

# Start from the End to Win: Backward Curriculum Design to Enhance Clinical Judgment

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## Learning Objectives

- **Identify the three stages of backward curriculum design.**
- **Discuss how to use backward curriculum design to incorporate the NCSBN clinical judgment measurement model (CJMM) into the nursing curriculum.**
- **Demonstrate the application of backward design in developing a NextGen NCLEX-RN® case study.**

*\*The presenters have no conflict of interest to disclose.*

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## How We Design Curriculum Now

Which content is important and how will I teach the content?

- What am I an expert in?
- What does the textbook say?

Develop an assessment around the teaching activities

- What questions do I need on the test?
- Did the student learn the answers based on what I taught in class?

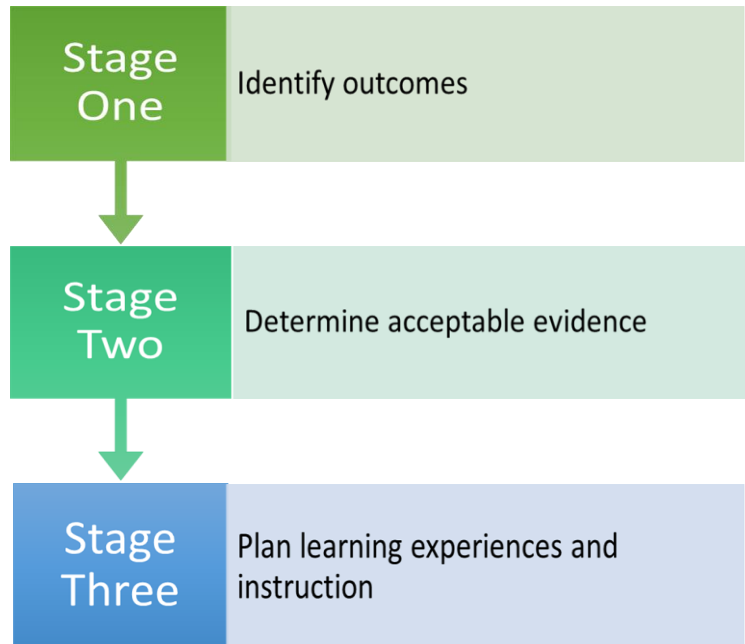
Connect the assessment to the learning goals of the course

- Which outcome does this test or question match?

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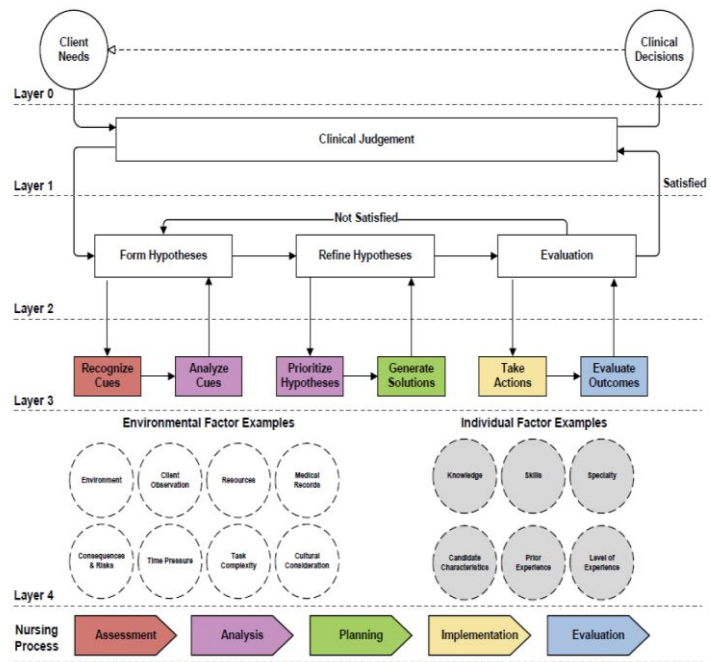
## Three stages of Backward Design

Wiggins & McTighe (2009)



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# NCSBN Clinical Judgment Measurement Model



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## Application of Backward Design

Stage One:  
Identify the outcome

What should the student:

Know

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Understand

---

Demonstrate

---

Retain

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## Application of Backward Design Stage Two: Determine acceptable evidence

What is the evidence that would indicate understanding of the topic?

What specific student responses or behaviors are needed?

Is the evidence enough for faculty to determine if the student knows, understands, demonstrates, and retains?

Does evidence align with desired outcome?

Clinical Judgment Overview



ncsbn.org



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Application of  
Backward  
Design

Stage Three:  
Learning  
Experience and  
Instruction

Simulation:  
In-person, screen-based, or virtual

Socratic questioning

Storytelling

Case Studies

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## Application Example

### Selection of Topics: Practice & Education Alignment

## Sepsis



270,000

1 out of 3

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### Stage One: Identify the outcome

Outcome: Students will understand the nursing concept of sepsis and demonstrate nursing care and clinical judgment in the management of the patient.



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## Essential Nursing Content Knowledge - Sepsis

<u>Signs &amp; Symptoms of Sepsis</u>	
Temp: > 100.4°F (38°C) or < 96.8°F (36°C)	
Tachycardia: >90 bpm	
Tachypnea: >20 breaths per minute	
Progressive deterioration of mental status	
Altered mental status	positive fluid balance >20 mL/kg over 24 hours
Significant edema or a positive fluid balance	
Hyperglycemia in absence of diabetes	blood glucose > 140 mg/dL (7.7 mmol/L)
Acute oliguria	
	urine output of < 0.5 mL/kg/hr for at least 2 hrs

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## Essential Nursing Content Knowledge - Sepsis

<u>Risk Factors for Sepsis</u>
Adults ≥ 65 years
Hx chronic medical conditions (diabetes, lung disease, cancer, and kidney disease)
Weakened immune systems
Sepsis survivors
Children < 1 year

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## Essential Nursing Content Knowledge - Sepsis

### TIME

**T**emperature change

**I**nfection

**M**ental decline

**E**xtrremely ill

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### Case Study:

#### DM Discharge with PICC

##### Nurses Notes

A 45-year-old female client with a diagnosis of diabetes mellitus type 2 and osteomyelitis is preparing for discharge following debridement of a right foot ulcer and several days of IV Vancomycin infusion. The client is scheduled to be discharged with a peripherally inserted central catheter (PICC) in the left antecubital space so she can continue to receive intravenous antibiotics at home. The client is awake and confused and reports feeling anxious and "a little short of breath." Lungs are clear to auscultation. The client reports pain at the surgical site of 6/10. The right foot dressing and PICC dressing are dry and intact. Oral and IV Intake for the past 24 hours: 2200 mL. Urine output: 420 mL.

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## Case Study:

## DM Discharge with PICC

## Nurses Notes

A 45-year-old female client with a diagnosis of diabetes mellitus type 2 and osteomyelitis is preparing for discharge following debridement of a right foot ulcer and several days of IV Vancomycin infusion. The client is scheduled to be discharged with a peripherally inserted central catheter (PICC) in the left antecubital space so she can continue to receive intravenous antibiotics at home. The client is awake and confused and reports feeling anxious and "a little short of breath." Lungs are clear to auscultation. The client reports pain at the surgical site of 6/10. The right foot dressing and PICC dressing are dry and intact. Oral and IV Intake for the past 24 hours: 2200 mL. Urine output: 420 mL.

Read the case study provided, then refer to the case study to answer the question. Highlight the significant assessment findings that should be reported to the health care provider following the assessment?

## Vital Signs:

Heart rate	108, regular
SpO <sub>2</sub>	88% on RA
Blood pressure	92/56
Oral temperature	99 °F (37.2 °C)
Respiratory rate	28

The nurse reviews the morning laboratory report. Lab Results:

Na	148 mEq/L (148 mmol/L)
K	4.8 mEq/L (4.8 mmol/L)
Creatine	1.8 mg/dL (159.16 mmol/L)
Serum glucose	132 mg/dL (7.8 mmol/L)
WBC	3,800/mm <sup>3</sup> (3.8 X 10 <sup>9</sup> /L)
Platelets	Platelets 105,000/mm <sup>3</sup> (105 X 10 <sup>9</sup> /L)

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## Case Study:

## DM Discharge with PICC

## Nurses Notes

A 45-year-old female client with a diagnosis of diabetes mellitus type 2 and osteomyelitis is preparing for discharge following debridement of a right foot ulcer and several days of IV Vancomycin infusion. The client is scheduled to be discharged with a peripherally inserted central catheter (PICC) in the left antecubital space so she can continue to receive intravenous antibiotics at home. The client is awake and confused and reports feeling anxious and "a little short of breath." Lungs are clear to auscultation. The client reports pain at the surgical site of 6/10. The right foot dressing and PICC dressing are dry and intact. Oral and IV Intake for the past 24 hours: 2200 mL. Urine output: 420 mL.

Select the 3 laboratory findings which are significant for the development of sepsis. Choose only the findings which are significant.

Laboratory Result	
<input type="checkbox"/>	Na 148 mEq/L (148 mmol/L)
<input type="checkbox"/>	K 4.8 mEq/L (4.8 mmol/L)
<input checked="" type="checkbox"/>	Creatinine 1.8 mg/dL (159.16 mmol/L)
<input type="checkbox"/>	Serum glucose 132 mg/dL (7.8 mmol/L)
<input checked="" type="checkbox"/>	WBC 3,800/mm <sup>3</sup> (3.8 X 10 <sup>9</sup> /L)
<input checked="" type="checkbox"/>	Platelets 105,000/mm <sup>3</sup>

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Case Study:

DM Discharge with PICC

Nurses Notes

A 45-year-old female client with a diagnosis of diabetes mellitus type 2 and osteomyelitis is preparing for discharge following debridement of a right foot ulcer and several days of IV Vancomycin infusion. The client is scheduled to be discharged with a peripherally inserted central catheter (PICC) in the left antecubital space so she can continue to receive intravenous antibiotics at home. The client is awake and confused and reports feeling anxious and "a little short of breath." Lungs are clear to auscultation. The client reports pain at the surgical site of 6/10. The right foot dressing and PICC dressing are dry and intact. Oral and IV Intake for the past 24 hours: 2200 mL. Urine output: 420 mL.

In response to the client's assessment and the laboratory findings, the healthcare provider orders several procedures, including chest x-ray, culture right foot wound, ABG'S, urine C/S with insertion of indwelling urinary catheter, and blood cultures X 2.

Complete the sentence below using the word choices provided.

The nurse anticipates the client's top priorities for care will be to

improve tissue perfusion	and	prevent further infection
decrease serum blood glucose		prevent further infection
improve tissue perfusion		decrease the client's anxiety
reorient the client		provide explanations to the family

Case Study:

DM Discharge with PICC

Nurses Notes

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Which actions should the nurse prepare to take?

For each action below, click to specify whether the action would be:  
Indicated - an action that the nurse should take to resolve the problem

Contraindicated - an action that could harm the client and should not be taken

Potential Intervention	Indicated	Contraindicated
Encourage the client to ambulate	<input type="radio"/>	<input type="radio"/>
Assess neuro status every 1 hour	<input type="radio"/>	<input type="radio"/>
Monitor the client's stools for blood	<input type="radio"/>	<input type="radio"/>
Administer IV fluids	<input type="radio"/>	<input type="radio"/>
Restrict all visitors	<input type="radio"/>	<input type="radio"/>

Case Study:

DM Discharge with PICC

Nurses Notes    HCP Orders

The health care provider writes additional orders:

- Vital signs and neuro checks q 1 hour
- Strict I/O
- Fingerstick glucose q 4 hours
- Stat CBC with differential, lactic acid and coagulation profile.

The nurse assigns team members to provide the client’s care. Which interventions are appropriate to assign to the unlicensed assistive personnel (UAP)?

Laboratory Result	
<input checked="" type="checkbox"/>	Monitor and record vital signs every 1 hour.
<input type="checkbox"/>	Change right foot dressing and obtain a wound culture.
<input type="checkbox"/>	Draw blood from the PICC line and change the dressing.
<input type="checkbox"/>	Administer all oral medications.
<input type="checkbox"/>	Assess client response to pain medication.
<input checked="" type="checkbox"/>	Obtain fingerstick blood glucose.
<input type="checkbox"/>	Assess client’s level of consciousness.
<input type="checkbox"/>	Irrigate client’s indwelling urinary catheter.
<input checked="" type="checkbox"/>	Measure and record the client’s hourly urine output.
<input checked="" type="checkbox"/>	Complete bed bath and linen change.

Case Study:

DM Discharge with PICC

Nurses Notes    HCP Orders

The health care provider writes additional orders:

- Vital signs and neuro checks q 1 hour
- Strict I/O
- Fingerstick glucose q 4 hours
- Stat CBC with differential, lactic acid and coagulation profile.

Identify assessment findings which indicate interventions have been effective and which require further follow up with the health care provider.

Assessment Finding	Effective	Notify HCP
Client lethargic and confused.	<input type="radio"/>	<input type="radio"/>
Pain 0/10 10 minutes after IV pain medication	<input type="radio"/>	<input type="radio"/>
Right foot surgical wound with foul odor.	<input type="radio"/>	<input type="radio"/>
Blood glucose 112 mg/dL (6.21 mmol/L)	<input type="radio"/>	<input type="radio"/>
RR 20 with SpO2 98% on 3L/NC	<input type="radio"/>	<input type="radio"/>
Urine output 20 mL/hour for 2 hours	<input type="radio"/>	<input type="radio"/>

Thank you!

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