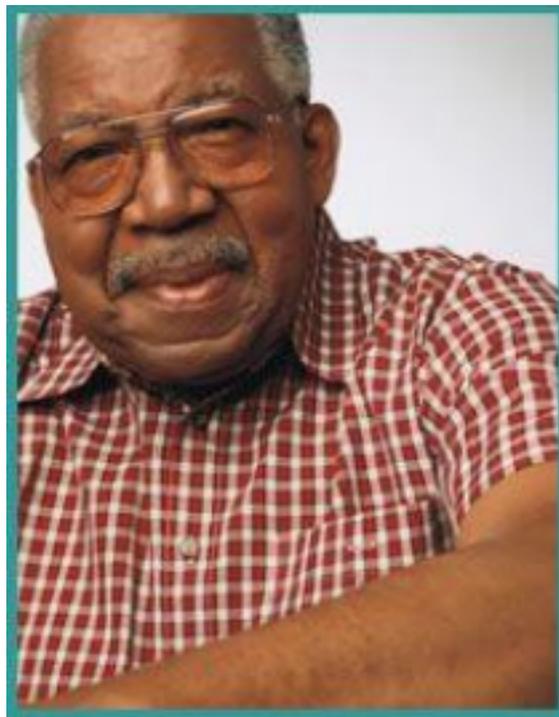


Novel Coronavirus Disease (COVID-19)

UNFOLDING Reasoning



John Taylor, 68 years old

Primary Concept			
Immunity			
Interrelated Concepts (In order of emphasis)			
<ul style="list-style-type: none"> • 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:
68 yrs old Type 2 diabetes and hypertension S/S: headache, achy, weak, hot to the touch, sweaty, "nagging cough", need to catch breath Anxious	Adults w/ comorbidities over 65 yrs are susceptible to COV19.
RELEVANT Data from Social History:	Clinical Significance:
He's been married for 45 years	John has a support system

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?

The nurse needs to know John's exact temperature. The nurse needs to know has John been practicing social distancing. The nurse needs to know if John has traveled within the last two weeks.

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

The patient should put on a mask. The patient's family members should put on a mask. The patient should be tested for covid-19.

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:
Contact	gown, gloves, Hand hygiene
Droplet	hand hygiene, gown, gloves, n95 mask, goggles

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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)	Provoking/Palliative:	“moving makes it worse”
P: 118 (regular)	Quality:	“achy”
R: 22 (regular)	Region/Radiation:	“all over”
BP: 164/88 MAP: 113	Severity:	5/10
O2 sat: 92% room air	Timing:	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):
Low O2 saturation high blood pressure Fever	Signs and symptoms of covid-19	Apply nasal cannula and ask doctor for order for Tylenol to bring down fever

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:
<i>Respiratory</i>	<i>Inspection -pay attention for use of accessory muscles and labored breathing</i> <i>Auscultation- listen for crackles, dullness, or wheezing</i>

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.

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:
John is anxious	Increases HR RR and BP
Non-productive cough	Symptom of the virus

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:
Covid 19 Pneumonia	Covid19	Patient is over 65 w/ comorbidities and displays signs and symptoms of Covid 19

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:	Impaired gas exchange	
GOAL of Care:	Maintain O2 Sat >92%	
Nursing Interventions:	Rationale:	Expected Outcome:
Elevate HOB- Fowlers- High fowlers Ongoing assessment	Keeping the head of bed elevated keeps airways open Allows care team to know if patient is worsening	Increased O2 sat Worsening symptoms are taken care of immediately

[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:
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<p>The patient is anxious. Not knowing what is happening to your body can cause anxiety and panic.</p>	<p>As the RN, my job is to ensure that patient that he is in good hands and he is being monitored closely. Also, listening to subjective symptoms and changes allows the patient to instill trust in me.</p>
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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:
<p>Contact-Airborne-Drop let precautions</p> <p>Influenza swab</p> <p>COVID-19 swab (only if influenza neg)</p> <p>Chest x-ray</p> <p>Complete blood count (CBC)</p> <p>Metabolic panel (BMP)</p> <p>Lactate</p> <p>Nasal cannula titrate to keep O2 sat >90%^[KR3]</p>	<p>Signs and symptoms of disease, virus, or infection</p> <p>To rule out Influenza A or B</p> <p>To diagnose Covid 19</p> <p>See blood clots or fluid in lungs</p> <p>Helps determine the physiological response to the pathogen</p> <p>Lets us know the functioning of the kidneys and monitor electrolytes</p> <p>Assess the degree of anaerobic metabolism</p> <p>Allows us to have oxygen readily available in case it's needed</p>	<p>Prevent the spread of the disease, infection, or virus the patient has.</p> <p>Allows us to know for sure what kind of care the patient needs</p> <p>Once we have diagnosis, we can have a better prognosis</p> <p>We will likely find fluid in lungs</p> <p>White blood cell count will likely be elevated</p> <p>May see hypokalemia or hyponatremia</p> <p>Lactate will probably be elevated</p> <p>Oxygen to be readily available in case of</p>

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

Care Provider Orders:	Order of Priority:	Rationale:
<ul style="list-style-type: none"> Contact-Airborne-Drop let precautions COVID-19 swab Nasal cannula titrate to keep O2 sat >95% 	Contact-Airborne-Droplet precautions <ul style="list-style-type: none"> Nasal cannula titrate to keep O2 sat >95% Covid-19 swab 	We should always protect ourselves and other patients first The nasal cannula needs to be titrated and ready so that the patients saturations are above 95 We then need to know if the patient does in fact have Covid 19 to know what care to provide

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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	This is commonly seen in patients that have Covid 19 or viral pneumonia.

Lab Results:

Hematology (CBC)								
	WBC	HGB	PLTS	% Neuts	% Lymphs	% Monos	% Eosin	Bands
Norms:	(4.5-11.0 mm ³)	(12-16 g/dL)	(150-450 x 10 ³ /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:
100.3F HR 118 BP 164/88 O2 92% RR 20	T>100 is fever(feeling hot and sweaty) Increased due to illness and stress High Like to see above 95% RR is at the high	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/ 68 years old

BRIEF summary of primary problem: pt has Covid 19 symptoms and comorbidities- hypertension and diabetes

Day of admission/post-op #:

Background:

Primary problem/diagnosis: Positive Covid 19

RELEVANT past medical history: Hypertension and type II Diabetes

Assessment:

Most recent vital signs: P: 118 T:100.3 R:22 BP: 164/88 O2: 92%

RELEVANT body system nursing assessment data: Respiratory

RELEVANT lab values: WBC- 3.5 , Neut-92, Lymphs- 8, Mono-0, Eosin-0, Bands-0, CO2- 16, Gluc- 178, Creat-110, Covid 19- Pos

How have you advanced the plan of care? Closely monitoring Johns' vital signs and respiratory status

Patient response: The patient is responding to care and improving.

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

Recommendation:

Suggestions to advance the plan of care: Continue monitoring respiratory status, labs, and vital signs for signs of improvement or decline.