

N311 Care Plan #3

Lakeview College of Nursing

Ashley Holm

Demographics (5 points)

Date of Admission 08/01/xx	Patient Initials H. G	Age 68 y.o., DOB: 01/01/1943	Gender Male
Race/Ethnicity Latino	Occupation Retired	Marital Status Widow	Allergies Ampicillin, Ceftriaxone (Rocephin) Reaction = itching
Code Status Full	Height 173 cm (68inches)	Weight 71 kg (156lb)	

Medical History (5 Points)

Past Medical History: Unable to obtain

Past Surgical History: Unable to obtain

Family History: Unable to obtain

Social History (tobacco/alcohol/drugs): Tobacco and Alcohol use, unable to obtain how much, Daughter expresses concern for how much alcohol client consumes and wanting client to quit smoking. Unable to obtain if drug use.

Admission Assessment

Chief Complaint (2 points): Pneumonia and exacerbation of his COPD

History of present Illness (10 points): 68 y/o Latino male presents to the ED 08/01/xx, following being found unresponsive on the floor at home by daughter. Client C/C of pneumonia and exacerbation of previously diagnosed COPD. Vitals are; temp is 99.2, pulse 100, respirations 36, and his O2 sat is 91% on 5L/nasal cannula. His lung sounds are diminished in the bases and has some occasional

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rhonchi, with wheezes in both the anterior and posterior upper lobes. Cough is productive of a greenish-yellow tenacious sputum.

Treatment given has been: two albuterol nebulizers. Test still pending results include: ABG's, blood alcohol, CBC, chest x-ray, chem and metabolic profile, urine analysis, and sputum culture and sensitivity. Client is currently alert and oriented. He recently lost his wife and there is a question of alcohol abuse.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Pneumonia, exacerbation of COPD

Secondary Diagnosis (if applicable): COPD

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

- Chronic obstructive pulmonary disease (COPD) is the third leading cause of death and 12th leading cause of morbidity in the United States. More than 11 million people have been diagnosed with this disease, although millions more have COPD without knowing it. It is disease state characterized by airflow limitation that is not fully reversible. Airflow limitation is progressive and associated with an abnormal inflammatory response of the lungs to noxious particles or gases and characterized by chronic inflammation throughout the airways, parenchyma, and pulmonary vasculature. The chronic airflow limitation characteristic of COPD is caused by a mixture of small airway inflammation (bronchitis) and parenchymal destruction (emphysema), the relative contributions of each varying from person to person. O₂ sensitive COPD client with Hypoxemia requires levels of O₂ delivery, usually in the range of 1-2 L/min. Some clients are chronic CO₂ retainers (hypercapnia) and can be more oxygen sensitive, too much oxygen increases CO₂ retention and can result in lowered respiratory rates.

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- Pneumonia is an acute bacterial or viral infection that causes inflammation of the lung alveolar spaces and interstitial tissue. As a result of the inflammation involved, lung tissue becomes edematous and air spaces fill with consolidation, gas exchange cannot occur, and non-oxygenated blood is shunted into the vascular system, causing hypoxemia. Bacterial pneumonias involve all or part of a lobe, whereas viral pneumonias appear diffusely throughout the lungs. General signs and symptoms include; productive cough, increased sputum production, fever, pleuritic chest pain, dyspnea, chills, headache, and myalgia. Diagnostic tests that could be done for Pneumonia include: Chest x-ray, Sputum for gram stain and culture and sensitivity, WBC count, chemistry panel, blood culture and sensitivity, urinary antigen, oximetry, ABG values, serologic studies, and acid-fast stains and cultures. Risk factors for clients at risk for developing Pneumonia include potential for nosocomial pneumonia. Risk factors for clients with Pneumonia include: decreased gas exchange, potential for insufficient airway clearance, dehydration.

Pathophysiology References (2) (APA):

Swearingen, P. L., & Wright, J. D. (2019). All-in-one nursing care planning resource: medical-surgical, pediatric, maternity, and psychiatric-mental health. St. Louis, MO: Elsevier.

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 DATE:08/01/ XX TIME:0505	Today's Value	Reason for Abnormal Value
RBC	3.90-4.98	4.8 million/mm³	n/a	**Severe COPD cause stimulation of RBC production as a physiologic response to increase oxygen-carrying capacity. **
Hgb	12.0-15.5	9.3g/dL	n/a	**Due to low oxygen levels **
Hct	35-45	29%	n/a	**Due to low oxygen levels **
Platelets	140-400	0.78% of RBC	n/a	
WBC	4.0-9.0	13,000/mm³	n/a	**Due pneumonia infection**
Neutrophils	40-70	n/a	n/a	
Lymphocytes	10-20	n/a	n/a	
Monocytes		n/a	n/a	
Eosinophils		n/a	n/a	
Bands		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 DATE:08/01/ XX TIME:0505	Today's Value	Reason for Abnormal Value

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Na-	135-145	135 mEq/L	n/a	
K+	3.5-5.1	4.4 mEq/L	n/a	
Cl-	98-107	100 mEq/L	n/a	
CO2	22-29	n/a	n/a	
Glucose	70-99	180 mg/dL	164 08/01@210 0 136 08/02@070 0 180 08/02@210 0	**Stress**
BUN/CT ratio	6-20	22 mg/dL	n/a	
Creatinine	0.50-1.00	1.0 mg/dL	n/a	
Albumin	3.5-5.2	3.0 mg/dL	n/a	**Acute protein deficient due to client's nutritional status-due to anorexia**
Calcium	8.4-10.5	9.0 mg/dL	n/a	
Mag	n/a	n/a	n/a	
Phosphate	n/a	5.5 mEq/L	n/a	
Bilirubin	0.0-1.2	n/a	n/a	
Alk Phos	35-105	n/a	n/a	

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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 DATE:08/01/ XX TIME:0505	Today's Value	Reason for Abnormal
Color & Clarity	Yellow/ Clear	Yellow/Clear	n/a	
pH	5.0-9.0	5.8	n/a	
Specific Gravity	1.001-1.029	1.002	n/a	
Glucose	Negative	Negative	n/a	
Protein	Negative	Negative	n/a	
Ketones	Negative	Negative	n/a	
WBC	Negative	Negative	n/a	
RBC	Negative	Negative	n/a	
Leuko esterase	Negative	Negative	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 DATE:08/01/XX TIME:0505	Today's Value	Explanation of Findings
Urine Culture	n/a	n/a	n/a	
Blood Culture	n/a	Results Pending	Negative	
Sputum Culture	n/a	Results Pending	Positive for Streptococci, Staphylococci	**Bacteria in the lungs**
Stool Culture	n/a	n/a	n/a	

Pleural Fluid Study: Unable to obtain, results still pending

Blood Alcohol Concentration (08/01/XX at 0505): 20 mg/dL

Lab Correlations Reference (APA): Nursing diagnosis list on Taylor's book 9th edition, page 369, Chapter 15 Diagnosing.

Diagnostic Imaging

All Other Diagnostic Tests (10 points): ABGs, CBC, Chest X-ray, Chem/Metabolic profile, UA and C&S of sputum pending

(08/01/XX at 0520) **Chest X-ray:** Notable hyperinflation of bilateral lung fields and flattened diaphragm. Changes characteristic of atelectasis in bilateral bases. Abnormal area of density present in the left lung base suspicious of pneumonia.

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(08/02 at 1845) **2nd Chest X-ray:** Extensive left-sided pleural effusion noted in the lower field. This is marked change from the previous radiologic view of 08/01/xx. Hyperinflation of bilateral lung fields and flattened diaphragm remain unchanged. Atelectasis of right lung base persists.

Current Medications (10 points, 2 points per completed med)

Brand Generic	Acetaminophen Tylenol	Albuterol Proventil	Nicotine NicoDerm	Salmeterol Serevent Diskus	Prednisone
Dose	650mg	1.25mg/3 mL 0.9% sodium chloride	21 mg	(50mcg)	10mg
Frequency	Q4 PRN	Q4 hr	1x daily	Q12 hr	Q12hr
Route	PO	Nebulizer (per RT administration)	Transdermal	1 inhalation (per RT administration)	IV bolus
Classification	Antipyretic, Nonopioid analgesic	Bronchodilator	Smoking cessation adjunct	Bronchodilator	Immunosuppressant

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<p>Mechanism of Action</p>	<p>Inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system. Also acts directly on temperature-regulating center in the hypothalamus by inhibiting synthesis of prostaglandin E₂.</p>	<p>Attaches to beta₂ receptors on bronchial cell membranes, which stimulates the intracellular enzyme adenylate cyclase to convert ATP to cyclic adenosine monophosphate (cAMP). This reaction decreases intracellular calcium levels. It also increases intracellular levels of cAMP. Together, these effects relax bronchial smooth-muscle cells and inhibit histamine release.</p>	<p>Binds selectively to nicotinic-cholinergic receptors at autonomic ganglia, in the adrenal medulla, at neuromuscular junctions, and the brain. By providing a lower dose of nicotine than cigarettes, this drug reduces nicotine craving and withdrawal symptoms.</p>	<p>Attaches to beta₂ receptors on bronchial cell membranes, stimulating the intracellular enzyme adenylate cyclase to convert cAMP. The resulting increase in cAMP level inhibits histamine release, relaxes bronchial smooth-muscle cells, and stabilizes mast cells.</p>	<p>Binds to intracellular glucocorticoid receptors and suppresses inflammatory and immune responses by: *inhibiting neutrophil and monocyte accumulation at inflammation site and suppressing their phagocytic and bactericidal activity. *Stabilizing lysosomal membranes *Suppressing antigen response of macrophages and helper T cells *inhibiting synthesis of inflammatory response mediators such as cytokines, interleukins, and prostaglandins.</p>
<p>Reason Client Taking</p>	<p>To relieve moderate to severe pain</p>	<p>To treat or prevent bronchospasms</p>	<p>To relieve nicotine withdrawal symptoms, including craving</p>	<p>To provide maintenance treatment of bronchospasm associated w/ COPD</p>	<p>To treat chronic inflammatory and immunosuppressive disorders</p>

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Contraindications (2)	*Severe hepatic impairment *Severe active liver disease	*Pts with known coronary artery disease *Hypersensitivity to albuterol or its components	*Pts. who are recovering from acute MI *Skin disorder	*Hypersensitivity to salmeterol, its components, or milk proteins (severe) *Primary treatment of Status asthmatics or other acute episodes of Asthma, or COPD where intensive measures are required.	*Hypersensitivity to prednisone or its components *Systemic fungal infection
Side Effects/Adverse Reactions (2)	*Pulmonary edema *Hypotension	*Arrhythmias *Bronchospasm	*Arrhythmias *Bronchospasm	*Paradoxical Bronchospasm *Angioedema	*Vertigo *Adrenal insufficiency

5 different medications must be completed

Medications (5 required)

Medications Reference (APA):

Jones and Bartlett Learning. 2020 Nurse's Drug Handbook. 19th ed., Jones & Bartlett Learning, 2020.

Assessment

Physical Exam (18 points)

<p>GENERAL: Alertness: Orientation: Distress: Overall appearance:</p>	<ul style="list-style-type: none"> • Alert and oriented • Pt. is hunched over bedside table. Upon Discharge client has slight SOB. • Appears anorexic
<p>INTEGUMENTARY: Skin color: Character: Temperature: Turgor: Rashes: Bruises: Wounds: Braden Score: Drains present: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Type:</p>	<ul style="list-style-type: none"> • Skin is pink, warm and dry, no pallor present. Client became itchy due to Ceftriaxone (Rocephin) allergic reaction, given antibiotics. No rashes or hives from allergic reaction. • Temperature 99.2 F • Tattoo bilaterally on forearms • Braden 22, not at risk • Saline lock (left wrist), flushes. • Left sided Chest tube initiated on 08/02
<p>HEENT: Head/Neck: Ears: Eyes: Nose: Teeth:</p>	<ul style="list-style-type: none"> • No limitation in head and neck mobility, head and neck are symmetrical • No hearing aids or impairments • Symmetrical EOM, Wears glasses • Nose symmetry no deviation • Teeth clean
<p>CARDIOVASCULAR: Heart sounds: S1, S2, S3, S4, murmur etc. Cardiac rhythm (if applicable): Peripheral Pulses:</p>	<ul style="list-style-type: none"> • • S1 and S2 present (Not stated in scenario, normal findings upon research)

<p>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:</p>	<p>** not stated in scenario**</p> <ul style="list-style-type: none"> • Client may have edema due to COPD
<p>RESPIRATORY: Accessory muscle use: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Breath Sounds: Location, character</p>	<ul style="list-style-type: none"> • (on admission) Respirations are 36 and O2 sat is at 91% on 5L nasal cannula • Lung sounds are diminished in the bases and upper lobes sounds coarse with inspiratory crackles and occasional rhonchi • Cough is productive, greenish-yellow tenacious sputum. • Pt went into respiratory acidosis relating to O2 saturation rising as evidence by receiving too much O2.
<p>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 <input type="checkbox"/> N <input checked="" type="checkbox"/> Nasogastric: Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p>	<ul style="list-style-type: none"> • Regular • On admission-NPO, During Admission-Soft diet. Client recommended high-calorie. • Height: 173cm (68in) • Weight: 71kg (156lb) • (unable to obtain palpation) - Chest tube to 20cm water seal drainage→ Placed 08/02 - Saline lock (Left Wrist-Flushes fine)

<p>Size: Feeding tubes/PEG tube Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type:</p>	
<p>GENITOURINARY: Color: Character: Quantity of urine: 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>	<ul style="list-style-type: none"> • Yellow/Clear, No odor • (on admission) Voided—250 mL
<p>MUSCULOSKELETAL: Neurovascular status: ROM: Supportive devices: 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: Moderate Activity/Mobility Status: Activity as tolerated Independent (up ad lib) <input type="checkbox"/> Needs assistance with equipment Needs support to stand and walk</p>	<ul style="list-style-type: none"> • Normal ROM • Strength in both upper and lower extremities. • Strength in both arms • (Not stated in Scenario, showed CNA assisting client) Ax1 • Activity as tolerated • Moderate fall risk due to SOB and fatigue
<p>NEUROLOGICAL: MAEW: Y <input checked="" 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 checked="" type="checkbox"/> Orientation: Mental Status:</p>	<ul style="list-style-type: none"> • Moves all extremities • PERRLA • Strength equal in arms and legs • Cognitive of space, time, and location • Articulative speech

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<p>Speech: Sensory: LOC:</p>	<ul style="list-style-type: none">• Mature and cognitive• Alert• No major focal neurological deficits
<p>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):</p>	<ul style="list-style-type: none">• Daughter Rosa, Ineffective Coping- Alcohol, smoking• Mature• Not stated in scenario• Widow, living at home alone. Has a daughter (Rosa).

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Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0505 N311 Care Plan On Admission	100 bpm	150/94 (unable to obtain left/right arm)	36	99.2 F Oral	91% 5L (nasal cannula)
1045 08/01	118bpm	n/a	15	n/a	93% 5L (nasal cannula w/ humidification)
1050 08/01	116bpm	n/a	16	n/a	94% 2L (nasal cannula w/ humidification)
1220 08/01	96bpm	144/92 (unable to obtain left/right arm)	24	99.1 F Oral	93% 2L (nasal cannula w/ humidification)
1230 08/01	92bpm	136/90 (unable to obtain left/right arm)	24	99.6 F Oral	92% 2L (nasal cannula w/ humidification)
1600 08/01	90bpm	132/88 (unable to obtain left/right arm)	22	99.4 F Oral	92% 2L (nasal cannula w/ humidification)
2000 08/01	90bpm	130/90 (unable to obtain left/right arm)	24	99.0 F Oral	91% 2L (nasal cannula w/ humidification)
2400 08/01	86bpm	126/88 (unable to obtain left/right arm)	22	98.9 F Oral	91% 2L (nasal cannula w/ humidification)
0400 08/02	96bpm	136/88	22	98.9 F Oral	91% 2L

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0505	1-10	N/A	0 (Denies Pain)	N/A	N/A

Intake and

Output (2

Intake (in mL)	Output (in mL)
480+325+460+180 (PO) → 08/01	250mL → Yellow (Voided) On admission
125+225 (IV) → 08/01	300+320+350 (Voided Urine) → 08/01
460+280+150+400 (PO) → 08/02	360+300+360+280 (Voided Urine) → 08/02
	800+300 (Chest Tube Drain) → 08/02
Total Intake = 4,435 mL	Total Output = 3,620mL

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

<p style="text-align: center;">Nursing Diagnosis</p> <ul style="list-style-type: none"> • Include full nursing diagnosis with “related to” and “as evidenced by” components 	<p style="text-align: center;">Rational</p> <ul style="list-style-type: none"> • Explain why the nursing diagnosis was chosen 	<p style="text-align: center;">Intervention (2 per dx)</p>	<p style="text-align: center;">Evaluation</p> <ul style="list-style-type: none"> • How did the patient/family respond to the nurse’s actions? • Client response, status of goals and outcomes, modifications to plan.
<p>1. Impaired gas exchange related to COPD as evidence by Shortness of breath, wheezing and crackles heard, and pt. stating “having a hard time taking a full breath”</p>	<p>I chose this diagnosis due to previously diagnosed COPD and objective data shown accessory muscles used upon admission due to shortness of breath. Client was put on O2 w/ nasal cannula and with the corrected amount of 2L.</p>	<p>1. Provide O2 with nasal cannula</p> <p>2. Put pt. in high fowlers position. Reassess vitals and SOB.</p>	<p>Intervention #1 Goal met, pt. provided O2 nasal cannula on 5L modification made to be put on 2 L. Pt. was able to lower anxiety and control breathing WDL of COPD. Upon discharge pt. will go home with O2 therapy.</p> <p>Intervention #2 Goal met, Reassess changes in Vitals and SOB. Once in High fowlers pt was able to breath WDL</p>

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			of COPD. Pt was on 2L nasal cannula O2. Pt was more comfortable and encouraged to stay in high fowlers.
2. Imbalanced nutrition related to Weight loss as evidence by decreased intake occurring with fatigue and anorexia	I chose this nursing diagnosis, due to the patient stating he was just to tired to eat. Upon admission objective data of anorexia. Desired outcome, the patient has adequate nutrition as evidence of at least 50 % of meals and stable or increased body weight upon discharge.	1. Asses I/O, provides data that will determine the need for dietary outcomes 2. Provide the diet in small, frequent, high caloric meals that are nutritious and easy to consume. Small meals are easier to eat during fatigue.	Intervention #1 Goal met, I/O assessed and monitored upon discharged. Patient appetite moderately improved as comfort level. Intervention #2 Goal met, upon discharge patient encouraged high-caloric diet, and fluids.

Other References (APA):

Concept Map (20 Point)

Client states, when asked the name of hospital? "I'm just too tired, tired"

Subjective Data

Client response when informed of diet change, "I'm not very hungry right now"

Client States, "feeling alittle itchy" during antibiotic administered.

Client states, "I'm having a pain in my side" "I'm kind of having a hard time taking a deep breath".

Client hunched over bedside table, accessory muscle used.

Client guarded on Left side and c/o pain.

Lung sounds- diminished in the bases and upper lobes sounds coarse with inspiratory crackles and occasional rhonchi. Cough is productive, greenish-yellow tenacious sputum.

Braden score-22

Vital signs, wt, pain,

Patient Information

Patient is at hospital due to Pneumonia and exacerbation of his COPD. Patient recently widow and ineffective coping methods. Patient will be discharged with O2 therapy and home health to follow up. Nutritional and fluid intake is encourage to help gain weight.

Nursing Diagnosis/Outcomes

Impaired gas exchange related to COPD as evidence by Shortness of breath, wheezing and crackles heard, and pt. stating "having a hard time taking a full breath"

Goal met- patient put on 2L of O2 and responded WDL.

Goal met- Patient reposition to high fowlers, by raising the HOB and pillows.

Imbalanced nutrition related to Weight loss as evidence by decreased intake occurring with fatigue and anorexia.

Goal met- I/O assessed during admission

Goal met- Small meal with high-caloric diet discussed, and lowering fatigue

Nursing Interventions

1. Provide O2 with nasal cannula
2. Put pt. in high fowlers position. Reassess vitals and SOB.
3. Asses I/O, provides data that will determine the need for dietary outcomes
4. Provide the diet in small, frequent, high caloric meals that are nutritious and easy to consume. Small meals are easier to eat during fatigue.
5. Educate patient on transdermal patch care due to being discharged with the prescription of nicoderm.

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D/C to home on the following:

Prednisone 10mg PO daily

→ **topical education**

Salmeterol inhaler one puff every 12 hr → **oral hygiene care**

Arrange for home O2 therapy. No diet restrictions-encourage oral fluids. Home health to follow.
To be seen in office in one week -call to set up an apt.

High-calorie diet recommended for the client who has COPD. Calories are needed to maintain and appropriate Ht/Wt ratio, and protein is needed to maintain serum albumin and prealbumin within the expected ranges. Nutrition supplements such as Pulmocare are encouraged because they do not contribute to carbon dioxide production as carbohydrates do.

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