N431 Care Plan #1

Lakeview College of Nursing

Jamal Drea

Demographics (3 points)

Date of Admission	Client Initials	Age	Gender
9/16/22	D.B.	21	(Transgender) Female
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
White/Caucasian	Not employed	Single	Amoxicillin, erythromycin
Code Status	**Height**	**Weight**	
FULL	5'11" (180 cm)	237 lbs (107.7 kg)	

Medical History (5 Points)

Past Medical History: ADHD, gender dysphoria, major depressive disorder, social anxiety disorder

Past Surgical History: Tonsillectomy and adenoidectomy

Family History: Lymphoma (mother and maternal grandmother), coronary artery disease (paternal grandfather)

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): No history of drug, alcohol, or tobacco use

Assistive Devices: None

Living Situation: Lives with parents

Education Level: Unable to assess (Adult)

Admission Assessment

Chief Complaint (2 points): Trauma due to motor vehicle accident

History of Present Illness – OLD CARTS (10 points): Patient was admitted to the ED after being struck by a vehicle while on foot on September 16th. The patient had abrasions on their extremities and trauma to the head. The patient exhibited nausea and vomiting before arriving to the hospital. Hiccuping was noted by the physician, which they said "indicates contusional or subarachnoid blood in the orbital cortex." Unable to assess aggravating

factors. Succinylcholine and etomidate were administered as relieving factors to the patient and they were intubated by an emergency physician. Patient is in critical condition.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Encephalopathy secondary to TBI with skull fracture and subarachnoid hemorrhage

Secondary Diagnosis (if applicable): Pneumonia

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

The patient was subject to a traumatic brain injury as the result of a motor vehicle accident on foot, presumably to the side of their body as an xray on the facial bones showed a fracture at the base of the skull and temporal bone. Encephalopathy is a disruption in regular brain function that could be due to a traumatic brain injury. This collision caused damage to capillaries within an area between the skull and the brain called the subarachnoid space. Subarachnoid hemorrhage is a common occurrence with trauma to the head. A TBI will likely require rehabilitation therapies to regain ability to carry out activities of daily living (Georges & Das, 2022). The collection of blood between the arachnoid and pia mater from an SAH is a life-threatening situation and could cause irritation to nerves, leading to cranial deficits. Signs to be aware of are severe headache, nausea, vomiting, and double vision (Ziu & Mesfin, 2021). The patient reportedly had nausea and vomiting during transport to the ED. Possible complications include seizures, confusion, and edema that causes hydrocephalus that can put a deadly amount of pressure on the brain. A CT scan of the head could be done to determine if there is an SAH (Ziu & Mesfin, 2021). The patient did have a CT of their brain without contrast that identified a

trace of an SAH. EMS attempted to intubate the patient until an emergency physician successfully did with the use of muscle relaxants. The patient was later put on a mechanical ventilator and contracted pneumonia as evidenced by infiltrates on a chest xray. Ventilator-associated pneumonia is an infection that is caused within 48 hours by invasive procedures that are done with artificial airways that are colonized by bacteria. This is a common nosocomial infection in the ICU setting. Ciliary function can be changed in a patient with an altered level of consciousness, so aspiration pneumonia becomes more likely as bacteria collects around the upper airway. The patient currently is on famotidine for stress ulcer prophylaxis, which can contribute to the colonization of bacteria. A chest xray could be used to diagnose pneumonia (Kohbodi et al., 2022). The patient had a chest xray that showed infilatrates in the lungs that indicates pneumonia. A culture and sensivity test should be performed to get information on the appropriate antibiotics to administer to the patient (Kohbodi et al., 2022).

Pathophysiology References (2) (APA):

Georges A, M Das J. Traumatic Brain Injury. [Updated 2022 Jan 5]. *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK459300/

Kohbodi GNA, Rajasurya V, Noor A. Ventilator-associated Pneumonia. [Updated 2022 May 25]. *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK507711/

Ziu E, Mesfin FB. Subarachnoid Hemorrhage. [Updated 2021 Aug 9]. *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK441958/

Laboratory Data (15 points)

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	4.7-6.1	5.36	3.37	Client is a trauma patient who was subject to subarachnoid hemorrhage, which explains the decreased levels for red blood cell count (Pagana, 2018).
Hgb	14-18	16.1	10	A lower than expected value for hemoglobin is related to a reduced red blood cell count (Pagana, 2018).
Hct	42-52%	48.1	30.6	Hematocrit reflects the Hgb and RBC, which would cause a value that is below the normal range (Pagana, 2018).
Platelets	150-400	351	174	
WBC	5-10	18.66	10.87	An increased WBC count is due to stress and trauma. The highly elevated WBC found at admission is evident of that reasoning (Pagana, 2018).
Neutrophils	55-70%	53.8	78.8	Neutrophilia is caused by physical and emotional stress associated with trauma (Pagana, 2018).
Lymphocytes	20-40%	37.9	8.3	Lymphocytopenia could be caused by infection and a recent sputum culture indicated that the patient has influenza B (Pagana, 2018).
Monocytes	2-8%	6.2	9.1	Inflammation or infection could have results in the patient's elevated monocyte count (Pagana, 2018).
Eosinophils	1-4%	1.1	2.2	
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**	**139**	**143**	
K+	**3.5-5.0**	**3.9**	**3.7**	
Cl-	**98-106**	**100**	**110**	**Anemia leads to hyperchloremia and this relates to the most recent low reading for Hgb (Pagana, 2018)**
CO2	**23-30**	**23**	**26**	
Glucose	**82-115**	**161**	**113**	**An elevated blood glucose level reading at admission indicates an acute stress-induced hyperglycemic response to trauma (Pagana, 2018).**
BUN	**10-20**	**11**	**7**	**The decreased BUN level could be due to impaired renal function because of administered cefepime that is nephrotoxic (Pagana, 2018).**
Creatinine	**0.6-1.2**	**1.49**	**0.64**	**The patient has been prescribed cefepime, a cephalosporin antibiotic that is nephrotoxic and increases creatinine levels (Pagana, 2018).**
Albumin	**3.5-5.0**	**4.6**	**2.8**	**Stress and acute infection lower albumin levels (Pagana, 2018)**
Calcium	**9.0-10.5**	**9**	**9.4**	
Mag	**1.3-2.1**	**2**	**2**	
Phosphate	**3.0-4.5**	**7.9**	**3.5**	**Hyperphosphatemia is caused by impaired renal function and the patient's creatine levels were elevated (Pagana, 2018)**
Bilirubin	**0.3-1.0**	**0.4**	**0.7**	
Alk Phos	**30-120**	**64**	**60**	
AST	**0-35**	**35**	**41**	**Elevated AST is related to trauma but the patient is also being given medications that are hepatotoxic**

				such as hydromorphone (Pagana, 2018).
ALT	**4-36**	**40**	**26**	
Amylase	**6.6-35.2**	**N/A**	**N/A**	
Lipase	**0-160**	**N/A**	**N/A**	
Lactic Acid	**5-20 (venous) or 3-7 (arterial)**	**4.3**	**N/A**	
Troponin	**<0.1 (troponin T) or <0.03 (troponin I)**	**0**	**0**	
CK-MB	**0**	**N/A**	**N/A**	
Total CK	**55-170**	**207**	**440**	**Increased total CK is caused by disease or injury to muscle or the brain. The patient experienced trauma to their head that resulted in subarachnoid hemorrhage (Pagana, 2018).**

Other Tests 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
INR	**0.8-1.1**	**1.1**	**N/A**	
PT	**11-12.5**	**N/A**	**N/A**	
PTT	**25-35**	**26**	**N/A**	
D-Dimer	**< 250**	**N/A**	**N/A**	
BNP	**< 100**	**N/A**	**N/A**	
HDL	**> 45**	**N/A**	**N/A**	
LDL	**<130**	**N/A**	**N/A**	

Cholesterol	**< 200**	**N/A**	**N/A**	
Triglycerides	**40-160**	**186**	**N/A**	**Increased levels of triglycerides is associated with impaired renal function. The patient is prescribed nephrotoxic medications that could be affecting kidney function (Pagana, 2018).**
Hgb A1c	**4-5.9 in nondiabetic**	**N/A**	**N/A**	
TSH	**2-10**	**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	**Amber-Light Yellow and clear**	**N/A**	**N/A**	
pH	**4.6-8.0**	**N/A**	**N/A**	
Specific Gravity	**1.005-1.030**	**N/A**	**N/A**	
Glucose	**Negative**	**N/A**	**N/A**	
Protein	**0-8**	**N/A**	**N/A**	
Ketones	**Negative**	**N/A**	**N/A**	
WBC	**0-4**	**N/A**	**N/A**	
RBC	**<2**	**N/A**	**N/A**	
Leukoesterase	**Negative**	**N/A**	**N/A**	

Arterial Blood Gas 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
pH	7.35-7.45	7.331	7.402	pH is decreased, likely due to respiratory acidosis from lack of oxygen exchange in the patient (Pagana, 2018).
PaO2	80-100	58.9	54.6	The patient had acute respiratory failure, which explains the initial low PaO2. Currently, the patient is on medications that cause respiratory depression and has pneumonia that are lowering their PaO2 (Pagana, 2018).
PaCO2	35-45	44.8	35.7	
HCO3	21-28	23.1	21.7	
SaO2	95-100%	89.4	89.9	SaO2 is a representation of hemoglobin carrying oxygen. PaO2 is low so there is less available oxygen, leading to a lower than normal SaO2 (Pagana, 2018).

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 (< 100,000)	N/A	N/A	
Blood Culture	Negative	N/A	N/A	
Sputum Culture	Negative	N/A	Positive	A large amount of Haemophilus influenzae was detected in a sputum sample.
Stool Culture	Negative	N/A	N/A	

Lab Correlations Reference (1) (APA):

Pagana, K.D., Pagana, T.J., & Pagana, T.N. (2018). ***Mosby's Diagnostic and Laboratory Test Reference*** **(14th ed.). Mosby.**

Diagnostic Imaging

All Other Diagnostic Tests (5 points): CXR suggests pneumomediastinum and scattered infiltrates along with subcutaneous emphysema. A KUB xray was done to check OG placement and showed mild ileus. CT angiogram of the chest showed moderate right and small left side pneumothoraces with infiltrates and opacities in the right lung. CT brain w.o contrast shows trace of scattered SAH. CT cervical spine shows no evidence of acute skeletal injury. CT facial bones w/o contrast shows fracture at base of the skull and temporal bone fracture. CT chest/abdomen/pelvis shows subtle opacities in lower lobes indicative of aspiration pneumonia. MRI brain shows small amount of subdural hemorrhage.

Diagnostic Test Correlation (5 points): A CXR is used to find inflammation or air accumulation in the lungs . It could also show fractures in the thorax or vertebra and the size of the heart (Pagana, 2018). CT scans are used to detect tumors, cysts, inflammation, bleeding, obstruction, and anatomic abnormalities (Pagana, 2018). An MRI of the brain is ised to identify edema, compression, hydrocephalus, neosplasms, and herniation of the brain (Pagana, 2018). These diagnostic tests are done to determine the full extent of the trauma to the patient in order to provide appropriate interventions.

Diagnostic Test Reference (1) (APA):

Pagana, K.D., Pagana, T.J., & Pagana, T.N. (2018). ***Mosby's Diagnostic and Laboratory Test Reference*** **(14th ed.). Mosby.**

Current Medications (10 points, 1 point per completed med)
10 different medications must be completed

Home Medications (5 required)

Brand/Generic	**Wellbutrin XL (bupropion hydrochloride)**	**Focalin XR (dexmethylphenidate)**	**Lexapro (escitalopram oxalate)**	**Vyvanse (lesdexamfetamine)**	**Tylenol (acetaminophen)**
Dose	**300 mg**	**15 mg**	**10 mg**	**40 mg**	**325 mg**
Frequency	**Daily**	**Daily**	**Daily**	**Daily**	**Q6H prn for mild pain**
Route	**PO**	**PO**	**PO**	**PO**	**PO**
Classification	**Pharmacological class: Aminoketone** **Therapeutic class: Antidepressant**	**Pharmacological class: Methylphenidate derivative** **Therapeutic class: CNS stimulant**	**Pharmacological class: Selective serotonin reuptake inhibitor (SSRI)** **Therapeutic class: Antidepressant**	**Pharmacological class: Amphetamine** **Therapeutic class: CNS stimulant**	**Pharmacological class: Nonsalicylate** **Therapeutic class: Antipyretic, nonopioid analgesic**
Mechanism of Action	**May inhibit dopamine, norepinephrine, and serotonin uptake by neurons, which significantly relieves**	**May block reuptake of dopamine and norepinephrine into presynaptic neurons in cerebral cortex, which increases availability of**	**Inhibits reuptake of the neurotransmitter serotonin by CNS neurons, thereby increasing the amount of serotonin available in**	**Produces CNS stimulant effects, probably by facilitating release and blocking reuptake of norepinephrine at adrenergic**	**Inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse**

	evidence of depression.	**dopamine and norepinephrine in extraneuronal space.**	**nerve synapses. An elevated serotonin level may result in elevated mood and reduced anxiety or depression.**	**nerve terminals and by stimulating alpha and beta receptors in peripheral nervous system. The drug also releases and blocks reuptake of dopamine in limbic regions of the brain. These actions cause decreased motor restlessness and increased alertness.**	**generation in the peripheral nervous system. Acetaminophen also acts directly on temperature-regulating center in the hypothalamus by inhibiting synthesis of prostaglandin E2 .**
Reason Client Taking	**The patient has been diagnosed with major depression, which is treated by this medication**	**This medication is used to treat the patient's diagnosed ADHD.**	**This medication is used to treat anxiety and major depression, which both appear on the patient's medical history.**	**The client has been diagnosed with ADHD, which is treated by this medication**	**This medication is used to treat mild to moderate pain**
Contraindications (2)	**Seizure disorder or use within 14 days of an MAO inhibitor**	**Hypersensitivity to methylphenidate or use within 14 days of MAO inhibitor**	**Hypersensitivity to escitalopram or citalopram and concurrent use with pimozide**	**Hypersensitivity to lisdexamfetamine or MAO inhibitor therapy within the last 14 days**	**Hypersensitivity to acetaminophen or severe hepatic impairment**
Side Effects/Adverse Reactions (2)	**Arrhythmias and thrombocytopenia**	**Arrhythmias and hypotension**	**Hypotension and hyponatremia**	**Seizures and cardiomyopathy**	**Hypotension and hepatotoxicity**
Nursing Considerations (2)	**Monitor patient for risk of seizures. Use cautiously in patients with renal impairment.**	**Monitor CBC and platelet counts. Monitor blood pressure and pulse rate for**	**Monitor patient for serotonin syndrome. Monitor patient for signs of bleeding,**	**This drug should not be given to patients with cardiac abnormalities. Monitor the patient's**	**Monitor renal function. Long term use could affect liver function.**

		excessive stimulation.	**especially if the patient uses NSAIDs.**	**blood pressure closely because it may be increased as a result of the stimulant.**	
Key Nursing Assessment(s)/Lab(s) Prior to Administration	**Assess CBC and renal function, monitor blood pressure for hypertension**	**Vital signs and assess CBC**	**Neurological assessment, assess vital signs for fever and tachycardia, check for signs of bleeding**	**Cardiac and neurological assessment, assess blood pressure**	**Monitor AST, ALT, and bilirubin levels. Monitor BUN and creatinine levels.**
Client Teaching Needs (2)	**Store medication at room temperature and take with food. Patient should avoid consuming alcohol or sedatives during therapy and should not stop taking the drug abruptly.**	**Tell the patient to report fever, insomnia, nausea, palpitations, or rash. Educate the patient to store the drug away from light and moisture.**	**Warn the patient not to stop taking the drug abruptly and improvement in symptoms may not occur until 1-4 weeks of administration. Inform the patient on avoiding the use of alcohol while on this medication.**	**The patient should know to take exactly the prescribed dosage to avoid dependence on the drug. Inform the patient about taking this medication during the day to avoid insomnia.**	**Tell the patient to follow manufacturer's label and dosage guidelines. Educate on signs of hepatotoxicity in order to report them.**

Hospital Medications (5 required)

Brand/Generic	**Dilaudid (hydromorphone)**	**Maxipime (cefepime hydrochloride)**	**Pepcid (famotidine)**	**Versed (midazolam)**	**Diprivan (propofol)**
Dose	**2 mg**	**1 g**	**20 mg**	**4 mg**	**5 mcg/kg/min (32.3 mg/hr)**

Frequency	**Q2H prn for sedation**	**Q6H**	**Q12H**	**Q1H prn for severe agitation**	**continuous**
Route	**IV infusion**	**IV Push**	**IV Push**	**IV Push**	**IV Infusion**
Classification	**Pharmacological class: Opioid** **Therapeutic class: Opioid analgesic**	**Pharmacological class: Fourth-generation cephalosporin** **Therapeutic class: Antibioitic**	**Pharmacological class: Histamine-2 blocker** **Therapeutic class: Antiulcer agent**	**Pharmacological class: Benzodiazepine** **Therapeutic class: Sedative-hypnotic**	**Pharmacological class: Phenol derivative** **Therapeutic class: Sedative-hypnotic**
Mechanism of Action	**May bind with opioid receptors in the spinal cord and higher levels in the CNS. In this way, hydromorphone is believed to stimulate kappa and mu receptors, thus altering the perception of and emotional response to pain.**	**Interferes with bacterial cell wall synthesis by inhibiting the final step in the cross-linking of peptidoglycan strands. Peptidoglycan makes cell membranes rigid and protective. Without it, bacterial cells rupture and die.**	**Reduces HCl formation by preventing histamine from binding with H2 receptors on the surface of parietal cells. By doing so, the drug helps prevent peptic ulcers from forming and helps heal existing ones.**	**May exert sedating effect by increasing activity of gamma-aminobutyric acid, a major inhibitory neurotransmitter in the brain. As a result, midazolam produces a calming effect, relaxes skeletal muscles, and at high doses induces sleep.**	**Decreases cerebral blood flow, cerebral metabolic oxygen consumption, and intracranial pressure and increases cerebrovascular resistance, which may play a role in propofol's hypnotic effects.**
Reason Client Taking	**To provide pain relief and sedation for the patient that experienced trauma**	**This medication is used for moderate to severe pneumonia which has been detected in the patient after diagnostic testing.**	**The client is taking this medication to prevent the formation of gastric ulcers that can result from trauma and prolonged stress to the body.**	**This medication is used to relieve agitation and anxiety for patients like this who are mechanically ventilated**	**To provide sedation for the patient while they are in critical condition**
Contraindications (2)	**Severe respiratory depression and paralytic ileus**	**Hypersensitivity to beta-lactam antibiotics or penicillins**	**Hypersensitivity to H2-receptor agonists or components of famotidine**	**Acute pulmonary insufficiency and hypersensitivity to**	**Hypersensitivity to propofol and eggs or soy products**

				benzodiazepines	
Side Effects/Adverse Reactions (2)	Respiratory depression and hepatotoxicity	Nephrotoxicity and thrombocytopenia	Arrhythmias and neutropenia	Hypotension and bradypnea	Bradycardia and hypotension
Nursing Considerations (2)	Give by injection over at least 2 minutes. Use cautiously in patients with low blood pressure and reduced blood volume.	Obtain culture and sensitivity test results. Reconsititute using manufacturer's guidelines.	Dilute with normal saline solution. Give IV injection over at least 2 minutes.	Determine whether the patient has used antibiotics, antihypertensives, or protease inhibitors since they could cause a stronger sedative effect. Assess level of consciousness frequently.	Dosage mist be tapered before stopping therapy. Dilute with D5W before administration.
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Vital signs and monitor for signs of respiratory depression	Monitor BUN and creatinine levels for signs of nephrotoxicity.	GI assessment and assess CBC	Vital signs and neurological assessment	Vital signs
Client Teaching Needs (2)	Educate family on use of medication for sedation. Inform on avoiding orthostatic hypotension by changing positions slowly.	The patient should know to report severe diarrhea even if it is 2 months after the last dose.	Patient should know to report pain or trouble swallowing. They should also know to report black tarry stools.	Educate on risk of severe respiratory depression. Inform family of adverse CNS effects.	Inform the family that patient's vital functions will be monitored and supported closely. Mental alertness will be impaired.

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2020). ***2021 Nurse's Drug Handbook*** **(19 th ed.). Jones & Bartlett Learning.**

Assessment

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

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	 **Alert and oriented x0 (sedated)** **No acute distress** **Clean, calm appearance**
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** **Braden Score:** **Drains present: Y☐ N ☐** **Type:**	 **Pale** **Normal, dry** **Cold extremities** **Normal skin turgor** **No rashes** **Bruising around head** **Abrasions to head and extremities** **Braden Scale: 10** **Drainage present from chest tube (26 mL output)**
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	 **Head is normocephalic, trachea is midline,** **bruising is present on right temporal region** **External ears normal, abrasions present** **Sclera and conjunctiva normal, PERRL with pupillometer** **Nose appears normal and midline** **Normal oral mucosa**
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:**	 **Normal S1 and S2 hearts sounds** **Normal heart rate, sinus rhythm** **Peripheral pulses 2+ and symmetric** **Capillary refill <2 seconds** **No neck vein distention** **Edema present in lower extremities**

Neck Vein Distention: Y ☐ N ☐ **Edema Y ☐ N ☐** **Location of Edema:**	
RESPIRATORY: **Accessory muscle use: Y☐ N ☐** **Breath Sounds: Location, character**	**No accessory muscle use, unlabored breathing** **Clear breath sounds with no crackles or wheezing but diminished in base of the lungs** **Normal respiratory rate and rhythm** **Mechanically ventilated**
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:**	**Normal diet** **Trickle feedings via OG tube (continuous Peptamen Internse VHP and Beneprotein feedings)** **5'11" (180 cm)** **273 lbs (107.7 kg)** **Normal bowel sounds throughout** **Unable to assess last BM** **No masses or nonverbal indicators of pain on palpation** **No distention in abdomen** **No incisions around abdominal region** **No scars around abdominal region** **No drainage around abdominal region** **No wounds around abdominal region** **No ostomy** **No NG tube** **OG feeding tube is in place**
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☐** **Inspection of genitals:** **Catheter: Y ☐ N ☐** **Type:** **Size:**	**Dark yellow** **Clear** **2420 mL output** **Unable to assess pain with urination** **No dialysis** **Normal** **Yes** **Double lumen indwelling catheter** **16 Fr**
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☐** **Fall Risk: Y ☐ N☐**	**Not alert or responsive** **Normal ROM** **No supportive devices except bilateral SCDs** **Strength unequal (right sided weakness)** **Assistance required for ADLs, mobility, and nutrition**

Fall Score: **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	**Morse Fall Score: 50** **Unable to move independently**
NEUROLOGICAL: **MAEW: Y ☐ N☐** **PERLA: Y ☐ N☐** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	**MAEW ✓** **PERLA (using pupillometer) ✓** **Strength unequal (right sided weakness in arms and legs)** **Oriented x0** **Sedated, no acute distress** **Unable to assess** **Slightly withdraws to pain** **Unconscious (3 on GCS)**
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):**	**Sedation and analgesics** **Adult** **N/A** **Patient lives with parents, who visited earlier in the day**

Vital Signs, 2 sets (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1300	64	107/53	18	98.1 F (36.7 C)	93%
1400	60	99/51	18	97.7 F (36.6 C)	93%

Vital Sign Trends: BP slightly decreasing with other vital signs remaining stable.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1200	**CPOT (no verbal indications)**	**N/A**	**N/A**	**N/A**	**N/A**
1400	**CPOT (no verbal indications)**	**N/A**	**N/A**	**N/A**	**N/A**

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV:	**16 G**
Location of IV:	**Right AC**
Date on IV:	**9/18**
Patency of IV:	**Open and functional**
Signs of erythema, drainage, etc.:	**No signs of erythema or drainage**
IV dressing assessment:	**IV is secure**

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
Hydromorphone - 61 mL **Dexmedetomidine - 342 mL** **Propofol - 345 mL** **Potassium chloride - 39 mL** **Feeding tube irrigation - 60 mL** **Total - 1059 mL**	**Urine output - 2420 mL** **Chest tube drainage - 26 mL** **Total - 2446 mL**

Nursing Care

Summary of Care (2 points)

Overview of care: ICU care dependent

Procedures/testing done: CXR, KUB, CT angiogram of the chest, CT brain w/o contrast, CT cervical spine, CT facial bone w/o contrast, MRI brain w/o contrast, sputum culture, mechanical ventilation

Complaints/Issues: Ventilation

Vital signs (stable/unstable): Stable

Tolerating diet, activity, etc.: Tube feedings are tolerated. Does not tolerate activity because of oxygen desaturation.

Physician notifications: N/A

Future plans for client: Physical therapy, possible tracheostomy

Discharge Planning (2 points)

Discharge location: Unknown at this time

Home health needs (if applicable): Unknown at this time

Equipment needs (if applicable): Unknown at this time

Follow up plan: Physical therapy

Education needs: Injury risk, medication education

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis ● Include full nursing diagnosis with "related to" and "as evidenced by" components ● Listed in order by priority – highest	**Rationale** ● Explain why the nursing diagnosis was chosen	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation** ● How did the client/family respond to the nurse's actions? ● Client response, status of goals and outcomes, modifications to plan.

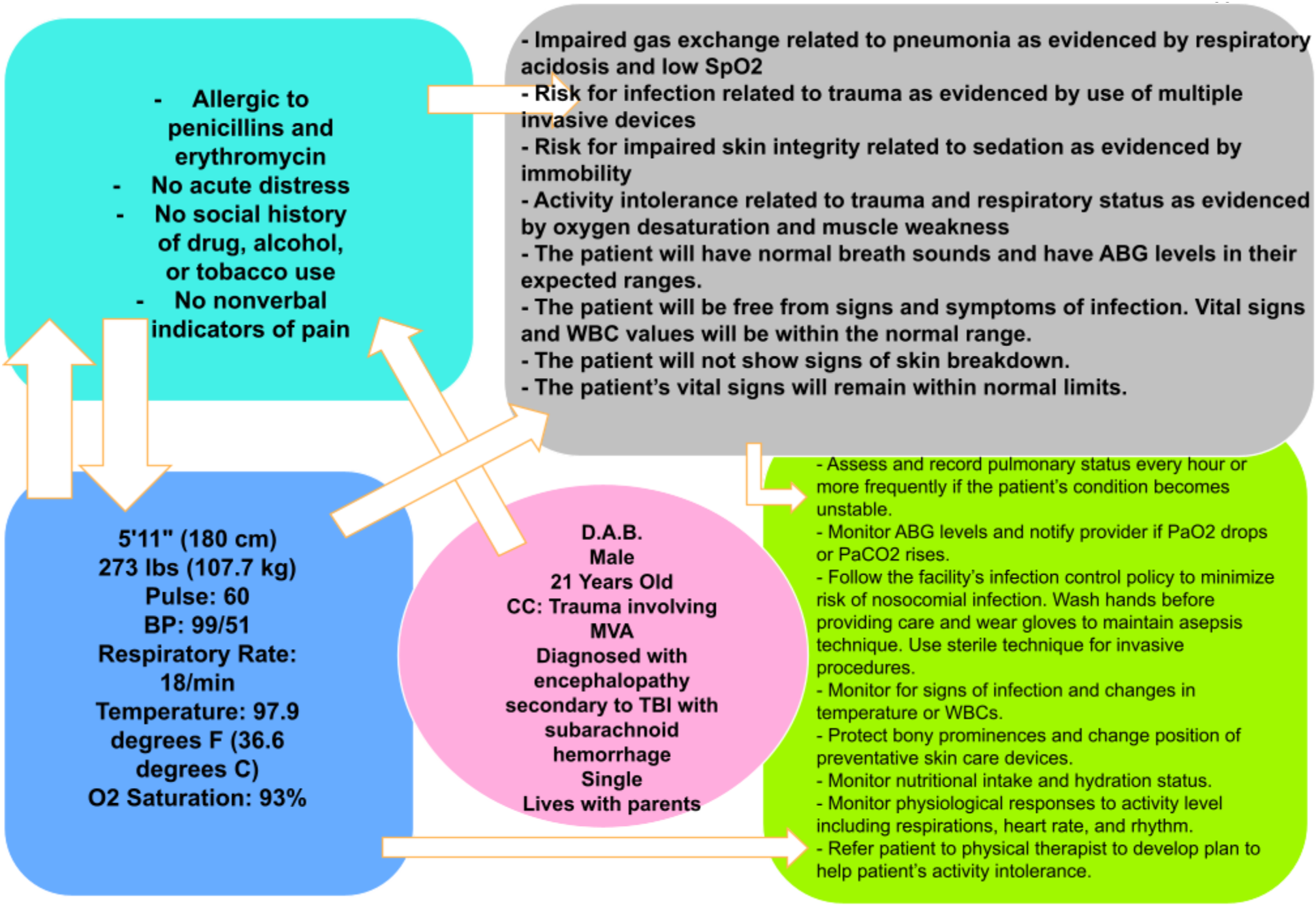
priority to lowest priority pertinent to this client				
1. Impaired gas exchange related to pneumonia as evidenced by respiratory acidosis and low SpO2	**The patient is currently being mechanically ventilated as a result of a collision that caused pneumothoraces in their lungs. It is important to ensure that their respiratory status remains stable while they recover as their SpO2 has been at 89%, especially since prescribed medications to the patient are known to cause respiratory depression.**	**1.Assess and record pulmonary status every hour or more frequently if the patient's condition becomes unstable.** **2.Monitor ABG levels and notify provider if PaO2 drops or PaCO2 rises.**	**1. The patient will have normal breath sounds and have ABG levels in their expected ranges.**	**The client will have stable vital signs and ABGs. The patient's family will understand the status of their respiratory function and how it will be monitored closely.**
2. Risk for infection related to trauma as evidenced by use of multiple invasive devices	**The patient is immobile and has several invasive procedures done such as the insertion of a urinary catheter, central line, ETT, and OG tube that could cause the patient to be susceptible to infection.**	**1. Follow the facility's infection control policy to minimize risk of nosocomial infection. Wash hands before providing care and wear gloves to maintain asepsis technique. Use sterile technique for invasive procedures.** **2.Monitor for signs of infection and changes in temperature or WBCs.**	**1. The patient will be free from signs and symptoms of infection. Vital signs and WBC values will be within the normal range.**	**The patient will be protected from pathogens. The patient's family will be aware of risks for infection and signs to report.**
3. Risk for impaired skin integrity related to sedation as	**The patient is paralyzed and sedated, so they are unable to move. This puts**	**1.Protect bony prominences and change position of preventative skin care devices.**	**1. The patient will not show**	**The patient will be protected from impaired skin integrity. Patient's**

evidenced by immobility	**them at risk of skin breakdown from pressure injury. Preventative measures should be taken to avoid injury and protect against possible infection.**	**2.Monitor nutritional intake and hydration status.**	**signs of skin breakdown.**	**family will understand preventive skin care.**
4. Activity intolerance related to trauma and respiratory status as evidenced by oxygen desaturation and muscle weakness	**The patient is unable to tolerate activity as it can put them at risk of poor oxygenation. Future plans should be made to help rehabilitate the patient.**	**1.Monitor physiological responses to activity level including respirations, heart rate, and rhythm.** **2. Refer patient to physical therapist to develop plan to help patient's activity intolerance.**	**1. The patient's vital signs will remain within normal limits.**	**The patient will be able to tolerate activity in the future. The family will understand the limitations of the patient.**

Other References (APA):

Phelps, L.L. (2020). ***Sparks and Taylor's Nursing Diagnosis Reference Manual*** **(11 th ed.).**

Wolters Kluwer.Concept Map (20 Points):


- Allergic to penicillins and erythromycin
- No acute distress
- No social history of drug, alcohol, or tobacco use
- No nonverbal indicators of pain
- Impaired gas exchange related to pneumonia as evidenced by respiratory acidosis and low SpO2
- Risk for infection related to trauma as evidenced by use of multiple invasive devices
- Risk for impaired skin integrity related to sedation as evidenced by immobility
- Activity intolerance related to trauma and respiratory status as evidenced by oxygen desaturation and muscle weakness
- The patient will have normal breath sounds and have ABG levels in their expected ranges.
- The patient will be free from signs and symptoms of infection. Vital signs and WBC values will be within the normal range.
- The patient will not show signs of skin breakdown.
- The patient's vital signs will remain within normal limits.
5'11" (180 cm)
273 lbs (107.7 kg)
Pulse: 60
BP: 99/51
Respiratory Rate: 18/min
Temperature: 97.9 degrees F (36.6 degrees C)
O2 Saturation: 93%
D.A.B.
Male
21 Years Old
CC: Trauma involving MVA
Diagnosed with encephalopathy secondary to TBI with subarachnoid hemorrhage
Single
Lives with parents
- Assess and record pulmonary status every hour or more frequently if the patient's condition becomes unstable.
- Monitor ABG levels and notify provider if PaO2 drops or PaCO2 rises.
- Follow the facility's infection control policy to minimize risk of nosocomial infection. Wash hands before providing care and wear gloves to maintain asepsis technique. Use sterile technique for invasive procedures.
- Monitor for signs of infection and changes in temperature or WBCs.
- Protect bony prominences and change position of preventative skin care devices.
- Monitor nutritional intake and hydration status.
- Monitor physiological responses to activity level including respirations, heart rate, and rhythm.
- Refer patient to physical therapist to develop plan to help patient's activity intolerance.