonary	receiving pressure-controlled portable mechanical ventilation, tracheostomy
Endocrine	diabetes mellitus (type 1)
Psychosocial	family lives 3 hours away from the facility and sends the client designer clothing and gifts once a month; friends have not visited the client in 1.5 years; client prefers to sit in room alone rather than interact with other residents

Nurses' Notes

History and Physical

Vital Signs

Laboratory Results

	1100
т	99.0° F (37.2° C)
P	56
RR	18
ВР	192/102
Pulse oximetry reading	97% on mechanical ventilation

Nurses' Notes

History and Physical

Vital Signs

Laboratory Results

Laboratory Test and Reference Range	0900
serum glucose, 2-hour postprandial 0-50 years: < 140 mg/dL (< 7.8 mmol/L)	140 mg/dL (7.8 mmol/L)



NGN News - Spring 2019

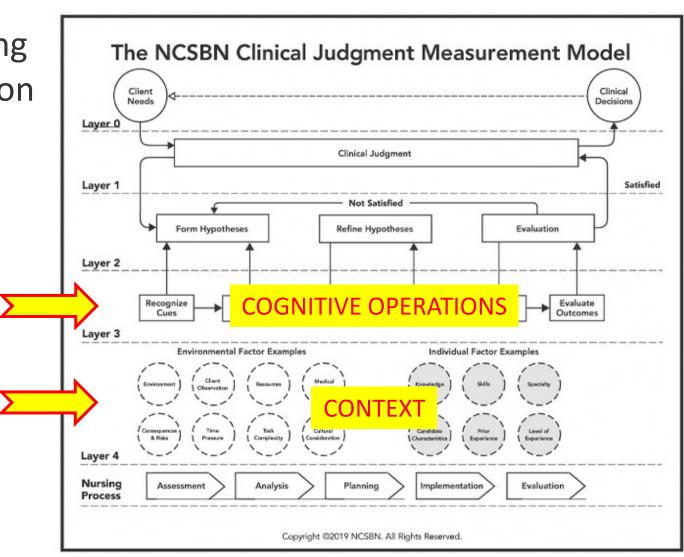
Topic: The NGN Clinical Judgment Measurement Model and Action Model 2019 | PUBLICATION

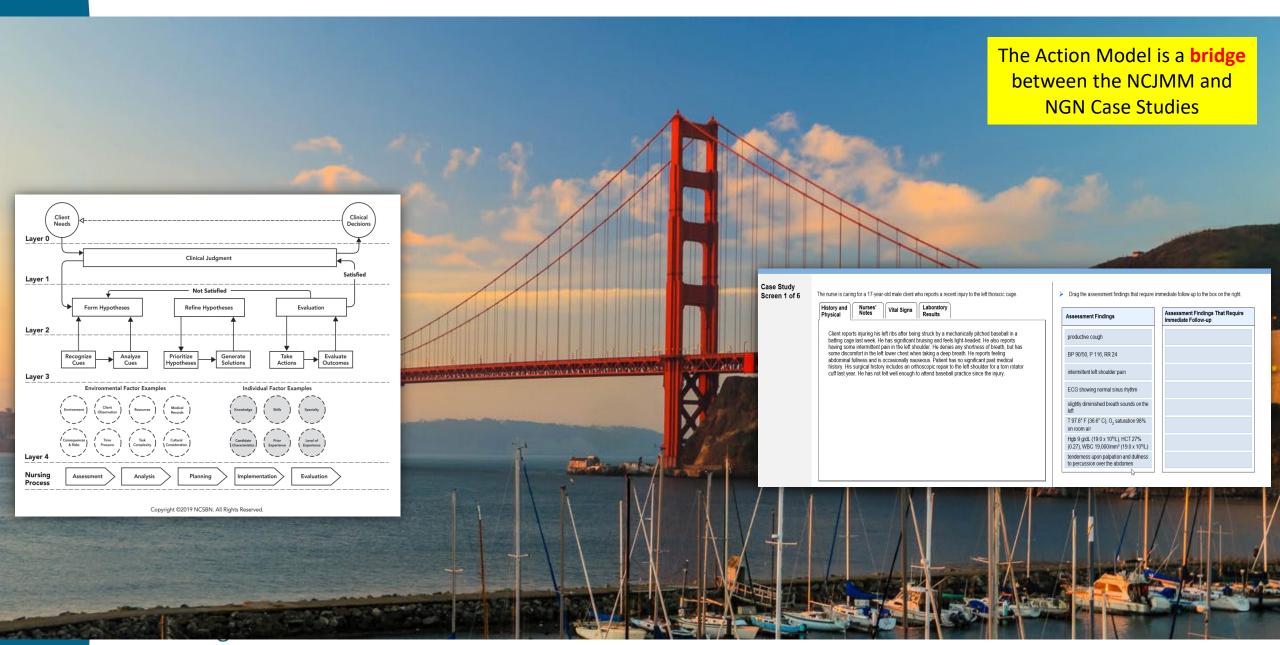
NCSBN Action Model



NCSBN Action Model

- Template for creating case studies based on NCJMM
- Focuses on Layer 3 and Layer 4
- Acts as a recipe for combining the ingredients in your scenario





Action Model template with sample content

Cognitive Operations (NCSBN CJMM Layer 3)	Factor Conditioning (NCSBN CJMM Layer 4)	Expected Behaviors/Actions
Recognize Cues	Environmental cues: Location: Emergency Department Parent present Client observation cues: Present age: 8-10 years Present: signs/symptoms of dehydration: dry mucous membranes, cool extremities, capillary refill 3-4 seconds Present/imply: lethargy Medical record cues: Present/imply: Hx of diabetes Present/imply: Vital signs Time pressure cues: Set time pressure to vary with onset/acuity of symptoms	 Recognize signs/symptoms of dehydration Identify history of diabetes Recognize abnormal vital signs Hypothesize dehydration Hypothesize diabetes
Analyze Cues Dickison, Haerling & Lasater, 2019	Requires knowledge of pediatric development Requires knowledge of dehydration symptoms Requires knowledge of diabetes symptoms	 Describe relationship between level of blood sugar and dehydration Use evidence to determine client issues

Cognitive Operations (NCSBN CJMM Layer 3)	Factor Conditioning (NCSBN CJMM Layer 4)	Expected Behaviors/Actions
Prioritize Hypotheses	 Give vital sign monitors as resources Set time pressure to vary with vital signs 	
Generate Solutions	 Requires knowledge of pediatric developmentally appropriate approach Requires knowledge of dehydration treatment and intervention Requires knowledge of diabetes treatment and intervention 	 Prioritize dehydration Address dehydration Avoid glucose
Take Actions	Requires experience of administering isotonic fluid	Administer isotonic fluid
Evaluate Outcomes	Requires experience of administering isotonic fluid Client observation cues: Show client awake and talking Imply improvement in vital signs based on actions	Reassess vital signsReassess lethargy

Dickison, Haerling & Lasater, 2019

Action Model template annotated for use

Cognitive Operations (NCJMM Layer 3)	Factor Conditioning (NCJMM Layer 4)	Expected Behaviors/Actions
Recognize Cues	[where is the scenario taking place?] [who is present?]	 Recognize these cues of immediate concern: Recognize these cues as important but less urgent:
	[other information] Client Obse vation Cues: [client escription (e.g., age, sex, race/ethnicit)] [signs symptoms] [phy: cal assessment] [stat ments by client or others present] [other information] Medica Record Cues:	 Environmental Cues: [where is the scenario taking place?] [who is present?] [other information]
zues	[vital signs] [r history] color results] coner information] Ime Pressure Cues. [time-sensitive element of scenario] [time-sensitive element of scenario] Requires knowledge of [condition, risk factor, complication, etc.] Requires knowledge of [condition, risk factor, complication, etc.] Requires knowledge of [condition, risk factor, complication, etc.]	Client Observation Cues:
Prioritize Hypotheses Generate Solutions	[Condition requiring immediate action] [Other conditions requiring less urgent attention] [Interventions likely indicated based on client status and needs]	Medical Record Cues: • [vital signs] • [medical history]
Take Action	[Interventions contraindicated based on client status and needs] Experience: [Actions nurse should take]	[laboratory results] [other information]
Evaluate Outcomes	[Information that impacts how actions should be taken] Client observation cues: [Findings indicating improvement of client status] [Findings indicating worsening of client status] [Findings indicating little or no change]	Time Pressure Cues: [time-sensitive element of scenario] [time-sensitive element of scenario]

Action Model template annotated for use

Cognitive Operations	Factor Conditioning	Expects gehaviors/Action
(NCJMM Layer 3)	(NCJMM Layer 4)	
Recognize Cues	Environmental Cues:	Recognize these coles of immediate concern:
	[where is the scenario taking place?]	
	• [who is present?]	Recognize these cues as important but less urgent:
	[other information]	
	Client Observation Cues:	Recognize these cues as not likely to be important in treat nent of client:
	• [client description (e.g., age, sex, race/ethnicity)]	
	• [signs/symptoms]	
	[physical assessment]	
	[statements by client or others present]	
	• [other information]	
	Medical Record Cues:	
	• [vital signs]	
	• [medical history]	
	• [laboratory results]	
	• [other information]	
	Time Pressure Cues:	
	• [time-sensitive element of scenario]	
	• [time-sensitive element of scenario]	
Analyze Cues	Requires knowledge of [condition, risk factor, complication, etc.]	Connect these cues to [condition X]:
	Requires knowledge of [condition, risk factor, complication, etc.]	Connect these cues to [condition Y]:
	Requires knowledge of [condition, risk factor,	
Prioritize Hypotheses	[Condition requiring immediate action]	Recognize these cues of immediate concern:
riionuze nypotneses	[Other conditions requiring less urgent attenti	
	Totaler conditions requiring less digent attenti	
	•	Recognize these cues as important but less urgent:
Generate Solutions	[Interventions likely indicated based on client	·
	[Interventions contraindicated based on client	
	interventions contrainance a based on enem	
Take Action	Experience:	Recognize these cues as not likely to be important in treatment of
	[Actions nurse should take]	- diants
	[Information that impacts how actions should	client:
Evaluate Outcomes	Client observation cues:	
	[Findings indicating improvement of client star	
	[Findings indicating worsening of client status]	▼ Continue to monitor.
	[Findings indicating little or no change]	

Applying the Action Model



Today's scenario

The nurse in the emergency department (ED) is caring for a 41-year-old male client.

Nurses' Notes

Emergency Department

1100: Client reports nausea, loss of appetite, vomiting, fever, and constipation for the past 2 weeks and abdominal pain rated 7/10 on the Numerical Rating Scale for 1 week. Client states, "The abdominal pain started after my 7-year-old child accidentally kicked me in the stomach." Client plays soccer with the child once a week. Vital signs: T 103.4° F (39.7° C), P 92, RR 22, BP 130/86, pulse oximetry reading 98% on room air. No significant past medical or surgical history. Body mass index (BMI) of 32. Drinks alcohol only during social occasions, usually 3 beverages. Smokes cigarettes during social occasions.



Recognize cues

Expected Behaviors/Actions Recognize these cues of **immediate concern**: **Source of KEYS** Recognize these cues as important but less urgent: **Source of strongest DISTRACTORS** Recognize these cues as not likely to be important in treatment of client: **Source of weaker**

DISTRACTORS

Recognize Cues item Which of the following findings are of immediate concern? Select all that apply.



Analyze cues

Expected Behaviors/Actions

- Connect these cues to [Condition X]:
 - -
 - -
 - _
- Connect these cues to [Condition Y]:
 - _
 - _
 - _
- Connect these cues to [Condition Z]:
 - _
 - _
 - _

Analyze Cues item

For each client finding below, click to indicate if the finding is consistent with the disease process of [Condition X], [Condition Y], or [Condition Z]. Each finding may support more than one disease process.

Client Finding	Condition X	Condition Y	Condition Z



Prioritize hypotheses

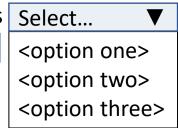
Expected Behaviors/Actions

- Hypothesize that the client is most likely experiencing [condition/situation] based on [findings]
- Prioritize the condition/situation to focus on first:

 Prioritize conditions/situations to return to next or later:

Prioritize hypotheses item

The nurse should first address the client's followed by the client's Select... ▼





Today's scenario

Nurses' Notes

Emergency Department

1100: Client reports nausea, loss of appetite, vomiting, fever, and constipation for the past 2 weeks and abdominal pain rated 7/10 on the Numerical Rating Scale for 1 week. Client states, "The abdominal pain started after my 7-year-old child accidentally kicked me in the stomach." Client plays soccer with the child once a week. Vital signs: T 103.4° F (39.7° C), P 92, RR 22, BP 130/86, pulse oximetry reading 98% on room air. No significant past medical or surgical history. Body mass index (BMI) of 32. Drinks alcohol only during social occasions, usually 3 beverages. Smokes cigarettes during social occasions.



1130: Notified primary health care provider about client status. Awaiting orders.



Generate solutions

Expected Behaviors/Actions

• Consider indicated interventions:

• Recognize contraindicated interventions:

Generate Solutions item

For each potential order, click to specify if the order is anticipated or contraindicated for the client.

Potential Order	Anticipated	Contra- indicated
	0	0
	0	O
	0	0
	0	0
	0	0
	0	0



Today's scenario

The nurse in the emergency department (ED) is caring for a 41-year-old male client.

Nurses' Notes

Diagnostic Results

Emergency Department

1100: Client reports nausea, loss of appetite, vomiting, fever, and constipation for the past 2 weeks and abdominal pain rated 7/10 on the Numerical Rating Scale for 1 week. Client states, "The abdominal pain started after my 7-year-old child accidentally kicked me in the stomach." Client plays soccer with the child once a week. Vital signs: T 103.4° F (39.7° C), P 92, RR 22, BP 130/86, pulse oximetry reading 98% on room air. No significant past medical or surgical history. Body mass index (BMI) of 32. Drinks alcohol only during social occasions, usually 3 beverages. Smokes cigarettes during social occasions.

1130: Notified primary health care provider about client status. Awaiting orders.

1230: Client transported to radiology department for abdominal computed tomography (CT) scan.

1245: 20-gauge peripheral venous access device (VAD) inserted into the left hand. VAD site patent without signs of infiltration. 0.9% sodium chloride (normal saline) infusing at 75 mL/hr.

1400: Client reports sudden relief of abdominal pain. Vital signs: T 102.5° F (39.2° C), P 110, RR 20, BP 125/86.

1415: Primary health care provider notified about client status. Order received for an additional abdominal CT scan. Client transported to radiology department. **Nurses' Notes**

Diagnostic Results

Abdominal CT scan

1230: Acute gangrenous appendix with calcified appendicolith.

1445: Free intraperitoneal fluid noted consistent with a ruptured appendix.





Take action

Expected Behaviors/Actions

• Determine the appropriate actions to take:

• Know how to take this action if non-routine:

Take Action item

The nurse is assisting with <some aspect of care>. Which of these actions should the nurse perform? Select all that apply.

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Today's scenario

The nurse in the emergency department (ED) is caring for a 41-year-old male client.

Nurses' Notes

Diagnostic Results

Emergency Department

1100: Client reports nausea, loss of appetite, vomiting, fever, and constipation for the past 2 weeks and abdominal pain rated 7/10 on the Numerical Rating Scale for 1 week. Client states, "The abdominal pain started after my 7-year-old child accidentally kicked me in the stomach." Client plays soccer with the child once a week. Vital signs: T 103.4° F (39.7° C), P 92, RR 22, BP 130/86, pulse oximetry reading 98% on room air. No significant past medical or surgical history. Body mass index (BMI) of 32. Drinks alcohol only during social occasions, usually 3 beverages. Smokes cigarettes during social occasions.

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1415: Primary health care provider notified about client status. Order received for an additional abdominal CT scan. Client transported to radiology department.

1800: Client transported to the operating room for an open appendectomy.

Medical-Surgical Unit

2030: Client transported back to the medical-surgical unit.

2230: Client performing coughing and deep-breathing exercises every hour while awake with the incentive spirometer. Performing postoperative leg exercises every hour while awake. Nasogastric (NG) tube removed. Drinking clear liquids. Abdomen boardlike with diminished bowel sounds in all quadrants. Rebound tenderness present.

Nurses' Notes

Diagnostic Results

Abdominal CT scan

1230: Acute gangrenous appendix with calcified appendicolith.

1445: Free intraperitoneal fluid noted consistent with a ruptured appendix.





Evaluate outcomes

Expected Behaviors/Actions

- Associate these findings/data with improvement:
- Associate these findings/data with worsening:

Associate these findings/data with no significant change

• Continue to monitor:

Evaluate Outcomes item

For each data collection finding, click to indicate if the client's status has improved, worsened, or is unchanged.

Client Finding	Improved	Worsened	Unchanged
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0



Action model summary

- The NCSBN Action Model's "expected behaviors" for each step provide material you can use in item writing
- The examples we used today are not the only way to go.
 Review the NCSBN NGN Sample Pack for other approaches.



Low-tech workarounds



"My school doesn't have software for..."

- Not all educators have the technology to create the more advanced NGN item types (e.g., pull-down menus, matrix)
- Fortunately, just about everything we can test with the advanced item types can also be tested with simpler ones (e.g., multiple choice, select all that apply)...if we're a bit creative
- The what (clinical judgment) will always matter more than the how (item type)



Example 1: Highlighting



Click to highlight the findings below that would indicate the client is not progressing as expected.

Progress Notes

Client is post-op day #3 after a splenectomy and is able to ambulate in the corridor 3 to 4 times daily with minimal assistance. The client has clear breath sounds with a left chest tube in place attached to a closed-chest drainage system. Tidaling of the water chamber noted with deep inspiration. The client is refusing to use the incentive spirometer stating it causes left-sided chest pain. The client is utilizing prescribed patient-controlled analgesia (PCA) device maximally every hour and continues to have intermittent nausea with some vomiting. Adequate urine output. Abdominal surgical incision site with dressing is clean, dry, and intact with no erythema, edema or drainage noted to site.

- Which findings indicate the client is not progressing as expected, post-op day #3?
- ➡□ Able to ambulate in the corridor 3-4 times daily with minimal assistance
 - ☐ Clear breath sounds with left chest tube in place attached to closed-chest drainage system
 - ☐ Tidaling of the water chamber noted with deep inspiration
 - ☐ Refusing to use the incentive spirometer stating it causes left-sided chest pain
 - ☐ Utilizing prescribed patient-controlled analgesia (PCA) device maximally every hour
 - ☐ Continues to have intermittent nausea with some vomiting
 - Adequate urine output
 - ☐ Abdominal surgical incision site with dressing is clean, dry, and intact with no erythema, edema or drainage noted to site

Low tech

High tech

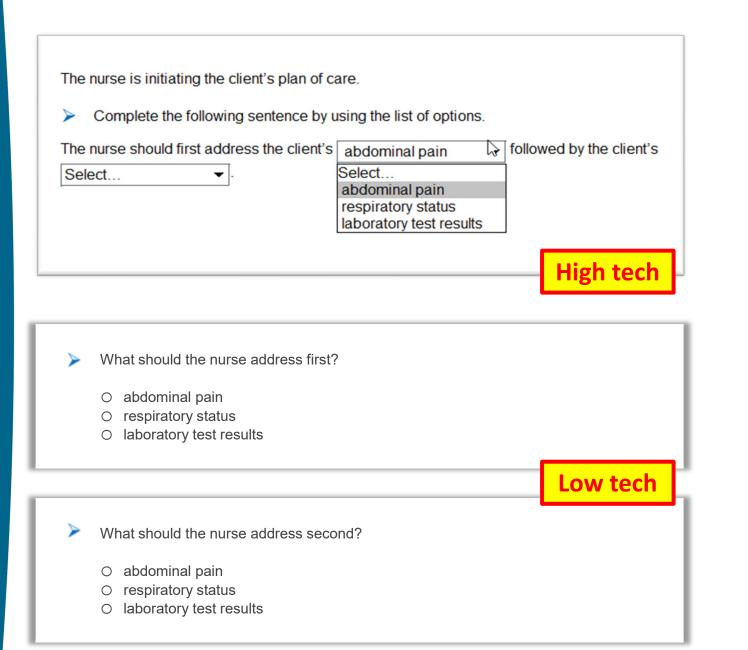
WRITING TIPS

- No special software to create this highlighting item? Not a problem.
- You can measure the same clinical judgment skills using the extended multiple response format!
- Turn the sentences for highlighting into ordinary answer choices in a select all that apply item.



Example 2: Pull-down menus





WRITING TIPS

- No special software to create this pull-down menu item? Not a problem.
- You can measure the same clinical judgment skills using one or more multiple choice items!



Example 3 – Matrix Item



For each potential order, click to specify whether the potential order is anticipated or contraindicated for the client.

Potential Order	Anticipated	Contraindicated
echocardiogram		•
intravenous fluids		
abdominal ultrasound		•
preparation for surgery		
serum type and screen	•	•
chest percussion therapy		
insertion of a nasogastric (NG) tube	•	•
administration of prescribed pain medication		•

High tech

WRITING TIPS

- No special software to create this matrix item? Not a problem.
- You can measure the same clinical judgment skills using the select all that apply format!

	Which of these potential	orders should	the nurse	anticipate?	Select all	that apply.
--	--------------------------	---------------	-----------	-------------	------------	-------------

- echocardiogram
- intravenous fluids
- abdominal ultrasound
- preparation for surgery
- serum type and screen
- □ chest percussion therapy
- ☐ insertion of a nasogastric (NG) tube
- administration of prescribed pain medication

Low tech



Example 4 – Matrix with Select All



WRITING TIPS

- No special software to create this matrix item with multiple selections possible in each row? Not a problem.
- You can measure the same clinical judgment skills using a series of select all that apply items!

For each client finding below, click to specify if the finding is consistent with the disease process of pneumonia, a urinary tract infection (UTI), or influenza. Each finding may support more than 1 disease process.

Client Findings	Pneumonia	UTI	Influenza
fever			
confusion			
body soreness			
cough and sputum			
shortness of breath			

High tech

>	Which of these findings is consistent with pneumonia? Select all that apply .		
	□ fever □ confusion □ body soreness □ cough and sputum □ shortness of breath		
>	Which of these findings is consistent with a urinary tract infection (UTI)? Select all that apply. ☐ fever ☐ confusion ☐ body soreness ☐ cough and sputum ☐ shortness of breath		
>	Which of these findings is consistent with influenza? Select all that apply. fever confusion body soreness cough and sputum shortness of breath		

Workshop summary

- Educators can use the NCSBN Action Model to assist in developing clinical judgment case studies similar to those on the Next Generation NCLEX
- Take advantage of existing sample items that you can use or adapt as templates...no need to start from scratch immediately
- If you do not have tools for creating advanced item types, use "low tech" workarounds based on MC or Select All that Apply formats

TRAINING TIPS

- Clinical judgment is the key!
- Do not settle for items that LOOK like NGN but only measure memorized facts.
- The NGN will use these case studies for highstakes assessment, but educators can use more flexibly and broadly.



NCSBN Resources and Updates





NGN News - Summer 2022

Topic: Overview of the 2021 PN Practice Analysis

2022 | PUBLICATION



NGN News - Spring 2022

Topic: Overview of the 2021 RN Practice Analysis

2022 | PUBLICATION



NGN News - Winter 2022

Topic: NGN Test Design 2022 | PUBLICATION



NGN News - Fall 2021

Topic: NGN Case Study and Stand-alone Comparison

2021 | PUBLICATION



NGN News - Summer 2021

Topic: Scoring Models
2021 | PUBLICATION



NGN News - Spring 2021

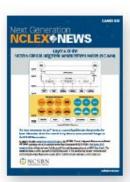
Topic: Stand-alone Items 2021 | PUBLICATION



NGN News - Fall 2020

Topic: Licensed Practical/Vocational Nurses

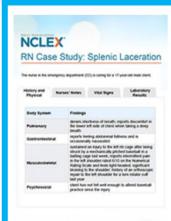
2020 | PUBLICATION



NGN News - Summer 2020

Topic: Layer 4 of the NCJMM

2020 | PUBLICATION



Sample Questions

Experience the NGN's new item types with our sample pack.

- 3 RN Case Studies
- 2 PN Case Studies
- Additional examples

FREE DOWNLOAD >



Exam Preview

See how the new item types fit into the overall exam with our exam preview.

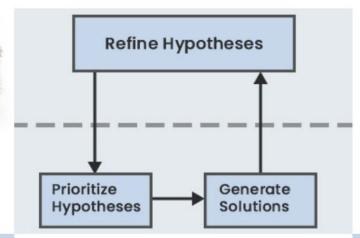
FREE DOWNLOAD >



Take the NGN Tutorial



The Secret to Computer Adaptive Testing



Clinical Judgment Measurement Model

NCSBN Updates

- NCLEX-RN and NCLEX-PN Test Plans
 - Effective April 1, 2023
 - Now available on NCSBN website
- NCLEX-RN and NCLEX-PN passing standards
 - Effective April 1, 2023
 - Staying the same as before (0.00 RN, -0.18 PN)



NCLEX-RN Test Plan

Client Needs category	Percentage (2019)	Percentage (2023)		
Safe and Effective Care Environment				
Management of Care	20%	18%		
Safety and Infection Control	12%	13%		
Health Promotion and Maintenance	9%	9%		
Psychosocial Integrity	9%	9%		
Physiological Integrity				
Basic Care and Comfort	9%	9%		
Pharmacological and Parenteral Therapies	15%	16%		
Reduction of Risk Potential	12%	12%		
Physiological Adaptation	14%	14%		



NCLEX-PN Test Plan

Client Needs category	Percentage (2020)	Percentage (2023)		
Safe and Effective Care Environment				
Coordinated Care	21%	21%		
Safety and Infection Control	13%	13%		
Health Promotion and Maintenance	9%	9%		
Psychosocial Integrity	12%	12%		
Physiological Integrity				
Basic Care and Comfort	10%	10%		
Pharmacological Therapies	13%	13%		
Reduction of Risk Potential	12%	12%		
Physiological Adaptation	10%	10%		



NCSBN Resource Links

□ NGN Newsletters – <u>All NGN newsletters</u> | <u>Spring 2020 Newsletter</u> (Case Study) | <u>Summer 2021 Newsletter</u> (Scoring)
 □ NGN Item Writing – <u>Volunteer sign-up page</u>
 □ NCSBN Sample items and case studies – Available at <u>NextGenNurses.org</u>
 □ NCLEX Test Plans – Updated 2023 Test Plans have been published <u>here</u>
 □ More information on <u>NCLEX passing standard</u>
 □ NCSBN Contact: Jason Schwartz, Director of Outreach – jschwartz@ncsbn.org



Questions

