How to Write Case Study Questions
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Disclosures
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Learning Objectives

Session Description: In this session, using a case study, participants will choose an appropriate test item type for each step of a clinical judgment model. Participants will be given the opportunity to practice writing questions for the case study.

Session Learning Objectives:
After engaging in this session, the participant will be able to:
1. Write test questions for each step of a clinical judgment model.
2. Write a Case Study with test items for their course Identify, analyze and construct appropriate use of new test item/s based on the case study
NCSBN Clinical Judgment Assessment Model

- Designed to test clinical judgment and decision-making in a large scale, high-stakes setting
- Supports NGN item development
- Can be adapted for teaching

RN and PN NGN Test Plan

- Variable length computer adaptive exam with test length of 85-150 items
  - 15 unscored items in 1st 85 can be a mix of standalone and case study items
- First 70 graded question include:
  - 3 6-item NGN cases (18 questions) - exam does not adapt during a case
  - 52 stand alone items
- Additional 65 items (86-150) will be all standalone items
  - 10% will be NGN standalone items (trend/bow-tie) to test Clinical Judgment
  - 90% will be knowledge items to test Client Needs
  - Knowledge items can be tested with any item format except bow-tie
- Test will be 5 hours
- Cases are not anticipated to take extra time (about 2 minutes/question)

New test plan anticipated April 1, 2023; Beta testing will start in 2022

NCSBN 2021 NCLEX Conference

Planning a Case
General

- Cases information is always presented as an electronic medical record (EMR)
- Cases can have from 1 to 6 EMR tabs
- Cases unfold and new information can be added at any point
- Cases have 6 questions; 1 for each clinical judgment action in order
  1. Recognize cues
  2. Analyze cues
  3. Prioritize hypotheses
  4. Generate solutions
  5. Take action
  6. Evaluate outcomes
  > Arrows signal the question lead in statement

Approaches to Creating A Case

- Develop a client-care situation an entry-level nurse may encounter
  - High frequency
  - Low frequency but high risk
- May start with an existing case
  - Textbook case
  - Simulation scenario
- Or use a template to build a case

Developing Relevant Context (CJM Layer 4)

- A school
- 9-year-old male
- Sweating and confused in gym class
- History of type I diabetes, takes premix insulin 30% regular & 70% NPH twice a day, last dose was 3 hours ago
- The gym teacher brought the client to nurse
Add Some Additional Less Relevant Details

- The client was sick yesterday and missed school.
- He needed extra insulin yesterday when he was sick.
- Last blood glucose was 120mg/dL this morning before breakfast.

Caution about Adding Patient Characteristics

- Characteristics of a patient such as age, sex, gender identity, disability, socioeconomic status, native language, country of origin, ancestry and/or occupation are sometimes added to cases.
- Adding client characteristics to questions does not automatically make the question about culture or diversity and may have negative consequence of contributing to negative stereotypes.

Add Characteristics with Focus on Clinical Judgment

- Characteristics should be clinically relevant or improve distractions.
- Questions about childhood development need an age to determine if a finding is normal.
- Add any characteristics that are necessary to understand why the patient is being seen.
- A client with a physical disability may be seen for changes to their assistive devices.
- Add characteristics to increase the probability that the nurse will recognize client risks especially if the condition might be rare.
- Risk of Tach-Sachs disease may not be identified if you don’t know the client has a Jewish background.
- Add characteristics that require a different approach to care.
- Transgender clients require gender affirming care.
- Clients speaking a native language other than English may require an interpreter.
- Do not add characteristics that perpetuate negative stereotypes.
- Stating the homeless client without specifying a race perpetuates less stereotyping than saying the black homeless client.

Modified from NBME (2021)
Build the Case in to an EMR

**Possible Data**
- Age, gender
- Care environment
- Presenting symptoms
- Duration of symptoms
- Significant history (medical, psycho-social, family)
- Physical findings
- Diagnostic tests if applicable
- Treatments used
- Any family or support persons present if applicable
- Initial treatment and subsequent findings if applicable

**Possible EMR Pages (up to 6)**
- Nurses’ Notes
- History and Physical
- Laboratory Results
- Vital Signs
- Admission Notes
- Orders
- Intake and Output
- Progress Notes
- Medications
- Diagnostic Results
- Flow Sheet

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**EMR Pages**
- All tabs may all be present at beginning or may be added as case unfolds.
- EMR for 1st question should present a good overview of the patient.
- Consider: Nurses’ Notes, Admission Notes, or History and Physical
- Amount of information needs to be reasonable.
- May not need all parts of a traditional lab combo.
- Do not need entire order set.
- Narratives should be a short paragraphs.
- Consider moving information to other EMR pages if narrative is long.
- Information may be added to pages at any point.
- Cueing is added to right whenever new information is added.
- Care setting may change.
- The introductory sentence may need to change with change settings or time.

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Sentence describes a little about the patient and may change if setting changes or there is significant time change.

The nurse cares for an older adult in the clinic with hypertension.

Case Study Screen 1 of 6

Cueing signals students that 6 questions are coming.

Begin with EMR pages students need access to (at least 6)

Having boarder open on EMR page helps students know what they are reading

If students need access to multiple pages for 1st question either need ability for students to tab through or show those pages

EMR will align on left with MCQ question on right
The nurse cares for an older adult in the clinic with hypertension.

<table>
<thead>
<tr>
<th>History and Physical</th>
<th>Nurses' Notes</th>
<th>Laboratory</th>
<th>Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>May start with all pages OR Add more as you need them up to 6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Labs must include reference ranges or normal values.

<table>
<thead>
<tr>
<th>Nurse's Notes</th>
<th>Vital Signs</th>
<th>Orders</th>
<th>Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>Reference Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium</td>
<td>145</td>
<td>136-145</td>
</tr>
<tr>
<td>Potassium</td>
<td>3.2</td>
<td>3.5-5.5</td>
</tr>
<tr>
<td>Chloride</td>
<td>108</td>
<td>96-106</td>
</tr>
<tr>
<td>Blood Urea Nitrogen</td>
<td>20</td>
<td>10-25</td>
</tr>
<tr>
<td>Creatine</td>
<td>0.8</td>
<td>0.7-1.3</td>
</tr>
<tr>
<td>Glucose</td>
<td>85</td>
<td>70-110</td>
</tr>
</tbody>
</table>

Time 1 (start of case): Use military time for cases

Time 2 (after intervention):

New information can be added at any time to existing pages.
The right side of the question layout should allow students to look for new information.
EMR Tabs Open New Pages

Case study Screen 3 of 6

Vital signs can appear as abbreviations

<table>
<thead>
<tr>
<th>Blood Glucose</th>
<th>100.9</th>
<th>P</th>
<th>60</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP</td>
<td>160/94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulse oximetry</td>
<td>97% on room air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Res</td>
<td>2/3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Introductory case sentence about client and setting

Question is on right

Right column tells student if new information should be considered

› Arrows indicate lead in statement for question.

NOTE: This is how NCLEX will set up. This layout may not work with your testing platform.

Writing 6 Questions
Determine What Actions You are Looking for

- Focus on important entry-level knowledge and skills
- Identify specific actions nurses should take
- Consider linking to activity statements and NCLEX test plan

Focus on important entry-level knowledge and skills
- Recognizes S/S hypoglycemia
- Identifies history of diabetes & insulin use
- Hypothesizes an insulin reaction
- Obtains a blood glucose
- Give glucoses
- Reassess the client

Question Stems can come from Detailed Test Plan Activity Statements

NGN focuses on testing clinical judgment rather than client needs. However, using statements from the Detailed Test plan helps ensure that you are testing entry level practice.

Sample PN: Coordinated Care Stems

<table>
<thead>
<tr>
<th>Activity Statement</th>
<th>Possible Questions Stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide information about advance directives</td>
<td>What information should the LPN/VN provide to the client about advanced directives?</td>
</tr>
<tr>
<td>Participate in client data collection</td>
<td>What additional data should the LPN/VN gather next?</td>
</tr>
<tr>
<td>Provide information to supervisor when client assignments need to be changed (e.g., change in client status)</td>
<td>What findings should the LPN/VN report immediately to the supervisor?</td>
</tr>
<tr>
<td>Organize and prioritize based on client needs</td>
<td>Which client should the LPN/VN see first?</td>
</tr>
<tr>
<td>Provide and receive report</td>
<td>What information should the LPN/VN include in the change of shift report?</td>
</tr>
</tbody>
</table>

https://www.ncsbn.org/testplans.htm
Sample RN: Management of Care Stems

<table>
<thead>
<tr>
<th>Activity Statement</th>
<th>Possible Questions Stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform procedures necessary to safely admit, transfer or discharge a client</td>
<td>What information should the nurse confirm before discharging the client?</td>
</tr>
<tr>
<td>Provide and receive hand off of care (report) on assigned clients</td>
<td>What information should the nurse include when handing off the client?</td>
</tr>
<tr>
<td>Assign and supervise care provided by others (e.g., LPN/VN, assistive personnel), other RNs</td>
<td>Which tasks should the nurse assign to an unlicensed assistive personnel?</td>
</tr>
<tr>
<td>Prioritize the delivery of client care</td>
<td>Which prescription should the nurse implement first?</td>
</tr>
<tr>
<td>Initiate, evaluate, and update plan of care (e.g., care map, clinical pathway)</td>
<td>After reassessing the client, what changes should the nurse make to the plan of care?</td>
</tr>
</tbody>
</table>

Question 1: Recognize Cues

**Actions**
- Observe and assess the client
- Obtain information from client’s health record (history, labs, tests, prescriptions)
- Note vital signs—current and changes
- Identify signs and symptoms
- Differentiate relevant from irrelevant data
- Differentiate normal from abnormal
- Recognize what is most important and most urgent

**Questions**
- What matters most?
- What is abnormal, serious, or urgent?
- Which assessment findings need immediate follow-up?
- What are the top findings that require further investigation?

Question 2: Analyze Cues

**Actions**
- Cluster data
- Recognize patterns
- Recognize inconsistencies
- Link cues to client situation
- Recognize what is concerning and why
- Determine what other information is needed
- Consider possible causes
- Identify relevant pathophysiology

**Questions**
- What could it mean?
- Which client findings are consistent with a specific disease/problem?
- Which risk factors does the client have for specific disease/problem?
- What potential issues is the client at risk for developing?
- What are the possible problems/conditions the patient could be having?
- What additional information would be helpful in interpreting the findings?
- Why is a cue/cues concerning?
Question 3: Prioritize Hypotheses

**Actions**
- Narrow possibilities (one thing)
- Determine the most urgent priority
- Determine which hypotheses pose most risk to the client
- Provide evidence/rational to support conclusions
- Determine order of priorities

**Questions**
- Where should the nurse start?
- What is most likely happening?
- Which condition is the client’s highest risk and why/what evidence?
- What is the top complication the client is at risk for developing?
- Which problem/problems should the nurse address first?
- What will most likely happen if the nurse fails to act?

Note: Questions typically include phrases like “most likely,” “greatest risk,” or “highest risk.”

Step 3 generally addresses what problem to address first. Step 5 can more specifically address actions to take first.

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Question 4: Generate Solutions

**Actions**
- Create a plan of care
- Determine desired outcomes
- Select multiple appropriate interventions
- Identify interventions to avoid
- Refine hypotheses if necessary
- Gather more information if needed
- Determine if others (team) need to be involved in the solution

**Questions**
- What can the nurse do?
- What is the best client outcome?
- What intervention/interventions will achieve the desired outcome?
- What additional information should be gathered?
- Which potential interventions are indicated or contraindicated?
- Which orders are anticipated?

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Question 5: Take Action

**Actions**
- Requests a prescription
- Performs skills and procedures
- Administers medication
- Protects the client/family/staff
- Collaborates with team members
- Delegates to appropriate persons
- Communicates with team members
- Teaches client and families
- Documents care

**Questions**
- What will the nurse do?
- Which of the following actions should the nurse take?
- Which intervention/orders should the nurse implement first/immediately?
- Which interventions should the nurse delegate?
- What steps should the nurse take to administer a medication/perform a procedure?
- What should the nurse teach the client?

Note: Step 5 questions will not focus on specific procedures/steps that are published in text-books.
Question 6. Evaluate Outcomes

**Actions**
- Compare observed outcomes to desired outcomes
- Recognizes changes in client status
- Determines effectiveness of action (meds, teaching, procedure)
- Determines which (assessments, vital signs, and labs etc.) requires follow up
- Determines if other interventions are needed

**Questions**
- Did the interventions help?
- Was the teaching understood?
- Which assessment findings indicate that the client’s condition has improved, stayed the same, or declined?
- Which assessment findings indicate the client is not progressing as expected?
- Which assessments should the nurse make to determine if the treatments were effective?
- Which findings suggest the client is ready for discharge?
- What additional intervention should the nurse implement based on the findings?

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**Item Types**

13 Case Study Item Types

<table>
<thead>
<tr>
<th>Traditional Items</th>
<th>Extended Multiple response</th>
<th>Extended Drag-and-Drop</th>
<th>Drop-Down</th>
<th>Matrix/grid Highlight (enhanced hot spot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Choice</td>
<td>Select all that apply</td>
<td>Close</td>
<td>Close</td>
<td>Multiple response</td>
</tr>
<tr>
<td></td>
<td>Select N</td>
<td>Rationale</td>
<td>Multiple choice</td>
<td>Table</td>
</tr>
<tr>
<td></td>
<td>Grouping</td>
<td>Table</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Recommendations for Using Item Types

<table>
<thead>
<tr>
<th>Step</th>
<th>Ideal</th>
<th>Consider Avoiding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognize cues</td>
<td>Highlight text or table</td>
<td>Select all that apply or select N</td>
</tr>
<tr>
<td>Analyze cues</td>
<td>Select all that apply or select N</td>
<td>Rationale or Cloze</td>
</tr>
<tr>
<td>Prioritize hypotheses</td>
<td>Multiple choice or matrix</td>
<td>Rationale or Cloze</td>
</tr>
<tr>
<td>Evaluate outcomes</td>
<td>Highlight text or table</td>
<td>Select all that apply or select N</td>
</tr>
<tr>
<td>Generate solutions</td>
<td>Grouping</td>
<td>Multiple choice</td>
</tr>
<tr>
<td>Take action</td>
<td>Multiple response</td>
<td>Multiple choice matrix</td>
</tr>
</tbody>
</table>

### NGN Scoring Rule Summary

<table>
<thead>
<tr>
<th>Type</th>
<th>No.</th>
<th>Rationale scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple choice</td>
<td></td>
<td>Highlight text or table</td>
</tr>
<tr>
<td>Multiple response</td>
<td></td>
<td>Multiple response matrix (by column)</td>
</tr>
<tr>
<td>Drop-down choice</td>
<td></td>
<td>Drag and drop rationale</td>
</tr>
</tbody>
</table>

This is rule NCSBN uses. Programs should use rule that makes sense for them.

### Sample Case I

One EMR Page
No Technology Enhanced Items
The 9-year-old child with history of type I diabetes is brought to the school nurse’s office.

Case Study

Screen 1 of 6

- Which 3 client findings are most significant?
  - Diaphoresis [x]
  - Increased insulin yesterday
  - Morning blood glucose
  - Regular insulin today [x]
  - NPH insulin today
  - Recent illness
  - Confusion [x]

3 keyed answers = 3 points possible
0/1 scoring

Screen 2 of 6

- Which factors best explain the client findings?
  - Increased insulin and illness.
  - Physical activity and insulin peaks. [x]
  - Illness and physical activity.
  - Dehydration and illness.

1 keyed answer = 1 point possible
0/1 scoring

Screen 3 of 6

- Which problems is the client most likely experiencing?
  - Dehydration
  - Hypoglycemia [x]
  - Ketoacidosis
  - Shock

1 keyed answer = 1 point possible
0/1 scoring
The 9-year-old child with history of type 1 diabetes is brought to the school nurse's office.

The nurse obtains a blood glucose.
- Which interventions are indicated? Select all that apply.
  - Activate the emergency medical response system
  - Obtain a blood glucose
  - Give 15 grams of quick-acting glucose
  - Notify the parents of the incident
  - Observe student in nurse's office for 4 hours

3 keyed answers = 3 points possible
+/- scoring

The nurse prepares to give the client a simple fast-acting carbohydrate.
- Which options would be appropriate to give the client? Select all that apply.
  - 0.5 liters of regular soda
  - 15 mL of honey
  - 150 mL of fruit juice
  - 240 mL of low-fat milk
  - 3 glucose tablets
  - 125 g (full-size) chocolate candy bar

3 keyed answers = 3 points possible
+/- scoring

The nurse treats the client with 15 grams of glucose.
- Which findings would indicate that the client is developing severe hypoglycemia? Select all that apply.
  - Repeat blood glucose still 65 mg/dL
  - Refusal to eat or drink
  - Development of a headache
  - Slurred speech
  - Twitching movements

3 keyed answers = 3 points possible
+/- scoring
Sample Case II

Multiple EMR Pages
Technology Enhanced Items

The nurse cares for a client admitted to the ward from surgery following long cast placement for a right upper tibial fracture.

Which assessments need immediate follow-up. Select all that apply.

- Circulation [x]
- Edema [x]
- Movement [x]
- Nausea
- Pain [x]
- Urinary output
- Vital signs

Multiple response SATX
+/- Scoring
3pts possible

For each client finding below click to specify if the finding is consistent with the complication of compartment syndrome, deep vein thrombosis (DVT), or hypovolemic shock. Each finding may support more than 1 complication.

Matrix Multiple Response
+/- Scoring by column
7pts possible

Note: Each column must have at least 1 response option selected

Matrix Multiple Response
+/- Scoring by column
3pts possible
The nurse cares for a client admitted to the ward from surgery following long cast placement for a right upper tibial fracture.

Case Study Screen 3 of 6

- Complete the sentences from the list of drop-down options.
- The client has most likely developed
  - compartment syndrome
  - a deep vein thrombosis.
- The nurse should take immediate action to
  - restore volume
  - decrease compression
  - administer anticoagulants to prevent the serious complication of
  - cardiac arrest.
  - tissue necrosis.
  - pulmonary embolism.

Drop-down table
0/1 scoring by drop-down
3pts possible

The nurse notifies the orthopedic surgeon about change in condition. The orthopedic surgeon wants to attempt conservative treatment.

- For each possible intervention click to indicate if the intervention is indicated or not indicated.

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Indicated</th>
<th>Not Indicated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Splint cast on each side</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cut the undercast padding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elevate leg above heart level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inserting a tissue-pressure monitoring device</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administer narcotic analgesia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reassess in two hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Matrix Multiple Choice
0/1 scoring by row
6pts possible

The nurse cares for a client on the ward with right upper tibial fracture who developed compartment syndrome.

Case Study Screen 5 of 6

- The client's condition does not improve and undergoes an emergency fasciotomy. The client returns to the ward with new post-operative orders.

- Choose the most likely option for the missing information in the table below by choosing from the list of options.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Concentration</th>
<th>Patient controlled dose</th>
<th>Lockout</th>
<th>4-hour limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine Sulfate</td>
<td>10mg in 1mL</td>
<td>1mg</td>
<td>1 minute</td>
<td>30 mg</td>
</tr>
<tr>
<td></td>
<td>15mg in 30 mL</td>
<td>10mg</td>
<td>10 minutes</td>
<td>125 mg</td>
</tr>
<tr>
<td></td>
<td>150mg in 100 mL</td>
<td>100mg</td>
<td>60 minutes</td>
<td>400mg</td>
</tr>
</tbody>
</table>

Drop-down table
0/1 scoring by drop-down
4pts possible
The nurse assesses the patient the day after a right tibial fasciotomy for acute compartment syndrome.

- Drag one condition and two assessments to fill in each blank of the following sentence:

The patient may be developing __________ based on the __________ and __________.

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td>fluid overload</td>
<td>heart rate</td>
</tr>
<tr>
<td>infection</td>
<td>laboratory values</td>
</tr>
<tr>
<td>muscle necrosis</td>
<td>peripheral pulses</td>
</tr>
<tr>
<td>shock</td>
<td>temperature</td>
</tr>
<tr>
<td>thrombosis</td>
<td>urine characteristics</td>
</tr>
</tbody>
</table>

Sample Case III

Technology Enhanced Items

Multiple Pages Added

The nurse is caring for a 25-year-old primigravid client at 37 weeks gestation in the prenatal clinic.
The nurse is caring for a 25-year-old primigravid client at 37 weeks gestation in the prenatal clinic.

**Case study screen 1 of 6**

- Click to highlight below the findings that need immediate follow-up.

<table>
<thead>
<tr>
<th>Type</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vital signs</td>
<td>SBP 140/90, HR 90/60, PR 60/60, BP 90/60</td>
</tr>
<tr>
<td>Clinical history</td>
<td>AST, ALT, AST, ASAT, ALAT, ASAT, ASAT</td>
</tr>
<tr>
<td>Headache</td>
<td>Headache pattern is consistent with seizures</td>
</tr>
<tr>
<td>Urine dipstick</td>
<td>Positive for proteinuria (3+ proteinuria)</td>
</tr>
<tr>
<td>Fetal heart rate</td>
<td>Fetal heart rate is consistent with fetal distress</td>
</tr>
<tr>
<td>Blood pressure</td>
<td>Blood pressure is consistent with fetal distress</td>
</tr>
<tr>
<td>Weight gain</td>
<td>Weight gain is consistent with fetal distress</td>
</tr>
</tbody>
</table>

**Case study screen 2 of 6**

For each client finding below, click to specify if it is most consistent with the diagnosis of mild preeclampsia or severe preeclampsia.

- **Finding**
  - **Mild preeclampsia**
  - **Severe preeclampsia**

<table>
<thead>
<tr>
<th>Finding</th>
<th>Mild preeclampsia</th>
<th>Severe preeclampsia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood pressure</td>
<td>○ ○</td>
<td>○ ○</td>
</tr>
<tr>
<td>Headache</td>
<td>○ ○</td>
<td>○ ○</td>
</tr>
<tr>
<td>Urine dipstick</td>
<td>○ ○</td>
<td>○ ○</td>
</tr>
<tr>
<td>Fetal heart rate</td>
<td>○ ○</td>
<td>○ ○</td>
</tr>
</tbody>
</table>

**Case study screen 3 of 6**

Drag words from the choices below to fill in each blank of the following sentences.

- The client most likely has ________________.
- The client is at greatest risk for ________________.

**Word Choices**

- Mild preeclampsia
- Pulmonary edema
- Seizures
- Severe preeclampsia
- Stroke
The nurse is caring for a 25-year-old primigravid client at 37 weeks gestation in the prenatal clinic.

### Case study screening 4 of 6

The client is transferred to the labor and delivery unit with the diagnosis of severe preeclampsia.

- Select the anticipated provider orders from each of the following categories. Each category must have at least 1 response option selected.

<table>
<thead>
<tr>
<th>Category</th>
<th>Potential Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity</td>
<td>□ Bathroom privileges</td>
</tr>
<tr>
<td></td>
<td>□ Quiet environment [ ]</td>
</tr>
<tr>
<td></td>
<td>□ Seizure precautions [ ]</td>
</tr>
<tr>
<td>Medications</td>
<td>□ Magnesium sulfate infusion [ ]</td>
</tr>
<tr>
<td></td>
<td>□ Magnesium sulfate bolus [ ]</td>
</tr>
<tr>
<td>Monitoring</td>
<td>□ Intermittent fetal heart rate monitoring</td>
</tr>
<tr>
<td></td>
<td>□ CBC and clotting studies [ ]</td>
</tr>
<tr>
<td></td>
<td>□ Complete metabolic panel with magnesium levels [ ]</td>
</tr>
</tbody>
</table>

The nurse is caring for a 25-year-old primigravid client at 37 weeks gestation on the maternity unit with severe preeclampsia.

### Case study screening 5 of 6

The nurse receives orders to administer magnesium sulfate. Which steps should the nurse follow when administering magnesium sulfate?

- Select all that apply.

|         | Two clinicians double check medication [ ] |
|         | Infuse on an IV pump [ ] |
|         | One on one care during initial administration [ ] |
|         | Have naloxone antidote available |
|         | Monitor urine magnesium levels |
|         | Monitor deep tendon reflexes [ ] |
|         | Monitor respiratory rate [ ] |

The nurse is caring for a 25-year-old primigravid client at 37 weeks gestation in the maternity ward.

### Case study screening 6 of 6

The nurse has implemented the treatment plan and reassess the client.

- Click to specify the findings that now require immediate intervention.

The nurse has implemented the treatment plan and reassesses the client.

- Click to specify the findings that now require immediate intervention.
The nurse is caring for a 25-year-old primigravid client at 37 weeks gestation in the maternity ward. The nurse has implemented the treatment plan and reassesses the client. Click to specify the findings that now require immediate intervention.

Practice

Critiquing Questions
• Which question (1-6) is being asked?
• Does the question address the correct CJM task?
• Are all elements present?
• Are there the right number of options?
• Does the question make sense?
• Other observations like grammar?
Which interventions should the nurse anticipate incorporating in the plan of care? Select all that apply:
- Bathroom privileges
- Quiet environment
- Seizure precautions
- Deep Tendon Reflexes Q2
- Magnesium sulfate IV 4 gm over 15 minutes
- Magnesium sulfate IV 2 gm/hour
- Betamethasone 12 mg IM
- Intermittent fetal monitoring
- CBC and clotting studies daily
- Complete metabolic panel and magnesium levels
- 24-hour urine

The nurse cares for a college student in the emergency department with a suspected substance abuse. Select the 3 findings that require immediate follow up:
- Heart rate
- Level of consciousness
- Respiratory rate
- Pupillary reactions

The nurse cares for a client brought to hospital on a 48-hour emergency detention. What rights does the nurse tell client they retain?
- To reasonable access to a telephone to make and receive confidential calls.
- To refuse medical treatment or treatment with medications except in an emergency.
- To leave the hospital against medical advice.
- To have or not have other persons notified if you are hospitalized.
- To decline to take part in any research project or medical experiment.

The nurse educates the client about their rights during the admission to the mental health unit.
Group Practice

- Using the templates provided, write 6 questions for one of 2 cases:
  - Case 1: Inpatient, 19-year-old with ruptured spleen (Use template 1)
  - Case 2: Outpatient, 33-year-old with post-partum depression (Use template 2).
- For question 6, add a new time point at the right side of the case that shows client may be deteriorating.
- Feel free to modify case, add additional data, or change the item format if you have a great idea.
- Have fun!

Implementation

- Begin with a focus on teaching clinical judgment
  - Classroom cases
  - Post conference discussions
  - Simulation
  - Electronic NGN self-study products

Planning for Testing

- Create a unified program plan for adding case studies to course exams
  - Suggest beginning with 1 case per exam
  - Focus first on creating cases with 6 questions
  - Enhanced item types must be given in electronic format.
    - Screen readers will not work with enhanced item types.
  - Need to work with disability services
  - Determine a scoring system that makes sense for your program
    - NCBN computer adaptive testing and uses scaling
    - Consider your passing standard
    - Consider how your LMS scores
  - Consider starting with familiar types (Multiple choice/multiple response)
    - Add new item types consistent with your testing platform
    - Do not need to include all item types in a case
References

- NCBSN. 2021 Next Generation NCLEX® (NGN) Forum 1 & 2CBN
- NCBSN. Publishers’ Summit Next Generation NCLEX® (presentation), 2020