

# Human Immunodeficiency Virus

## UNFOLDING Reasoning



Michelle Johnson, 36-years old

Primary Concept		
Immunity		
Interrelated Concepts (In order of emphasis)		
<ul style="list-style-type: none"> <li>• Gas Exchange</li> <li>• Infection</li> <li>• Stress</li> <li>• Coping</li> <li>• Clinical Judgment</li> <li>• Patient Education</li> <li>• Communication</li> <li>• Collaboration</li> </ul>		
NCLEX Client Need Categories	Percentage of Items from Each Category/Subcategory	Covered in Case Study
Safe and Effective Care Environment		
• Management of Care	17-23%	✓
• Safety and Infection Control	9-15%	✓
Health Promotion and Maintenance		
	6-12%	✓
Psychosocial Integrity		
	6-12%	✓
Physiological Integrity		
• Basic Care and Comfort	6-12%	✓
• Pharmacological and Parenteral Therapies	12-18%	✓
• Reduction of Risk Potential	9-15%	✓
• Physiological Adaptation	11-17%	✓

## UNFOLDING Clinical Reasoning Case Study:

### History of Present Problem:

Michelle Johnson is a 36-year-old African American female with no prior medical history who presents to the emergency department complaining of extreme fatigue for the past several months and experiencing occasional night sweats. During the past week, she has developed a sore throat, dry, nonproductive cough, fever at night with increasing shortness of breath. Michelle embarrassingly admits that she has had a vaginal yeast infection that she has tried to treat with over the counter medications with no success. Michelle states to the triage nurse, "I came in today because I am worried something is wrong with me, I hope it's nothing serious!"

### Personal/Social History:

Michelle has been divorced for five years and has two daughters (ages 14 and 16) who works full time as a legal secretary. She has recently been working longer hours, skipping meals, and stressed over the possibility of not being able to provide for her two daughters. She has been involved in only one relationship since her divorce. She is engaged to Ken, who has hemophilia and plan to get married next year.

*What data from the histories are RELEVANT and must be interpreted as clinically significant by the nurse?*

RELEVANT Data from Present Problem:	Clinical Significance:
RELEVANT Data from Social History:	Clinical Significance:

### Patient Care Begins:

Current VS:	P-Q-R-S-T Pain Assessment:	
T: 99.6 F/37.6 C (oral)	Provoking/Palliative:	Denies
P: 108 (regular)	Quality:	
R: 24 (regular)	Region/Radiation:	
BP: 110/75	Severity:	
O2 sat: 91% RA	Timing:	

*What VS data are RELEVANT and must be interpreted as clinically significant by the nurse?*

RELEVANT VS Data:	Clinical Significance:

<b>Current Assessment:</b>	
GENERAL APPEARANCE:	Average built female with a worried expression on her face. Appears pale and tired. Calm, body relaxed, no grimacing, appears to be resting comfortably
ORAL & NECK:	Oral mucous moist and intact. Cervical lymph nodes enlarged bilaterally
RESP:	Slight SOB with exertion and crackles heard bilaterally in lower lobes posteriorly
CARDIAC:	Tachycardia, pink, warm & dry, no edema, heart sounds regular with no abnormal beats, pulses strong, equal to palpation at radial/pedal/post-tibial landmarks, brisk cap refill
NEURO:	Alert & oriented to person, place, time, and situation (x4)
GI:	Abdomen flat, soft/nontender, bowel sounds audible per auscultation in all four quadrants
GU:	Voiding without difficulty, urine clear/yellow
SKIN:	Skin integrity intact, skin turgor elastic, no tenting present

*What assessment data is **RELEVANT** and must be interpreted as clinically significant by the nurse?*

<b>RELEVANT Assessment Data:</b>	<b>Clinical Significance:</b>

<b>Cardiac Telemetry Strip:</b>

<b>Interpretation:</b>
<b>Clinical Significance:</b>

*The care provider orders the following based on the clinical data that the nurse has collected:*

### **Collaborative Care: Medical Management**

<b>Care Provider Orders:</b>	<b>Rationale:</b>
Complete blood count (CBC) Basic metabolic panel (BMP)  Rapid HIV  Chest x-ray	

## Radiology Reports: Chest x-ray

What diagnostic results are **RELEVANT** and must be interpreted as clinically significant by the nurse?

RELEVANT Results:	Clinical Significance:
Diffuse ground-glass opacity present bilaterally	

## Lab Results:

Complete Blood Count (CBC:)	Current:	High/Low/WNL?	Most Recent:
WBC (4.5–11.0 mm <sup>3</sup> )	3.0		8.5
Neutrophil % (42–72)	88		70
Lymphocyte % (2-10)	6		4
Hgb (12–16 g/dL)	9.8		10.5
Platelets (150–450 x10 <sup>3</sup> /μl)	208		225

What lab results are **RELEVANT** and must be recognized as clinically significant by the nurse?

RELEVANT Lab(s):	Clinical Significance:	TREND: Improve/Worsening/Stable:

Basic Metabolic Panel (BMP:)	Current:	High/Low/WNL?	Most Recent:
Sodium (135–145 mEq/L)	148		142
Potassium (3.5–5.0 mEq/L)	3.5		3.8
Glucose (70–110 mg/dL)	90		101
Creatinine (0.6–1.2 mg/dL)	0.8		0.9

What lab results are **RELEVANT** and must be recognized as clinically significant by the nurse?

RELEVANT Lab(s):	Clinical Significance:	TREND: Improve/Worsening/Stable:

Misc. Labs:	Current:	High/Low/WNL?
CD 4 count (>500 cells)	189	
HIV RNA level, (40-75 copies/mL)	60,000	

*What lab results are RELEVANT and must be recognized as clinically significant by the nurse?*

RELEVANT Lab(s):	Clinical Significance:

## Clinical Reasoning Begins...

1. *What is the primary problem your patient is most likely presenting ?*
  
2. *What is the underlying cause/pathophysiology of this primary problem?*

## Collaborative Care: Medical Management

Care Provider Orders:	Rationale:	Expected Outcome:
Establish peripheral IV  0.9% Normal Saline at 100 mL/hour  trimethoprim/sulfamethoxazole (Bactrim) 1 gram IVPB every 8 hours  Fluconazole 200 mg PO BID  Prednisone 40 mg PO daily  Titrate oxygen to keep O2 sat >92%  Truvada (tenofovir and emtricitabine) 1 tablet PO daily  Reyataz (atazanavir) 300 mg PO daily  Norvir (ritonavir) 100 mg PO daily  Admit to med/surg unit with telemetry monitoring		

3. *What additional treatment should you anticipate for Ms. Johnson by her HIV test results and CD4 results?*

**PRIORITY Setting: Which Orders Do You Implement First and Why?**

Care Provider Orders:	Order of Priority:	Rationale:
<ul style="list-style-type: none"> <li>• Establish peripheral IV</li> <li>• 0.9% Normal Saline at 100 mL/hour</li> <li>• trimethoprim/sulfamethoxazole (Bactrim) 1 gram IVPB every 8 hours</li> <li>• Fluconazole 200 mg PO BID</li> <li>• Prednisone 40 mg PO daily</li> <li>• Titrate oxygen to keep O2 sat &gt;92%</li> </ul>		

**Collaborative Care: Nursing**

4. *What nursing priority (ies) will guide your plan of care? (if more than one-list in order of PRIORITY)*

5. *What interventions will you initiate based on this priority?*

Nursing Interventions:	Rationale:	Expected Outcome:

6. *What body system(s) will you assess most thoroughly based on the primary/priority concern?*

7. *What is the worst possible/most likely complication to anticipate?*

8. *What nursing assessments will identify this complication EARLY if it develops?*

9. *What nursing interventions will you initiate if this complication develops?*

## **Education Priorities/Discharge Planning**

- 1. What will be the most important discharge/education priorities you will reinforce with her medical condition to prevent future readmission with the same problem?*
- 2. Michelle Johnson asks why she has to take so many medications and is it alright if she misses any doses? How would you respond?*
- 3. Michelle Johnson asks, "Should I tell Ken about my positive HIV result?"*
- 4. How can the nurse assess the effectiveness of patient and family teaching and discharge instructions?*

## **Caring and the "Art" of Nursing**

- 1. What psychosocial needs will this patient and/or family likely have that will need to be addressed?*
- 2. How can the nurse address these psychosocial needs?*
- 3. What is the patient likely experiencing/feeling right now in this situation?*
- 4. What can you do to engage yourself with this patient's experience, and show that she matters to you as a person?*

## **Use Reflection to THINK Like a Nurse**

Reflection-IN-action (Tanner, 2006) is the nurse's ability to accurately interpret the patient's response to intervention at the moment as the events are unfolding to make a correct clinical judgment.

- 1. What did I learn from this scenario?*
- 2. How can I use what has been learned from this scenario to improve patient care in the future?*