



Next Generation NLCEX: Ready or Not Here it Comes!

Presenters:

Christine Boev PhD, RN, CCRN-K, CNE &

Alison Simpson PhD, WHNP, RN.

Wegmans School of Nursing

Objectives

1. Identify and describe item types that measure Nursing Clinical Judgment.
2. Incorporate high-impact learning practices into your curriculum to prepare students for NextGen item types.
3. Begin the process of writing NextGen items and integrate items into current exams.

Are we measuring the right construct?

- 50% of novice nurses had errors in the first years
- 65% of errors are related to judgement
- 20% of employers felt novice nurses were prepared

Nursing Clinical Judgement

Clinical judgment is defined as the observed outcome of critical thinking and decision making. It is an iterative process that uses nursing knowledge to observe and assess presenting situations, identify a prioritized concern, and generate the best possible evidence-based solutions in order to deliver safe client care.

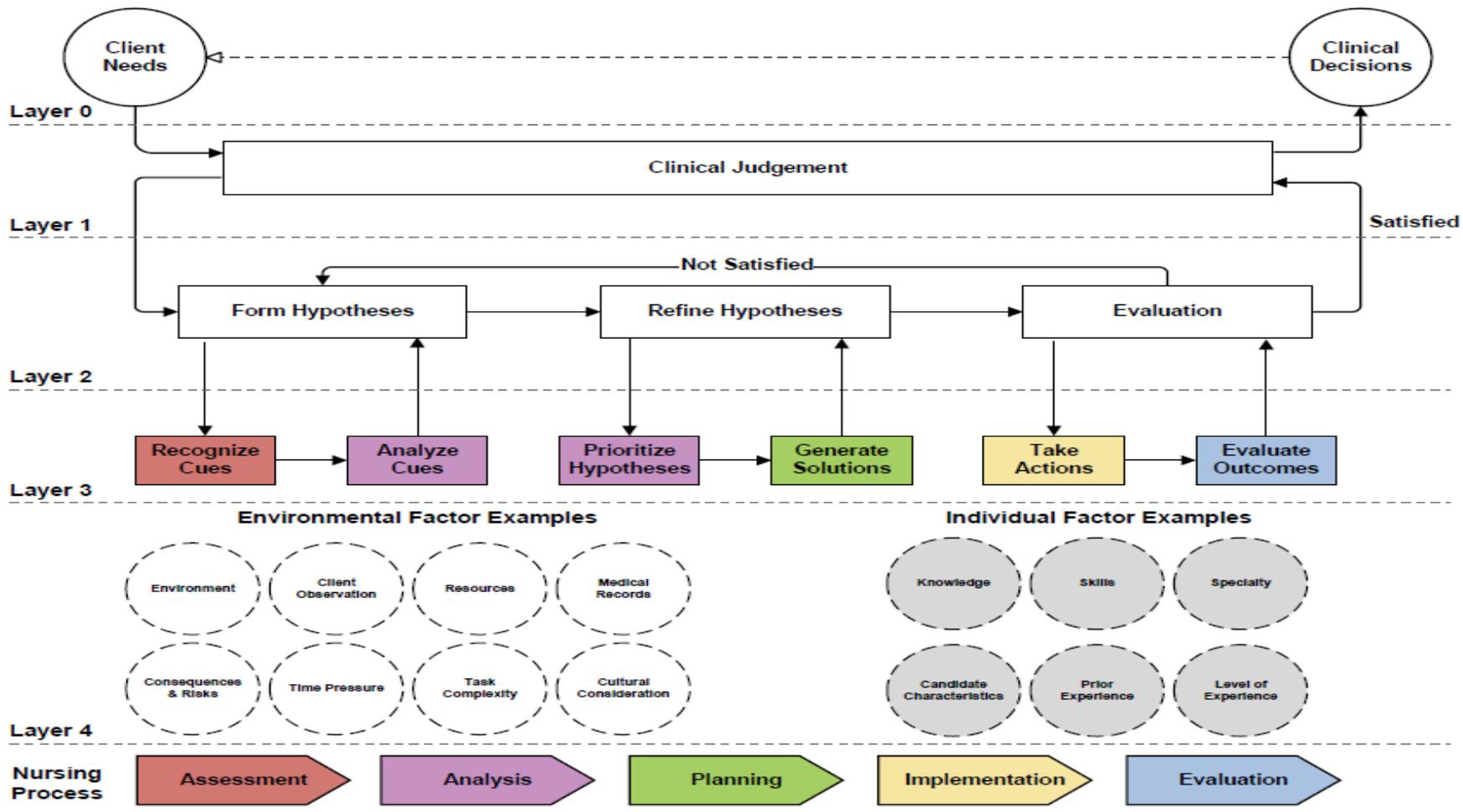
NCSBN Clinical Judgment Model

Uses information processing framework

- Decision making should be modeled from ‘basic building blocks’ and span across professions
 - Includes memory, attention, and causal reasoning
 - Decision systems are best understood by developing models of how information is sampled, retrieved, and integrated

Six iterative processes

1. Recognize cues
2. Analyze cues
3. Prioritize hypotheses
4. Generate Solutions
5. Take Action
6. Evaluate Outcomes



Current NCLEX® Item Bank: Clinical Judgment Domain Distribution

	Cue Recognition	Hypothesis Generation	Communication	Consequences and Risk	Task Complexity	Time Pressure	Distractions and Interruption
Multiple Choice	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red
Multiple Response	Yellow	Yellow	Yellow	Green	Yellow	Red	Red
Drag and Drop	Yellow	Yellow	Red	Yellow	Yellow	Red	Red
Hot Spot	Yellow	Yellow	Red	Yellow	Red	Red	Red
Audio	Green	Yellow	Yellow	Red	Red	Yellow	Red
Graphic	Yellow	Yellow	Red	Red	Yellow	Red	Yellow
Exhibit	Green	Red	Red	Red	Red	Red	Red



Case study

Liza is an 18 year-old female nursing student is brought to the Emergency Department (ED) reporting abdominal pain, vomiting, frequent urination, and excessive thirst. She has a history of Type I diabetes which is typically well-controlled with an insulin pump. Liza has deep, rapid respirations and there is a fruity odor to her breath. She is alert and oriented times 4. Her roommate was diagnosed with Influenza-A yesterday.

Blood Glucose	651 mg/dL (36.2 mmol/L)
Blood Pressure	101/55 mm Hg
Heart Rate	118 beats/min
Respiratory Rate	32 breaths/min
Temperature	101.2 F (38.4 C)
Urine Ketones	+4

Recognizing Cues: CLOZE

The nurse should anticipate that an must be collected immediately to support the diagnosis of

- Influenza A
- Diabetic Ketoacidosis
- Arterial blood gas
- Complete blood count



Arterial blood gas results: pH 7.14

PaO₂ 95 mm Hg

PaCO₂ 22 mm Hg

HCO₃ 18 mEq/L

Oxygen saturation: 94% on room air

The nurse would interpret this arterial blood gas as

Prioritize the following orders:

- | | |
|--|------|
| A. Maintenance IV fluids at 200 ml/Hour | 1. B |
| B. Supplemental Oxygen 2L via nasal cannula | 2. A |
| C. Regular insulin (1mg/mL) IV (follow insulin protocol) | 3. D |
| D. Obtain weight | 4. C |
| E. Insert Foley catheter | 5. E |



Liza weighs 120 pounds. The order states:

Initiate insulin drip IV (1 unit/mL) at 0.3 units/kg/hour and check blood glucose every 30 minutes. Calculate the rate of the insulin drip:

Answer: 16 mL/hour

Which assessment data are associated with Diabetic Ketoacidosis: ANALYZING CUES

	Risk Factor	Not a Risk Factor
Age 18		X
Insulin pump	X	
Roommate Flu positive	X	
Temperature 101.2F	X	
Respiratory Rate	X	
BP 101/55		X
Polyuria	X	

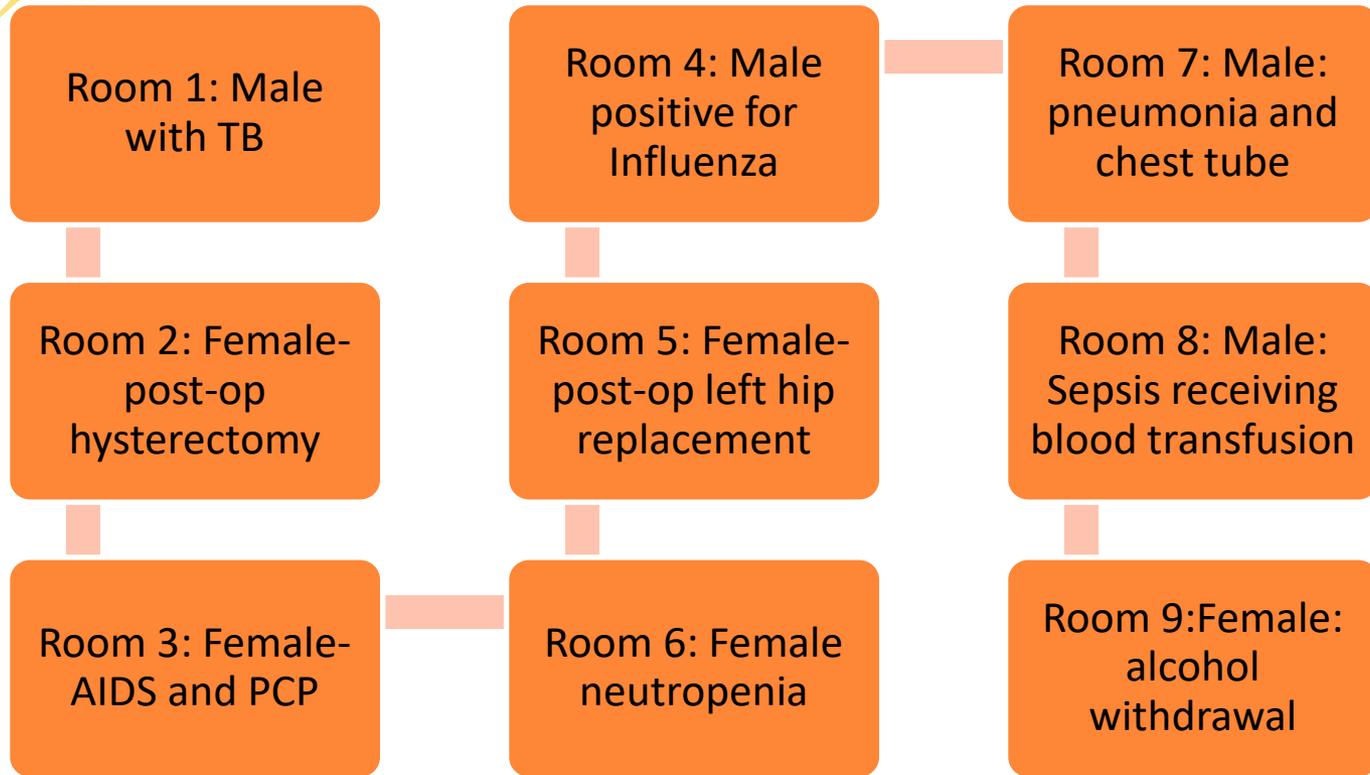
Compare and contrast

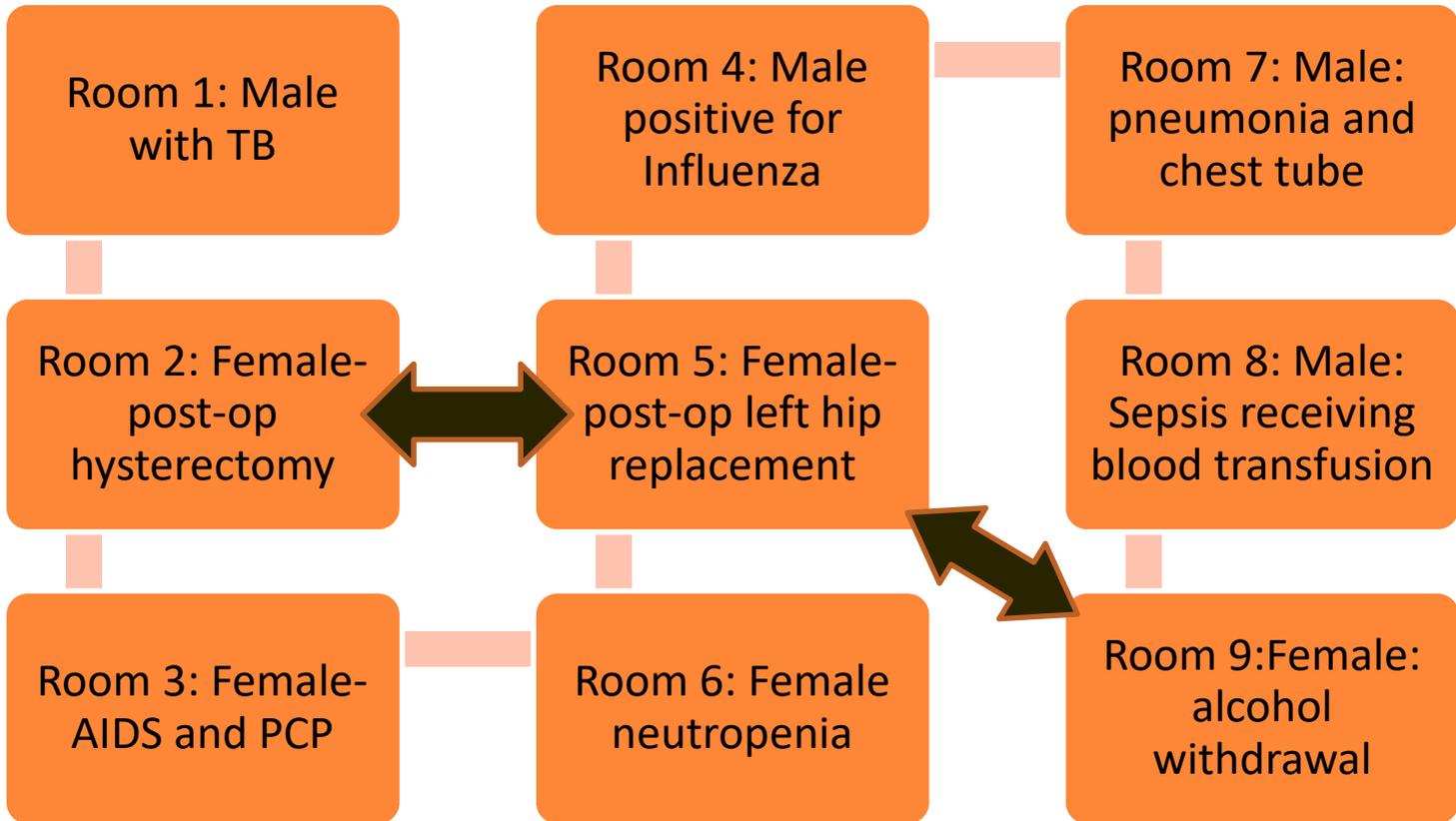
Sign/symptoms	DKA	Both	Influenza
Urine ketones +4	✘		
Temperature 101.2		✘	
Specific Gravity Urine 1.030		✘	
Admission serum potassium 5.5	✘		

What Personal Protective Equipment will the nurse need to care for Liza?



Liza is ready to transfer to the medical/surgical unit. Which room would be the most appropriate? All rooms have 2 beds. You may have to move patients.





You receive the following orders for Liza. Match the appropriate team member to the task. Choose one best answer per task.

	Registered Nurse	Licensed Vocational Nurse	Unlicensed Assistive Personnel
Record hourly intake and output			
Discharge teaching specific to the insulin pump			
Hang third dose of IV ceftriaxone			
Monitor hourly blood glucose levels			
Assist the patient to the bedside commode			
Provide an update to Liza's parents			
Obtain an IV infusion pump from the supply			

Liza is ready for discharge. As she is being escorted to the elevator, she complains of abrupt shortness of breath and chest pain. You quickly attach her to a cardiac monitor.



Prioritize the following interventions:

- | |
|---|
| Obtain vital signs |
| Elevate head of bed |
| Notify the provider |
| Apply 100% oxygen via non-rebreather mask |
| Encourage patient to "bare-down" |

- | |
|---|
| #1. Elevate head of bed |
| #2. Apply 100% oxygen via non-rebreather mask |
| #3. Obtain vital signs |
| #4. Notify the provider |
| #5. Encourage the patient to "bare-down" |

Upon examination, Liza has severe shortness of breath, circumoral cyanosis and is very anxious. The current vital signs are:

Blood Pressure: 81/42 mmHg

Heart rate: 133 beats/min

Oxygen saturation: 93% on 100% non rebreather mask

A 12-lead EKG is obtained and the results from Lead I are below:



The nurse recognizes that the rhythm displayed on the cardiac monitor is **Drop down #1**

Based on the clinical situation, the nurse should prepare for **Drop down #2**

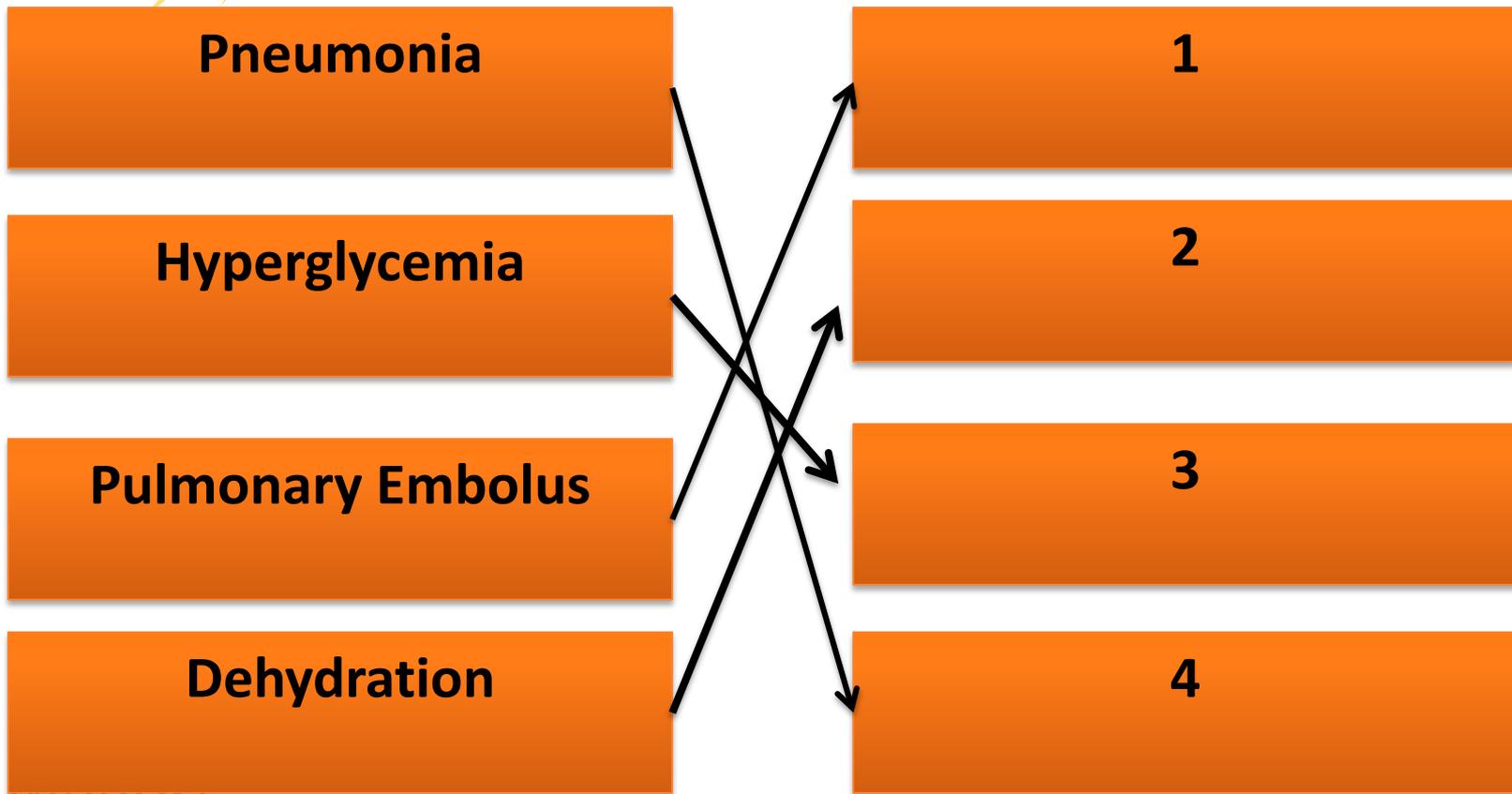
Drop down #1

- Ventricular tachycardia
- Ventricular fibrillation
- Atrial fibrillation
- Supraventricular tachycardia

Drop down #2

- Defibrillation
- Cardioversion
- Endoscopy
- Cardiac ablation

Rank in order of likelihood which problem could the client be experiencing? All options must be used



Charlie is an 8-year old male found to be unresponsive after being removed from a house fire. He is admitted to the Emergency Department and information from his chart is below:

Vital signs	Labs	Assessment findings
Blood pressure: 84/44 mmHg	Arterial Blood Gas: Ph: 7.30 PaCO ₂ : 60 PaO ₂ : 65 HCO ₃ : 26	2 nd degree burns to head and neck
Heart rate: 130 beats/minute	WBC: 4.4 Hemoglobin: 13.3 Hematocrit: 39.9	Lungs sounds: bilateral wheezes
Temperature: 36.2 C		Audible stridor
Oxygen saturation: 91% on 100% non-rebreather mask		Glasgow Coma Scale: 7 Eye opening: 1 Verbal: 1 Motor: 5
Respiratory rate: 28 breaths/minute		

What would be the nurses' priority related to the care of Charlie?

- a. Maintain patent airway
- b. Maintain adequate blood pressure
- c. Insert two large bore IVs
- d. Repeat Arterial Blood gas

Based on the information presented, choose the appropriate oxygen delivery system.



You are preparing to assist with endotracheal intubation. In which order will these actions be accomplished?

1. Use capnography to check for exhaled CO₂.
2. Tape the endotracheal tube in place
3. Preoxygenate with bag-valve mask device at 100% oxygen
4. Place the patient in a supine position
5. Briefly explain the intubation procedure to the patient and her daughter
6. Inflate the endotracheal tube cuff
7. Auscultate breath sounds bilaterally
8. Obtain a chest x-ray
9. Insert the endotracheal tube orally through the vocal cords.

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Extended Multiple Response

A patient who delivered a female infant two days prior by Cesarean section has been diagnosed with a deep vein thrombosis (DVT). The patient is breastfeeding and not yet started on anticoagulant therapy. Appropriate interventions for this patient include:

- ✓ 1. Analgesics
- 2. Apply cold packs to affected area
- ✓ 3. Bed rest
- 4. Elevate the client's hips
- ✓ 5. Elastic support stockings
- 6. Warfarin therapy
- 7. Massage the affected area
- ✓ 8. Apply warm compresses to affected area



Enhanced Hot Spot

Highlight the findings require follow-up from the nurse?

Nurses' Note: Client G4P3 arrives to labor and delivery in active labor. Initial vital signs T 98.2 BP 110/72, HR 88, R 18. Client delivered a 4173 gram infant after 3.5 hours of labor. Arrived to postpartum unit with vital signs T 98.9, BP 90/60, HR 98, R 20.

Fundus is slightly boggy. Client has saturated pad. Client is pale and c/o lightheadedness. Client received 10 units of Oxytocin IV after delivery



Enhanced Hot Spot

The client begins to have a postpartum hemorrhage. Methergine has been ordered. What client information supports your decision to withhold medication?

	Client Information		Drug Reference
Medical Diagnosis	Normal Spontaneous Vaginal Delivery of male at 1306	Medication	Methergine
Current Vital signs	Temp 98.9, BP 146/90, Pulse 86, RR 16	Classification	Ergot alkaloid
Medical History	Hypertension, Hepatitis C	Indications	Management of uterine atony, hemorrhage, and subinvolution of uterus
Physical Exam	Uterus boggy, heavy flow	Adverse Reactions/Side Effects	Arrhythmias, seizures, nausea, vomiting, uterine cramping, diarrhea, dizziness, tinnitus
Lab Results	Hemoglobin 11.5 g/dl WBC 12,300	Interactions	Vasoconstrictors, vasopressors
Current Medications	Prenatal Vitamin Ferrous Sulfate Docusate Sodium Ibuprofen Labetalol	Dosage	0.2mg IV/IM, may repeat q2-4h prn

The client has lost 1300 mL of blood. One unit of packed red blood cells has been ordered. Put these nursing tasks in order for proper administration of blood.

Obtain blood from blood bank	5
Check that a type and cross match has been done	2
Start transfusion	7
Ensure intravenous access with 18 gauge or larger catheter	4
Obtain pre-transfusion vital signs	3
Validate order and data information on blood product with another nurse	6
Obtain vital signs after 15 minutes	8
Verify transfusion order	1



New Grid Layout with New Item Types

	Recognize Cues	Generate Hypotheses	Judge Hypotheses	Take Action	Evaluate Outcomes
Enhanced Hot Spot	Green	Red	Yellow	Yellow	Yellow
Extended Multiple Response	Green	Yellow	Yellow	Green	Green
Extended Drag and Drop	Green	Yellow	Green	Green	Yellow
Cloze Items	Green	Yellow	Green	Green	Green
Constructed Response	Green	Green	Green	Green	Green
Rich Media Scenarios	Green	Green	Green	Green	Green
Dynamic Exhibits	Green	Green	Green	Green	Green

Next Generation
NCLEX® TALKS

Possible Scoring Options

Top 6 Answers	Possible Patterns	Current Scoring	Subset	Plus/Minus
1	A, B, C	1	3	3-0 = 3 points
2	A, B	0	2	2-0 = 2 points
3	A, B, C, D	0	0	3-1 = 2 points
4	B, C, E	0	0	2-1 = 1 point
5	A, C, E	0	0	2-1 = 1 point
6	C, D, F	0	0	1-2 = 0 points

- A, B, C are correct answers
- If some of the subset is correct student gets points but if a distractor is picked then zero points
- Plus/Minus is a point for every correct answer and minus a point for every distractor chosen



Classroom Strategies

Escape Room

- Small groups are given different activities that are completed one at a time
- Each completion results in a key to unlock one of six “locks”

Classroom Strategies

Escape Room Continued

- The first team to get all six keys and open treasure chest receives a “prize”
- Works well with interdisciplinary teams, team members recognize cues and generate solutions while finding solutions/answers to activities

Classroom Strategies

Team Based Learning:

- Students individually complete pre-work (voice threads, readings, videos, etc.) prior to class
- Groups assigned at beginning of semester, groups work in class on assignments/projects

Classroom Strategies

Team Based Learning Continued:

- Instructor circulates through class and assists each group by asking questions to increase understanding of assignments/projects
- Group work fosters communication and collaboration
- Enhanced communication and collaboration generates solutions and decreases risk of mistakes/errors



Classroom Strategies

Gaming

- Promotes teamwork and problem-based learning
- Increases learning and retention of knowledge
- Engages learning in stimulating manner
- Examples: *kahoot.it, Septris, UWorld*

Testing Strategies

Unfolding Case Study

- Five to six multiple choice questions based on case study that unfolds with each question
- Patient status changes, updated information about patient
- Helps students to recognize and analyze new information as it is presented



Testing Strategies

Unfolding Case Study Continued

- Incorporate Bloom's taxonomy into each question. Start with knowledge and become more challenging as more information is case study is presented
- Students able to analyze, prioritize, generate solutions, take action and evaluate all in one group of questions

Conclusion

- Start now
- Integrate active classroom activities that mirror NextGen items
- Incorporate unfolding case studies into existing exams
- <https://www.ncsbn.org/next-generation-nclex.htm>





Questions?

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