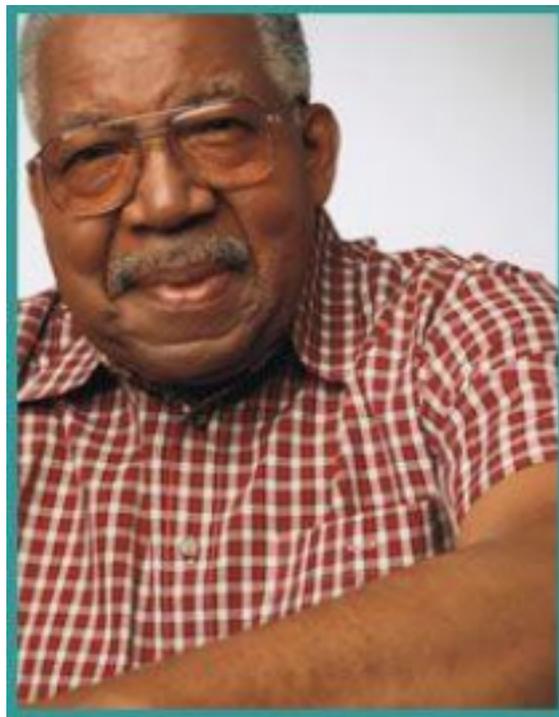


# Novel Coronavirus Disease (COVID-19)

## UNFOLDING Reasoning



**John Taylor, 68 years old**

<b>Primary Concept</b>			
<b>Immunity</b>			
<b>Interrelated Concepts (In order of emphasis)</b>			
<ul style="list-style-type: none"> <li>• Clinical judgment</li> <li>• Communication</li> </ul>			
<b>NCLEX Client Need Categories</b>	<b>Covered in Case Study</b>	<b>NCSBN Clinical Judgment Model</b>	<b>Covered in Case Study</b>
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)

<b>RELEVANT Data from Present Problem:</b>	<b>Clinical Significance:</b>
<b>68 yrs old</b>  <b>Type 2 diabetes &amp; hypertension</b>  <b>S/S: headache, achey, weak, hot to touch, sweaty, "nagging cough", need to catch breath</b> <b>Anxious</b>	<b>Adults over 65 yrs are susceptible to COVID-19.</b> <b>Co-morbidities - increase risk for COVID-19.</b> <b>S/S: symptoms of COVID-19.</b> <b>S/S: projects not feeling well</b>
<b>RELEVANT Data from Social History:</b>	<b>Clinical Significance:</b>
<b>Large metropolitan area</b> <b>Married for 45 yrs</b> <b>Goes to church</b>	<b>Increase risk for COVID-19.</b> <b>Support system</b> <b>Another support system</b>

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?*

*need exact temperature.*

*Does the cough produce sputum.*

*Does he smoke.*

*Has he been around anyone known to have/had COVID19.*

*Has he traveled*

*in*

*the last 14 days.*

*Has he been*

*going*

*to church and*

*practicing*

*social distancing.*

*Has he been using PPE in*

*public*

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

*Masks for patient and any family, they also need to do a rapid covid test*

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	Hand hygiene, gown and gloves
Droplet	Hand hygiene, gown, gloves, Goggles and N95 mask

## 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):
<b>T 100.3F</b>  <b>HR 118</b>  <b>BP 164/88</b> <b>O2 92%</b>  <b>RR 20</b>  <b>5/10 pain</b>	<b>&gt;100 is fever(feeling hot and sweaty)</b> <b>Seems a bit high. Increased due to illness and stress</b> <b>High</b> <b>yet pt is diagnosed with hypertension.</b> <b>Would like to see above 95%</b> <b>RR is at the high point if he is at rest.</b> <b>Seems high while achy</b>	<b>Manage fever with meds</b>  <b>Pain medication to reduce 5/10 to 0/10</b>  <b>Monitor oxygen flow maybe adjust the flow higher</b>

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>	<p>inspection: Note accessory breathing and labored breathing. Note for cyanosis.</p> <p>Auscultation: Listen for dullness, wheezing, rales, diminished breathing, etc</p>
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<b>Current FOCUSED Nursing Assessment:</b>	
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)

<b>RELEVANT Assessment Data:</b>	<b>Clinical Significance:</b>
<p>Appears anxious</p> <p>Weakness</p> <p>Fine, dry crackles</p> <p>Diminished aeration.</p>	<p>Attitude is stress that increases</p> <p>HR, RR, and BP.</p> <p>Overworked body. Fatigue is a</p>

<b>Cough</b>	<b>fall risk.</b> <b>Injury</b> <b>to</b> <b>lung</b> <b>tissue. Non</b> <b>productive</b> <b>(dry)</b> <b>cough is</b> <b>a symptom</b> <b>of the virus</b>
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**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)*

<b>Problems:</b>	<b>Priority Problem:</b>	<b>Rationale:</b>
<b>Covid, pneumonia, flu, and other respi illnesses.</b>	<b>Covid - 19</b>	<b>65 year old with hypertension and diabetes, he is showing signs and symptoms of covid</b>

**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)*

<b>Nursing PRIORITY:</b>	<b>Respiratory</b>	
<b>GOAL of Care:</b>	<b>Avoid labored breathing and make sure he is receiving adequate oxygen</b>	
<b>Nursing Interventions:</b>	<b>Rationale:</b>	<b>Expected Outcome:</b>
<b>Monitor respiratory: breathing sounds, RR</b> <b>Monitor VS</b> <b>Provide comfort</b> <b>Positioning of patient for best breathing patterns</b> <b>Provide fluids</b>	<b>making sure SOB does not increase and breathing difficulty does not increase.</b> <b>Elevated temperature is a threat. Any increase in temp, bp, hr is a concern and needs further attention/evaluation.</b> <b>Pt was anxious. Comfort and care can relieve any additional stress.</b> <b>If there is difficulty breathing, elevated bed or tripod position is a positive.</b> <b>Fluids can assist with temperature</b>	<b>Better breathing equals better O2 intake.</b> <b>Decrease temp notes decrease in fever.</b> <b>Stress can tax the body.</b> <b>Lack of stress allows body to heal more efficiently.</b> <b>Better breathing equals better O2 intake/CO2 output.</b> <b>Pt remains hydrated</b>

[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)*

<b>What Patient is Experiencing:</b>	<b>How to Engage:</b>
[KR2] anxiety, fear, and loneliness	Educate the pt about COVID19 and isolation. Be open to answering any questions. Ask pt how he is feeling. Discuss pt's emotions and be a good listener. Make sure the pt has access to cell phone and/or tablet to communicate with family and friends. Let the pt know that I am just a "ring of the call bell" away. Educate family about s/s of COVID19, isolation, and use of PPE

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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)*

<b>Care Provider Orders:</b>	<b>Rationale:</b>	<b>Expected Outcome:</b>
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Contact-Airborne-Drop let precautions	He has covid 19 so use these contact precautions to avoid spread Prevent transmission	Contain infection
Influenza swab	Want to rule out the flu	Treatment depends on the cause of his problems
COVID-19 swab (only if influenza neg)	To determine he is covid positive from symptoms	WBC will be elevated
Chest x-ray	Look for fluids	Not showing dehydration problems
Complete blood count (CBC)	Check for infection	Might be elevated levels
Metabolic panel (BMP)	Check electrolytes	O2 sat should be above 90%
Lactate	Want to see if oxygen is being carried out through the body	
Nasal cannula titrate to keep O2 sat >90% <sup>[KR3]</sup>	Gives the patient adequate oxygen	

**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"> <li>Contact-Airborne-Drop let precautions</li> <li>COVID-19 swab</li> <li>Nasal cannula titrate to keep O2 sat &gt;95%</li> </ul>	Nasal Contact precautions Covid swab	Pt oxygen needs is priority, then you want to avoid spreading infection so don gloves and certain PPE, wanto to confirm covid is the infection

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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	He has infiltrate in lungs, possible pneumonia, further tests may be needed to rule out covid and pneumonia

## Lab Results:

Hematology (CBC)								
	WBC	HGB	PLTS	% Neuts	% Lymphs	% Monos	% Eosin	Bands
Norms:	(4.5-11.0 mm <sup>3</sup> )	(12-16 g/dL)	(150-450 x 10 <sup>3</sup> /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:
<b>Low Co2</b> <b>High Glucose</b> <b>Low Wbc</b> <b>High Neutrophils</b> <b>Low lymph, esonophils and monos</b>  <b>Covid positive</b>  <b>Low bands</b>	<b>Infection can deplete wbc after a while</b>  <b>Neutro-esoniphils-monos indicate infection</b>  <b>Abg abnormality with Co2 results</b>  <b>Positive covid infection</b>  <b>Viral origin</b>	<b>Only set of values so no trend can be given</b>

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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!

**S**ituation:

**Name/age: John Taylor, 68-year-old African American Male**

**BRIEF summary of primary problem: He presented to the emergency department 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 worsen throughout the day. He has difficulty “catching his breath” when he gets up to go the bathroom.**

**Transferred to MedSurg four hours ago and was clinically stable until he got up to use the bathroom and went into acute**

**respiratory distress with increasing O2 needs and decreasing O2 sat**

**Day of admission/post-op #: 9/16/2020**

**B**ackground:

**Primary problem/diagnosis: Covid -19**

**RELEVANT past medical history: Hypertension and type 2 diabetes, he is Full code status**

**A**ssessment:

**Most recent vital signs:**

**•P: 118 (reg)**

**•R: 22 slightly labored**

**•BP: 164/88**

**Temp 100.3 F (oral)**

**•O2 sat: 90% non-rebreather facemask-100%**

**RELEVANT body system nursing assessment data:**

**Pale, diaphoretic, anxious, breath sounds diminished with scattered coarse crackles bilat. Use of accessory muscles,**

**unable to verbalize.**

**RELEVANT lab values: low WBC, covid positive neuts 92**

**How have you advanced the plan of care?**

**Initiated rapid response and increased O2 nonrebreather mask.**

**Patient response: patient is calm and improved condition**

**INTERPRETATION of current clinical status (stable/unstable/worsening): stable and being transferred to Med surg floor**

**R**ecommendation:

**Suggestions to advance the plan of care: order for pain 5/10, increased insulin demands from covid, ask about orders from provider, continue nasal cannula, monitor vitals and precautions for covid.**