N441 Care Plan

Lakeview College of Nursing

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Demographics (3 points)

Date of Admission	Client Initials	Age	Gender
3/7/22	R.J.H	91 y/o	M
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
White/Caucasian	Retired	Married	No known allergies
Code Status	**Height**	**Weight**	
DNR	172.72 cm	65.60 kg	

Medical History (5 Points)

Past Medical History: The patient has a past medical history of A-fib, CAD, chronic HRrRF, aortic stenosis, CKD, HTN, GERD, left bundle branch block, pulmonary hypertension, diabetes type 2, hyperlipidemia, mitral regurgitation, vitamin D deficiency.

Past Surgical History: The patient has undergone capsulotomy (12/5/18, 12/7/18), allograft replacement of aortic valve (date not reported/unable to assess), coronary artery bypass (date not reported/unable to assess).

Family History: The patient's father had a heart attack. The patient's sister has heart disease.

Social History (tobacco/alcohol/drugs including frequency, quantity, and duration of use): The patient denies any use of alcohol, tobacco, and drugs.

Assistive Devices: The patient uses an electric wheelchair.

Living Situation: The patient currently resides in an assisted living with their spouse.

Education Level: The patient's education level is not reported or charter and cannot be assessed due to sedation and intubation.

Admission Assessment

Chief Complaint (2 points): The patient denies any complaints. Hgb 6.6 on outpatient lab

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

The patient was scheduled to get a pacemaker on 12/7/22. Upon preoperative routine labs, their hemoglobin was reported at 6.6. The patient was admitted overnight and given two units of packed red blood cells. At 0452, the patient's EKG showed V-fib progressing into V-tach, and a CODE BLUE was called. The patient was intubated, sedated, and transferred to the critical care unit.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Ventricular fibrillation

Secondary Diagnosis (if applicable): Anemia

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

Ventricular fibrillation (V-fib) is an abnormal heart rhythm in which the heart quivers rapidly, resulting in insufficient cardiac output. The heart cannot fill and pump blood out from the ventricles to oxygenate the organs of the rest of the body (Capriotti, 2020). The heart's electrical conduction impulse must travel sequentially, starting at the SA node across the atria to the AV node down the ventricles and through the bundle of His and the Purkinje fibers. When ventricular fibrillation occurs, the electrical impulse is disorganized, causing the walls of the ventricles to quiver rapidly and uncoordinated contraction to occur, further inhibiting the ejection of blood (Capriotti, 2020).

Causes of V-fib are myocardial infarction, cardiomyopathy, electrolyte imbalances, and arrhythmias (Mayo Foundation for Medical Education and Research, 2021). The patient has a history of abnormal sinus rhythm as they have atrial fibrillation and left bundle branch block. A previous EKG also showed that the patient is bradycardic at 43 bpm and has a prolonged Q-T interval, which puts them at high risk for cardiac arrest from electrical conduction malfunction.

V-fib's signs and symptoms are chest pain, dizziness, loss of consciousness, and cyanosis (Capriotti, 2020). The patient may also have no pulse since blood is not traveling throughout their body.

An EKG is used to diagnose V-fib, as it works to record the heart's electrical impulse. The characteristics of V-fib on an EKG include bizarre, unidentifiable P, QRS, or T waves, chaotic, irregular amplitude, and a rate over >150 bpm (Mayo Foundation for Medical Education and Research, 2021). An echocardiogram visualizes the heart size, structure, and motion and a blood test for enzymes that indicate heart injury.

Treatment for V-fib requires immediate medical intervention to restore blood flow quickly. Emergency management for ventricular fibrillation is cardiopulmonary resuscitation (CPR), defibrillation, and medication. CPR works to mimic the heart's pumping motion, and defibrillation aims to deliver a shock to restore normal sinus rhythm (Capriotti, 2020). Medications such as epinephrine and amiodarone increase blood pressure and coronary perfusion. Long-term treatment and V-fib include fixing the underlying problem and preventing another occurrence. A pacemaker or an implantable cardioverter-defibrillator (ICD) can monitor their heart rhythm continuously and provide a shock is detected. Cardiac ablation can block abnormal electrical signals that can cause V-fib. Coronary angioplasty and stent placement or coronary bypass surgery if the occurrence is due to impaired coronary perfusion (Mayo Foundation for Medical Education and Research, 2021).

According to the report, the patient had continuous heart monitor, and their EKG showed ventricular fibrillation. It is unknown if the patient had any other precipitating symptoms of V-fib. The patient was found pulseless, and the resuscitation team was on their way. The patient received CPR and received defibrillation. They received multiple doses of epinephrine to restore

normal sinus rhythm. The patient needed close observation and was transferred to the critical care unit and plans to have a pacemaker/ICD placed.

Pathophysiology References (2) (APA):

Capriotti, T., & Frizzell, J.P. (2020). *Pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F.A. Davis Company.

Mayo Foundation for Medical Education and Research. (2021, June 2). *Ventricular fibrillation*. Mayo Clinic. Retrieved March 11, 2022, from https://www.mayoclinic.org/diseases-conditions/ventricular-fibrillation/symptoms-causes/syc-20364523

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	3.80-5.41x10^6/mcL	2.99	4.37	Anemia can be caused by reduced RBC loss (Capriotti, 2020).
Hgb	11.3-15.2 g/dL	6.6	10.5	Decreased Hgb/Hct indicate anemia (Capriotti, 2020).
Hct	33.2-45.3%	22.0	34.0	Decreased Hgb/Hct indicate anemia (Capriotti, 2020).
Platelets	149-393 K/mcL	331	266	n/a
WBC	4.0-11.7 K/mcL	6.2	6.1	n/a
Neutrophils	45.3-79.0%	48.8	51.7	n/a
Lymphocytes	11.8-45.9%	12.2	29.2	n/a
Monocytes	4.4-12.0%	5.2	5.2	n/a

Eosinophils	0.0-6.3%	0.2	0.2	n/a
Bands	0.0-10.0%	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-	136-145 mmol/L	141	140	n/a
K+	3.5-5.1 mmol/L	4.3	3.9	n/a
Cl-	98-107 mmol/L	110	109	The patient has CKD, high levels of chloride is due to renal impairment (Capriotti, 2020).
CO2	21-31 mmol/L	24	18	n/a
Glucose	74-109 mg/dL	100	186	The patient has diabetes type 2, hyperglycemia, or high glucose levels in the blood stream is a presentation of diabetes (Capriotti, 2020).
BUN	7-25 mg/dL	40	35	The patient has CKD, creatinine and BUN will be increased in those with renal impairment (Capriotti, 2020).
Creatinine	0.70-1.30 mg/dL	1.88	1.81	The patient has CKD, creatinine and BUN will be increased in those with renal impairment (Capriotti, 2020).
Albumin	3.5-5.2 g/dL	3.6	3.5	n/a
Calcium	8.6-10.3 mg/dL	8.5	8.2	The patient has CKD and vitamin D deficiency causing a decrease absorption of calcium (Capriotti, 2020).
Mag	1.5-2.5 mg/dL	2.0	3.7	The patient has CKD, the most common cause of hypermagnesemia is renal dysfunction (Capriotti, 2020)

Phosphate	2.4-4.5 units/L	n/a	4.2	n/a
Bilirubin	0.3-1.0 mg/dL	0.4	1.3	The patient is anemic, and bilirubin can be elevated due to the increased breakdown of hemoglobin (Capriotti, 2020).
Alk Phos	34-104 units/L	71	84	n/a
AST	13-39 U/L	10	161	The patient has high cholesterol levels which is harmful to the liver and cause abnormal liver enzymes (Capriotti, 2020).
ALT	7-52 U/L	6	150	The patient has high cholesterol levels which is harmful to the liver and cause abnormal liver enzymes (Capriotti, 2020).
Amylase	60-100 U/dL	n/a	n/a	n/a
Lipase	0-160 U/L	n/a	n/a	n/a
Lactic Acid	0.5-1.5 mEq/L venous	n/a	n/a	n/a
Troponin	<0.03	n/a	n/a	n/a
CK-MB	3-5	n/a	n/a	n/a
Total CK	55-170 (Males) 30-135 (Females)	n/a	n/a	n/a

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	1-2	1.44	n/a	Anticoagulants can increase coagulation studies, the patient is currently on Eliquis (Capriotti, 2020).
PT	10-12 seconds	18.0	n/a	Anticoagulants can increase coagulation studies, the patient is currently on Eliquis (Capriotti,

				2020).
PTT	30-45 seconds	n/a	n/a	n/a
D-Dimer	Negative, less than 250 mg/mL	n/a	n/a	n/a
BNP	Less than 100 pg/mL	n/a	n/a	n/a
HDL	Less than 60 md/dL	n/a	n/a	n/a
LDL	Less than 100 mg/dL	n/a	n/a	n/a
Cholesterol	Less than 200 mg/dL	n/a	n/a	n/a
Triglycerides	Less than 150 mg/dL	n/a	n/a	n/a
Hgb A1c	Less than 5.7%	n/a	n/a	n/a
TSH	0.5-5.0	n/a	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	Yellow, clear	n/a	n/a	n/a
pH	5.0 – 8.0	n/a	n/a	n/a
Specific Gravity	1.005 – 1.034	n/a	n/a	n/a
Glucose	Negative	n/a	n/a	n/a
Protein	Negative	n/a	n/a	n/a
Ketones	Negative	n/a	n/a	n/a
WBC	Negative	n/a	n/a	n/a
RBC	Negative	n/a	n/a	n/a
Leukoesterase	Negative	n/a	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**	n/a	7.31	The patient is acidotic, this can occur if large amounts of bicarbonate is lost (Capriotti, 2020).
PaO2	**80 – 100**	n/a	78.1	n/a
PaCO2	**35 – 45**	n/a	24.7	Low levels of CO2 are associated with kidney disease (Capriotti, 2020). The patient has CKD.
HCO3	**21-26**	n/a	14.9	The patient's kidney function is impaired, and bicarbonate is regulated by the kidneys, yielding abnormal levels (Capriotti, 2020).
SaO2	**>92%**	n/a	94.9	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	n/a	n/a	n/a
Blood Culture	Negative	n/a	n/a	n/a
Sputum Culture	Negative	pending	n/a	n/a
Stool Culture	Negative	n/a	n/a	n/a

Lab Correlations Reference (1) (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed). F.A. Davis Company.

Sarah Bush Lincoln Health Center (2021). Cerner. https://www.sarahbush.org/

Diagnostic Imaging

All Other Diagnostic Tests (5 points): Diagnostic Test Correlation (5 points):

- CXR (3/7/22): A chest X-ray is used to visualize the organs and structures within the chest cavity (Capriotti, 2020). This diagnostic tool was indicated to rule out any abnormalities or infections occurring in the lungs or heart that may contribute to the patient's health since the patient does have a lengthy history of cardiac and pulmonary problems. The chest X-ray showed moderate heart enlargement, calcified thoracic aorta, and mild central pulmonary congestion; no acute cardiopulmonary problems were present.
- CXR (3/8/22): Another chest x-ray is indicated to confirm the patient's ET tube for mechanical ventilation and NG tube. The ET tube placement should be verified with a CXR with the tip of the catheter at 2cm above the carina (Capriotti, 2020). The NG tube should be within the stomach (Capriotti, 2020). The chest X-ray showered that the tip of the ET was reported at 6.7 cm above the carina and that the NG tube is at the distal gastric body. A chest X-ray ensures that both NG and ET tubes are where they're supposed to be.
- EKG (3/8/22): An EKG visualizes the heart's electrical activity (Capriotti, 2020). This patient is indicated for an EKG due to their bradycardic rhythm and the past medical

history of a-fib, left bundle branch block, and other cardiac diseases. The patient's EKG showed ventricular heart rate at 43 bpm, QRS 136 ms, and QT 526/444 ms. The patient has atrial flutter with occasional consequential premature ventricular complexes with ventricular escape completeness.

Diagnostic Test Reference (1) (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed). F.A. Davis Company.

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

Home Medications (5 required)

Brand/Generic	Aldactone/ spironolactone	Pravachol/ pravastatin	Pepcid/famotidine	Eliquis/apixiban	Os-Cal Calcium + D3/calcium-vitamin D
Dose	25 mg	20 mg	20 mg	2.5 mg	600 mg/400 IU
Frequency	Daily	Daily	HS	BID	Daily
Route	PO	PO	PO	PO	PO
Classification	Potassium-sparing diuretic Diuretic	HMG-CoA reductase inhibitors Antilipemic	Histamine H2 receptor antagonists Antiulcer agent	Factor Xa Inhibitors, Anticoagulant	Vitamin and mineral combination Vitamin
Mechanism of Action	Inhibits aldosterone dependent	Pravastatin inhibits the function of	Famotidine reduces gastric secretions in the	Inhibits free/clot bound factor Xa to	Calcium is a necessary mineral in the function in

	sodium-potassium channels in the distal convoluted tubule (Jones, 2021).	HMG-CoA reductase as a reversible competitive inhibitor by occupying the active site of the enzyme in the liver (Jones, 2021).	stomach by acting as a competitive inhibitor of histamine H2-receptors (Jones, 2021).	inhibit platelet aggregation (Jones, 2021).	bone formation, vitamin D helps absorb calcium (Jones, 2021).
Reason Client Taking	Hypertension	CAD, hyperlipidemia	GERD	A-fib, CAD, mitral valve regurgitation, cardiac stenosis, left bundle branch block	Vitamin D deficiency
Contraindications (2)	Renal impairment, hyperkalemia (Jones, 2021).	Alcoholism, liver impairment (Jones, 2021).	Hypersensitivity, CKD (Jones, 2021).	Bleeding disorder, hypersensitivity (Jones, 2021).	Hypercalcemia, parathyroid disease (Jones, 2021).
Side Effects/Adverse Reactions (2)	Drowsiness, dizziness (Jones, 2021).	Muscle pain, muscle weakness (Jones, 2021).	Headache, dizziness (Jones, 2021).	Bleeding, bruising (Jones, 2021).	Dry mouth, muscle pain (Jones, 2021).
Nursing Considerations (2)	Monitor urine output, monitor for dehydration (Jones, 2021).	Monitor for myopathy, Monitor for rhabdomyolysis (Jones, 2021).	Decreased dose with renal failure, monitor for liver failure (Jones, 2021).	Implement bleeding precautions, monitor for s/s of bleeding (Jones, 2021).	Monitor for s/s hyperparathyroidism, monitor kidney function (Jones, 2021).
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Assess creatinine/BUN, assess serum potassium (Jones, 2021).	Assess AST/ALT, assess triglyceride levels (Jones, 2021).	Assess heart rate, assess creatinine/BUN (Jones, 2021).	Assess coagulation studies, assess CBC (Jones, 2021).	Assess serum electrolytes, assess PTH levels (Jones, 2021).

Client Teaching needs (2)	Avoid salt substitutes, avoid foods high in potassium (Jones, 2021).	Report muscle pain, take as prescribed (Jones, 2021).	Report blood in stool, report abdominal pain (Jones, 2021).	Report blood in stool, use an electric shaver (Jones, 2021).	Take as prescribed, swallow tablet whole (Jones, 2021).

Hospital Medications (5 required)

Brand/Generic	Duragesic/ fentanyl	Levophed/ Norepinephrine bitartrate	Diprivan/ propofol	Vasostrict/ vasopressin	Lidocaine hydrochloride/ lidocaine
Dose	2.5 mL/hr	28 mcg/min 105 mL/hr	20 mcg/kg/min 7.9mL/hr	3 mL/hr	15 mL/hr
Frequency	Continuous	Continuous	Continuous	Continuous	Continuous
Route	IV	IV	IV	IV	IV
Classification	Opioid Opioid analgesic	Sympathomimetic Vasopressor	Phenol derivative Sedative-hypnotic	Posterior pituitary hormone Antidiuretic hormone	Amide derivative Class IB antiarrhythmic, local anesthetic
Mechanism of Action	Stimulates the mu-opioid receptors in the CNS altering pain response and releasing endorphins (Jones, 2021).	Stimulates a1 receptors causing peripheral vasoconstriction and increasing blood pressure and strengthening heart contraction (Jones, 2021).	Increases GABA receptor activity and inhibits the N-methyl-aspartate (NMDA) receptor, modulating calcium influx (Jones, 2021).	Stimulates vasoconstriction and water retention, increasing cardiac output and contractility (Jones, 2021).	Inhibits voltage-gated sodium channels in the neural cell membrane blocking the action potential (Jones, 2021).
Reason Client Taking	Pain relief (Jones, 2021).	Bradycardia, V-fib, increase BP, maintain MAP >65 (Jones,	Sedation for intubation (Jones, 2021).	Increase BP, maintain MAP >65 (Jones, 2021).	Irregular heartbeat (Jones, 2021).

		2021).			
Contraindications (2)	Asthma, liver failure (Jones, 2021).	Closed angle glaucoma, MAOIs (Jones, 2021).	Hepatic impairment, renal impairment (Jones, 2021).	Renal impairment, hepatic impairment (Jones, 2021).	Hypersensitivity to lidocaine, cardiogenic shock (Jones, 2021).
Side Effects/ Adverse Reactions (2)	Dizziness, nausea (Jones, 2021).	Hypertension, bradycardia (Jones, 2021).	Nausea, vomiting (Jones, 2021).	Headache, stomach pain (Jones, 2021).	Hypotension, nausea (Jones, 2021).
Nursing Considerations (2)	May interfere with cough reflex, cough, turn, deep breath patient frequently, may alter neurological assessment (Jones, 2021).	Do not mix medication in IV-line, extraversion may cause tissue necrosis (Jones, 2021).	May cause hyperlipidemia, avoid discontinuing abruptly (Jones, 2021).	Monitor urine output, monitor specific gravity (Jones, 2021).	Monitor EKG, lidocaine, assess neurological status (Jones, 2021).
Key Nursing Assessment(s)/ Lab(s) Prior to Administration	Assess pain, respiratory rate (Jones, 2021).	Assess heart rate, blood pressure (Jones, 2021).	Assess respiratory rate, blood pressure (Jones, 2021).	Assess blood pressure, serum electrolytes (Jones, 2021).	Assess blood pressure, heart rate (Jones, 2021).
Client Teaching needs (2)	Administer as prescribed, report itching (Jones, 2021).	Report itching, report burning near IV site (Jones, 2021).	Report itching, report burning near IV site (Jones, 2021).	Report chest pain, report irregular heartbeat (Jones, 2021).	Report itching, report irregular heartbeat (Jones, 2021).

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2021). *2021 Nurse's drug handbook* (19th ed.). Jones & Bartlett Learning

Assessment

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

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	 Unable to assess due to sedation and intubation Unable to assess due to sedation and intubation No visible signs of distress Disheveled appearance
INTEGUMENTARY:	

Skin color: **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	Dusky, pale Dry Cool Loose No rashes No bruises No wounds 18 n/a
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	 Normocephalic, no deviation of trachea No drainage, grey-pink tympanic membrane No drainage, symmetrical, pink conjunctiva No septum deviation, polyps, turbinate Teeth intact, visible dental caries
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:**	 S1/S2 heart sounds heard No murmur or gallops heard Bradycardia, prolonged Q-T Peripheral pulses 2+ Capillary refill 3 sec n/a
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character** **ET Tube:** **Size of tube:** **Placement (cm to lip):** **Respiration rate:** **FiO2:** **Total volume (TV):** **PEEP:** **VAP prevention measures:**	 No use of accessory muscles, unlabored Anterior bilateral base coarse crackles breath sounds Endotracheal tube 7.5 mm 24 cm 18 bpm 100% 340 mL 8.0 cm H20 Oral care/suctioning Q2H, PRN HOB 30 degrees
GASTROINTESTINAL: **Diet at home:** **Current Diet** **Height:** **Weight:**	 Regular diet NPO 172.72 cm 65.60 kg

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:**	Active in all four quadrants Unable to assess due to sedation and intubation, nothing reported/observed No pain/mass upon palpation Abdomen appeared round skin color usual for ethnicity No distention observed No incisions observe No scars observed No drain observed No wounds observed NG tube: 16 Fr, left nares n/a
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☒ N ☐** **Type:** **Size:** **CAUTI prevention measures:**	 Yellow Clear 437 mL Unable to assess due to sedation and intubation Appropriate for age Indwelling catheter 16 Fr Tubing free of kinks Collection bag below the level of bladder
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☐**	 Pallor, cool skin, peripheral pulses: 2+, peripheral capillary refill: 3 sec Passive ROM No supportive device Unable to assess due to sedation and intubation 50 Bed rest
NEUROLOGICAL: **MAEW: Y ☐ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☐ N ☐ if no - Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:**	 Unable to assess due to sedation and intubation Unable to assess due to sedation and intubation Unable to assess due to sedation and intubation

Speech: **Sensory:** **LOC:**	Unable to assess due to sedation and intubation Unable to assess due to sedation and intubation Unable to assess due to sedation and intubation Unable to assess due to sedation and intubation
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):**	 Unable to assess due to sedation and intubation Unable to assess due to sedation and intubation Unable to assess due to sedation and intubation

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

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0715	48 bpm	111/56 mmHg	27 bpm	36.3 C Tympanic	98%
1300	42 bpm	99/55 mmHg	24 bpm	36.1 C Rectal	88%

Vital Sign Trends/Correlation:

The patient's heart rate remained bradycardic throughout the shift. This is due to the patient's abnormal heart rhythm and medications that can decrease heart rate. Their blood pressure in the morning was low but, it dropped to 99/55 mmHg in the afternoon. The cause of this is due may be due to the medications that can decrease blood pressure, such as sedatives and opioid analgesics. The patient was prescribed vasopressin and Levophed to maintain their MAP at >65. The patient's temperature and were within expected ranges throughout the shift. The patient respirations were high despite being mechanically ventilated and their oxygen saturation decreased to 88% from 98%; this can be caused by decreased tissue perfusion from sinus bradycardia.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0830	FLACC	n/a	0/10	n/a	Continuous IV fentanyl for pain
1300	FLACC	n/a	0/10	n/a	Continuous IV fentanyl for pain

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:**	18-gauge, 18-gauge Right forearm, right forearm 3/7/22, 3/8/22 Continuously infusing, patent No phlebitis/infiltration observed Dry, intact
Other Lines (PICC, Port, central line, etc.)	
Type: **Size:** **Location:** **Date of insertion:** **Patency:** **Signs of erythema, drainage, etc.:** **Dressing assessment:** **Date on dressing:** **CUROS caps in place: Y ☐ N ☐** **CLABSI prevention measures:**	n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
IV Fentanyl 18.75 mL IV Norepinephrine 787.5 mL IV Propofol 58.25 mL IV Vasopressin 22.5 mL IV Lidocaine 112.5 mL **Total intake:** 999.5 mL	Urine voided 437 mL **Total output:** 437 mL

Nursing Care

Summary of Care (2 points)

The student nurse conducted a full body assessment, pain assessment, and IV assessment. The student nurse also transported the patient to the catheterization laboratory for a pacemaker and provided insulin to the patient. The patient was scheduled to have a PICC line inserted; however, he could not do so due to the problems regarding the pacemaker. The doctor had to assess the patient at post-operation due to the ineffective pacing. The patient was initially a full code; however, however after discussing with the doctor, they later decided to change its status to DNR. The patient's family remained at the bedside. The patient vital signs were unstable as their heart rate remained at around 40-50 bpm throughout the shift. The patient's blood pressure was also within lower limits; this may be due to the sedation and anesthetic medications. The patient is tolerating sedation, and due to the patient's pacemaker placement, passive range of motion exercises of the lower extremities were contraindicated. The patient is still NPO and receiving their oral medication through their NG tube. The nurse had notified the doctor that

pacemaker spikes were not capturing. Plans for the client include stabilizing the patient's heart rhythm and configuring the pacemaker. The family and doctor will continue discussing future interventions that make include maintaining or withdrawing life support**.**

Discharge Planning (2 points)

As discussed, follow-up plans include comfort care, or withdrawing support may be an option depending on the family's wishes and the patient's status. If the patient is stable and the pacemaker is effective, they will need to continue with the cardiologists and their primary care physician. They will also need to be educated on pacemaker care, such as restricting shoulder movement and not lifting heavy objects. Home health needs and equipment needs are not applicable.

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 priority to lowest priority pertinent to this client	**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.
1. Ineffective protection related to intubation and mechanical ventilation as evidenced by risk for extubating and	The patient is at risk of losing their airway due to accidental or self-	1. Administer sedation and analgesia medication such as propofol and	The patient's ET tube remained at 24 cm from the lip. Self-extubation did not occur.	The patient was appropriately sedated, and the ET tube placement remained the

disconnection of ET tube.	extubation. The patient should be properly sedated to avoid deliberate self-extubation, and proper handling should be carried out.	fentanyl as prescribed 2.Assess ET tube placement frequently. Ensure placement is 24 cm from the lip.		same throughout the shift. The patient tolerated the ET tube well. Self-extubation did not occur, and outcome goal was met; no modifications are necessary.
2. Infective airway clearance related to intubation and mechanical ventilation as evidenced by bilateral basilar coarse crackles	The patient is unable to remove secretions on their own due to being intubated and sedated, further impairing gas exchange.	1.Suction ET tube Q2H/PRN 2.Keep head of bed above 30 degrees	1. Secretions are cleared from the airway and head of the bed above 30 degrees allowing full lung expansion and aeration. Clear, bronchovesicular breath sounds throughout all lobes are heard upon auscultation.	The nurse performed suctioning after auscultating coarse crackles and kept the head of the bed above 30 degrees. The client tolerated the suctioning well. Secretions were removed and improved gas exchange. Outcome goals are met, no modifications are needed
3. Risk for infection related to intubation and mechanical ventilation as evidenced by bilateral basilar coarse crackles.	The patient is unable to clear their airway. Stagnant secretions can cultivate harmful pathogens that can progress to an infection.	1. Oral care Q2H/PRN 2. Perform hand hygiene and clean techniques when handling the patient or the endotracheal tube	1. Upon auscultation, clear, bronchovesicular breath sounds throughout all lobes are heard. The patient's temperature remained at 36.1 c	Clean technique was utilized, and oral care was provided. Upon assessment patient's lung, sounds were clear, and they did not have any signs and symptoms of impending infection. The

				outcome goal was reached, no modifications were necessary.
4. Risk for ineffective cerebral tissue perfusion related cardiopulmonary resuscitation as evidenced by low blood pressure of 99/55 mmHg and low heart rate of 48 bpm and 42 bpm.	The patient needed resuscitation measures and received CPR and multiple doses of epinephrine. The risk for brain injury is increased due to prolonged resuscitation time and the patient's old age.	1. Administer prescribed medications such as vasopressin and levophed to maintain MAP above >65 2. Assess and monitor neurological function	1. 1. The patient's blood pressure increased, and MAP was >70. The patient was PEARLA and reacted to pain.	The nurse titrated the patient levophed and vasopressin to an appropriate amount and increased the patient's blood pressure within defined limits. The patient's mean arterial pressure was >70, enabling organ perfusion further meeting outcome goals. The nurse performed a neurological assessment and found that the patient's pupils were equal and reactive to light and reacted to pain. No modifications are needed.
5. Decreased cardiac output related to bradycardia, as evidenced by cool, pallor skin, and 2+ pulses.	The patient's heart rate remained between 40-50 bpm, and upon assessment, the patient was pale and dusky, the skin felt cool	1. Administer prescribed antiarrhythmic medicine such as Lidocaine. 2. Turn patient left lateral position	The patient's HR was reported between 60-100 bpm. The patient's skin felt warm to the touch, and color was usual for ethnicity. Pulses were reported at 3+	The patient's heart rate increased within normal limits, and their neurovascular status improved after the administration of Lidocaine. The patient was

	to touch, and pulses were weak at 2+, suggesting inadequate blood flow			turned slightly to the left lateral position to increase preload. The outcome goal is reached; no modifications are needed.

Other References (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed). F.A. Davis Company.

Concept Map (20 Points):

Subjective Data

- The patient denies any complaints
- Unable to assess subjective data due to patient's sedation and intubation status.

Nursing Diagnosis/Outcomes

1. Ineffective protection related to intubation and mechanical ventilation as evidenced by risk for extubating and disconnection of ET tube

- The patient's ET tube remained at 24 cm from the lip. Self-extubation did not occur.

2. Infective airway clearance related to intubation and mechanical ventilation as evidenced by bilateral basilar coarse crackles

- Secretions are cleared from the airway and head of the bed above 30 degrees allowing full lung expansion and aeration. Clear, bronchovesicular breath sounds throughout all lobes are heard upon auscultation.

3. Risk for infection related to intubation and mechanical ventilation as evidenced by bilateral basilar coarse crackles

- . Upon auscultation, clear, bronchovesicular breath sounds throughout all lobes are heard. The patient's temperature remained at 36.1 c

4. Risk for ineffective cerebral tissue perfusion related cardiopulmonary resuscitation as evidenced by low blood pressure of 99/55 mmHg and low heart rate of 48 bpm and 42 bpm

-The patient's blood pressure increased, and MAP was >70. The patient was PEARLA and reacted to pain.

5. Decreased cardiac output related to bradycardia, as evidenced by cool, pallor skin, and 2+ pulses se crackles

- The patient's HR was reported between 60-100 bpm. The patient's skin felt warm to the touch, and color was usual for ethnicity. Pulses were reported at 3+

Objective Data

- RBC: 4.17
- Hgb: 6.6
- Hct: 21.0
- Cl: 110
- CO2: 18
- Glucose: 186
- BUN: 40
- Creatinine: 1.81
- Calcium: 8.2
- Mag 3.0
- Bili: 0.3
- AST: 10
- ALT: 6
- INR: 1.3

- pH: 7.31
- PaCO2: 52.4
- HCO3: 24.9
- Disheveled appearance
- Dusky, pale, cool, dry, loose skin
- Bradycardia, prolonged Q-T
- Peripheral pulses 2+
- Coarse crackles breath sounds
- HR: 48 bpm to 42 bpm
- BP: 99/55 mmHg
- SaO2: 88%

Client Information

91 y/o man with a past medical history of A-fib, CAD, chronic HF, aortic stenosis, CKD, HTN, GERD, left bundle branch block, pulmonary hypertension, diabetes type 2, hyperlipidemia, mitral regurgitation, vitamin D deficiency and surgical history of capsulotomy, allograft replacement of the aortic valve and coronary artery bypass presented with a Hgb of 6.6 on outpatient labs prior to their pacemaker placement. The patient denies any pain and was given 2 units of PRBCs overnight. The patient's EKG showed V-fib progressing into V-tach and a CODE BLUE was called. The patient was transferred to the CCU and was intubated and sedated.

Nursing Interventions

1. Administer sedation and analgesia medication such as propofol and fentanyl as prescribed
2.Assess ET tube placement frequently. Ensure placement is 24 cm from the lip.
3. Suction ET tube Q2H/PRN
4.Keep head of bed above 30 degrees
5. Oral care Q2H/PRN
6. Perform hand hygiene and clean techniques when handling the patient or the endotracheal tube
7. Administer prescribed medications such as vasopressin and Levophed to maintain MAP above >65
8. Assess and monitor neurological function.
9. Administer prescribed antiarrhythmic medicine such as Lidocaine.
10. Turn patient left lateral position