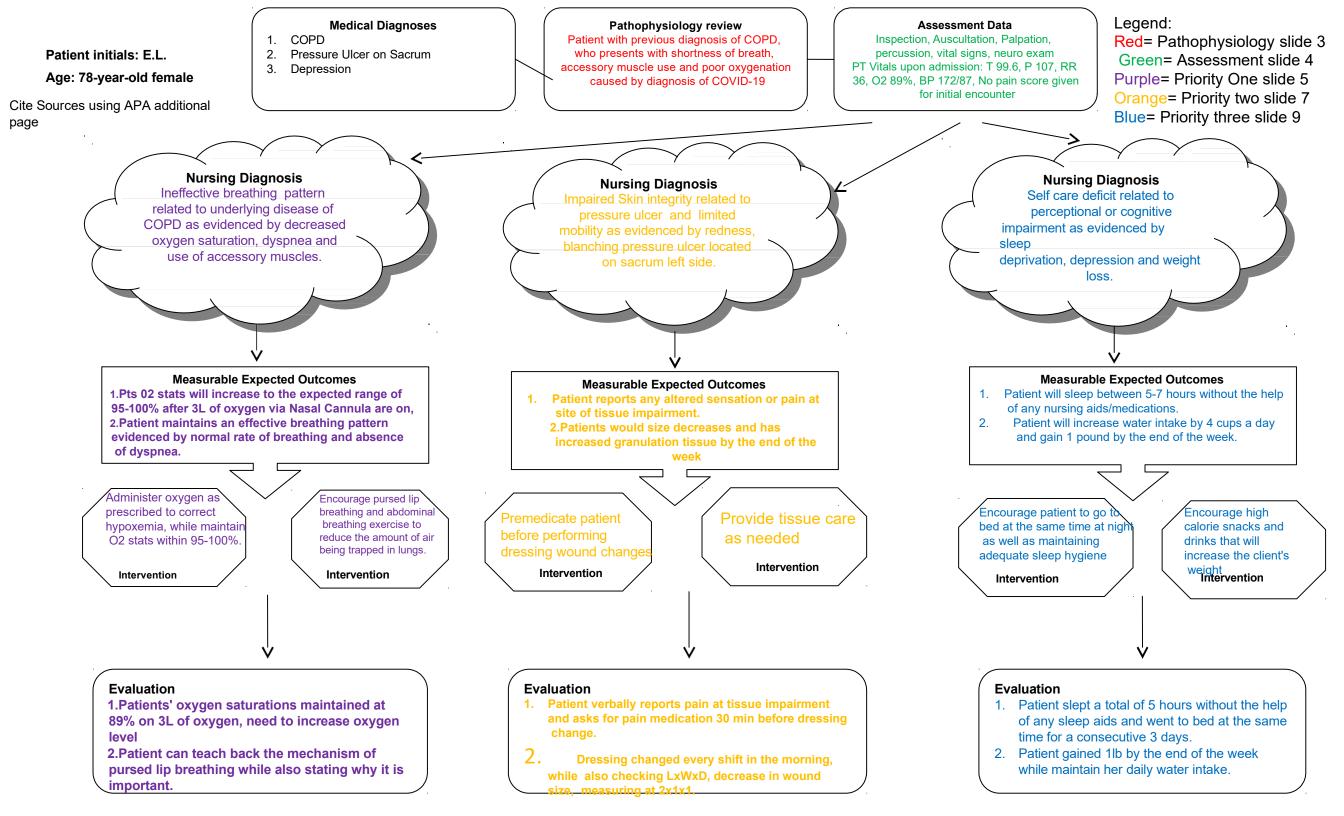
RUA: Concept Map Nur 226- Fundamentals Patient care Student Name Due Date



## Pathophysiology

# Patient with previous diagnosis of COPD, who presents with shortness of breath, accessory muscle use and poor oxygenation caused by diagnosis of COVID-19.

COPD is chronic obstructive pulmonary disorder. It is characterized by "poorly reversible airflow obstruction and an abnormal inflammatory response in the lungs" (MacNee,2006). Some pathological changes that can occur with a patient who has COPD are an "increased resistance to airflow in the small conducting airways, increased compliance of the lungs, air trapping, and progressive airflow obstruction" (MacNee, 2006). It is important to understand that COPD can come about in many ways, either smoking a prolonged amount of time or the inhalation of toxic chemicals or irritants, in the case of the patient E.L, she had a previous history of smoking for 30+ years. Patients who have COPD can have any of the following symptoms: Chronic productive cough, pulmonary hypertension, ventilation and perfusion issues (low oxygen saturations, might need O2 continuously), skeletal muscle wasting, Barrell chest, osteoporosis, increased risk for cardiovascular disease and depression/anxiety.

#### Assessment

- Inspect: Accessory muscle use, patient
- appears to be in acute distress as she is in tripod position, patient's chest is symmetric, pursed lip breathing, unequal expansion of chest, Length 3cm x width 1cm and depth 2 cm stage two pressure ulcer on left side sacrum
- <u>Auscultation:</u> patient has crackles/wheezes in left lower lobe of lung all other lung sounds clear, increased respirations, bowel sounds heard throughout all quadrants, no murmurs or bruits noted
- <u>Palpation:</u> Regular rate and rhythm on palpation of radial, dorsalis pedis and apical pulse, No tenderness in abdomen or bladder, capillary refill more than 3 seconds, weakness/tenderness in upper and lower extremities

<u>Percussion:</u> resonance over lungs, tympany over abdomen, no hyperresonance noted, dull over organs

• <u>Neurological exam:</u> patient is A/O x 4, seems to be nervous/agitated, deep tendon reflexes +2, mental status normal to conversation, All cranial nerves intact, can move extremities with little assistance

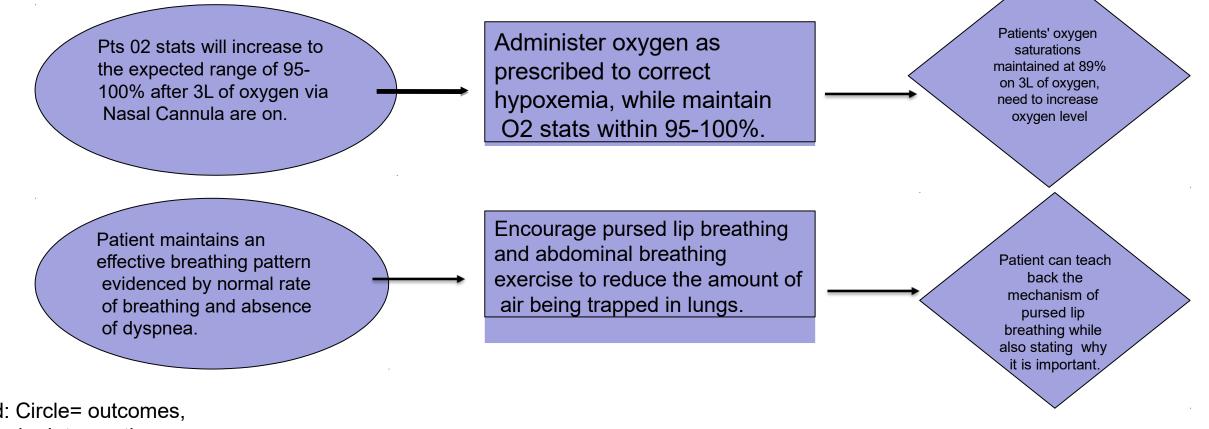
#### <u>Vital Signs:</u>

 PT Vitals upon admission 05/25/2022: T 99.6, P 107, RR 36, O2 89%, BP 172/87, No pain score given for initial encounter



# **Priority One**

 Ineffective breathing pattern related to underlying disease of COPD as evidenced by decreased oxygen saturation, dyspnea and use of accessory muscles.



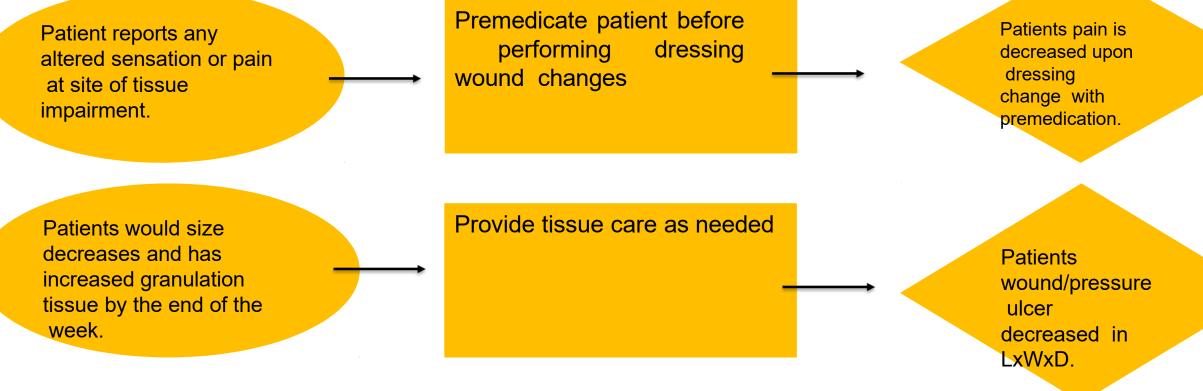
Legend: Circle= outcomes, Rectangle=Interventions, Diamond= Evaluation

# **Intervention Support**

Administer evugen as prescribed to correct by poyomic	Although an avugan concentration is important for
Administer oxygen as prescribed to correct hypoxemia, while maintain O2 stats within 95-100%.	Although an oxygen concentration is important for patients, it is crucial that with patients with COPD, we make sure to avoid high concentrations.
Place patient with proper body alignment in the tripod position.	The tripod position allows for "maximum lung expansion and chest expansion" (Wayne,2022).
Encourage pursed lip breathing and abdominal breathing exercise to reduce the amount of air being trapped in lungs.	These techniques help "aid in deep inspiration, which increase oxygenation, preventing atelectasis" (Wayne,2022) and pneumonia. Also help slow breathing down in a patient who is Tachypneic.
Maintain a clear airway.	Make sure the patient knows how to "cough up" or expel their own mucus/secretions to get them out of their lungs.

### **Priority Two**

 Impaired Skin integrity related to pressure ulcer and limited mobility as evidenced by redness, blanching pressure ulcer located on sacrum left side.



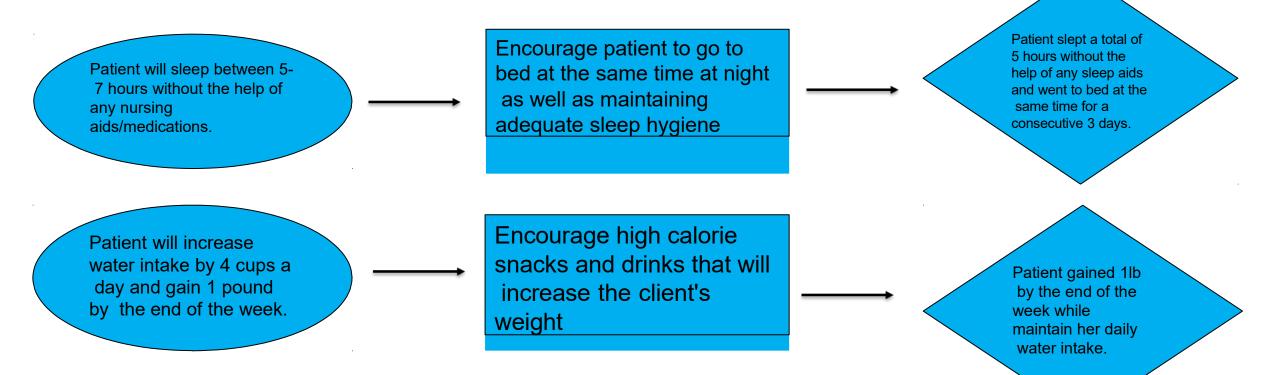
Legend: Circle= outcomes, Rectangle=Interventions, Diamond= Evaluation

# **Intervention Support**

Premedicate patient before performing dressing wound changes.	Giving patients pain medication prior to wound changes will aid in the relief of pain that some wound changes can cause.
If patient is incontinent, implement an incontinence plan to help decrease the amount of moisture in the perineal area.	"Prevent exposure to chemicals in urine and stool that can strip or erode the skin" (Wayne,2022)
Provide tissue care as needed	"Each type of wound is best treated based on its etiology. Skin wounds may be covered with wet or dry dressings, topical creams or lubricants, hydrocolloid dressings (e.g., DuoDerm), or vapor-permeable membrane dressings such as Tegaderm" (Wayne,2022).
Use pillows, foam wedges and pressure reducing devices to help in prevention of pressure ulcers.	For precenting pressure issues, it is important to know the main "'bony prominences" on the body that are more prone to getting pressure ulcer. Padding these areas will aid in pressure ulcer reduction.

# **Priority Three**

 Self care deficit related to perceptional or cognitive impairment as evidenced by sleep deprivation, depression and weight loss.



Legend: Circle= outcomes, Rectangle=Interventions, Diamond= Evaluation

### **Interventions Support**

Encourage patient to go to bed at the same time at night as well as maintaining adequate sleep hygiene	"An established routine becomes rote and requires less effort. This helps the patient organize and carry out self-care skills" (Wayne et al, 2022).
Education given/told to the family regarding the aspect off promoting autonomy for the patient, and to only intervene when they believe patient cannot perform task.	This displays caring and concern but does not take away the patient's effort of autonomy.
Encourage high calorie snacks and drinks that will increase the client's weight	With a proper diet of high calorie snacks and drinks this helps the patient maintain a steady state of being able to gain weight, which in the care of the patient is important, and it will help aid in healing other issues related to the patient.
Establish regular activities the patient can be apart of and participate in.	"A plan that balances periods of activity with periods of rest can help the patient complete the desired activity without undue fatigue and frustration" (Wayne et al, 2022), this will also help bring up some of the secretions sitting in the patients' lungs due to her COPD.

Safety	Communication	Infection Control
<ul> <li>Move all objects that can be a fall hazard for the patient.</li> <li>High fall risk</li> <li>Braden scale score high</li> <li>Call light within reach</li> <li>Room well lit and DO NOT close door, as patient is afraid of dark</li> <li>Make sure bed is locked and lowest position</li> <li>Items within reach to patient</li> </ul>	<ul> <li>Speak facing the patient, in visual field, in normal volume in well light room.</li> <li>Remove all distractions when communicating</li> <li>Assess health literacy</li> <li>Provide verbal material within appropriate literacy level</li> </ul>	<ul> <li>Use sterile technique for wound care or aseptic technique for all other interventions or per policy</li> <li>Perform hand hygiene when entering and leaving the room and as needed</li> <li>Discard of used medical supplies</li> <li>Provide clean sheets and blankets to the patient</li> <li>Use PPE as indicated by policy or protocol</li> </ul>

# REFERENCES

- MacNee W. (2006). Pathology, pathogenesis, and pathophysiology. BMJ : British Medical Journal, 332(7551), 1202–1204.
- Wayne, G. (2022, March 19). Ineffective breathing pattern nursing diagnosis & care plan. Nurseslabs. Retrieved June 12, 2022, from <a href="https://nurseslabs.com/ineffective-breathing-pattern/">https://nurseslabs.com/ineffective-breathing-pattern/</a>
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