Medications

Ketorolac (Toradol) – 15mg=1ml, IV, Q6, Acute Pain, Pharmacological: NSAID, Therapeutic: Analgesic, Access patient's level of pain & administer with antacid or food to prevent GI upset

Insulin aspart (NovoLog concentrated dose Medium) – Sliding scale (141-199:1u, 200-249:3u, 250-299:5u, 300-349:7u, 350-400:9u), Subcutaneous, Diabetes Mellitus, Pharmacological/Therapeutic: Antidiabetics, Insulin (Rapid-Acting), Monitor glucose level before & after meals, Do not administer with hypoglycemia

Ondansetron (Zofran) – 4mg=1 tab, PO, Q6 PRN, Nausea, Pharmacological: Selective serotonin receptor agonist, Therapeutic: Antiemetic, Access dizziness and drowsiness & Monitor patient's EKG

Hydromorphone (Dilaudid) – 0.5mg = 0.5ml, IV, Q2, Severe Pain, Pharmacological: Opioid Therapeutic: Opioid analgesic (Controlled substance schedule: II), Assess the patient for signs of constipation before administration & Place the patient on capnography to monitor CO2 levels

Metoprolol (Lopressor) – 100mg = 2tabs, PO, BID, Hypertension, Pharmacological: Beta-1-adrenergic blocker Therapeutic: Antianginal, antihypertensive, Assess the patient's blood pressure & heart rate

(Learning J. & B., 2023)

Lab Values/Diagnostics

Glucose – 230 (74-109); High glucose due to the patient's history of type II diabetes

Calcium – 8.0 (8.6-10.3); Low calcium levels caused by bone injury

Sodium – 131 (136-145); Low sodium

RBC – 2.77 (4.2-5.4); Low due to trauma to bone & surgical intervention

Hgb – 9.1 (12-16); Low due to trauma to bone & surgical intervention

Hct – 25.6% (37%-47%); Low due to trauma to bone & surgical intervention

X-ray shoulder complete 2 or greater views right - **Fracture of the humeral head/neck junction. Anterior dislocation of the glenohumeral joint

CT brain/head w/o contrast – No acute intracranial abnormality

CT spine cervical w/o contrast – No cervical spine fracture or acute malalignment

CT maxillofacial w/o contrast – Negative for acute facial bone fracture

(Pagana et al., 2020)

Demographic Data

Date of Admission: 10/30/2024
Admission Diagnosis/Chief Complaint: Right Humerus Fracture/Fall
Age: 84
Gender: Female
Race/Ethnicity: Caucasian
Allergies: Caduet (cramping), Penicillin (GI upset), Trazadone (Balance issues)
Code Status: Full Code
Height in cm: 154.9 cm
Weight in kg: 65.1 kg
Psychosocial Developmental Stage: As expected for age
Cognitive Developmental Stage: As expected for age
Braden Score: 21
Morse Fall Score: 35
Infection Control Precautions: Standard Precautions

Admission History

The patient presented by ambulance to the ER on 10/30/2024 for a fall with right arm pain and facial bleeding. The pain is described as aching and tender, and a 9/10. Moving their right arm at all causes the pain to increase and throb. Keeping the arm/shoulder at rest helps but the aching is constant. No medical interventions occurred prior to arriving.

Medical History

Previous Medical History: Coronary artery disease, GERD, Type II diabetes, Hypothyroidism, Hypertension, Hyperlipidemia, Vitamin D deficiency, Insomnia

Prior Hospitalizations: Hyperglycemia (2015, 2016, 2021), Chest discomfort (2018, 2022), Shortness of breath (2023)

Previous Surgical History: Colonoscopy (2006), Hysterectomy, Thyroidectomy, Tonsillectomy, Tubal ligation, Arthroplasty shoulder reverse total bilateral right (2024)

Social History: Denies use of alcohol, tobacco, or recreational drugs

Pathophysiology

Disease process: A fracture is a break in the integrity of the bone, commonly caused by trauma. A pathological fracture may be due to weakening of bones with degeneration and age or osteoporosis (Capriotti, 2020). Osteoblasts and osteoclasts work together in bone-reforming and degradation of existing bone (Capriotti, 2020). Osteoblasts form new bone cells secreting osteoid, which begins the process of mineralization (Capriotti, 2020). In the case of trauma to bone, an acute inflammatory response is essential for initiating fracture healing.
S/S of disease: Signs and symptoms of a humerus fracture include pain with movement of effected arm, swelling, bruising, inability to move arm, a deformity or bump, and bleeding (Capriotti, 2020). Other symptoms may include chills, fever, numbness, or tingling of fingers.
Method of Diagnosis: An x-ray is the standard method of determining a fracture (Capriotti, 2020). A CT scan may be used to utilize a 2D or 3D image of the shoulder or elbow, whereas an MRI may be used to determine the extent of soft tissue injury around the site of the fracture (Capriotti, 2020).
Treatment of disease: Treatment of a bone fracture begins by splinting the effected area. In this patient's case surgery was performed to undergo an arthroplasty shoulder reverse total bilateral right. Pain medication and rest is essential for these patient's keeping them comfortable and allowing time for the bone to heal.

Active Orders

Regular diet – To meet nutritional needs of the patient

Incentive spirometry – Indicated in treatment post-anesthesia to prevent atelectasis

Dressing change – Indicated post-operative to ensure surgical site is clean/dry, and clear of heavy drainage

Resuscitation status – To initiate life saving measures if necessary

Blood glucose – Indicated for patient's history of Type II diabetes

Braden assessment – To assess the patient's risk of pressure injury

Morse fall risk – Fall risk due to need for ambulation with assistance and pain medication post-operative

Physical Exam/Assessment

General: Alert and responsive, oriented to person/place/situation/time, no current distress, appropriately dressed

Integument: Skin color normal for ethnicity, dry, warm, intact, tan, no rashes/lesions/lumps, slight swelling around right upper arm/shoulder due to surgery, a Braden score of 21 (no sensory impairment, rarely moist, walks occasionally, slightly limited mobility, excellent nutrition, and no impairment for friction and shear.

HEENT: Skull and face are symmetrical, no tracheal deviation, 3cm U-shaped laceration repaired to the left eyebrow, ecchymosis noted to the inferior orbit of the eye, no palpable lymph nodes, palpable carotid, eyes are PERRLA, conjunctiva pink, sclera white, EOMs as expected, hearing intact, no septum deviation, no pain when palpating sinuses, tongue/uvula midline, lips pink/moist, buccal mucosa pink/moist

Cardiovascular: Normal Sinus Rhythm, S1/S2 sounds heard upon auscultation, pulses 3+ normal, capillary refill <2 sec, no edema, no jugular vein distension

Respiratory: Respirations regular, no use of accessory muscles, breath sounds clear bilaterally, lung aeration equal

Genitourinary: Bowel sounds active, regular diet at home/currently, no rashes/lumps/lesions/bruises of the abdomen, no pain or tenderness noted upon palpation of the abdomen, no abdominal distension, last BM 1 day ago (11/03/2024)

Gastrointestinal: Urine yellow/clear in color, no pain with urination, no dialysis, no catheter

Musculoskeletal: Limited ROM of the right arm/shoulder with pain due to arthroplasty shoulder reverse total bilateral repair, all other extremities appropriate ROM, no supportive devices used at home, nail beds pink, equal grip strengths, fall risk, Morse fall score 35

Neurological: Alert & Oriented x 4, speech clear, answers questions appropriately

Most recent VS (include date/time and highlight if abnormal): 11/04/2024, 0930 Temp – 36.4 C, Heart Rate – 63bpm, O2 – 93%, RR – 20 bmp, B/P – 130/61

Pain and pain scale used: 11/04/2024, 0930 Numerical pain scale Pain 7/10

(Phelps, 2023)

Nursing Diagnosis 1 Acute pain related to surgical intervention as evidenced by expression of pain	**Nursing Diagnosis 2** Risk for infection related to surgical intervention as evidenced by potential difficulty managing wound care	**Nursing Diagnosis 3** Risk for adult falls related to pain, history of vitamin D deficiency, surgical intervention, and hypoglycemia, as evidenced by history of falls
Rationale This nursing diagnosis was chosen due to the patient's severe level of pain post-surgery	**Rationale** This nursing diagnosis was chosen due to the high risk of infection post-surgery, the patient living home alone, and the possibility of not being able to care for it with increased levels of pain	**Rationale** This nursing diagnosis was chosen due to the patient's medical history and history of falls
Interventions **Intervention 1:** Perform both pharmacological and non-pharmacological interventions to keep pain at a tolerable level **Intervention 2**: Hourly rounding for frequent assessment of pain level and patient needs	**Interventions** **Intervention 1:** Provide appropriate wound care to the surgical site by keeping the site clean and dry **Intervention 2:** Educate the patient on importance of preventing infection, in addition to the step-by-step process of dressing changes	**Interventions** **Intervention 1:** Consult PT and OT for rehabilitation efforts for both active and passive ROM exercises **Intervention 2:** Assist the patient with proper transferring safety precautions such as using a gait belt, assistive devices, non-slip socks, and proper lifting techniques
Evaluation of Interventions The patient well-tolerated both pharmacological and non-pharmacological interventions for pain management	**Evaluation of Interventions** The patient kept the surgical site clean and dry and remained symptom free of infection	**Evaluation of Interventions** The patient was assisted with ambulation and used proper safety interventions when transferring

References (3) (APA):

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

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