

N311 Care Plan # 2

Lakeview College of Nursing

Name: Destiny Bell

Demographics (5 points)

Date of Admission 10/18/2020	Patient Initials M.L	Age 76-year-old	Gender White/Caucasian
Race/Ethnicity White/ Caucasian	Occupation Retired	Marital Status Married	Allergies Ambien; causes hallucinations Ciprofloxacin; dizziness Cymbalta; headaches Lyrica; Headache Nortriptyline; dizziness Reglan; dizziness
Code Status Full code	Height 5'1	Weight 103 lbs	

Medical History (5 Points)

Past Medical History: Osteoporosis, Double pneumonia

Past Surgical History: Back Surgery; once in 2011 and once in February of 2019

Wrist surgery due to fracture; August 2005

Bilateral Hip replacement

Family History: Brother and Sister both have Hypertension. No other family history stated.

Social History (tobacco/alcohol/drugs): Smoking; 50 years ago

No alcohol usage

Recreational drug usage; tried medical THC, not currently using any recreational drug usage

Admission Assessment

Chief Complaint (2 points): Fall from recliner while sleeping. Chest pain past 1-week, increased fatigue, cough.

History of present Illness (10 points): M. L is a 76-year-old Caucasian female who presented to the emergency department on with the complaint of a fall from her recliner while she was sleeping. She reports having chest pain for the past week, increased fatigue the past 3 days and

complaining of a cough. Pain is located in her chest and she states under her right breast. Patient has not sought prior treatment.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Community acquired pneumonia in the right lower lobe of the lung

Secondary Diagnosis (if applicable):N/A

Pathophysiology of the Disease, APA format (20 points): Community-acquired pneumonia (CAP) is caused by the bacteria *Streptococcus pneumoniae*. Other pathogens include *H. influenzae*, *Mycoplasma*, *Klebsiella*, *Staphylococcus* and *Legionella* species and gram-negative organisms (Capriotti 2020). One of the major risk factors for pneumonia is an influenza infection because viruses tend to alter the immune system's defense and make the lungs more susceptible to bacterial infections (Capriotti 2020). Immunosuppression, such as an HIV infection, as well as aspiration can predispose patients to pneumonia (Capriotti 2020). Other risk factors for pneumonia include lung cancer, COPD, and bronchiectasis (Capriotti 2020). Smoking impairs the resistance to infection and alcohol and drug usage increases the risk for aspiration pneumonia (Capriotti 2020). Pneumonia is most commonly caused by the inhalation of droplets containing pathogens (Capriotti 2020). The droplets enter the patient's upper airways and then enter into the lungs tissue where they adhere to respiratory epithelium and stimulate an inflammatory response (Capriotti 2020). The inflammation then spreads to the lower respiratory tract and alveoli, at the inflammation sites vasodilation then occurs causing neutrophils to move from the capillaries into air spaces (Capriotti 2020). The neutrophils then phagocytize microbes therefore killing them using reactive oxygen species, antimicrobial proteins and digestive enzymes (Capriotti 2020). There is an excessive stimulation of respiratory goblet cells that secrete mucus, mucus and

edema accumulate between the alveoli and capillaries (Capriotti 2020). The alveoli attempt to open and close against the exudate, however some are unable to open, the sounds can be heard with a stethoscope over the alveoli opening against the fluid resulting in crackle noises (Capriotti 2020). Edema and infectious exudate at the capillary and alveoli interface hinder gas exchange, which can cause the patient to become hypoxic and hypercapnic with obstructed exchange of O₂ and CO₂ at the pulmonary capillaries (Capriotti 2020).

The clinical presentation of bacterial pneumonia usually starts with a sudden onset of symptoms such as cough, fever, chills, chest pain, dyspnea, and decreased exercise tolerance (Capriotti 2020). Other nonspecific symptoms that may be seen with pneumonia are myalgia, headache, abdominal pain, nausea, and vomiting (Capriotti 2020). Upon physical examination a patient with pneumonia is likely to exhibit a fever, tachypnea, use of accessory muscles while breathing, tachycardia, and could even exhibit cyanosis (Capriotti 2020). The lung sound, crackles, is pathognomonic of pneumonia and the physician can use the tests known as egophony, bronchophony and whispered pectoriloquy to assess the patient's lung sounds (Capriotti 2020). When interviewing the patient, it is important to assess for exposure to any other individuals who may be ill and see if the patient has any aspiration risks or immunosuppression factors that would put them at greater risk (Capriotti 2020).

As with any medical diagnosis for pneumonia to be diagnosed we base it off a full patient history, physical examination and laboratory tests and procedures (Lionel 2015). In the case of community acquired pneumonia, the physician must ask is this pneumonia as well as what is the likely pathogen (Lionel 2015). The doctor must determine if the patient has an infection or a non-infectious illness that is causing the patient's signs and symptoms, things that may be mistaken for community acquired pneumonia include acute bronchitis, radiation pneumonitis,

congestive heart failure and pulmonary emboli (Lionel 2015). Usually, the diagnosis of community acquired pneumonia is based off of suggestive findings of infection such as fever, increased white count, cough, and shortness of breath (Lionel 2015). The yield from blood cultures shows that only near 7% r\to 16% of blood cultures from patients who are hospitalized are positive which is why blood cultures are not recommended for all patients whom are hospitalized with community acquired pneumonia (Lionel 2015). However, a chest Xray is the most important diagnostic imaging that could be done to help a physician pinpoint pneumonia as the cause (Capriotti 2020).

Pathophysiology References (2) (APA):

Capriotti, Theresa M. "Davis Advantage for Pathophysiology: Introductory Concepts and Clinical Perspectives" 2nd ed. (2020). *F.A Davis Company*.

Lionel A. Mandell (2015) Community-acquired pneumonia: An overview, *Postgraduate Medicine*, 127:6, 607-615, DOI: [10.1080/00325481.2015.1074030](https://doi.org/10.1080/00325481.2015.1074030)

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	4.40 - 5.80	3.50	3.44	The low results lead me to believe the patient may be anemic or experienced some blood loss from her fall out of the chair
Hgb	13.0 - 16.5	11.2	10.9	Low blood oxygen levels due to her pneumonia
Hct	38.0 - 50.0	32.9	31.9	The low results lead me to believe the patient may be anemic or experienced some blood loss from her fall out of the chair
Platelets	140 - 440	189	207	
WBC	4.0 - 12.0	13.10	10.20	Elevated WBC count is a sign of infection
Neutrophils	40.0 - 68.0	88.7	N/A	infection
Lymphocytes	19.0 - 49.0	7.3	N/A	Body's immune system is trying to respond to an infection
Monocytes	3.0 - 13.0	3.3	N/A	
Eosinophils	0.0 - 8.0	0.1	N/A	
Bands	N/A	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-	133 - 144	135	135	
K+	3.5 - 5.1	3.1	3.6	Result from antibiotics that were given?
Cl-	98 - 107	103	106	
CO2	21 - 31	23	19	A result from her blood acid level increasing due to not having enough insulin to digest her sugars

Glucose	70 – 99	115	116	Pt is consuming a regular diet that may be high in sugars and her body isn't producing enough insulin to lower it fast enough.
BUN	7 – 25	21	16	
Creatinine	0.50 – 1.20	0.84	0.60	
Albumin	3.5 – 5.7	3.5	3.1	infection
Calcium	8.6 – 10.3	10.0	8.8	
Mag	1.6 – 2.6	1.8	1.8	
Phosphate	N/A	N/A	N/A	
Bilirubin	0.2 – 0.8	0.5	0.3	
Alk Phos	34 – 104	76	80	

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		Yellow & Hazy	N/A	Hazy could be a result of infection
pH	5.0 - 9.0	7.0	N/A	
Specific Gravity	1.003 – 1.030	1.011	N/A	
Glucose	Negative	Negative	N/A	
Protein	Negative	Negative	N/A	
Ketones	Negative	Negative	N/A	
WBC	Negative, 0-5	51-150	N/A	infection
RBC	Negative, 0-2	Negative	N/A	
Leukoesterase	Negative	3+	N/A	infection

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	N/A	N/A	N/A	
Blood Culture	N/A	N/A	N/A	
Sputum Culture	N/A	N/A	N/A	
Stool Culture	N/A	N/A	N/A	

Lab Correlations Reference (APA):

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2019). Mosby's diagnostic and laboratory test reference. St. Louis, MO: Elsevier

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

- o **XR Pelvis:** AP 1 view of pelvis performed. Bilateral hip replacements show no deformity, dislocation, or loosening. No soft tissue abnormalities seen.
- o **XR Spine:** Bipedicle screw fixation seen from the L1 to L5 level. Disc heights reduced at multiple levels with disc interposition performed at L2-L3, L3-L4, L4-L5. Height and alignment are maintained. Laminectomy defects seen at L3, L4 with bone grafting. Multiple degenerative changes and post op changes are present.
- o **XR Chest 2 Views:** PA and lateral views of chest performed. Heart size is normal. Lungs reveal heterogeneous consolidation in the right lower lung and bibasilar infiltrates. Left costophrenic angle is blunted, right is clear.

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

Medications (5 required)

Brand/Generic	Alprazolam (Xanax)	Calcium carbonate (Tums) Chewable	Gabapentin (Neurontin)	Azithromycin (Zithromax)	Pantoprazole (Protonix)
Dose	0.25 mg	1000mg	100mg	500mg	40mg
Frequency	Nightly PRN	PRN Q8H	3 times a day; daily	Once a day; daily	Once a day; daily
Route	ORAL	ORAL	ORAL	ORAL	ORAL
Classification	Anxiolytic, antipanic	Antacid	Anticonvulsant	Antibiotic	Antiulcer
Mechanism of Action	May increase affects effects of gamma aminobutyric acid (GABA) and other inhibitory neurotransmitters by binding to specific benzodiazepine receptors in cortical and limbic areas of the CNS. GABA inhibits excitatory stimulation which helps control emotional behaviors.	Increases levels of intracellular and extracellular calcium, which is needed to maintain homeostasis. Also plays a role in normal cardiac and renal function, respiration, coagulation, and cell membrane and capillary permeability. Helps regulate the release and storage of neurotransmitters and hormones	Structurally like GABA, the main inhibitory transmitter in the brain. Although gabapentin's exact mechanism of unknown. GABA inhibits the rapid firing of neurons associated with seizures.	Binds to a ribosomal subunit of susceptible bacteria, blocking peptide translocation and inhibiting RNA-dependent protein synthesis. Drug concentrates in phagocytes, macrophages and fibroblasts which release it slowly and may help move it to infection sites	Interferes with gastric acid secretion by inhibiting the hydrogen-potassium-adenosine triphosphate enzyme system or proton pump. Normally the proton pump uses energy from the hydrolysis of ATPase to drive H⁺ and Cl⁻ out of parietal cells, after this exchange they combine in the stomach to form hydrochloric acid (HCl).
Reason Client Taking	To ease anxiety	For Heartburn and indigestion	Restless legs?	To treat community acquired	To treat esophagitis associated with

				pneumonia	GERD
Contraindications (2)	Acute angle-closure glaucoma; hypersensitivity to alprazolam, its components and other benzodiazepines.	Hypercalcemia, hypersensitivity to calcium salts or their components, hypophosphatemia, renal calculi, ventricular fibrillation	Hypersensitivity to gabapentin or its components	Hypersensitivity to azithromycin and other antibiotics and their components History of cholestatic jaundice or hepatic dysfunction associated with prior use of azithromycin.	Concurrent therapy with rilpivirine-containing products Hypersensitivity to pantoprazole
Side Effects/Adverse Reactions (2)	CV; chest pain, edema EENT; blurred vision, nasal congestion Skin; diaphoresis	CNS: Parasthesia CV: Hypotension GI: Nausea Other: Hypocalcemia	CNS: Agitation CV: Palpations EENT: Abnormal vision ENDO: Hypocalcemia	CV: arrhythmias, hypotension GI; abdominal pain GU: acute renal failure	CNS: anxiety CV: Chest pain Gi: Abdominal pain Resp; Bronchitis

Medications Reference (APA):

Institute for Safe Medication Practices: ISMP Medication Safety Alert. <http://www.ismp.org/>.

Jones & Bartlett Learning. (2019). 2019 Nurse's Drug Handbook. Burlington, MA

Assessment

Physical Exam (18 points)

GENERAL: Alertness: Alert Orientation: orientated Distress: no apparent distress	Patient is alert and orientated x3 No signs of apparent distress Patient appears frail but is very conversant
---	---

Overall appearance: frail	
INTEGUMENTARY: Skin color: Pink Character: normal moisture, no dryness noted Temperature: normal Turgor: 2+ Rashes: none noted Bruises: none seen Wounds: none Braden Score: no risk, 20 Drains present: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type:	Patients skin is pink, normal temperature. Turgor is normal at 2+, no rash or bruises noted. No edema, cyanosis or clubbing visualized.
HEENT: Head/Neck: Ears: Eyes: Nose: Teeth:	Atraumatic Head Neck is supple with no distended veins Tympanic membrane visualized (pearly gray) Conjunctiva clear No sclera icterus or pallor Perrla and EOMI is normal No deviated septum visualized Oral cavity is moist and clear.
CARDIOVASCULAR: Heart sounds: S1, S2, S3, S4, murmur etc. Cardiac rhythm (if applicable): Peripheral Pulses: 2+ bilaterally Capillary refill: Neck Vein Distention: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Edema Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Location of Edema: no edema noted	Warm and well perfused, No JVD Normal rhythm, S1 & S2 present. No murmurs and gallops heard No ceratoid bruit noted Radial pulses 2+ bilaterally Chest tightness
RESPIRATORY: Accessory muscle use: Y <input type="checkbox"/> N <input type="checkbox"/> Breath Sounds: Location, character	Diminished air entry in bilateral lungs rales and rhonchi noted in lower lung fields with it worse on patient's Right side no increase in work breathing on room air
GASTROINTESTINAL: Diet at home: normal Current Diet: normal Height: 5'1 Weight: 103lbs Auscultation Bowel sounds: normal Last BM: Palpation: Pain, Mass etc.: no tenderness or masses noted Inspection: soft and normal	Patient has no complaints of nausea, vomiting, and diarrhea. Normal bowel sounds Abdomen is soft, non-distended and no tenderness is noted. No incisions or scars observed.

<p>Distention: none Incisions: none Scars: none Drains: none Wounds: none Ostomy: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Nasogastric: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Size: Feeding tubes/PEG tube Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type:</p>	
<p>GENITOURINARY: Color: Yellow Character: clear, no foul odor Quantity of urine: 250ml Pain with urination: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Dialysis: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Inspection of genitals: Catheter: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type: Size:</p>	<p>Urine is yellow and clear No dysuria, no hematuria No increase in urgency or frequency No foul odors</p>
<p>MUSCULOSKELETAL: Neurovascular status: Cognitive ROM: Supportive devices: none Strength: ADL Assistance: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Fall Risk: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Fall Score: low risk Activity/Mobility Status: Independent (up ad lib) <input type="checkbox"/> Needs assistance with equipment <input type="checkbox"/> Needs support to stand and walk <input type="checkbox"/></p>	<p>Patient is cognitive and well. She is a 1 assist with gait belt and a walker while up ambulating. Pt is encouraged and able to perform ROM exercises on her own with minimal assistance needed. Patient is independent in her ADL's just needs a standby assist.</p>
<p>NEUROLOGICAL: MAEW: Y <input type="checkbox"/> N <input type="checkbox"/> PERLA: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Strength Equal: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> if no - Legs <input type="checkbox"/> Arms <input type="checkbox"/> Both <input type="checkbox"/> Orientation: orientated Mental Status: Speech: clear Sensory: normal LOC:</p>	<p>Patient was experiencing a little weakness. Perla was normal Strength equal in bilateral extremities No gross focal or neurological deficits</p>
<p>PSYCHOSOCIAL/CULTURAL: Coping method(s):</p>	<p>Patient states that she practices and attends a Lutheran church with her husband, her religion</p>

Developmental level: Religion & what it means to pt.: Personal/Family Data (Think about home environment, family structure, and available family support):	means a lot to her and she likes to lean on it in times of need. She lives with her husband at home who helps her around the house
---	---

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0739	76 bpm radial	106/68	18	98.0 oral	93% Room Air

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0740	Numeric	Generalized	6	Constant pain	Pain medications offered but refused

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
None recorded	250ml voided (yellow and clear, no foul smell)

Nursing Diagnosis (15 points)

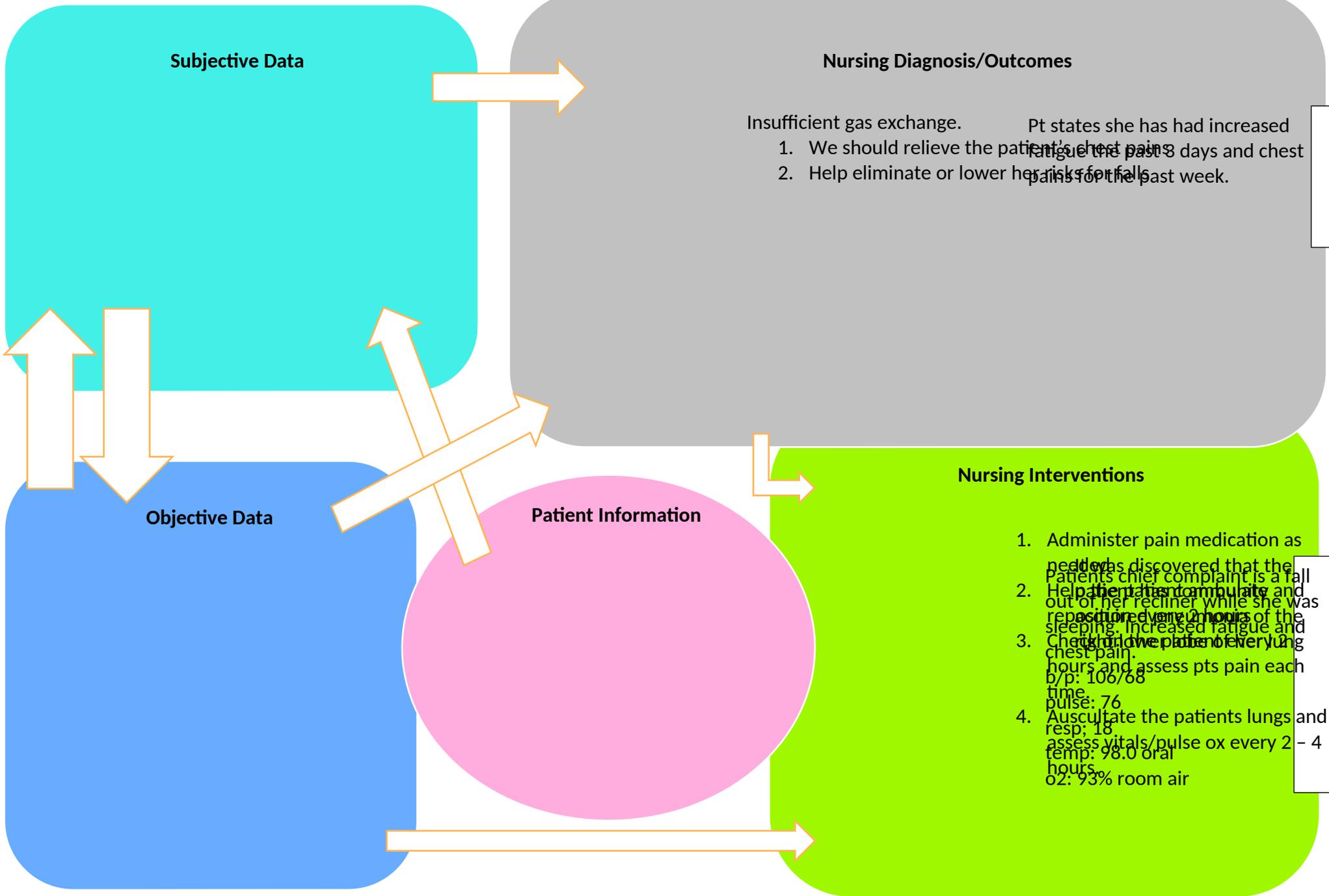
Must be NANDA approved nursing diagnosis

Nursing Diagnosis	Rational	Intervention (2 per dx)	Evaluation
• Include full nursing	• Explain why the		• How did the

diagnosis with “related to” and “as evidenced by” components	nursing diagnosis was chosen		<p>patient/family respond to the nurse’s actions?</p> <ul style="list-style-type: none"> Client response, status of goals and outcomes, modifications to plan.
1. Ineffective Gas Exchange	The patient has pneumonia and is experiencing diminished oxygen supply and alveolar capillary membrane changes due to the inflammatory process and exudate in the lungs	<p>1.monitor the patients pulse ox readings</p> <p>2.monitor patient’s vital signs every 2-4 hours or as indicated by the patient’s condition. Report significant findings.</p>	<p>The patients breathing increased and stayed at a great o2 rate above 92 throughout the shift.</p> <p>The patient’s blood pressure was taken every 4 hours and we monitored for any abnormalities</p>
2. Insufficient Airway clearance	The patient has excess secretions occurring with her lung infection	<p>1. auscultate breath sounds every 2 to 4 hours and report changes</p> <p>2.assist the patient with a position change every 2 hours and encourage ambulation</p>	<p>The patients breathing sounds were assessed upon her admission and prior to her discharge her lungs improved drastically since her admission with the help of the medications.</p> <p>The patient was up with ambulation a 1 assist with gait belt in her room and was repositioned every 2 hours for her comfort.</p>

Other References (APA):

Concept Map (20 Po



Subjective Data

Nursing Diagnosis/Outcomes

Insufficient gas exchange. Pt states she has had increased fatigue the past 3 days and chest pain for the past week.

1. We should relieve the patient's chest pain.
2. Help eliminate or lower her risk for falls.

Objective Data

Patient Information

Nursing Interventions

1. Administer pain medication as needed.
2. Help patient to ambulate and out of her recliner while she was sleeping. Increased fatigue and chest pain.
3. Check on the patient every 2 hours and assess pts pain each time.
b/p: 106/68
pulse: 76
4. Auscultate the patients lungs and assess vitals/pulse ox every 2 - 4 hours.
temp: 98.0 oral
o2: 93% room air

