# N311 Care Plan 5

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Lakeview College of Nursing

N311: Foundations of Professional Practice

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11/17/2024

## Demographics (5 points)

| Date of Admission | Client Initials | Age | Gender |
|---|---|---|---|
| 11/13/2024 | MF | 57 | Male |
| **Race/Ethnicity** | **Occupation** | **Marital Status** | **Allergies** |
| White | Disability | Single | No known allergies |
| **Code Status** | **Height** | **Weight** | |
| Full Code | 5'11" | 145 | |

## Medical History (5 Points)

**Past Medical History: Alpha 1- antitrypsin deficiency, chronic lung disease, lung abscess, osteoporosis, oxygen dependent, and sleep apnea**

**Past Surgical History: Hemorrhoid surgery, thoracoscopy**

**Family History: Alpha 1- antitrypsin deficiency in maternal uncle, and mom, mother also has cancer**

**Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): Former smoker, no use of drugs or alcohol**

## Admission Assessment

**Chief Complaint (2 points): Shortness of breath for the last 2-3 days, productive cough**

**History of Present Illness – OLD CARTS (10 points):**

**Patient presented to the emergency department complaining of shortness of breath for about the last week, stating that he also has a productive cough. Patient states that it is constant but get worse as he gets up and moves around. Patient also states that the only thing that help is sitting and resting for about 3-4 hours at a time. Patient claims that he has been taking antibiotics for this condition, but they have not been working. Stating that is why he finally decided to come to the emergency department.**

## Primary Diagnosis

**Primary Diagnosis on Admission (3 points): COPD**

**Secondary Diagnosis (if applicable): None Provided**

**Pathophysiology of the Disease, APA format (20 points):**

**Diverse receptors regulate the mechanism, pace, and depth of respiration during both inspiration and expiration. Central chemoreceptors, situated in the medulla, detect variations in carbon dioxide levels and blood pH, leading to modifications in the rate and depth of breathing (Capriotti 2024). An elevation in CO2 or a reduction in pH activates the central chemoreceptors which results in increased breathing. Peripheral chemoreceptors, located in the aortic arch and carotid artery, primarily respond to a reduction in arterial oxygen levels (Capriotti 2024). A diminished oxygen concentration in the blood is detected by peripheral chemoreceptors, which activate respiration this phenomenon is known as hypoxic drive. (Capriotti 2024). A hypoxic drive predominates when CO2 buildup fails to stimulate the medulla to regulate respiration, as observed in conditions like chronic obstructive pulmonary disease (Capriotti 2024). Signs and symptoms include difficulty in respiration, particularly with physical exertion. Audible wheezing or whistling during respiration, persistent cough that may produce significant mucous (Mayo clinic 2024). The mucus might be clear, white, yellow, or greenish in color, fatigue or diminished energy levels. Recurrent pulmonary infections and unintentional weight loss (Mayo Clinic 2024).**

**Pathophysiology References (2) (APA):**

**Mayo Foundation for Medical Education and Research. (2024a, August 30). *COPD*. Mayo Clinic. https://www.mayoclinic.org/diseases-conditions/copd/symptoms-causes/syc-20353679**

**Capriotti, T. (2024).** ***Davis Advantage for pathophysiology: Introductory concepts and clinical perspectives*****. F.A. Davis Company.**

**Laboratory Data (20 points)**
***If laboratory data is unavailable, values will be assigned by the clinical instructor***

**CBC Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Lab | Normal Range | Admission Value 11/13/24 | Today's Value Not Completed | Reason for Abnormal Value |
|---|---|---|---|---|
| RBC | 3.8-5.3 | 4.62 | Not Completed | |
| Hgb | 12-15.8 | 13.7 | Not Completed | |
| Hct | 36-47% | 42.3 | Not Completed | |
| Platelets | 140-440 | 263 | Not Completed | |
| WBC | 4-12 | 7.90 | Not Completed | |
| Neutrophils | 47-73% | 92.3 | Not Completed | Patient's levels are most likely high related to stress (Pagana 2024). |
| Lymphocytes | 18-42% | 5.0 | Not Completed | Patient's levels are most likely low related to the corticosteroid the patient is taking (Pagana 2024). |
| Monocytes | 4-12% | 2.4 | Not Completed | Patient's levels are more than likely low related to the corticosteroid the patient is taking (Pagana 2024). |
| Eosinophils | 0-5% | .1 | Not Completed | |
| Bands | Not Completed | Not Completed | Not Completed | |

**Chemistry Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.**

| Lab | Normal Range | Admission Value 11/13/2024 | Today's Value Not | Reason For Abnormal |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| | | | **Completed** | |
| **Na-** | **136-145** | **144** | **Not Completed** | |
| **K+** | **3.5-5.1** | **3.9** | **Not Completed** | |
| **Cl-** | **98-107** | **105** | **Not Completed** | |
| **CO2** | **22-30** | **31** | **Not Completed** | **Patient most likely has a elevated CO2 level related to the emphysema expressed with COPD (Pagana 2024),** |
| **Glucose** | **70-99** | **143** | **Not Completed** | **Patient most likely has an elevated glucose level related to stress among first admission testing (Pagana 2024).** |
| **BUN** | **10-20** | **22** | **Not Completed** | **Patient has a high BUN level related to his medication, Doxycycline hyclate (Pagana 2024).** |
| **Creatinine** | **.6-1.00** | **.87** | **Not Completed** | |
| **Albumin** | **3.5-5.0** | **4.2** | **Not Completed** | |
| **Calcium** | **8.7-10.5** | **9.2** | **Not Completed** | |
| **Mag** | **Not Completed** | **Not Completed** | **Not Completed** | |
| **Phosphate** | **Not Completed** | **Not Completed** | **Not Completed** | |
| **Bilirubin** | **Not Completed** | **Not Completed** | **Not Completed** | |
| **Alk Phos** | **40-150** | **59** | **Not Completed** | |

**Urinalysis Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.**

**No urinalysis was completed**

| **Lab Test** | **Normal Range** | **Value on Admission** | **Today's Value** | **Reason for Abnormal** |
|---|---|---|---|---|
| **Color & Clarity** | | | | |

| | | | | |
|---|---|---|---|---|
| **pH** | | | | |
| **Specific Gravity** | | | | |
| **Glucose** | | | | |
| **Protein** | | | | |
| **Ketones** | | | | |
| **WBC** | | | | |
| **RBC** | | | | |
| **Leukoesterase** | | | | |

**Cultures Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.**

**No cultures were completed**

| **Test** | **Normal Range** | **Value on Admission** | **Today's Value** | **Explanation of Findings** |
|---|---|---|---|---|
| **Urine Culture** | | | | |
| **Blood Culture** | | | | |
| **Sputum Culture** | | | | |
| **Stool Culture** | | | | |

**Lab Correlations Reference (1) (APA):**

**Pagana, K., Pagana, T., & Pagana, T. (2023).** ***Mosby's Diagnostic and Laboratory Test Reference*****. Elsevier.**

**Diagnostic Imaging**

**All Other Diagnostic Tests (10 points): A chest X-RAY was completed, and results confirm that severe emphysema in present and indicated as being a condition on COPD A chest X-RAY can show multiple condition such as indications of COPD (Pagana 2024).**

**Diagnostic Imaging Reference (1) (APA):**

**Pagana, K., Pagana, T., & Pagana, T. (2023).** ***Mosby's Diagnostic and Laboratory Test Reference*****. Elsevier.**

**Current Medications (10 points, 2 points per completed med)**
***5 <u>different</u> medications must be completed***

**Medications (5 required)**

| **Brand/ Generic** | **alprazolam** | **Doxycycline hyclate** | **Enoxaparin sodium** | **budesonide** | **Arformoterol tartrate** |
|---|---|---|---|---|---|
| **Dose** | **1mg** | **100mg** | **40mg** | **250mcg** | **15mcg** |
| **Frequency** | **3x daily PRN** | **2x daily** | **Once daily** | **2x daily** | **2x daily** |
| **Route** | **oral** | **oral** | **subcutaneous** | **nebulization** | **nebulization** |
| **Classification** | **Pharmacological: Benzodiazepine Therapeutic: Anxiolytic** | **Pharmacological: tetracycline Therapeutic: antibiotic** | **Pharmacological: low-molecular weight heparin Therapeutic: anticoagulant** | **Pharmacological: corticosteroid Therapeutic: antiasthmatic, anti-inflammatory** | **bronchodilators** |
| **Mechanism of Action** | **Increases the effect of inhibitory neurotransmitters which help** | **Passes through bacterial lipid bilayer to bind to transfer** | **Potentiates the action of antithrombin by binding to antithrombi** | **Inhibits inflammatory cells from the body to decreased to** | **In patients with chronic obstructive pulmonary disease (COPD),** |

| | | | | | |
|---|---|---|---|---|---|
| | **control emotions behaviors (Jones and Bartlett).** | **RNA to inhibit bacterial protein synthesis (Jones and Bartlett).** | **n III rapidly bines to inactivate clotting factors (Jones and Bartlett).** | **inflammation within the respiratory tract allowing the lungs to open more (Jones and Bartlett).** | **which includes emphysema and chronic bronchitis, arformoterol is utilized as a long-term maintenance treatment for air flow obstruction (Mayo clinic 2024).** |
| **Reason Client Taking** | **anxiety** | **To treat inhalation anthrax exposure** | **to prevent DVT** | **COPD** | **COPD** |
| **Contraindications (2)** | **Acute angle-closer glaucoma (Jones and Bartlett).**<br><br>**Hypersensitive to alprazolam (Jones and Bartlett),** | **Hypersensitive to doxycycline (Jones and Bartlett).**<br><br>**Hypersensitive to other tetracyclines (Jones and Bartlett).** | **Active major bleeding (Jones and Bartlett).**<br><br>**History of heparin-induced thrombocytopenia within the last 100 days (Jones and Bartlett).** | **Septal ulcer (Jones and Bartlett).**<br><br>**Acute asthma episodes (Jones and Bartlett).** | **Amphetamine (Mayo clinic 2024)**<br><br>**Dextroamphetamine (Mayo clinic 2024)** |
| **Side Effects/Adverse Reactions (2)** | **Apnea (Jones and Bartlett).**<br><br>**Respiratory depression (Jones and Bartlett).** | **intercranial hypertension (Jones and Bartlett).**<br><br>**Pericarditis (Jones and Bartlett).** | **Dyspnea (Jones and Bartlett).**<br><br>**Pulmonary edema or embolism (Jones and Bartlett).** | **Bronchospasm (Jones and Bartlett).**<br><br>**Respiratory tract infection (Jones and Bartlett).** | **Chest pain (Mayo clinic 2024)**<br><br>**Anxiety (Mayo clinic 2024)** |

**Medications Reference (1) (APA):**

**Mayo Foundation for Medical Education and Research. (n.d.).** ***Arformoterol (inhalation route)*****. Mayo Clinic.**

**https://www.mayoclinic.org/drugs-supplements/arformoterol-inhalation-route/description/drg-20069263**

***2024 NDH Nurse's Drug Handbook*****. (2024). . Jones & Bartlett Learning.**

## Assessment

**Physical Exam (18 points) – HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS**

| | |
|---|---|
| **GENERAL:**<br>**Alertness: x4**<br>**Orientation: x4**<br>**Distress: no signs of distress**<br>**Overall appearance: well groomed** | |
| **INTEGUMENTARY:**<br>**Skin color: fair**<br>**Character: warm, dry**<br>**Temperature: warm**<br>**Turgor: no tenting**<br>**Rashes: No**<br>**Bruises: No**<br>**Wounds: No**<br>**Braden Score: 21**<br>**Drains present: Y☐ N ☒**<br>**Type:** | |
| **HEENT:**<br>**Head/Neck: Symmetrical, no bumps, or lesions**<br>**Ears: Normal, no pain or bumps**<br>**Eyes: white sclera, and pink conjunctiva**<br>**Nose: Symmetrical no signs of deviation**<br>**Teeth: Good condition, patient's states has a dry mouth related to oxygen** | **Patient is on 6L/Min of oxygen but refused humidity**<br>. |
| **CARDIOVASCULAR:** | . |

| | |
|---|---|
| **Heart sounds: S1 and S2 present**<br>**S1, S2, S3, S4, murmur etc.**<br>**Cardiac rhythm (if applicable): Normal**<br>**Peripheral Pulses: 2+**<br>**Capillary refill: less than 3 seconds**<br>**Neck Vein Distention: Y ☐ N ☒**<br>**Edema Y ☐ N ☒**<br>**Location of Edema:** | |
| **RESPIRATORY:**<br>**Accessory muscle use: Y☒ N ☐**<br>**Breath Sounds: Location, character**<br>**Hear to hear, diminished, patient is on 6l/min of O2** | Patient has Alpha 1 antitrypsin deficiency making to, so he is suspectable to multiple breathing condition such as COPD. |
| **GASTROINTESTINAL:**<br>**Diet at home: Patient states he does not follow any specific diet at home**<br>**Current Diet: Patient states that he is not on a diet currently while being in the hospital either**<br>**Height: 5'11"**<br>**Weight: 145**<br>**Auscultation Bowel sounds: active, normal 5-34 sounds**<br>**Last BM: does not know, before admission**<br>**Palpation: Pain, Mass etc.: no pain or lumps or organomegaly**<br>**Inspection:**<br>**Distention: no**<br>**Incisions: no**<br>**Scars: no**<br>**Drains: no**<br>**Wounds: no**<br>**Ostomy: Y ☐ N ☒**<br>**Nasogastric: Y ☐ N ☒**<br>**Size:**<br>**Feeding tubes/PEG tube Y ☐ N ☒**<br>**Type:** | . |
| **GENITOURINARY:**<br>**Color: clear**<br>**Character: non cloudy**<br>**Quantity of urine: normal output**<br>**Pain with urination: Y ☐ N ☒**<br>**Dialysis: Y ☐ N ☒**<br>**Inspection of genitals: good condition**<br>**Catheter: Y ☐ N ☒** | |

| | |
|---|---|
| **Type:**<br>**Size:** | |
| **MUSCULOSKELETAL:**<br>**Neurovascular status: good**<br>**ROM: good range of motion no pain or weakness**<br>**Supportive devices: no**<br>**Strength: strong bilaterally**<br>**ADL Assistance: Y☐ N ☒**<br>**Fall Risk: Y ☐ N☒**<br>**Fall Score: 4**<br>**Activity/Mobility Status: independent**<br>**Independent (up ad lib) ☐x**<br>**Needs assistance with equipment ☐**<br>**Needs support to stand and walk☐** | . |
| **NEUROLOGICAL:**<br>**MAEW: Y ☒ N☐**<br>**PERLA: Y ☒ N☐**<br>**Strength Equal: Y ☒ N ☐ if no -**<br>**Legs ☐ Arms ☐ Both ☐**<br>**Orientation: good**<br>**Mental Status: good, no signs of depression**<br>**Speech: good**<br>**Sensory: good**<br>**LOC: normal** | . |
| **PSYCHOSOCIAL/CULTURAL:**<br>**Coping method(s): watching Tv, talking to family**<br>**Developmental level: Normal**<br>**Religion & what it means to pt.: Catholic**<br>**Personal/Family Data (Think about home environment, family structure, and available family support): good family support at home** | . |

**Vital Signs, 1 set (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS**

| Time | Pulse | B/P | Resp Rate | Temp | Oxygen |
|---|---|---|---|---|---|
| 0712 | 86 | 133/85 | 17 | 97.6 | 97 |

**Pain Assessment, 1 set (5 points)**

| Time | Scale | Location | Severity | Characteristics | Interventions |
|---|---|---|---|---|---|
| **0756** | **word** | **none** | **0** | **97.6** | **No pain** |

**Intake and Output (2 points)**

| Intake (in mL) | Output (in mL) |
|---|---|
| **Normal intake orally** | **Normal voiding** |

**Nursing Diagnosis (15 points)**
***Must be NANDA approved nursing diagnosis***

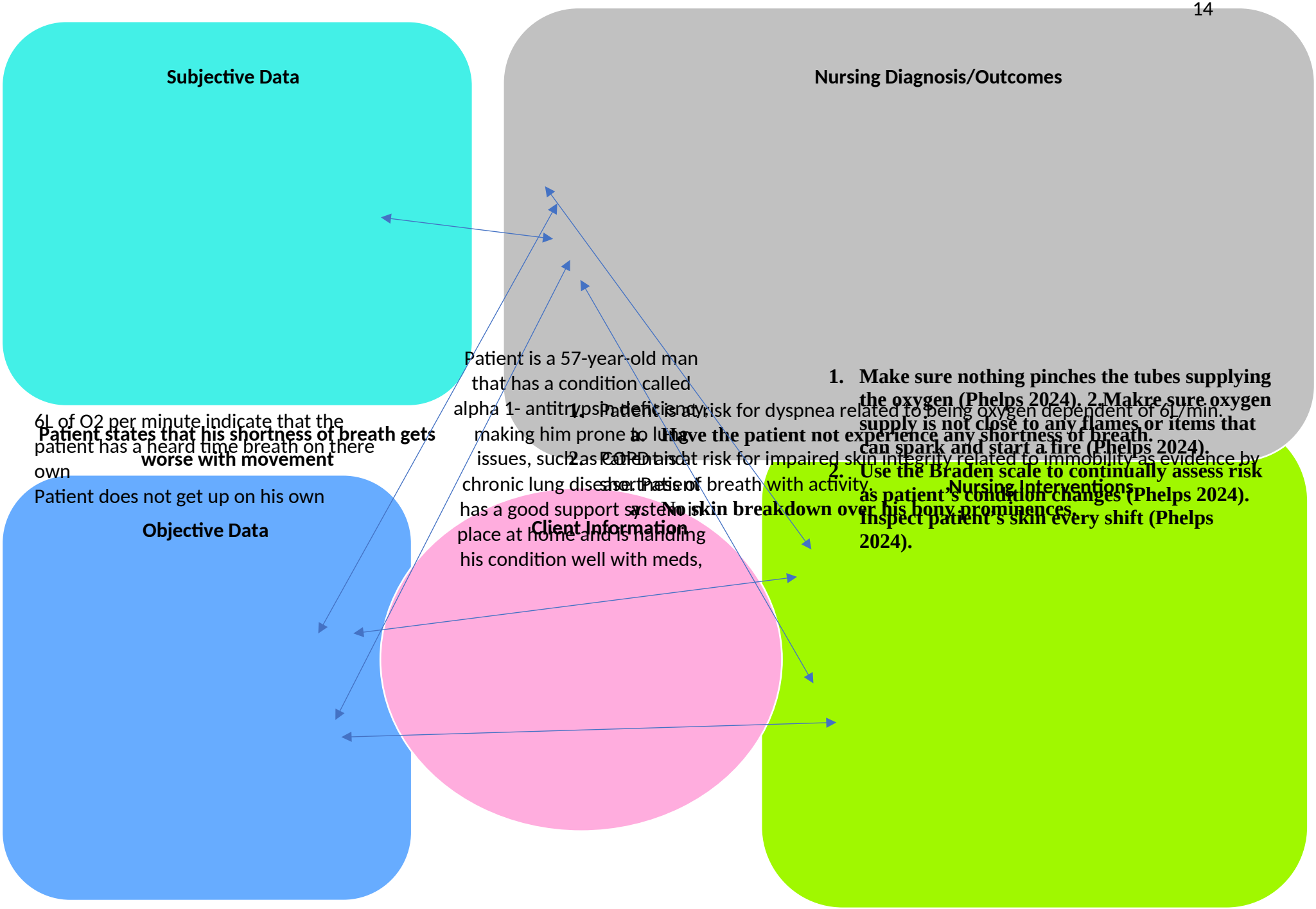
| **Nursing Diagnosis**<br>• Include full nursing diagnosis with "related to" and "as evidenced by" components<br>• Listed in order by priority – highest priority to lowest priority pertinent to this client | **Rationale**<br>• Explain why the nursing diagnosis was chosen | **Interventions (2 per dx)** | **Outcome Goal (1 per dx)** | **Evaluation**<br>• How did the client/family respond to the nurse's actions?<br>• Client response, status of goals and outcomes, modifications to plan. |
|---|---|---|---|---|
| **1.** Patient is at risk for dyspnea related to being oxygen dependent | **This diagnosis was chosen related to the fact the patient is on 6L of O2, and if he** | **1.Make sure nothing pinches the tubes supplying the oxygen (Phelps 2024).**<br><br>**2.Makre sure** | **1. Have the patient not experience any shortness of breath.** | **Patient understood that always keeping oxygen on him in extremely important.** |

| | | | | |
|---|---|---|---|---|
| of 6L/min. | **were to take it off or run out of O2 he would have a difficult time breathing.** | **oxygen supply is not close to any flames or items that can spark and start a fire (Phelps 2024).** | | |
| **2.** Patient is at risk for impaired skin integrity related to immobility as evidence by shortness of breath with activity. | **This is chosen because patient experiencing shortness of breath with actives making him sit around and be immobile for longer periods of time** | **1. Use the Braden scale to continually assess risk as patient's condition changes (Phelps 2024).**<br>**2. Inspect patient's skin every shift (Phelps 2024).** | **1. No skin breakdown over his bony prominences.** | **Patient understood that even if he does not feel like getting up and walking around that it is important to at least change his position of rest every 2 hours.** |

**Other References (APA):**

**Phelps, L. L. (n.d.). *Nursing Diagnosis Reference Manual, Twelfth Edition*. VitalSource Bookshelf Online. https://wolterskluwer.vitalsource.com/reader/books/9781975201609/epubcfi/6/34[%3Bvnd.vst.idref%3Da16_chapter09]!/4/636/4/4/6[page_364]/1:0[%2Cp.%20]**

**Concept Map (23 Points**


Subjective Data
Patient states that his shortness of breath gets worse with movement
Patient does not get up on his own
Objective Data
6L of O2 per minute indicate that the patient has a heard time breath on there own
Patient is a 57-year-old man that has a condition called alpha 1- antitrypsin deficiency making him prone to lung issues, such as COPD and chronic lung disease. Patient has a good support system in place at home and is handling his condition well with meds,
Client Information
Nursing Diagnosis/Outcomes
1. Patient is at risk for dysphea related to being oxygen dependent of 6L/min.
a. Have the patient not experience any shortness of breath.
2. Patient is at risk for impaired skin integrity related to immobility as evidence by
a. Patient
a. No skin breakdown over his bony prominences.
Nursing Interventions
1. Make sure nothing pinches the tubes supplying the oxygen (Phelps 2024). 2.Makre sure oxygen supply is not close to any flames or items that can spark and start a fire (Phelps 2024).
2. Use the Braden scale to continually assess risk as patient's condition changes (Phelps 2024). Inspect patient's skin every shift (Phelps 2024).