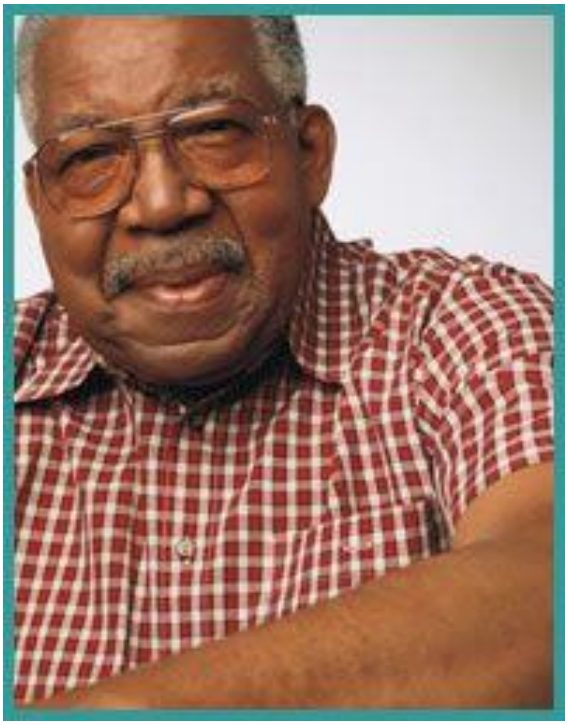
Novel Coronavirus Disease (COVID-19)

UNFOLDING Reasoning



John Taylor, 68 years old

Primary Concept			
Immunity			
Interrelated Concepts (In order of emphasis)			
• Clinical judgment • Communication			
NCLEX Client Need Categories	**Covered in Case Study**	**NCSBN Clinical Judgment Model**	**Covered in Case Study**
Safe and Effective Care Environment		Step 1: Recognize Cues	✓
• Management of Care	✓	Step 2: Analyze Cues	✓
• Safety and Infection Control	✓	Step 3: Prioritize Hypotheses	✓
Health Promotion and Maintenance	✓	Step 4: Generate Solutions	✓
Psychosocial Integrity	✓	Step 5: Take Action	✓
Physiological Integrity		Step 6: Evaluate Outcomes	
• Basic Care and Comfort			
• Pharmacological and Parenteral Therapies	✓		
• Reduction of Risk Potential	✓		
• Physiological Adaptation	✓		

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Part I: Initial Nursing Assessment

Present Problem:

John Taylor is a 68-year-old African-American male with a history of type II diabetes and hypertension. He came to the emergency department (ED) triage window because he felt crummy, complaining of a headache, runny nose, feeling weaker, "achy all over" and hot to the touch and sweaty the past two days. When he woke up this morning, he no longer felt hot but began to develop a persistent "nagging cough" that continued to get worse throughout the day. John is visibly anxious and asks, "Do I have that killer virus that I hear about on the news?"

Personal/Social History:

John lives in a large inner-city that has had over three thousand confirmed cases of COVID-19. He has been married to Maxine, his wife of 45 years, and is a retired police officer and active in his local church.

1. ***What data from the histories are RELEVANT and must be NOTICED as clinically significant by the nurse?***
   (NCSBN: Step 1 Recognize cues/NCLEX: Reduction of Risk Potential)

RELEVANT Data from Present Problem:	Clinical Significance:
1. Headache, body ache 2. Increased temperature 3. Nagging cough 4. History of DM2 and HTN	1. Inflammation from the body's natural response to an infection can cause body pains. 2. The body is reacting to an infection or inflammation. 3. Respiratory infection can lead to cough. 4. Medical history can lead to more serious complications from COVID-19.
RELEVANT Data from Social History:	**Clinical Significance:**
The client lives in a large inner-city with over 3000 confirmed cases of COVID.	The client has increased chances of being exposed to the respiratory virus.

2. ***What additional clarifying questions does the triage nurse need to ask John to determine if his cluster of physical symptoms is consistent with COVID-19?***

Describe the cough; productive, wet, dry? If he has been exposed to anyone who tested positive for COVID-19 recently.

3. ***Based on the clinical data collected, identify what measures need to be immediately implemented using the following clinical pathway.***

The patient should have on a mask and wait in the Main ED Waiting A area due to his respiratory symptoms.

4. ***What type of isolation precautions does the nurse need to implement if COVID-19 is suspected? What specific measures must be implemented to prevent transmission?***

Type of Isolation:	Implementation Components:
Airbourne	For patients undergoing aerosol-generating procedures. Hand hygiene, N95, gloves, gown
Droplet	Hand hygiene, gown, mask and eye protection, gloves

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Part II: Patient Care Begins in the ED:

John is brought back to a room. As the nurse responsible for his care, you collect the following clinical data:

Current VS:	P-Q-R-S-T Pain Assessment:	
T: 100.3 F/38.8 C (oral)	**P**rovoking/Palliative:	"moving makes it worse"
P: 118 **(**regular)	**Q**uality:	"achy"
R: 22 (regular)	**R**egion/Radiation:	"all over"
BP: 164/88 **MAP**: 113	**S**everity:	5/10
O2 sat: 92% room air	**T**iming:	continuous

1. What VS data are RELEVANT and must be NOTICED as clinically significant by the nurse?

(NCSBN: Step 1 Recognize cues/NCLEX: Reduction of Risk Potential /Health Promotion and Maintenance)

RELEVANT VS Data:	Clinical Significance:	Nursing Intervention (if needed):
T: 100.3	The body's reaction to an infection.	Monitor temperature.
P: 118	HR increases in response to fever or inflammation	Monitor VS
R: 22	COVID may cause inflammation and mucus making it harder to take breaths	Supplemental O2
BP: 164/88	History of hypertension presents a greater risk	Monitor VS
O2 sat: 92% room air	Hypoxemia due to lung inflammatory response	Supplemental O2

2. What body system(s) will you assess most thoroughly performing a FOCUSED assessment based on the primary/priority problem? Identify correlating specific nursing assessments.

(NCLEX: Reduction of Risk Potential/Physiologic Adaptation)

PRIORITY Body System:	PRIORITY Nursing Assessments:
Respiratory	Ask about medical history, specifically any respiratory conditions, and ask about medications. Observe breathing pattern or use of accessory muscles, inspect chest for symmetry, palpate the chest and confirm symmetric chest expansion, auscultate respiratory cycle with a stethoscope

Current FOCUSED Nursing Assessment:	
GENERAL SURVEY:	Appears anxious, body tense
NEUROLOGICAL:	Alert & oriented to person, place, time, and situation (x4), generalized weakness
HEENT:	Head normocephalic with symmetry of all facial features. Lips, tongue, and oral mucosa pink and moist.
RESPIRATORY:	Breath sounds fine dry crackles bilat. with diminished aeration on inspiration and expiration in all lobes anteriorly, posteriorly, and laterally, non-labored respiratory effort, episodic non-productive cough
CARDIAC:	No edema, heart sounds regular, pulses strong, equal with palpation at radial/pedal/post-tibial landmarks, brisk cap refill. Heart tones audible and regular, S1 and S2 noted over A-P-T-M cardiac landmarks with no abnormal beats or murmurs. No JVD noted at 30-45 degrees.
ABDOMEN:	Deferred
GU:	Deferred
INTEGUMENTARY:	Skin hot, dry, intact, normal color for ethnicity. Skin integrity intact, skin turgor elastic, no tenting present.

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3. ***What assessment data is RELEVANT and must be NOTICED as clinically significant by the nurse?***
(NCSBN: Step 1 Recognize cues/NCLEX: Reduction of Risk Potential Reduction of Risk Potential/Health Promotion & Maintenance)

RELEVANT Assessment Data:	Clinical Significance:
Anxious	Anxiety due to the fear surrounding a diagnosis of a novel virus
Fine, dry crackles bilateral w/ diminished aeration	Respiratory tract infection
Skin hot	Increase in body temperature fighting off an infection

4. ***Interpreting clinical data collected, what problems are possible? Which problem is the PRIORITY? Why?***
(NCSBN: Step 2: Analyze cues/Step 3: Prioritize hypotheses/NCLEX: Management of Care)

Problems:	Priority Problem:	Rationale:
Infection, fever, anxiety	Respirtatory Tract Infection	Airway

1. ***What nursing priority(ies) and goal will guide how the nurse RESPONDS to formulate a plan of care?*** *(NCSBN: Step 4 Generate solutions/Step 5: Take action/NCLEX: Management of Care)*

Nursing PRIORITY:	Improve O2 saturation	
GOAL of Care:	O2 saturation >95%	
Nursing Interventions:	**Rationale:**	**Expected Outcome:**
Monitor vital signs	Infection may start with high temperature, and the patient may experience SOB.	The patient is able to improve body temperature.
Monitor O2 saturation	Respiratory compromise results in hypoxia.	O2 saturation >95%
Maintain respiratory isolation	Prevent the spread of infection.	The patient will not spread the infection.
Enforce hand hygiene	Reduce transmission of the virus.	The patient will reduce or prevent transmission.

[KR1]

Caring and the "Art" of Nursing

6. ***What is the patient likely experiencing/feeling right now in this situation? What can you do to engage yourself with this patient's experience, and show that they matter to you as a person?*** (*NCLEX: Psychosocial Integrity)*

What Patient is Experiencing:	How to Engage:
The patient must feel a lot of anxiety surrounding the novel coronavirus and how his immune system will respond.	

[KR2]

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The ED physician assesses John and orders the following:

Collaborative Care: Medical Management

7. State the rationale and expected outcomes for the medical plan of care. *(NCLEX: Pharm. and Parenteral Therapies)*

Care Provider Orders:	Rationale:	Expected Outcome:
Contact-Airborne-Droplet precautions	Prevent the transmission of infection.	
Influenza swab		
COVID-19 swab (only if influenza neg)		
Chest x-ray		
Complete blood count (CBC)		
Metabolic panel (BMP)		
Lactate		
Nasal cannula titrate to keep O2 sat >90%[KR3]		

8. Which orders do you implement first? Why? *(NCLEX: Management of Care)*

Care Provider Orders:	Order of Priority:	Rationale:
• Contact-Airborne-Droplet precautions • COVID-19 swab • Nasal cannula titrate to keep O2 sat >95%		

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Part III: Interpreting Diagnostic Data

The following diagnostic results just posted in the electronic health record:

Radiology Reports:

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

(NCSBN: Step 1 Recognize cues/NCLEX: Reduction of Risk Potential/Reduction of Risk Potential/Physiologic Adaptation)

Radiology: Chest X-Ray	
Results:	**Clinical Significance:**
Diffuse bilateral pulmonary infiltrates	Infiltrates can indicate a serious infection that can inflame and scar the lungs.

Lab Results:

Hematology (CBC)								
	WBC	**HGB**	**PLTS**	**% Neuts**	**% Lymphs**	**% Monos**	**% Eosin**	**Bands**
Norms:	(4.5-11.0 mm 3)	(12-16 g/dL)	(150-450x 103/µl)	(55-70)	(20-40)	(2-8)	(1-4)	(3-5%)
Current:	3.5	12.8	224	92	8	0	0	0

Metabolic Panel (BMP)										
	Na	**K**	**Cl**	**CO2**	**AG**	**Gluc**	**Ca**	**BUN**	**Creat**	**GFR**
	135-145 mEq/L	3.5-5.0 mEq/L	101-111 mmol/L	20-29 mmol/L	(7-16 mEq/L)	64-110 mg/dL	8.5-10.2 mg/dL	10-20 mg/dL	0.8-1.2 mg/dL	>60 mL/min
Current:	141	3.9	105	16		178		18	1.10	>60

Misc					
	Influenza	**COVID-19**	**Lactate (Ven)**		
	Neg	Neg	(0.5-2.2 mmol/L)		
Current:	Neg	Pos	1.9		

[KR4]

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

(NCSBN: Step 1 Recognize cues/NCLEX: Reduction of Risk Potential Reduction of Risk Potential/Physiologic Adaptation)

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

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There has been no change in John's status in the ED and is currently stable. He is being admitted to the general med/surg floor for observation.
To ensure a hand-off that will promote safe patient care to the next nurse, communicate a concise SBAR that captures the essence of John's status and summarizes the excellent care you have provided!

Situation:

Name/age: John Taylor is a 68-year-old African-American male.

BRIEF summary of primary problem:

Day of admission/post-op #:

Background:

Primary problem/diagnosis:

RELEVANT past medical history:

Assessment:

Most recent vital signs:

RELEVANT body system nursing assessment data:

RELEVANT lab values:

How have you advanced the plan of care?

Patient response:

INTERPRETATION of current clinical status (stable/unstable/worsening):

Recommendation:

Suggestions to advance the plan of care:

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