Demographic Data

Date of Admission:3/3/24
Admission Diagnosis/Chief Complaint: Myocardia**l** ischemia (NSTEMI), increased troponin level/Chest pain
Age: 87
Gender: female
Race/Ethnicity: White
Allergies: codeine, perflutren lipid microspheres (contrast), atorvastatin, lovastatin, lansoprazole, ranitidine, nabumetone, sulfonamide antibiotic, carvedilol, diltiazem, hydralazine, nitrofurantoin (Macrobid), niacin, pravastatin, simvastatin,
phenol.
Code Status: Full/attempt CPR
Height in cm: 1.62 cm
Weight in kg: 72.6 kg

Psychosocial Developmental Stage: Integrity vs. Despair according to Erikson's theory of psychosocial development

Cognitive Developmental Stage: Formal operational stage (Piaget)

Braden Score: 19
Morse Fall Score: moderate fall risk 12
Infection Control Precautions: none

Pathophysiology

My patient had NSTEMI Myocardial infarction, which presented with intense chest pain. I chose to discuss the pathophysiology of this process.

Disease process: Myocardial infarction starts when the coronary blood vessels get occluded and cannot supply oxygen and nutrient-rich blood to the heart muscle. This situation creates excruciating pain in the precordium above the sternum. If heart muscle cells do not have the necessary oxygen and nutrients, they will start dying, and nonfunctional tissue-like scars will populate this space over time (Capriotti, 2020).

S/S of disease: Myocardial infarction is an acute situation, and the most common signs and symptoms are Intense pain that radiates to the left arm, neck, jaw, chest, back, or shoulder. This pain does not stop with rest and three doses of nitro and last longer than 20 minutes. Besides this, the patient can feel fatigued, sweaty, dizzy, and short of breath (Hinckle et al., 2022).

Diagnosis: Damage to the heart can be diagnosed by EKG. The heart muscle cannot function properly, which can be seen in many ways. One is

Admission History

The patient is an 87-year-old female person, who was brought to the ED by her family for chest pain. The patient has had chest pain for a week, level 7 (on a scale of 1-10). The pain occurred during physical activity and when she was sitting. The symptoms were managed with the patient's home medications. Those are aspirin and nitro 0.4mg x 3. The patient said, "It gave some relief". The patient already had one stent done in the past and was told by the doctor to come if she has pain in the chest

Lab Values/Diagnostics

Cl: 108mEq/L **Normal:** 98-106mEq/L (Pagana et al., 20220). **Reason for abnormal**: Due to chronic kidney disease.

BUN 33 mg/dL **Normal:** 10-20mg/dl (Pagana et al., 2022). **Reason for abnormal**: Due to renal disease, excretory function of the kidneys decreases.

Creatinine: 1.49mg/dL **Normal**: 0.5-1.2mg/dL **Reason for abnormal**: Due to renal disease (Pagana et al., 2022).

Troponin: 938 – 4589 ng/L **Normal:** 0-4 ng/L **Reason for abnormal:** MI, damage to myocardial muscle cells.

Glucose: 122 mg/dL **Normal**: 70-99 mg/dL (Pagana et al., 2022). **Reason for abnormal**: DM2 due to inadequate diet.

Platelet: 129 10^3/µL **Normal**: 140-400 10^3µL **Reason for**

Previous Medical History: coronary artery disease (CAD), asthma, bronchitis, carpal tunnel syndrome, cataract, chronic kidney disease (CKD), HTN, fibromyalgia, gout, hypercholesterolemia, obesity, DM2.

Prior Hospitalizations: uncontrolled HTN (2023), coronary catheterization and the stent (2010), colonoscopy (2015),

Active Orders

Cardiac monitoring – 48 hrs.

Code status- Attempt CPR/Full treatment

Consult non-MD – notify nurse navigator (MI)

ECG 12 lead – RN may release order if patient has a "recurrence" of chest pain

Food service- Diet: diabetic, cardiac

CBC: Q 3 days during unfractionated heparin starting on day #4

Medications

Clopidogrel (Plavix) tab 75mg oral daily. **Pharmacologic class**: P2Y12 platelet inhibitor (Jones & Bartlett Learning, 2022). **Therapeutic class**: Platelet aggregation inhibitor (Jones & Bartlett Learning, 2022). **The reason for taking**: to prevent thrombocyte aggregation. **Key nursing assessment**: obtain blood cell count if suspect hematologic problem. Assess patient with renal problem who will get this medication (Jones & Bartlett, 2022).

Metoprolol tartrate (Lopressor) tab 12.5mg 2 times daily for hypertension. **Pharmacological class**: Beta-1- adrenergic blocker (Jones & Bartlett Learning, 2022). **Therapeutic class**: Antianginal, antihypertensive (Jones & Bartlett Learning, 2022). **The reason for taking:** To control high blood pressure. **Key nursing assessment:** Assess patient for worsening of heart failure because patient needs to be stabilized. Assess patient for glucose control, because metoprolol interferes with therapeutic effect of antidiabetic drugs (Jones & Bartlett Learning, 2022).

Aspirin (Beyer aspirin) chewable tab 81 mg daily PO **Therapeutic class:** NSAIDs (Jones & Bartlett Learning, 2022). **Pharmacological class:** Salicylates (Jones & Bartlett Learning, 2022). **The reason for taking:** to prevent thrombocytes aggregation. **Key nursing assessment:** Check for GI bleeding, wounds that could bleed (Jones & Bartlett Learning, 2022).

Rosuvastatin (Crestor) 5 mg tab PO Q M, W, F. **Therapeutic class**: Antilipemic (Jones & Bartlett Learning, 2022). **Pharmaceutic class:** HMG-CoA reductase inhibitors (Jones & Bartlett Learning, 2022). The **reason for taking:** for hypercholesterolemia. **Key nursing assessment:** before therapy starts, assess underlying reasons for hypercholesterolemia. First try the diet (Jones & Bartlett Learning, 2022).

Isosorbide mononitrate (Imdur) ER tab 60mg, PO BID daily. **Therapeutic class**: Antianginal (Jones & Bartlett Learning, 2022). **Pharmacological class:** Nitrates (Jones & Bartlett Learning, 2022). **Reason for taking**: acute anginal chest pain. **Key nursing assessment:** Watch for nitrate tolerance (Jones & Bartlett Learning, 2022).

Nifedipine (Adalat CC): **Therapeutic class:** antihypertensives antianginals (Jones & Bartlett Learning, 2022). **Pharmacologic class:** Calcium channel blocker (Jones & Bartlett Learning, 2022). **Reason for taking**: patient has HTN and anginal pain. **Key nursing assessment**: monitor BP and HR regularly (Jones & Bartlett Learning, 2022).

Hydrochlorothiazide (Microzide) 12.5 mg tab PO daily. Hold if SBP <90 (Jones & Bartlett Learning, 2022). **Pharmacologic class:** Thiazide diuretic (Jones & Bartlett Learning, 2022). **Therapeutic class:** Diuretic (Jones & Bartlett Learning, 2022). **Reason for taking:** HTN **Key nursing assessment:** check BP ((Jones & Bartlett Learning, 2022).

Ranolazine (Renexa) ER tab. 500mg PO Q 12 hrs **Pharmacologic class**: cardiac agent (Jones & Bartlett Learning, 2022). **Therapeutic class**: antianginal (Jones & Bartlett Learning, 2022). **Reason for taking**: patient has chronic anginal pain. **Key nursing considerations**: monitor for ST segment (Jones & Bartlett Learning, 2022).

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Nursing Diagnosis 1	**Nursing Diagnosis 2**	**Nursing Diagnosis 3**
Risk of bleeding related to patient's medications that decreases thrombocyte level as evidenced by low thrombocyte count at this time.	Risk for injury related to chronic disease, advanced age and evidenced by problems with walking (Doenges et al., 2019)..	Need for dietary changes and weight reduction related to coronary artery problems and evidenced by high blood pressure.
Rationale	**Rationale**	**Rationale**
The patient is taking clopidogrel and aspirin and both are suppressing thrombocytes (Doenges et al., 2019).	The patient is walking with walker and has a moderate risk for fall 12 on Morse scale.	The patient has high blood pressure during this shift, 180/80. Also, the patient is overweight (BMI 72.72 $kg/m^{2)}$.

Interventions **Intervention 1:** monitor for signs of bleeding (post catheterization wound, GI, Kidneys), report. **Intervention 2:** Monitor coagulation studies (Doenges et al., 2019)**.**	**Interventions** **Intervention 1:** Explain the patient importance of using call light when need help to walk. **Intervention 2:** Check frequently on patient (Doenges et al., 2019)**.**	**Interventions** **Intervention 1:** Teach the patient the importance to eat cardiac healthy diet. That is food low on Sodium and fat and high on fruits, vegetables and whole grain bread. **Intervention 2:** Teach the patient to balance the intake of calories with physical activity (Doenges et al., 2019).
Evaluation of Interventions The patient did not have bleeding symptoms during this shift.	**Evaluation of Interventions** There was no injury or fall during this shift. Patient understood the advice and used the call light when wanted to go to the bathroom.	**Evaluation of Interventions** This plan will take more time than one shift, but the patient is willing to try cardiac diet, lose some weight and get healthier. The family will help support the patient**.**

Physical Exam/Assessment

General: Patient is alert, responsive, oriented x4 to place, time, person and situation. Patient is not in distress or pain. Appearance was appropriate for the situation.

Integument: Skin is light pink color, dry and warm on palpation. No rashes or lesions were noted. Some bruising exists on the lower arms due to injections and IV. Hair quantity, distribution, and texture are as expected. Nails w/o clubbing or cyanosis. Skin turgor decreased. A bilaterally capillary refill on fingers and toes is good and takes less than 3 seconds.

HEENT: Head and neck are symmetrical, trachea is midline without deviation, thyroid is not palpable, no noted nodules. Bilateral carotid pulses are palpable and 2+. No lymphadenopathy in the head or neck is noted**. Eyes**: Bilateral sclera white, bilateral cornea clear, bilateral conjunctiva pink. Bilateral lids moist without discharge or lesions noted. PERRLA bilaterally. EOMs intact bilaterally**.** The patient has macular degeneration. She wears glasses. **Ears**: Bilateral auricles no visible or palpable deformities, lumps or lesions. Bilateral canals clear no discharge noted. Person hears normal tone of voice and has no hearing aids. **Nose:** Septum is in midline; turbinates are moist and pink without exudate noted and no visible polyps. Bilateral frontal and maxillary sinuses nontender to palpation. **Throat**: Buccal mucosa and tongue pale pink, no lesions noted. Dentition good.

Cardiovascular: Clear S1 an S2 without murmurs, gallops or rubs. PMI palpable at 5th intercostal space at MCL. Normal rate and rhythm. No chest pain at this time.

Respiratory: Normal rate and pattern of respirations and non-labored, lung sound clear throughout anterior/posterior bilaterally, no wheezes, crackles, or rhonchi noted.

Genitourinary: The resident stated that her urine is clear and yellow. The output was once during the shift. The patient denied burning/pain on urination or urgency.

Gastrointestinal: On The abdomen is soft, no masses, organomegaly, rebound or pain on palpation. Bowel sounds are normoactive in all four quadrants, on auscultation. On inspection there are old scars after appendectomy and Cesarean section. The diet is cardiac and diabetic. Appetite is good. Last BM 3/4/24.

Musculoskeletal: All extremities have active range of motion. Hand grips and pedal pushes and pulls demonstrate normal and equal strength bilaterally. The patient uses walker or one assist when goes to the bathroom.

Neurological: Patient's LOC is alert and awake. PERRLA. Normal cognition on assessment. Patient denies HA, dizziness, weakness, numbness.

Most recent VS (include date/time and highlight if abnormal): 3/4/24 1240 36.8 C (98.3) oral, pulse 52, RR 18 96%, 180/80.

1630 36.4 (97.6) oral, Pulse 60, RR 16, 97%, 179 /80.

Pain and pain scale used: Pain is 0 on scale 0-10. The patient denies pain. The pain was assessed after the stent was instilled.

References (3) (APA):

Ambrose, P. J., Barros, M. C., Bednarczyk, M. E., Bello, C. E. (2022). *NDH Nurse's Drug Handbook*. Jones & Bartlett Learning.

Cappriotti, T. (2020). *Davis Advantage for Pathophysiology Introductory Concepts and Clinical Perspectives*. F. A. Davis.

Doenges, M. E., Moorhouse, M.F., & Murr, A. C. (2019). *Nursing Care Plans. Guidelines for Individualizing Client Care Across the Life Span*. F. A. Davis.

Hinckle, J. L., Cheever, K. H. & Overbaugh, K. (2022). *Brunner's & Suddarth's Textbook of Medical-Surgical Nursing*. Walter Kluwer.

Pagana, K. D., Pagana, T. J. & Pagana, T. N. (2022). *Mosby's Manual of Diagnostic and Laboratory Tests*. Elsevier.