N441 Care Plan #1

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N431: Adult Health III

Professor Smalley

September 2, 2023

Demographics (3 points)

Date of Admission 08/29/23	**Client Initials** SW	**Age** 42 years old	**Gender** F
Race/Ethnicity Caucasian Non-Hispanic or Latino	**Occupation** Pepsi Beverages	**Marital Status** Divorced	**Allergies** Cefaclor and Amiodarone-medium severity/rash occurs. Levonorgestrel-ethinyl estradiol- low severity/rash occurs.
Code Status Full	**Height** 5'4 (162.6 cm)	**Weight** 262.8 lbs. (119.1 kg)	

Medical History (5 Points)

Past Medical History: Anxiety, Dumping syndrome, Hypertension, and Status post bariatric surgery

Past Surgical History: Cholecystectomy, tonsillectomy, and Gastric Restriction

Family History: None

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): Tobacco-Cigarettes: ½ pack per day for 6 years. Alcohol- "social drinker" 1-2 drinks per occasion. No drug use.

Assistive Devices: Contacts

Living Situation: With 12-year-old daughter

Education Level: Bachelors

Admission Assessment

Chief Complaint (2 points): Palpitations and syncope

History of Present Illness – OLD CARTS (10 points): The patient was presented to the emergency room on 08/29/23 with complaints of chest pain and palpitations. The patient stated the chest pain severity rate was a 5 on a number scale from 0-10. The onset of the chest pain was

“this morning” (08/29) patient denied the pain radiating to the back, arm, or jaw. The patient stated that she felt anxious, so she took two alcoholic shots and denied trying any other treatment methods at home. The patient reported that she had a syncopial episode at work prior to the onset of chest pain, denied dizziness, diaphoresis, blurred vision and nausea. No aggravating or relieving factors were noted.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Atrial Fibrillation

Secondary Diagnosis (if applicable): N/A

An abnormal impulse formation can occur when structural or electrophysiologic abnormalities alter atrial tissue, causing atrial fibrillation (Hinkle et al., 2021). The upper chambers of the heart or atriums are uncoordinated with the lower ventricles of the heart, the ventricles. The ventricles beat faster than usual, which can cause blood to pool in the atria rather than being pumped to the rest of the body. Therefore, the main complications associated with atrial fibrillation include blood clots and strokes, leading to heart failure (Capriotti, 2020). Several risk factors related to atrial fibrillation include increasing age, hypertension, diabetes, obesity, valvular heart disease, alcohol abuse, smoking, and obstructive sleep apnea.

Atrial fibrillation can occur without any signs or symptoms, and a person may not know they have this arrhythmia until they have their heart rhythm evaluated. Symptoms that occur with atrial fibrillation can include angina, dizziness, fainting, fatigue, palpitations, weakness, and shortness of breath (Hinkle et al., 2021). Expected findings related to atrial fibrillation include tachycardia and an irregular heartbeat. Expected findings are limited because an electrocardiogram must be performed to see the heart rhythm, and many people may be asymptomatic.

Diagnosing atrial fibrillation is done with a 12-lead electrocardiogram to visualize and verify the arrhythmia occurring. The patient's history and a physical exam should be included to help identify and evaluate their onset of signs and symptoms, precipitating factors, and response to medications (Hinkle et al., 2021). A transesophageal echocardiogram identifies valvular heart disease and other conditions that may be associated with atrial fibrillation. Additional tests may include a chest x-ray to evaluate pulmonary hypertension, a stress test, and event monitoring. Blood tests will screen for diseases that are known risks for atrial fibrillation, such as renal, hepatic, and thyroid function.

Atrial fibrillation treatment depends on the duration of the arrhythmia and the cause. Treatments are based on rate and rhythm control and which method a provider and the patient decide is best (Capriotti, 2020). If atrial fibrillation is associated with other conditions, such as severe heart failure, the patient and provider may decide to stop treatments to restore sinus rhythm. Managing and treating atrial fibrillation is different for each situation and can change for the patient depending on reactions to treatment and pre-existing conditions. Overall, management focuses on preventing blood clots with anticoagulant medications and treating arrhythmias if possible. Pharmacologic therapy for atrial fibrillation includes antithrombotic medications, medications that control the heart rate, such as beta-blockers or calcium channel blockers, and medications that convert the heart rhythm (Capriotti, 2020). Another form of treatment is electro-cardioversion, which uses electrical pulses to convert the heart to normal sinus rhythm. After trying medications and cardioversion, additional forms of treatment include electrophysiology studies, a catheter ablation, or an implantable pacemaker.

The patient receiving care sought treatment in the emergency room with a chief complaint of chest pain, palpitations, and syncope. The only pertinent history included hypertension and the

use of tobacco and alcohol. Upon admission, the patient's heart rate would fluctuate with periods of tachycardic episodes. The electrocardiogram revealed atrial fibrillation. Other diagnostic tests included a chest x-ray, chest computerized tomography scan (CT), and a transthoracic echocardiogram, which revealed no pleural effusion or infiltration. Blood tests helped to evaluate the organ functions, such as a complete blood count, comprehensive metabolic panel, cardiac panel, and an analysis of urine. The patient's b-type natriuretic peptide (BNP) and troponin elevated related directly to a cardiac concern related to atrial fibrillation and potential new onset of heart failure. The patient was treated with cardioversion and pharmacologic therapy such as anticoagulants, beta-blockers, and calcium channel blockers to prevent clots and manage hypertension. The cardioversion successfully returned the heart to normal sinus rhythm, and the patient will manage with the medications prescribed and follow up with the cardiac provider.

Pathophysiology References (2) (APA):

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

Hinkle, J.L., & Cheever, K. H. (2021). *Brunner & Suddarth's textbook of medical-surgical nursing* (15th ed.). Wolters Kluwer.

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	**4.40-5.80 mcL**	4.82 mcL	4.46 mcL	Within normal limits.
Hgb	**13-16.5g/dL**	14.4 g/dL	13 g/dL	Within normal limits.
Hct	**38.0%-50.0%**	43%	40.3%	Within normal limits.

Platelets	**140-440mcL**	211 mcL	254 mcL	Within normal limits.
WBC	**4-12mcL**	4.00 mcL	10.40 mcL	Within normal limits.
Neutrophils	**40-68%**	37.3%	61.4%	Neutrophils digest and kill bacterial microorganisms and are stimulated during infections and trauma. This patient's low neutrophil count could be related to a dietary deficiency from the bariatric surgery. Neutrophils are produced in 7 to 14 days and only in the blood circulation for 6 hours. Therefore, a dietary deficiency can cause neutrophils to become significantly low if the body cannot make enough which increase the risk for infection (Pagana, 2020).
Lymphocytes	**19-49%**	58.7%	25.1%	Lymphocytes also help protect the body from infection, all three types have different functions in how they protect the immune system. Low lymphocytes can be caused by poor nutrition as well and increases the risk for infection. Lymphocytes also can be decreased from a previous infection or inflammation the body was fighting (Pagana, 2020).
Monocytes	**3-13%**	2.5%	10.8%	The monocytes, lymphocytes, and neutrophils which are all white blood cells can be decreased from poor nutrition and the body's response to fighting infection or inflammation. Monocytes specifically form into macrophages and dendritic cells to invade germs and bacteria when they enter the body. Therefore, the slightly decreased monocyte level causes an increased risk of infection. The patient's atrial fibrillation combined with the history of bariatric surgery can cause the body to react in different ways affecting these white blood cell counts. Treating the atrial fibrillation and educating the patient to eat a well-balanced diet, getting enough sleep, and practicing good hygiene will help

				to increase these levels and return to normal (Pagana, 2020).
Eosinophils	**0-8%**	0.5%	2.1%	Within normal limits.
Bands	**0-5%**	N/A	N/A	Test not performed.

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

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	**133-144 mmol/L**	142 mmol/L	143 mmol/L	Within normal limits.
K+	**3.5-5.1 mmol/L**	3.3 mmol/L	4.2 mmol/L	Potassium is an essential electrolyte that carries an electric charge when dissolved into bodily fluids. Potassium is needed for organs to function correctly, especially the heart. This patient's alcohol use disorder and bariatric surgery both increase the risk of hypokalemia. Hypokalemia can cause abnormal heart rhythms which was also present upon admission and both the potassium level and heart rhythm return to normal after cardioversion (Pagana, 2020).
Cl-	**98-106 mmol/L**	112 mmol/L	109 mmol/L	Chloride is an electrolyte that works to balance acids and bases in the body. Dehydration can cause increased levels of chloride, as well as saline overly infused in patients. The kidneys help to regulate chloride levels, if the levels were severely increased it could indicate a problem with the kidneys. This patient has increased chloride and decreased potassium levels both due to the body being imbalanced and the body trying to compensate and correct itself (Pagana, 2020).

CO2	**20-30 mmol/L**	20 mmol/L	22 mmol/L	Within normal limits.
Glucose	**70-99 mg/dL**	87 mg/dL	95 mg/dL	Within normal limits.
BUN	**6-25 mg/dL**	7 mg/dL	6 mg/dL	Within normal limits.
Creatinine	**0.50-1.20 mg/dL**	0.71 mg/dL	0.77 mg/dL	Within normal limits.
Albumin	**3.5-5.7 g/dL**	4.1 mg/dL	N/A	Within normal limits.
Calcium	**8.5-10.2 mg/dL**	8.7 mg/dL	8.5 mg/dL	Within normal limits.
Mag	**1.3-2.1 mEq/L**	2.0 mEq/L	N/A	Within normal limits.
Phosphate	**3.0-4.5 mg/dL**	N/A	N/A	Test not performed.
Bilirubin	**0.2-0.8 mg/dL**	0.2 mg/dL	N/A	Within normal limits.
Alk Phos	**30-120 U/L**	73 U/L	N/A	Within normal limits.
AST	**0-35 units/L**	14 units/L	N/A	Within normal limits.
ALT	**4-36 units/L**	22 units/L	N/A	Within normal limits.
Amylase	**60-120 units/L**	N/A	N/A	Test not performed.
Lipase	**0-160 units/L**	N/A	N/A	Test not performed.
Lactic Acid	**0.7-2.0 mmol/L**	1.7 mmol/L	N/A	Within normal limits.
Troponin	**<14 ng/L**	30 ng/L	21 ng/L	Troponin can be increased in the patient for many reasons. The patient is being treated for atrial fibrillation and has a history of hypertension. The patient's history affects cardiac output, the amount of blood flow to the heart and body, and how efficiently the heart pumps blood out to the organs, all which in return increase risks of heart failure and heart complications. Increased troponin

				levels can indicate heart failure (Pagana, 2020).
CK-MB	**3.5-5 mmol/L**	N/A	N/A	Test not performed.
Total CK	**98-106 mmol/L**	N/A	N/A	Test not performed.

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 secs**	**0.9 secs**	N/A	Within normal limits.
PT	**10-13 secs**	**10 secs**	N/A	Within normal limits.
PTT	**30-40 secs**	**30 secs**	N/A	Within normal limits.
D-Dimer	**0-622 ng/mL**	**298 ng/mL**	N/A	Within normal limits.
BNP	**<100 pg/mL**	**319 pg/mL**	N/A	An elevated BNP the more severe heart failure. BNP is released in response to atrial and ventricular stretches. The patient being treated for atrial fibrillation and having a history of hypertension contribute to developing heart failure and an elevated BNP (Pagana, 2020).
HDL	**>55 mg/dL female >45 mg/dL male**	N/A	N/A	Test not performed.
LDL	**<130 mg/dL**	N/A	N/A	Test not performed.
Cholesterol	**<200 mg/dL**	N/A	N/A	Test not performed.
Triglycerides	**Male 40-160 mg/dL Female35-135 mg/dL**	N/A	N/A	Test not performed.
Hgb A1c	**Nondiabetic 4%-5.9% Good diabetic control <7%**	N/A	N/A	Test not performed.

	Fair 8%-9% Poor >9%			
TSH	**2-10 mU/L**	N/A	N/A	Test not performed.

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 or clear**	N/A	Dark yellow/clear	Within normal limits.
pH	**5.0-9.0 units**	N/A	5.5 units	Within normal limits.
Specific Gravity	**1.003-1.030units**	N/A	1.027 units	Within normal limits.
Glucose	**Neg**	N/A	Negative	Within normal limits.
Protein	**Neg**	N/A	Negative	Within normal limits.
Ketones	**Neg**	N/A	Negative	Within normal limits.
WBC	**Neg 0-5 hpf**	N/A	Negative	Within normal limits.
RBC	**Neg 0-2 hpf**	N/A	Negative	Within normal limits.
Leukoesterase	**negative**	N/A	Negative	Within normal limits.

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	N/A	Test not performed.
PaO2	**80-100 mmHg**	N/A	N/A	Test not performed.
PaCO2	**35-45 mmHg**	N/A	N/A	Test not performed.
HCO3	**22-26**	N/A	N/A	Test not performed.

	mEq/L			
SaO2	**95-100%**	N/A	N/A	Test not performed.

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 <10,000 colonies/ml Positive >100,000 colonies/ml**	N/A	N/A	Test not performed.
Blood Culture	**Negative**	N/A	N/A	Test not performed.
Sputum Culture	**Normal upper respiratory tract**	N/A	N/A	Test not performed.
Stool Culture	**Normal intestinal flora**	N/A	N/A	Test not performed.

Lab Correlations Reference (1) (APA):

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2020). *Mosby's diagnostic and laboratory test reference* (15th ed.). Mosby.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

X-Ray chest single view (08/29)- Impression: "1. Mild bi-basal opacites most likely atelectasis. 2. Mild diffuse asymmetric haziness of the left hemithorax which may be artifactual or may suggest a pleural effusion. Suggest further evaluation with PA and lateral chest."

CT chest w/o contrast (08/30)- Impression: "1. No evidence of pneumonia infiltrate or mass lesion. 2. No pleural effusion. 3. Status post cholecystectomy. 4. Tiny hiatal hernia."

Adult transthoracic echo 2D complete (08/30)- No results ready yet.

EKG 12 lead (08/30, post-cardioversion)- Normal Sinus Rhythm.

Diagnostic Test Correlation (5 points):

X-Ray chest single view (08/29)- This test allowed visualization of the thoracic cavity for any abnormalities, infiltrations or pleural effusion that can be associated with atrial fibrillation (Pagana, 2020). The results showing mild haziness could be in correlation with the patient smoking tobacco because no respiratory problems were discovered.

CT chest w/o contrast (08/30)- A CT of the chest can help identify disorders of the heart, lungs, mediastinum, and chest area (Pagana, 2020). This CT was performed to check for any blood clots. The CT revealed no evidence of pneumonia, no blood clots, and a small hiatal hernia that is not pertinent for the patient care at this moment.

Adult transthoracic echo 2D complete (08/30)- An echocardiogram is used to rule out abnormal heart valves by showing how blood flows through the heart (Pagana, 2020). The echocardiogram showed the internal structures of the chest cavity. The results were not posted for viewing. However, the cardiologist proceeded with the cardioversion after, therefore the results came back as expected to the provider allowing the procedure to continue.

EKG 12 lead (08/30, post-cardioversion)- An EKG is done to assess heart rate and rhythm (Pagana, 2020). This can detect heart attacks, heart blocks, and abnormal heart rhythms causing heart failure. This EKG was ordered and performed to evaluate how the heart responded to the

cardioversion and if it was successful or not. The EKG revealed normal sinus rhythm after cardioversion, therefore the treatment of the atrial fibrillation was successful.

Diagnostic Test Reference (1) (APA):

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2020). *Mosby's diagnostic and laboratory test reference* (15th ed.). Mosby.

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

Home Medications (5 required)

Brand/Generic	Amlodipine besylate (Norvasc)	Hydroxyzine hydrochloride (Atarax)	Labetalol hydrochloride	Paroxetine hydrochloride (Paxil)	Omeprazole (Prilosec)
Dose	5 mg	25 mg	200 mg	30 mg	20 mg delayed release
Frequency	Once daily	Once daily	2x daily	Once daily	Once daily
Route	Oral	Oral	Oral	Oral	Oral

Classification	Pharmacologic: Calcium Channel Blocker Therapeutic: Antianginal, antihypertensive (Jones & Bartlett Learning, 2022).	Pharmacologic: Piperazine derivative Therapeutic: Anxiolytic, antiemetic, antihistamine, sedative-hypnotic (Jones & Bartlett Learning, 2022).	Pharmacologic: Non-cardio selective beta-blacker/alpha blocker Therapeutic: Antihypertensive (Jones & Bartlett Learning, 2022).	Pharmacologic: Selective serotonin reuptake inhibitor (SSRI) Therapeutic: Antianxiety, antidepressant, anti-obsessional, anti-panic, premenstrual analgesic (Jones & Bartlett Learning, 2022).	Pharmacologic: Proton pump inhibitor Therapeutic: Antiulcer (Jones & Bartlett Learning, 2022).
Mechanism of Action	"Binds to dihydropyridine and non-dihydropyridine cell membrane receptor sites on myocardial and vascular smooth muscle cells and inhibits influx of extracellular calcium ions across slow calcium channels." (Jones & Bartlett Learning, 2022).	"Competes with histamine for histamine receptor siters on surfaces of effector cells. This suppresses results of histaminic activity, including edema, flare and pruritis. Sedative actions occur at subcortical level of CNS and are dose related" (Jones &	"Selectively blocks alpha and beta receptors in vascular smooth muscle and beta receptors in heart to reduce blood pressure and peripheral vascular resistance" (Jones & Bartlett Learning, 2022).	"Exerts antianxiety, antidepressant, anti-obsessional, and anti-panic effects as well as relieving symptoms associated with premenstrual dysphoric disorder and hot flashes associated with menopause by potentiating serotonin activity in CNS and inhibiting	"Omeprazole interferes with gastric acid secretion by inhibiting the hydrogen potassium adenosine triphosphatase enzyme system, or proton pump, in gastric parietal cells" (Jones & Bartlett Learning, 2022).

		Bartlett Learning, 2022).		serotonin reuptake at presynaptic neuronal membrane" (Jones & Bartlett Learning, 2022).	
Reason Client Taking	To help control hypertension	To help with anxiety	To manage hypertension	To treat anxiety	To treat symptomatic gastroesophageal reflux disease (GERD)
Contraindications (2)	Severe aortic stenosis, hepatic impairment (Jones & Bartlett Learning, 2022)	Prolonged QT interval, IV administration, Subcutaneous, and arterial administration (Jones & Bartlett Learning, 2022).	Cardiogenic shock, bronchial asthma, second- or third-degree heart block (Jones & Bartlett Learning, 2022).	Hepatic or renal insufficiency, taking with MAOIs, diabetes (Jones & Bartlett Learning, 2022).	Hepatic impairment, taking with antibiotics, concurrent use with rilpivirine (Jones & Bartlett Learning, 2022).
Side Effects/Adverse Reactions (2)	Arrhythmias, palpitations (Jones & Bartlett Learning, 2022)	Hallucinations, pruritus (Jones & Bartlett Learning, 2022).	Hepatic necrosis, arrhythmias, heart failure (Jones & Bartlett Learning, 2022).	Hyponatremia, bleeding events (Jones & Bartlett Learning, 2022).	Neutropenia, leukopenia, hypomagnesemia (Jones & Bartlett Learning, 2022).
Nursing Considerations (2)	"Monitor blood pressure while adjusting dosage. Assess patient frequently for chest	"Observe for oversedation if patient takes another CNS depressant. Use cautiously in	"Be aware labetalol mask common signs of shock. Be aware stopping labetalol abruptly after	"Do not give enteric-coated form with antacids. Watch for mania, which may result from	"Monitor for hypersensitivity reactions such as tubulointerstitial nephritis, anaphylactic shock, angioedema, bronchospas

	pain when starting or increase dose of amlodipine" (Jones & Bartlett Learning, 2022).	patients with a respiratory disease" (Jones & Bartlett Learning, 2022).	long-term therapy could result in angina, MI, or ventricular arrhythmias" (Jones & Bartlett Learning, 2022).	antidepressant in susceptible patient" (Jones & Bartlett Learning, 2022).	m and urticaria. Monitor for bone fracture and macrocytic anemia" (Jones & Bartlett Learning, 2022).
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Assess the blood pressure and heart rate of the patient prior to administration (Jones & Bartlett Learning, 2022).	Never administer arterially, intravenously, or subcutaneously. Do not dilute before administration if giving intramuscularly. Capsules and tables need to be swallowed whole (Jones & Bartlett Learning, 2022).	Monitor patients' blood pressure before and after administration. If patient is taking twice daily and experiences dizziness divide dose into 3 equal doses (Jones & Bartlett Learning, 2022).	"Have the patient swallow the tablet whole. Monitor bleeding risk, especially if taking aspirin, warfarin or an NSAID" (Jones & Bartlett Learning, 2022).	"Give before meals, preferably in he morning for once daily dosing and before breakfast and dinner for twice daily dosing. Make sure tablet is swallowed whole and not with aspirin or ibuprofen administration" (Jones & Bartlett Learning, 2022).
Client Teaching needs (2)	"Suggest patient taking with food to reduce GI upset. Immediately notify prescriber of dizziness, arm or leg swelling an difficulty	"Urge patient to avoid alcohol. Caution patient about drowsiness and avoiding hazardous activities until drug	"Report confusion, difficulty breathing, rash, and slow pulse. Avoid alcohol during labetalol therapy" (Jones & Bartlett	"Advise patient drug may cause pupil dilation, which may lead to an episode of acute closure glaucoma. Tell family or	"Inform prescriber immediately of abdominal pain or diarrhea and to stop taking if a rash or joint pain occurs. Report decreased amount in

	breathing" (Jones & Bartlett Learning, 2022).	CNS effects are known" (Jones & Bartlett Learning, 2022).	Learning, 2022).	caregivers to observe patient closely for suicidal tendencies" (Jones & Bartlett Learning, 2022).	urine or if blood in urine. Let all prescribers know of omeprazole therapy" (Jones & Bartlett Learning, 2022).

Hospital Medications (5 required)

Brand/Generic	Lisinopril (Prinivil)	Acetaminophen (Tylenol)	Enoxaparin Sodium (Lovenox)	Midazolam (Versed)	Fentanyl citrate (Sublimaze)
Dose	10 mg	650 mg	136.1 mg	5 mg	100 mcg
Frequency	Once daily	Every 4 hours PRN	Every 12 hours	One time occurrence	One time occurrence
Route	Oral	Oral	Subcutaneous	Through IV (intravenously)	IV (intravenously)
Classification	Pharmacological: Angiotensin-converting enzyme (ACE) inhibitor Therapeutic: Antihypertensive (Jones & Bartlett Learning, 2022).	Pharmacologic: Non-salicylate, para-aminophenol derivative Therapeutic: antipyretic, nonopioid analgesic (Jones & Bartlett Learning, 2022).	Pharmacologic: Low-molecular-weight heparin Therapeutic: Anticoagulant (Jones & Bartlett Learning, 2022).	Pharmacologic: Benzodiazepine Therapeutic: Sedative-hypnotic Controlled Substance: IV (Jones & Bartlett Learning, 2022).	Pharmacologic: Opioid Therapeutic: Opioid analgesic Controlled substance: II (Jones & Bartlett Learning, 2022).
Mechanism of Action	"May reduce blood pressure by inhibiting conversion of angiotensin I to angiotensin	"Inhibits the enzyme cyclooxygenase, blocking prostaglandin production	"Potentiates the action of antithrombin III, a coagulation inhibitor. By binding with antithrombin	"May exert sedating effect by increasing activity of gamma-aminobutyric acid, a	"Binds to opioid receptor sites in the CNS, altering perception of and

	II" (Jones & Bartlett Learning, 2022).	and interfering with pain impulse generation in the peripheral nervous system. Acetaminophen also acts directly on temperature-regulating center in the hypothalamus by inhibiting synthesis of prostaglandin E" (Jones & Bartlett Learning, 2022).	III, enoxaparin rapidly binds with and inactivates clotting factors" (Jones & Bartlett Learning, 2022).	major inhibitory neurotransmitter in the brain" (Jones & Bartlett Learning, 2022).	emotional response to pain by inhibiting ascending pain pathways" (Jones & Bartlett Learning, 2022).
Reason Client Taking	Treating hypertension	For mild pain or more severe per patient request	To prevent blood clots from immobility	To induce sedation	To induce amnesia
Contraindications (2)	Hereditary or idiopathic angioedema, bilateral renal artery stenosis, hyperkalemia (Jones & Bartlett Learning, 2022).	Severe hepatic impairment, severe active liver disease (Jones & Bartlett Learning, 2022).	Pork products, active major bleeding (Jones & Bartlett Learning, 2022).	Acute angle glaucoma, acute pulmonary insufficiency (Jones & Bartlett Learning, 2022).	Upper airway obstruction, significant respiratory depression, intermittent pain (Jones & Bartlett Learning, 2022).
Side Effects/Adverse Reactions (2)	Myocardial infarction, blurred vision	Hemolytic anemia, hypokalemia	Atrial fibrillation, thrombocytopenia, melena	Cardiac arrest, laryngospasm	Asystole, seizures
Nursing	"Use	"Monitor	"Use extreme	"Assess	"Monitor

Considerations (2)	cautiously in patients with fluid volume deficit, heart failure, impaired renal function or sodium depletion. Be aware lisinopril should not be given to a patient who is hemodynamically unstable after an acute MI" (Jones & Bartlett Learning, 2022).	renal function in patient on long-term therapy. Keep in mind that blood or albumin in urine output may indicate renal failure. Ensure daily dose of acetaminophen from all sources does not exceed maximum daily limits" (Jones & Bartlett Learning, 2022).	caution in patients with increased risk of hemorrhage, keep protamine sulfate nearby incase of accidental overdose" (Jones & Bartlett Learning, 2022).	level of consciousness frequently because range between sedation and unconsciousness or disorientation is narrow with midazolam. Be aware that recovery time is usually 2 hours but may be up to 6 hours" (Jones & Bartlett Learning, 2022).	patient or evidence of overdose, such as cardiopulmonary arrest, hypoventilation, pupil constriction, respiratory and CNS depression and shock. Give naloxone as prescribed. Monitor patients' respiratory status closely" (Jones & Bartlett Learning, 2022).
Key Nursing Assessment(s)/ Lab(s) Prior to Administration	Assess blood pressure prior to administration. Assess serum creatinine and potassium levels as ordered because levels can fluctuate with lisinopril therapy" (Jones & Bartlett	Max dose is 4000 mg from all sources in a 24-hour period. Assess pain level, location, and characteristic. Verify time of last administration of acetaminophen to be sure daily dose isn't	Assess injection site and alternate sites. Monitor site for bleeding. Assess potassium levels for elevation (Jones & Bartlett Learning, 2022).	Give 2 mg initially and further dose per Dr. Reddy in room. Assess IV site and patency. Never administer rapidly" (Jones & Bartlett Learning, 2022).	Give 50 mcg initially and further dose per Dr. Reddy in room. "Administer slowly over 1 to 3 minutes. Do not convert dosage to or form other products on a microgram-per-microgram basis

	Learning, 2022).	exceeded (Jones & Bartlett Learning, 2022).			because doing so may result in fatal overdose" (Jones & Bartlett Learning, 2022).
Client Teaching needs (2)	"Take it at the same time every day and as prescribed. Do not use salt substitutes containing potassium. Change positions slowly to avoid orthostatic hypotension" (Jones & Bartlett Learning, 2022).	"Instruct patient to read manufacturer's label and follow dosage guidelines precisely. Caution patient not to exceed recommended dosage or take other drugs containing acetaminophen at the same time because of risk liver damage" (Jones & Bartlett Learning, 2022).	"Instruct patient they may bruise and bleed more easily and review bleeding precautions with patient. Caution patient not to rub site after injection to minimize bruising" (Jones & Bartlett Learning, 2022).	"Inform patient they may not remember procedure because midazolam produces amnesia. Advise patient to avoid hazardous activities until drugs adverse CNS effects have worn off" (Jones & Bartlett Learning, 2022).	"Inform patient they may not remember procedure. Inform patients to increase fiber and fluid intake to prevent constipation. Long term use of opioids can decrease sec hormone levels, causing decreased libido or lack of menstruation, inform prescriber if symptoms occur" (Jones & Bartlett Learning, 2022).

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2022). *2022 Nurse's drug handbook* (19th ed.). Jones & Bartlett Learning.

Assessment

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

GENERAL: WDL **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	The patient is alert and oriented to the person, place, and time, well groomed. No acute distress.
INTEGUMENTARY: WDL **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** 22 **Drains present: Y☒ N ☒** **Type:**	Skin color white and pink with a suntan due to being outside, all usual for ethnicity. Skin warm and dry upon palpitation. No rashes, lesions, or bruising. Normal quantity, distribution, and texture of hair. Skin turgor demonstrates normal mobility. No wounds present. Braden score is 22.
HEENT: WDL **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head and neck are symmetrical. Ears have no visible drainage, lumps, or lesions bilaterally. Hearing is intact. Eyes have no visible drainage bilaterally, bilateral sclera white, bilateral conjunctiva pink, bilateral EOMs intact. Vison intact. Nose has no visible drainage, lumps, or rashes. Oral mucosa is pink. Patient uses contacts.
CARDIOVASCULAR: **Heart sounds:** S1 and S2 **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** A-fib **Peripheral Pulses:** +2 **Capillary refill:** <3 seconds **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema:** N/A	S1 and S2 auscultated. Normal heart rate-85 beats/min. Irregular pattern-atrial fibrillation. Peripheral pulses are +2, capillary refill is less than 3 seconds bilaterally in fingers and toes. No edema present.
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character** **ET Tube: N/A**	Breath sounds anterior and posterior are clear bilaterally without crackles, wheezes, or rhonchi noted. Respirations are regular and unlabored without accessory muscle use. Respiratory

	pattern is regular 17 breaths per minute.
GASTROINTESTINAL: **Diet at home:** general **Current Diet:** cardiac **Height:** 5'4 (162.5cm) **Weight:** 262.8 lbs. (119.1 kg) **Auscultation Bowel sounds:** normoactive **Last BM:** yesterday 08/29/23 **Palpation: Pain, Mass etc.:** N/A **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	The patients' diet at home is general and a cardiac diet currently. Height: 5'4 (162.5cm). Weight: 262.8 lbs. (119.1 kg). Bowel sounds normoactive in all four quadrants. Patient stated the last bowel movement was 08/29. Abdomen is soft, without tenderness and masses in all four quadrants. No distention, incisions, drains, or wounds upon inspection of abdomen.
GENITOURINARY: **Color:** Dark yellow **Character:** clear **Quantity of urine:** 200 ml **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:** **CAUTI prevention measures:**	Urine was dark yellow and clear without cloudiness, measured at 240 ml. Patient reported no pain with urination. No catheter or dialysis. Genitals were not inspected.
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☐ N☒** **Fall Score: 5** **Activity/Mobility Status:** **Independent (up ad lib) ☒** **Needs assistance with equipment ☐** **Needs support to stand and walk ☐**	No cyanosis observed in nailbed. All extremities demonstrate active and full range of motion. No uses of supported devices. No ADL assistance. Patient is not a fall risk, fall score 5.
NEUROLOGICAL: **MAEW: Y ☒ N☐**	Patient moves all extremities well with equal strength. Pupils are equal, round, and reactive to

PERLA: Y ☒ N☐ **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	light and accommodation. The patient is alert and oriented x4. The patient demonstrated normal cognition, speech, sensory, and level of consciousness.
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):**	The patient has many friends and a daughter that she takes care of for a support system and for coping mechanisms. The patient can read, write, and talk clearly in an appropriate manner. The highest level of education is a Bachelor's. Patient has Christian religious beliefs.

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

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1030	74 beats/min	134/87	15 breaths/min	97.1 F (Oral)	96% Room air
1230	85 beats/min	103/84	17 breaths/min	97.1 F (Oral)	98% Room air

Vital Sign Trends/Correlation: The patients' vitals fluctuated throughout care prior to cardioversion for atrial fibrillation. Prior to cardioversion the patient's heart rate would spike occasionally, as well as some fluctuation in blood pressure. The patient's blood pressure 134/87 did not raise concerns with this student nurse and preceptor due to it being within the patient's normal range. Immediately after cardioversion, 2L of oxygen was put on the patient via nasal cannula for 10 minutes until the patient was awake fully as a safety precaution due to heavy sedation. The vitals then remained stable for the remainder of care.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0800	Numerical 0-10	N/A	0	N/A	N/A
1058	Numerical 0-10	Head	2 (mild)	Aching	Acetaminophen

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 22 gauge and 20 gauge **Location of IV:** Right posterior hand and Anterior left proximal forearm **Date on IV:** 08/29/23 **Patency of IV:** patent, flushes well. **Signs of erythema, drainage, etc.:** N/A **IV dressing assessment:** transparent	Right posterior hand- 22 gauge on 08/29/23 0.9% sodium chloride 75 ml/hr infusing continuous. Anterior left proximal forearm-20 gauge 08/29/23- saline locked Both IVs are patent, with no signs of erythema, drainage, or swelling. The dressings are transparent, clean, dry, and intact. Flushes well. Right arm had normal saline running at 75 ml/hr and the left arm had a saline lock.
Other Lines (PICC, Port, central line, etc.)	
Type: N/A **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

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
240 ml- fluids	200 ml- urine

Nursing Care

Summary of Care (2 points)

Overview of care: This student nurse arrived after morning medications were already administered. Upon arrival, with this student's preceptor John RN, this student introduced self to patient and explain the need for NPO status for a procedure scheduled at 1200. This student observed the procedure, helped the patient order lunch after, and prepared for discharge.

Procedures/testing done: An Adult transthoracic echo, CT w/o contrast, cardioversion, and EKG 12 lead.

Complaints/Issues: The patient had no complaints during this student's clinical rotation.

Vital signs (stable/unstable): Stable. The patient's heart rate was fluctuating and tachycardic before the cardioversion and stable after.

Tolerating diet, activity, etc.: The patient tolerated diet, activity, the procedure and testing well.

Physician notifications: The physician was notified at discharge for a work excuse form.

Future plans for client: The patient was discharged and will have to be on a blood thinner and follow up with the cardiologist.

Discharge Planning (2 points)

Discharge location: Home to take care of daughter and return to work the following week.

Home health needs (if applicable): N/A

Equipment needs (if applicable): N/A

Follow up plan: The patient has two appointments for follow up, one with the cardiologist and one with the primary provider, along with new medications started**.** The

patient will take blood thinners having their heart rhythm monitored to be sure to remain in normal sinus rhythm and prevent blood clots.

Education needs: The patient was educated on the importance of quitting smoking and the risks of drinking alcohol with depression medications. The importance of adhering to medication regimen was discussed with the patient and education on what each medication was needed for.

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. Decreased cardiac output related to ineffective atrial contraction as evidence by arrhythmias	This nursing diagnosis was chosen due to the patient seeking care due to heart palpitations and upon assessment atrial fibrillation was found on an EKG.	1. Monitor the patient's blood pressure and pulse. Tachycardia can be a normal compensatory for decreased cardiac output (Phelps, 2020). 2. Assist the provider to intervene with cardioversion (Phelps, 2020).	1. The patient will display normal sinus rhythm on an EKG.	The patient responded to the interventions well. The patient was understanding the need of the cardioversion procedure but was anxious leading up to the time for the procedure. After the procedure

				the patient remained stable and achieved the goal of normal heart rhythm.
2. Ineffective tissue perfusion related to interruption of blood flow as evidence by syncope.	This nursing diagnosis was chosen due to reduction in blood flow and perfusion from a decreased cardiac output. The patient reported a syncopial episode at work prior to seeking treatment.	1. Administer medications such as antihypertensives to increase cardiac output (Phelps, 2020). 2. Closely monitor lab values and tests. Labs will provide information on organ perfusion (Phelps, 2020).	1. The patient will be able to demonstrate increased tissue perfusion as evidenced by vital signs. The patient will also verbalize understanding of the treatment plan and when to contact the healthcare provider in the future.	The patient responded to the treatment plan well. The medications were successful in maintaining stable vital signs. The patient understood teachings regarding antihypertensive medications.
3. Risk for fluid volume excess related to atrial fibrillation (could be) evidenced by abnormal electrolyte levels and high blood pressure	This nursing diagnosis was chosen because the patient is at risk for developing fluid volume overload. The patient's atrial fibrillation can cause this to occur, and the number of fluids	1. Assess weight in relation to nutritional status, this can contribute to protein wasting (Phelps, 2020). 2. Monitor intake and output, frequently assess for edema, reposition patient while immobilized often (Phelps, 2020).	1. The patient will display normal fluid volume by displaying no signs of edema or weight gain.	The patient showed no signs of developing fluid volume overload while providing care. The patient's intake and output remained normal, and no signs of edema were noted. This student nurse instructed the patient the importance of a low sodium diet that was tolerated well.

	received during care. The patient also has a history of hypertension and could have an underlying heart condition that could cause the body to retain fluid.			
4. Risk for activity intolerance related to condition of circulatory problems as evidence by syncopal episodes	This nursing diagnosis was chosen due to the patient having a syncopal episode. The performance of the heart being less effective can limit exercise activity.	1. Balance rest periods with activity. Gradually increases exercise and activity levels allowing to have 3-minute breaks in between (Phelps, 2020). 2. Assess the cardiopulmonary response to activity. An imbalance of oxygen supply and demand can cause abrupt fluctuations in blood pressure and the heart rate and rhythm (Phelps, 2020).	1. The patient will be able to appropriately increase activity after being immobilized. The patient will gradually increase activity and allow time for rest periods in between.	The patient received the teachings well and demonstrated understanding of the importance of allowing for rest periods. The patient asked questions at the end which helped to show interest and engagement in the interventions. The patient responded well to the little activity bedside but plans to continue to use this education when discharged.
5. Deficient knowledge related to insufficient	This nursing diagnosis was chosen because the	1. Provide facts pertinent to the situation, don't overload. Each	1. The patient will be able to verbalize the	The patient participated in the interventions

knowledge of atrial fibrillation and its treatment as evidenced by verbalization of confusion	patient has no history of atrial fibrillation. The patient also expressed confusion regarding the need for certain medications.	medication was discussed at time of administration rather than every medication discussed together, to help promote a better understanding (Phelps, 2020). 2. Establish priorities. This patient is dealing with a new condition. The patient is a smoker; however, it is more important to discuss information more urgent such as new healthcare related issues (Phelps, 2020).	reason for taking each medication and how to properly take the medication after discharge.	and understood the importance of learning. After educating the patient, atrial fibrillation was understood, as well the importance of correcting the condition to prevent further complications.

Other References (APA):

Phelps, L.L. (2020*). Sparks and Taylor's nursing diagnosis reference manual* (11th ed.). Wolters Kluwer.

Concept Map (20 Points):

Subjective Data

Social History- 6 years of smoking tobacco cigarettes and smoking ½ pack per day.
Alcohol- "Social" drinker on occasion with two drinks.
Allergies to medications with rash reaction
Pain level [illegible] 0.
Syncopal episode, Palpitations, Chest pain

Nursing Diagnosis/Outcomes

Diagnosis: Decreased cardiac output related to ineffective atrial contraction as evidence by arrhythmias
Outcomes: The patient will display normal sinus rhythm on an EKG.

Diagnosis: Ineffective tissue perfusion related to interruption of blood flow as evidence by syncope.
Outcome: The patient will demonstrate increased tissue perfusion as evidenced by vital signs. The patient will also verbalize understanding of the treatment plan and when to contact the healthcare provider in the future.

Diagnosis: Risk for fluid volume excess related to atrial fibrillation (could be) evidenced by abnormal electrolyte levels and high blood pressure
Outcome: The patient will display normal fluid volume by displaying no signs of edema or weight gain.

Diagnosis: Risk for activity intolerance related to condition of circulatory problems as evidence by syncopal episodes
Outcome: The patient will be able to appropriately increase activity after being immobilized. The patient will gradually increase activity and allow time for rest periods in between.

Diagnosis: Deficient knowledge related to insufficient knowledge of atrial fibrillation and its treatment as evidenced by verbalization of confusion
Outcome: The patient will be able to verbalize the reason for taking each medication and how to properly take the medication after discharge.

Objective Data

Height: 5'4 Weight 262.9 lbs. Female
Atrial fibrillation heart rhythm prior to cardioversion, normal sinus rhythm post cardioversion.
Neutrophils-37.3%, Lymphocytes-58.7%, monocytes-2.5% Potassium- 3.3 mmol/L, chloride- 112 and 109 mmol/L, troponin 30 and 20 ng/L, BNP-319 pg/mL
CT- trivial pericardial effusion
X-ray- mild bi-basal opacities and mild diffuse asymmetric haziness of the left hemithorax.
HR:85 bpm, BP: 134/87, Resp:17, Temp:97.1F O2: 96%

Client Information

SW
42 yrs. old
Female
Caucasian
Divorced
Full code
Height: 5'4 Weight: 262.8 lbs.
Admission: 08/29/23
Allergies: Cefaclor, Amiodarone, Levonorgestrel-ethinyl estradiol

Nursing Interventions

Administer medications such as antihypertensives to increase cardiac output. Closely monitor lab values and tests. Labs will provide information on organ perfusion.

Assess weight in relation to nutritional status, this can contribute to protein wasting. Monitor intake and output, frequently assess for edema, reposition patient while immobilized often.

Balance rest periods with activity. Gradually increases exercise and activity levels allowing to have 3-minute breaks in between. Assess the cardiopulmonary response to activity. An imbalance of oxygen supply and demand can cause abrupt fluctuations in blood pressure and the heart rate and rhythm.

Provide facts pertinent to the situation, don't overload. Each medication was discussed at time of administration rather than every medication discussed together, to help promote a better understanding.

Establish priorities. This patient is dealing with a new condition. The patient is a smoker; however, it is more important to discuss information more urgent such as new healthcare related issues.