N311 Care Plan #2

Lakeview College of Nursing

Whitney Simlin

Demographics (5 points)

Date of Admission	Patient Initials	Age	Gender
5/28/19	V.P.	80 y/o	Female
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
White/Caucasian	Retired	Widowed	Solu- Medrol
Code Status	**Height**	**Weight**	
DNR- Comfort Care	5’ 6”	121.8 lb	

Medical History (5 Points)

Past Medical History:

COPD, Covid-19 during stay, repeated falls, other abnormalities of gait and mobility, unspecified hyperlipidemia, unspecified anxiety disorder, single episode unspecified major depressive disorder, unspecified mild Alzheimer’s disease, dementia in other diseases classified elsewhere w/o behavioral disturbance, unsteadiness on feet, weakness, history of falling, personal history of nicotine dependence, dependence on the supplemental oxygen, scoliosis, unspecified difficulty walking

Past Surgical History: `

Family History: No known family history

Social History (tobacco/alcohol/drugs): Past use of tobacco

Admission Assessment

Chief Complaint (2 points): Impaired gas exchange

History of present Illness (10 points): On April 28th ,2019- a 71-year-old, white woman was brought to the assisted living facility by family and was admitted due to the increased confusion. V.P. is still currently living in the assisted living facility. Her illness is moderate to severe and has been since 5/29/19. The characteristics associated with this patient's illness are erratic behaviors. An aggravating factor I noticed was when the patient moved away from her normal routine. The patient is relieved when she is reoriented. The treatment she is receiving is 24-hour care at an assisted living facility and oxygen therapy at 3L via nasal cannula.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Chronic Obstructive Pulmonary Disease (COPD)

Secondary Diagnosis (if applicable):n/a

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

Chronic Obstructive Pulmonary Disease (COPD) is an inflammatory lung disease that causes obstructed airflow to the lungs. (Capriotti & Frizzell, 2015) The most common etiology of COPD is long term exposure to irritants to the lungs. (Capriotti & Frizzell, 2015) Some common forms of irritants are asbestos and tobacco. (Capriotti & Frizell, 2015) The patient has a history that includes tobacco usage.

A risk factor for COPD is smoking and working around air pollutants. (Capriotti & Frizzell, 2015) From the patients chart, we are shown that V.P. smoked but are unaware of how long. She is a retired cook and therefore did not work around air pollutants.

Symptoms of COPD include shortness of breath, chest tightness, cough, mucus (sputum) production, frequent respiratory infections. lack of energy- as seen in V.P., unintended weight

loss in the later stages- also seen in V.P. and wheezing. (Martini, Ober, Welch, & Hutchings) COPD symptoms often do not appear until significant lung damage has occurred, and they usually worsen over time, particularly if smoking exposure continues. (Martini, Ober, Welch, & Hutchings)

Some physical findings found in COPD are an expanded chest (barrel chest), wheezing during normal breathing, taking longer to exhale fully, and decreased breath sounds, or abnormal breath sounds such as crackles. (Martini, Ober, Welch, & Hutchings)

The diagnostic testing that is done to determine COPD Lung (pulmonary) function tests. (Mayo Clinic, 2020) These tests measure the amount of air you can inhale and exhale, and whether your lungs deliver enough oxygen to your blood. (Mayo Clinic, 2020) During the most common test, called spirometry, you blow into a large tube connected to a small machine to measure how much air your lungs can hold and how fast you can blow the air out of your lungs. (Mayo Clinic, 2020) Other tests include measurement of lung volumes and diffusing capacity, six-minute walk test, and pulse oximetry. (Mayo Clinic, 2020)

A chest X-ray can show emphysema, one of the main causes of COPD. (Martini, Ober, Welch, & Hutchings) An X-ray can also rule out other lung problems or heart failure. (Martini, Ober, Welch, & Hutchings) A CT scan of your lungs can help detect emphysema and help determine if you might benefit from surgery for COPD. (Martini, Ober, Welch, & Hutchings) CT scans can also be used to screen for lung cancer. (Martini, Ober, Welch, & Hutchings) Arterial blood gas analysis measures how well your lungs are bringing oxygen into your blood and removing carbon dioxide. (Martini, Ober, Welch, & Hutchings)

Forms of treatment for COPD are short-acting bronchodilator inhalers. (Martini, Ober, Welch, & Hutchings) Some people with COPD, short-acting bronchodilator inhalers are the first treatment used but long-acting bronchodilator inhalers and steroid inhalers may also be used. (Martini, Ober, Welch, & Hutchings)

Pathophysiology References (2) (APA):

Capriotti, T.M., & Frizzell, J.P., "Pathophysiology: Introductory Concepts and Clinical Perspectives" (2015).

Martini, F., Ober, C. E., Welch, K., & Hutchings, R. T. "Visual Anatomy & Physiology" (2018)

Copd. (2020, April 15). Retrieved March 01, 2021, from https://www.mayoclinic.org/diseases-conditions/copd/symptoms-causes/syc-20353679

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	Today's Value	Reason for Abnormal Value
RBC	Male: 4.7-6.1 Female: 4.2-5.4	n/a	3.62	Reason unknown- a potential cause may be internal bleeding
Hgb	Male:14-18 g/dL Female: 12-16 g/dL	n/a	8.0	Hgb is low because of low number of red blood cells.
Hct	Male: 40-52% Female: 36-47%	n/a	37.8	
Platelets	150-400 x 10^9/L	n/a	180	
WBC	5-10 x 10^9/ L	n/a	3.6	WBC may be low due to cancer
Neutrophils	55-70	n/a	61	
Lymphocytes	20-40	n/a	18	Lymphocytes may be low due to an infection
Monocytes	2-8	n/a	9	Body may be fighting a viral infection
Eosinophils	1-4	n/a	11	Body may be fighting cancer(Capriotti & Frizzell, 2015)
Bands	0.5-1	n/a	*n/a	

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

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	136-145 mEq/L		140	
K+	3.5-5 mEq/L		3.4	
Cl-	98-106 mEq/L		102	

CO2	**23-30 mEq/L**		**32**	**High CO2 may be due to too much bicarbonate in blood**
Glucose	**74-106 mg/dL**		**105**	
BUN	**10-20 mg/dL**		**6**	**Low BUN values may be due to malnutrition** (Capriotti & Frizzell, 2015)
Creatinine	**0.5-1.1 mg/dL**	**<0.5**	**<0.7**	
Albumin	**3.5-5 g/dL**	**n/a**	**4.0**	
Calcium	**9-10.5 mg/dL**	**n/a**	**9.5**	
Mag	**1.3-2.1 mEq/L**	**n/a**	**n/a**	
Phosphate	**3-4.5 mg/dL**	**n/a**	**n/a**	
Bilirubin	**0.3-1 mg/dL**	**n/a**	**.3**	
Alk Phos	**30-120 U/L**	**n/a**	**n/a**	

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	**Clear, Amber/ Yellow**	**n/a**	**n/a**	
pH	**4.6-8 Average: 6**	**n/a**	**n/a**	
Specific Gravity	**1.005-1.03**	**n/a**	**n/a**	
Glucose	**50-300 mg/day**	**n/a**	**n/a**	
Protein	**0-8 mg/dL**	**n/a**	**n/a**	
Ketones	**negative**	**n/a**	**n/a**	
WBC	**0-4 per low-power field Negative for**	**n/a**	**n/a**	

	cast			
RBC	**Less than or equal to 2 Negative for cast**	**n/a**	**n/a**	
Leukoesterase	**negative**	**n/a**	**n/a**	

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

Test	**Normal Range**	**Value on Admission**	**Today's Value**	**Explanation of Findings**
Urine Culture	**Negative: less than 10,000 per mm of U** **Positive: greater than 100,000 per mm of U**	**n/a**	**n/a**	
Blood Culture	**Negative**	**n/a**	**n/a**	
Sputum Culture	**Normal Upper RT**	**n/a**	**n/a**	
Stool Culture	**Normal intestinal flora**	**n/a**	**n/a**	

Lab Correlations Reference (APA):

Chernecky, C. C., & Berger, B. J. (2008). ***Laboratory tests and diagnostic procedures*****. St. Louis, MO: Saunders Elsevier.**

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2020). ***Mosby's diagnostic and laboratory test reference*****. St. Louis, MO: Elsevier.**

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

N/A

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

Medications (5 required)

Brand/Generic	**Spiriva Handi Haler/Tiotropium bromide**	**Namenda/ Memantine hydrochloride**	**Ativan/ Lorazepam**	**Abilify/ aripiprazole**	**ProAir HFA/ Albuterol Sulfate**
Dose	**18 mcg**	**10 mg**	**80 mg**	**5 mg**	**2 puffs**
Frequency	**1x day**	**2x day**	**1x day**	**1x day**	**Every 4 hours**
Route	**P.O.**	**P.O.**	**P.O.**	**P.O.**	**P.O.**
Classification	**Anticholinergic, Bronchodilator**	**N-methyl-D-aspartate, Antidementia agent**	**Benzodiazepine, Anxiolytic**	**Atypical antipsychotic, Antipsychotic**	**Adrenergic, Bronchodilator**
Mechanism of Action	**Prevents acetylcholine**	**Memantine blocks the excitatory amino acid glutamate on**	**May potentiate the effects of gamma-**	**May produce antipsychotic effects through**	**Albuterol attaches to beta 2**

	from attaching to muscarinic receptors on membranes of smooth muscle cells. By blocking the acetylcholine effects in the bronchi and bronchioles, tiotropium relaxes smooth muscles and causes bronchodilation	**N- methyl-D-aspartate (NMDA) receptor cells in the CNS**	**aminobutyric acid (GABA) and other inhibitory neurotransmitters by binding to the specific benzodiazepine receptors in cortical and limbic areas of CNS. GABA inhibits excitatory stimulus, which helps control emotional behavior**	**partial agonist and antagonist actions. Aripiprazole acts as a partial agonist to dopamine receptors and serotonin receptors. The drug acts as an antagonist at serotonin receptor sites.**	**receptors on bronchial cell membranes, which stimulates the intracellular enzyme adenylate cyclase to convert adenosine triphosphate. This reaction decreases intracellular calcium levels.**
Reason Client Taking	**Asthma**	**Dementia**	**Anxiety**	**Schizophrenia**	**Bronchospasms**
Contraindications (2)	**Hypersensitivity to atropine or its derivatives, including ipratropium, tiotropium, or their components**	**Acute asthma, severe respiratory depression**	**Acute angle closure glaucoma, hypersensitivity to lorazepam**	**Hypersensitivity to aripiprazole or its components**	**Toxic megacolon and low amount of potassium in the blood**
Side Effects/Adverse Reactions (2)	**depression, atrial fibrillation**	**Agitation, seizures**	**Coma, seizures**	**Hepatitis, heart failure**	**Angina, Hypotension** **(Learning, 2020)**

Medications Reference (APA):

LEARNING, J. &. (2020). ***NURSE'S DRUG HANDBOOK 2021*****. S.l.: JONES &**

BARTLETT LEARNING.

Assessment

Physical Exam (18 points)

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	 **Alert and Oriented to time and place x1** **Intermittently distressed because of antsy or erratic behavior** **Adequately groomed and dressed appropriately**
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	 **Pink** **Dry/Norm** **Warm** **Poor Turgor/Tenting** **None** **None** **None** **16**
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	 **Head and neck symmetrical, normal cephalic** **Ears are free of discharge** **Eyes symmetrical, (unable to perform EOM-pt sleeping)** **Nose symmetrical, no deviation,** **(unknown, unable to perform-pt sleeping)**
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☐**	.

Edema Y ☐ N ☐ **Location of Edema:**	
RESPIRATORY: **Accessory muscle use: Y☐ N ☐** **Breath Sounds: Location, character**	.
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☐** **Nasogastric: Y ☐ N ☐** **Size:** **Feeding tubes/PEG tube Y ☐ N ☐** **Type:**	.
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☐** **Inspection of genitals:** **Catheter: Y ☐ N ☐** **Type:** **Size:**	
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☐** **Fall Risk: Y ☐ N☐** **Fall Score:** **Activity/Mobility Status:**	.

Independent (up ad lib) ☐ **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	
NEUROLOGICAL: **MAEW: Y ☐ N☒** **PERLA: Y ☒ N☐** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	.
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	.

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
8:40	**105**	**105/74**	**12**	**97.5 F**	**98%**

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
9:50	**0-10**	**-**	**0, denies**	**-**	**-**

Intake and Output (2 points)

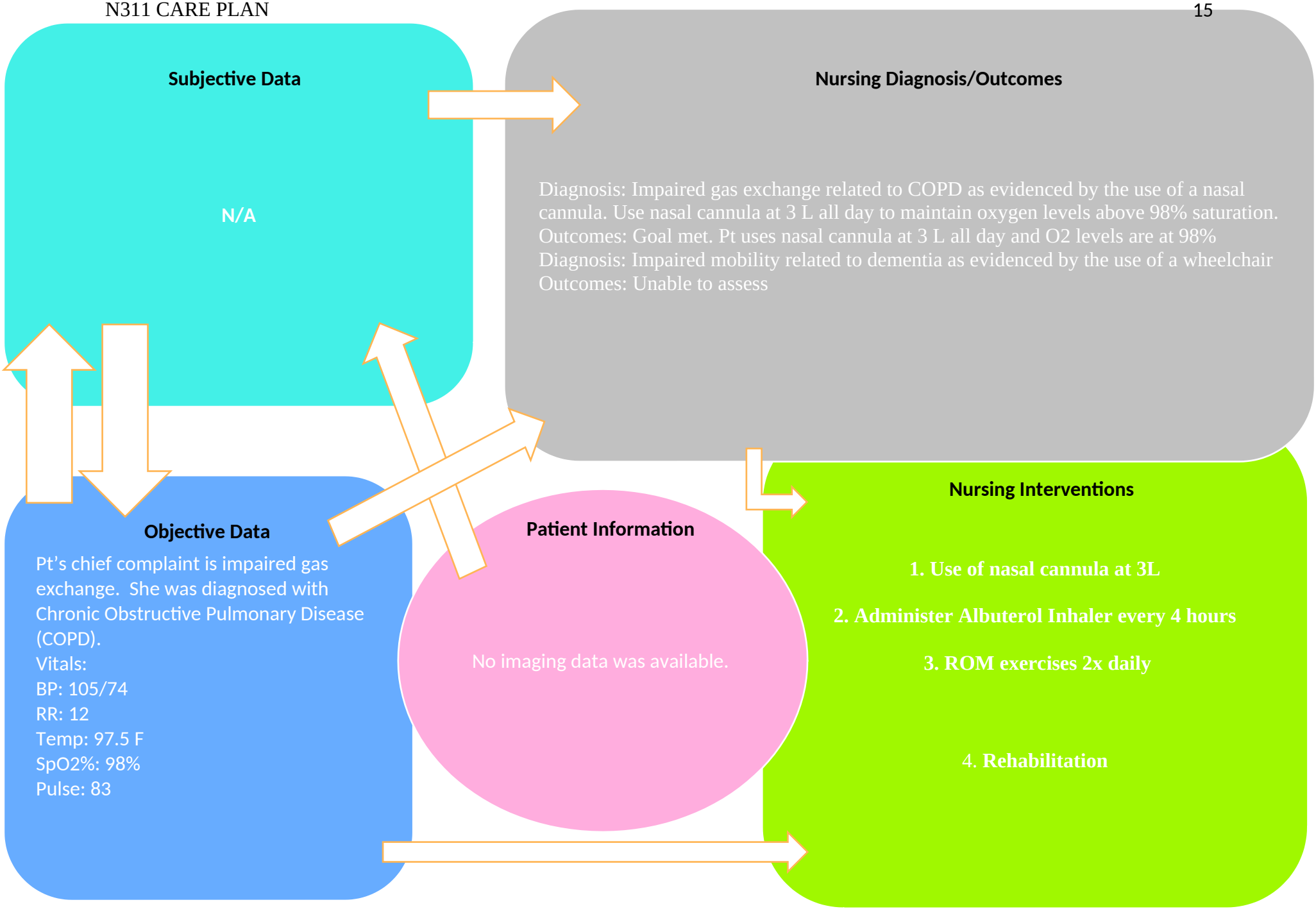
Intake (in mL)	Output (in mL)
120 mL	**Heavily soiled x1**

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

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components	**Rational** • Explain why the nursing diagnosis was chosen	**Intervention (2 per dx)**	**Evaluation** • How did the patient/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
Impaired gas exchange related to COPD evidenced by use of nasal cannula	**V.P. uses a nasal cannula to sustain adequate oxygenation**	**1.Use of nasal cannula at 3L** **2. Administer Albuterol Inhaler every 4 hours**	**1.Goal met- pt used nasal cannula all day to meet necessary oxygenation requirements** **2. Goal met- medicine was given by RN**
1. Impaired mobility, wheelchair related to dementia evidenced by the use of wheelchair	**Pt uses wheelchair to be mobile because of later stages of dementia and is unable to walk**	**1. ROM exercises 2x daily** **2. Rehabilitation**	N/A

Other References (APA):

Concept Map (20 Points):


Subjective Data
N/A
Nursing Diagnosis/Outcomes
Diagnosis: Impaired gas exchange related to COPD as evidenced by the use of a nasal cannula. Use nasal cannula at 3 L all day to maintain oxygen levels above 98% saturation.
Outcomes: Goal met. Pt uses nasal cannula at 3 L all day and O2 levels are at 98%
Diagnosis: Impaired mobility related to dementia as evidenced by the use of a wheelchair
Outcomes: Unable to assess
Objective Data
Pt's chief complaint is impaired gas exchange. She was diagnosed with Chronic Obstructive Pulmonary Disease (COPD).
Vitals:
BP: 105/74
RR: 12
Temp: 97.5 F
SpO2%: 98%
Pulse: 83
Patient Information
No imaging data was available.
Nursing Interventions
1. Use of nasal cannula at 3L
2. Administer Albuterol Inhaler every 4 hours
3. ROM exercises 2x daily
4. Rehabilitation