N433 Care Plan #1

Lakeview College of Nursing

Bailey Pierce

Demographics (3 points)

Date of Admission 12/12/21	**Patient Initials** S.C.	**Age (in years & months)** Ten years old	**Gender** Male
Code Status full code	**Weight (in kg)** 20.5 kg	**BMI** 11.7 kg/m2	**Allergies/Sensitivities (include reactions)** No known allergies

Medical History (5 Points)

Past Medical History: No previous medical history.

Illnesses: S. C. has no history of medical illnesses.

Hospitalizations: S.C. has no history of hospitalizations.

Past Surgical History: S.C. has no prior surgical history.

Immunizations: The patient's immunization history is not listed within the scenario.

Birth History: The patient's birth history was not listed within the scenario.

Complications (if any): No complications were listed in the scenario.

Assistive Devices: Before administration, the patient has no history of needing assistive devices.

Living Situation: S.C. lives at home with his mother and two siblings. Mother and father are recently divorced.

Admission Assessment

Chief Complaint (2 points): Pain right lower leg. Related to tibial fracture.

Other Coexisting Conditions (if any): Osteosarcoma of the right femur.

Pertinent Events during this admission/hospitalization (1 point): Before admission, S.C. played soccer when he experienced severe right lower leg pain. The patient was brought to the emergency department by his coach. The patient states he has had pain for approximately one

month, fatigue, and cannot bend his right knee. The patient did not report discomfort due to fear of not playing soccer. Upon admission, edema was noted above and below the right knee. Right pedal pulses are diminished. Patients vital upon arrival were heart rate of 85, blood pressure of 110/60, respiratory rate of 24, and oxygen levels of 98%. The patient's face is flush. Grimaces are noticed upon palpation. Mother and father are divorced. Mother has a restraining order against the father.

History of present Illness (10 points):

S.C. is a 10-year-old male presenting with pain in the right lower leg. The patient has no significant past medical or surgical history. The patient is unable to bend the right knee. The patient's face is slightly flushed. The patient began to experience pain below the right knee and fatigue approximately one month ago. The patient did not report symptoms due to fear of not participating in soccer.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Right femur osteosarcoma

Secondary Diagnosis (if applicable): Tibial fracture

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

Osteosarcomas are a rare form of a tumor within the bone, most commonly in the leg near the knee (Misaghi et al., 2018). Histologically, osteosarcomas are associated with osteoid production in addition to malignant mesenchymal cells. The exact cause of osteosarcomas is unknown, but 70% of tumor specimens exhibit chromosomal abnormalities. These abnormalities are commonly found in tumor-suppressor genes and DNA helicases (Misaghi et al., 2018). Other risk factors include radiation, hereditary retinoblastoma, bone infections, chronic osteomyelitis, and a history of Paget's disease (Capriotti, 2020).

The most common sign and symptom of osteosarcomas is pain (Capriotti, 2020). Pain is dully and achy initially but worsens over time. Masses and lumps can sometimes be palpated. Once the tumor grows large enough, bone integrity is compromised, resulting in a fracture (Capriotti, 2020). Other signs and symptoms include anemia, fever, exhaustion, and unexplained weight loss (Capriotti, 2020). S.C. experienced pain, fatigue, and a fracture related to osteosarcoma.

Standard laboratory tests performed to diagnose osteosarcomas include CBC, electrolytes, liver enzymes, platelet count, metabolic panel, renal function tests, and blood levels of lactic dehydrogenase and alkaline phosphatase (Capriotti, 2020). An elevated alkaline phosphate is consistent with pulmonary metastasis. S.C.s alkaline phosphate was within normal limits. Polycythemia is another complication that can arise with different forms of bone cancer (Capriotti, 2020). The patient's RBCs and Hbg are both elevated and consistent with polycythemia.

In addition to labs, additional diagnostic measures can be taken to asseosteosarcoma. CT, MRI, and bone scans are used to determine areas with active bone cancer (Capriotti, 2020). S.C. had a bone scan performed which showed no additional sites of bone metastasis.

Osteosarcomas are staged from one to three. Stage one is localized and can be removed (Capriotti, 2020). Stage two is aggressive and can spread to the lymph nodes and lungs (Capriotti, 2020). Stage three includes lung and brain metastasis and a 50-60% survival rate (Capriotti, 2020). Treatments include chemotherapy and surgery. Surgery typically consists of limb salvage or amputation (Misaghi et al., 2018). Limb salvage is sufficient in 85-90% of patients with osteosarcomas (Misaghi et al., 2018). It consists of removing the tumor with an additional 2cm of resection (Misaghi et al., 2018). Amputation is necessary for osteosarcomas

with soft tissue and neuromuscular involvement (Misaghi et al., 2018). Surgical excision above the knee is most common (Misaghi et al., 2018). S.C.'s amputation was below the knee. The patient will also be receiving chemotherapy.

The potential complications associated with osteosarcomas are body dysmorphia following amputation and acute and chronic pain. Providing the patient with information about support groups for individuals with similar disabilities will help the patient learn how to function with his current disability. It will allow the patient to see others making adaptations, thus encouraging them. Acute and chronic pain are side effects associated with amputations following osteosarcoma treatment. Acute pain is related to the removal of the affected body part. Chronic pain is related to phantom pains. Patients can feel pain in the missing limb for months to years following the removal (Capriotti, 2020). Pharmacological and non-pharmacological measures can be utilized to manage pain. New research on using mirrors to "trick the brain" by using the unaffected limb and its reflection has proven very effective (Capriotti, 2020).

Pathophysiology References (2) (APA):

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

Misaghi, A., Goldin, A., Awad, M., & Kulidjian, A. A. (2018). Osteosarcoma: A comprehensive review. *SICOT-J*, *4*(12), 1–8. https://doi.org/10.1051/sicotj/2017028

Active Orders (2 points)

Order(s)	Comments/Results/Completion
Activity: Out of bed three times per day.	It promotes strength-building, reduces clots, and improves crutch/gait training (Hinkle &

	Cheever, 2018).
Diet/Nutrition: Regular with TPN	The child has lost 3.5 kg. This includes the weight of the lower right leg due to amputation. The child is uninterested in eating and is eating less than 25 % of the meals provided. Total parenteral nutrition (TPN) will ensure the child is getting optimal nutrition (Hinkle & Cheever, 2018).
Frequent Assessments: Check blood glucose q 8 hrs. Assess tolerance for TPN.	TPN can lead to hyperglycemia (Hinkle & Cheever, 2018). TPN is set at 25 mL/hr. The rate can be increased or decreased based on patients' tolerance and lab results.
Labs/Diagnostic Tests: **Check Electrolytes, BUN, creatinine, glucose, and CBC at 0600 hours.**	Assessing these labs will indicate how the body is responding to TPN. Electrolytes will determine the patient's sodium and potassium levels. BUN and creatinine indicate kidney function and can be indicators of hydration status. TPN can lead to hyperglycemia. Glucose testing will help to monitor glucose levels. CBC will help assess infection and platelet counts (Hinkle & Cheever, 2018).

Treatments: Morphine 0.1mg/kg IV q4h PRN. Acetaminophen 120 mg with codeine elixir 12.5 mg/5 mL. Dose 10mL PO q6h PRN.	The patient is in pain related to amputation. Morphine and acetaminophen can be given PRN to help with the pain.
Other: Physical therapy three times per day. Out of bed three times per day.	The patient is seeing physical therapy to perform strength training, range of motion exercises, and crutch/gait training. These exercises will help him become more comfortable walking with crutches and regain strength after surgery. Early and frequent ambulation can also prevent blood clots and reduce the risk for pneumonia (Ricci et al., 2021).
New Order(s) for Clinical Day	
Order(s)	**Comments/Results/Completion**
No new orders were given.	All orders are the same as those listed above.

References:

Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer.

Ricci, S. S., Kyle, T., & Carmen, S. (2021). *Maternity and pediatric nursing* (4th 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	Standard Range (specific to the age of the child)	Admission or Prior Value 10/28; 10/29	Today's Value 10/30	Reason for Abnormal Value
RBC	3.90-4.96 10^6/uL	5.6 10^6/uL	N/A	Polycythemia is consistent with the patient's complaints of fatigue and elevated Hgb levels (Pagana & Pagana, 2018). Polycythemia vera would also explain the high RBC and Hgb levels. This form of blood cancer begins in the bone marrow (Capriotti, 2020).
Hgb	10.6-13.2 g/dL	13.3 g/dL	8 g/dL	Polycythepatient'sonsistent with fatigue and elevated RBCs (Pagana & Pagana, 2018). Polycythemia vera is a form of blood cancer in the bone marrow (Capriotti, 2020). Low hgb levels following a hospital stay and TPN can be related to inadequate absorption and inadequate dietary intake (Pagana & Pagana, 2018).
Hct	30-44%	39%	32%	
Platelets	199-367 10^3/uL	N/A	N/A	
WBC	4.27-11.40 10^3/uL	N/A	N/A	
Neutrophils	1.64-7.87 10^3/uL	N/A	N/A	
Lymphocytes	1.16-4.28 10^3/uL	N/A	N/A	

Monocytes	0.19-0.81 10^3/uL	N/A	N/A	
Eosinophils	0.03-0.47 10^3/uL	N/A	N/A	
Basophils	0.01-0.05 10^3/uL	N/A	N/A	
Bands	< or = to 10%	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 or Prior Value	Today's Value	Reason For Abnormal
Na-	136-145 mmol/L	139 mmol/ L	135 mmol/L	Decreased sodium can be related to decreased dietary intake (Pagana & Pagana, 2018).
K+	3.5-5.1 mmol/L	3.9 mmol/L	3.5 mmol/L	
Cl-	90-110 mmol/L	95 mmol/L	90 mmol/L	
Glucose	74-100 mg/dL	86 mg/dL	110 mg/ dL	Elevated glucose levels could be related to the patient receiving TPN. TPN can lead to hyperglycemia (Capriotti, 2020).
BUN	7-17 mg/dL	14 mg/dL	N/A	
Creatinine	0.55-1.02 mg/dL	1.0 mg/dL	N/A	
Albumin	3.8-5.4 g/dL	N/A	N/A	
Total Protein	6.0-8.0 g/dL	N/A	N/A	
Calcium	8.8-10.8 mg/ dL	N/A	N/A	
Bilirubin	0.2-1.2 mg/dL	N/A	N/A	
Alk Phos	9-500 U/L	400U/L	N/A	
AST	5-34 U/L	N/A	N/A	

ALT	0-55 U/L	N/A	N/A	
Amylase	20-110 U/L	N/A	N/A	
Lipase	0-160 units/ L	N/A	N/A	
Magnesium	1.6-2.6 mg/dL	N/A	N/A	
Phosphorus	2.3-4.7 mg/dL	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	Admission or Prior Value	Today's Value	Reason for Abnormal
ESR	Up to 10 mm/hr	N/A	N/A	
CRP	< 10.0 mg/L	N/A	N/A	
Hgb A1c	4-5.9%	N/A	N/A	
TSH	0.350-4.940 IU/mL	N/A	N/A	
PTT	22.4-35.9 seconds	N/A	Normal	
INR	0.9-1.1 ratio	N/A	N/A	
PT	11.7-13.8 seconds	N/A	Normal	

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

Lab Test	Normal Range	Admission or Prior Value	Today's Value	Reason for Abnormal
Color & Clarity	Yellow and clear	N/A	N/A	
pH	5.0-7.0	N/A	N/A	
Specific Gravity	1.010-1.025	N/A	N/A	

Glucose	Negative	N/A	N/A	
Protein	Negative	N/A	N/A	
Ketones	Negative	N/A	N/A	
WBC	0-25/uL	N/A	N/A	
RBC	0-20/uL	N/A	N/A	
Leukoesterase	Negative	N/A	N/A	

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

Test	Normal Range	Admission or Prior Value	Today's Value	Explanation of Findings
Urine Culture	Negative	N/A	N/A	
Blood Culture	Negative	N/A	N/A	
Sputum Culture	Negative	N/A	N/A	
Stool Culture	Negative	N/A	N/A	
Respiratory ID Panel/COVID screening	Negative	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.

Pagana, T. J., & Pagana, K. D. (2018). *Mosby's manual of diagnostic and laboratory tests* (6th ed.). Elsevier -Health Sciences Division.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

An x-ray of the right lower leg was taken. The patient was diagnosed with a closed complete proximal tibia fracture with a femur mass noted.

Diagnostic Test Correlation (5 points): The x-ray reveals significant growth of the tumor and condition of the bone (Pagana & Pagana, 2018). Cancer has grown so large that the bone eventually weakened to the point that it was easily fractured.

Diagnostic Test Reference (1) (APA):

Pagana, T. J., & Pagana, K. D. (2018). *Mosby's manual of diagnostic and laboratory tests* (6th ed.). Elsevier -Health Sciences Division.

Current Medications (8 points)
****Complete *ALL* of your patient's medications****

Brand/Generic	morphine (Roxanol)	acetaminophen (Tylenol)	diphenhydramine (Benadryl)	Acetaminophen 120 mg with codeine elixir 12.5mg/5mL (Tylenol with Codeine #3,#4)
Dose	0.1 mg/kg	15 mg/kg	5mg/kg/24hrs	10mL
Frequency	q4h PRN	1x before blood administration	q6 hrs times one dose PO before blood transfusion	q6 hrs
Route	IV	PO	PO	PO
Classification	Opioid, an opioid analgesic (Jones & Bartlett Learning, 2020).	Nonsalicylate, para aminophenol derivative, antipyretic, nonopioid analgesic (Jones & Bartlett Learning, 2020).	Antihistamine, antianaphylaxis adjunct, ant dyskinetic, antiemetic, antihistamine, antitussive (syrup), antivertigo, sedative-hypnotic (Jones	Narcotic analgesic combination (RxList, 2021)

			& Bartlett Learning, 2020).	
Mechanism of Action	Binds with and activates opioid receptors (mainly mu receptors) in the brain and spinal cord to produce analgesia (Jones & Bartlett Learning, 2020).	It inhibits the enzyme cyclooxygenase, blocking prostaglandin production and interfering with pain impulse generation in the peripheral nervous system. Acts directly on the temperature-regulating center in the hypothalamus by inhibiting the synthesis of prostaglandin E2 (Jones & Bartlett Learning, 2020).	Binds to the central and peripheral H1 receptors, competing with histamine for its site of action. (Jones & Bartlett Learning, 2020).	Acetaminophen changes the way the body senses pain. Codeine changes the brain and nervous system's perception of pain (RxList, 2021).
Reason Client Taking	Pain	Reduce reaction to a blood transfusion if one is needed.	Reduce response to a blood transfusion if one is required.	Pain
Concentration Available	2mg/mL (Jones & Bartlett Learning, 2020).	160 mg/5 mL	12.5-25 mg tablets	120mg-12mg/ 5mL (RxList, 2021)
Safe Dose Range Calculation	0.1mg/kg = 2.05 mg q4h	20.5 kg x 15mg= 307.5 mg 1x	12.5-25 mg q4-6 hrs	10mL
Maximum 24-hour Dose	12.3 mg	3,750 mg (Jones & Bartlett Learning, 2020).	150 mg (Jones & Bartlett Learning, 2020).	10mL x 4 doses= 40 mL
Contraindications (2)	Respiratory depression, upper airway obstruction (Jones &	Hypersensitivity to acetaminophen or its components. Severe active liver disease (Jones &	Hypersensitivity to diphenhydramine, hypersensitivity	Hypersensitivity to acetaminophen. Use of MAOIs (RxList, 2021).

	Bartlett Learning, 2020).	Bartlett Learning, 2020).	to antihistamines (Jones & Bartlett Learning, 2020).	
Side Effects/Adverse Reactions (2)	Bradycardia, blurred vision (Jones & Bartlett Learning, 2020).	Anxiety, Hypotension (Jones & Bartlett Learning, 2020).	Confusion, Dizziness (Jones & Bartlett Learning, 2020).	Nausea/ vomiting, Rash (RxList, 2021).
Nursing Considerations (2)	Be aware that morphine may lead to dependence or abuse. According to facility protocol, discolored solutions should be discarded (Jones & Bartlett Learning, 2020).	Use acetaminophen cautiously in patients with hepatic impairment. Administer pediatric doses over 15 minutes (Jones & Bartlett Learning, 2020).	Expect to give parenteral diphenhydramine only when oral ingestion isn't possible. Keep the elixir container tightly closed. Protect from light (Jones & Bartlett Learning, 2020).	Do not give to patients who have taken MAOIs within the last two weeks (RxList, 2021).
Client Teaching needs (2)	Take exactly as prescribed. Advise the patient to change positions slowly due to the risk of orthostatic hypotension (Jones & Bartlett Learning, 2020).	Inform the patient that acetaminophen may reduce fertility in both males and females. Teach the patient to recognize s/s of hepatotoxicity such as bleeding, easy bruising, and malaise (Jones & Bartlett Learning, 2020).	Take with food to minimize GI discomfort. Use sunscreen to prevent photosensitivity reactions (Jones & Bartlett Learning, 2020).	Educate on s/s of overdose, including yellowing of the skin, sleepiness, and loss of muscle tone. Instruct patients to take as prescribed to prevent addiction and overdose (RxList, 2021).

References:

Jones & Bartlett Learning. (2020). *2020 nurse's drug handbook* (19th ed.).

RxList. (2021, September 14). *Tylenol-Codeine (acetaminophen and Codeine): Uses, dosage, Side effects, interactions, warnings*. RxList. Retrieved December 17, 2021, from https://www.rxlist.com/tylenol-codeine-drug.htm

Assessment

Physical Exam (18 points)

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	S.C. is awake and fully oriented to person, place, and time. S.C. is quiet and withdrawn. He is only responding to direct questioning. The patient refuses to look at the stump.
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** **Braden Score:** **Drains present: Y☐ N ☒** **Type:** **IV Assessment (If applicable to child):** **Size of IV:** **Location of IV:** **The date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:** **IV Fluid Rate or Saline Lock:**	 Skin is pale. Skin is dry. Skin is warm. Skin turgor elastic with recoil. (Not listed within the scenario.) Skin is free of rashes (Not listed within the scenario.) Skin is free of bruises. (Not listed within the scenario.) Wound consistent with R lower limb amputation. (Not listed within the scenario.) 15. Patient is at moderate risk for skin breakdown. 22 ga Right inner forearm. (Not listed within the scenario.) Upon arrival five days ago. An IV line is patent and flushes without resistance. No signs of erythema or drainage were noted. IV is covered with a dry, transparent bandage.

	D5/0.2% Normal saline w/ 20 mEq KCL per L is administered at 65 mL/hr.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:** **Thyroid:**	 The Head and neck are symmetrical. The trachea is midline without deviation. Carotid pulses 2+. (Not mentioned within the scenario.) Auricles are moist and pink bilaterally without drainage. The tympanic membrane is pearly gray. (Not mentioned within the scenario.) PERRLA is present bilaterally. The bilateral sclera is white, corneas clear, and is pink conjunctiva with no drainage. EOMs are intact. The septum is midline. Turbinates are pink and moist without bleeding or polyps. (Not mentioned within the scenario.) A child presents with mixed dentition. (Not mentioned within the scenario.) The thyroid is midline without deviation. Nonpalpable. (Not mentioned within the scenario.)
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:**	 Clear S1 and S2 are present without murmurs, gallops, or rubs. Upper peripheral pulses 2+ bilaterally. Lower extremities 1+. Capillary refill of 2 seconds in fingers and toes.
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	 Clear lung sounds bilaterally anterior and posteriorly in all lobes without wheezes, crackles, or rhonchi. Respirations are symmetrical and non-labored. The child is breathing room air.
GASTROINTESTINAL: **Diet at home:** **Current diet:** **Height (in cm):** **Auscultation bowel sounds:**	 Regular diet. The patient may be sent home with total parenteral nutrition (TPN). Regular diet w/ TPN 143 cm Bowel sounds are normoactive in all four

Last BM: **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y x N** **Type:** catheter/intravenous feeding	quadrants, ranging from 5 to 20 bowel sounds per minute. The child's last BM was not recorded within the scenario. No pain with superficial and deep palpation in all four quadrants. Distension not present upon inspection. No incisions were present upon inspection. No scars were present upon inspection. No drains are present upon inspection. No wounds were present upon inspection.
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	 Urine is yellow-colored. Urine is clear. 1500 mL of output observed over the last 24 hours. Genitals were not observed.
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐**	 The child is alert and oriented to person, place, and time. Active range of motion upper and lower extremities. Due to the lower right leg amputation, the child will need crutches or a wheelchair to ambulate. Full strength is exhibited in upper limbs. The child has greater strength in the left leg than the right due to amputation. The child will need assistance with ambulation until he is more comfortable with crutches and is trained with physical therapy. Seventy indicates high risk. Dr. has ordered S.C. to be out of bed 3x per day

Fall Score: **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment X** **Needs support to stand and walk X**	with assistance. S.C. is scheduled to work with physical therapy 3x per day for strength training, range of motion exercises, and crutch/gait training.
NEUROLOGICAL: **MAEW: Y x N** **PERLA: Y ☒ N☐** **Strength Equal: Y ☐ N ☒ if no -** **Legs ☒ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	 The child can move all extremities well. PERRLA is present bilaterally. Due to amputation, the left leg has greater strength than the right leg. The child is oriented to person, place, and time. Mental status is appropriate for age. The child is struggling with body dysmorphia. He refuses to look at the stump. The child is quiet and withdrawn but will answer simple questions. The child is suffering from phantom pains—no other sensory deficits. No deficits in the level of consciousness.
PSYCHOSOCIAL/CULTURAL: **Coping method(s) of caregiver(s):** **Social needs (transportation, food, medication assistance, home equipment/care):** **Personal/Family Data (Think about home environment, family structure, and available family support):**	 Mother is not coping well. She has been unable to assist in dressing changes due to not wanting to look at the amputation site. She cries constantly. The child is dependent on the mother for transportation. He will need to continue working with physical therapy and later be fitted for a prosthetic. Mother and father are divorced. They do not appear to have a good relationship with one another. Mother has a restraining order against the father.

Vital Signs, two sets (2.5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
1356	95 bpm	110/60 mmHg	24 bpm	37 C (98.6 F) Axillary	98% on room air
1233	80 bpm	104/70	20 bpm	37.2 C (98.9	98% on room

		mmHg		F): Axillary	air

Vital Sign Trends:

Upon initial assessment in the emergency room, the patient's vitals were as follows: heart rate of 95 bpm, blood pressure of 110/60, respiratory rate of 24, and SpO2 of 98% on room air. The temperature was taken via axilla and was 37 C. These values are within normal range, and the patient is stable. Currently, the child's vital signs are within range. These vitals include a heart rate of 80, blood pressure of 104/70, respirations at 20 per minute, and a temperature of 37.2 C taken axillary.

Normal Vital Sign Ranges (2.5 points)
****Need to be specific to the age of the child****

Pulse Rate	60-110 beats per minute
Blood Pressure	Systolic: 98-129 mmHg Diastolic: 59-88 mmHg
Respiratory Rate	20-25 breaths per minute
Temperature	36.7 C (98.1 F): Oral, Axillary, and/or Tympanic
Oxygen Saturation	> or = to 95%

(Holman et al., 2019)

Normal Vital Sign Range Reference (APA):

Holman, H.C., Williams, D., Sommer, S., Johnson, J., Wheless, L., Wilford, K., & McMichael, M.G. (2019). *RN nursing care of children* (11th ed.). Assessment Technologies Institute.

Pain Assessment, two sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
1633	Numeric 0-10	Right leg	6/10	Sharp, stabbing	Administer pain medication. This assessment was taken during preoperative care. The patient will be under sedation soon.
1833	Numeric 0-10	Right Leg	6/10	Sharp, stabbing	Administer pain medications as prescribed.
Precipitating factors: S.C. presents with a tibial fracture secondary to osteosarcoma. The patient has been in pain for approximately one month but withheld due to fear of not being permitted to play soccer. **Physiological/behavioral signs:** The patient is grimacing.					

Intake and Output (1 point)

Information (in mL)	Output (in mL)
IV fluids were discontinued. Previously D5/0.2% normal saline with 20mEq/L at 65 mL/hour. (1,560 mL/day). 120 mL soda Currently: TPN @ 25 mL/hr	1500 mL of urine over the last 24 hrs

Developmental Assessment (6 points)
Be sure to highlight the achievements of any milestone if noted in your child. Be sure to highlight any use of diversional activity if utilized during clinical. There should be a minimum of 3 descriptors under each heading

Age Appropriate Growth & Development Milestones

1. Read books with chapters (Ricci et al., 2021)
2. Collect sports cards (Ricci et al., 2021)
3. Participate in competitive sports (Ricci et al., 2021).

Age-Appropriate Diversional Activities

1. Reading (Ricci et al., 2021).
2. Watching television (Ricci et al., 2021).
3. Playing games (Ricci et al., 2021).
4. Music (Ricci et al., 2021).

Psychosocial Development:

Which of Erikson's stages does this child fit?

The child would fit in Erikson's Industry vs. Inferiority (Ricci et al., 2021).

What behaviors would you expect?

This stage is characterized by learning to complete tasks independently and gaining self-esteem (Ricci et al., 2021). With positive reinforcement, the child will feel confident in achieving goals. Without encouragement, the child will feel inferior (Ricci et al., 2021).

What did you observe?

The child feels defeated and is disappointed about not competing in soccer. Mother is not encouraging and refuses to look at the child's amputation sight. Likely, she will not be a good support person for the child.

Cognitive Development:

Which stage does this child fit, using Piaget as a reference?

Based on the child's behaviors, he would fit into Piaget's concrete operational stage (Ricci et al., 2021).

What behaviors would you expect?

In this stage, the child should think logically; thoughts should be more organized and aware of how others may observe a situation (Ricci et al., 2021).

What did you observe?

Child withheld he was in pain due to believing he would not be able to play soccer if he told others what he was experiencing.

Vocalization/Vocabulary:

Development expected for child's age and any concerns?

This child is developmentally appropriate for his age. Moving on, I fear the patient will not verbalize his feelings about his amputation. He is angry and withdrawn. His mother is emotional and detached, refusing to help with bandage changes or acknowledging her son's leg.

Any concerns regarding growth and development?

The patient is not taking inadequate nutrition. He is currently receiving TPN. If the patient feels angry and depressed, his current intake is unlikely to improve. As a result, his growth and development could be affected.

Developmental Assessment Reference (1) (APA):

Ricci, S. S., Kyle, T., & Carmen, S. (2021). *Maternity and pediatric nursing* (4th ed.). Wolters Kluwer.

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

Nursing Diagnosis	Rational	Intervention (2 per	Evaluation

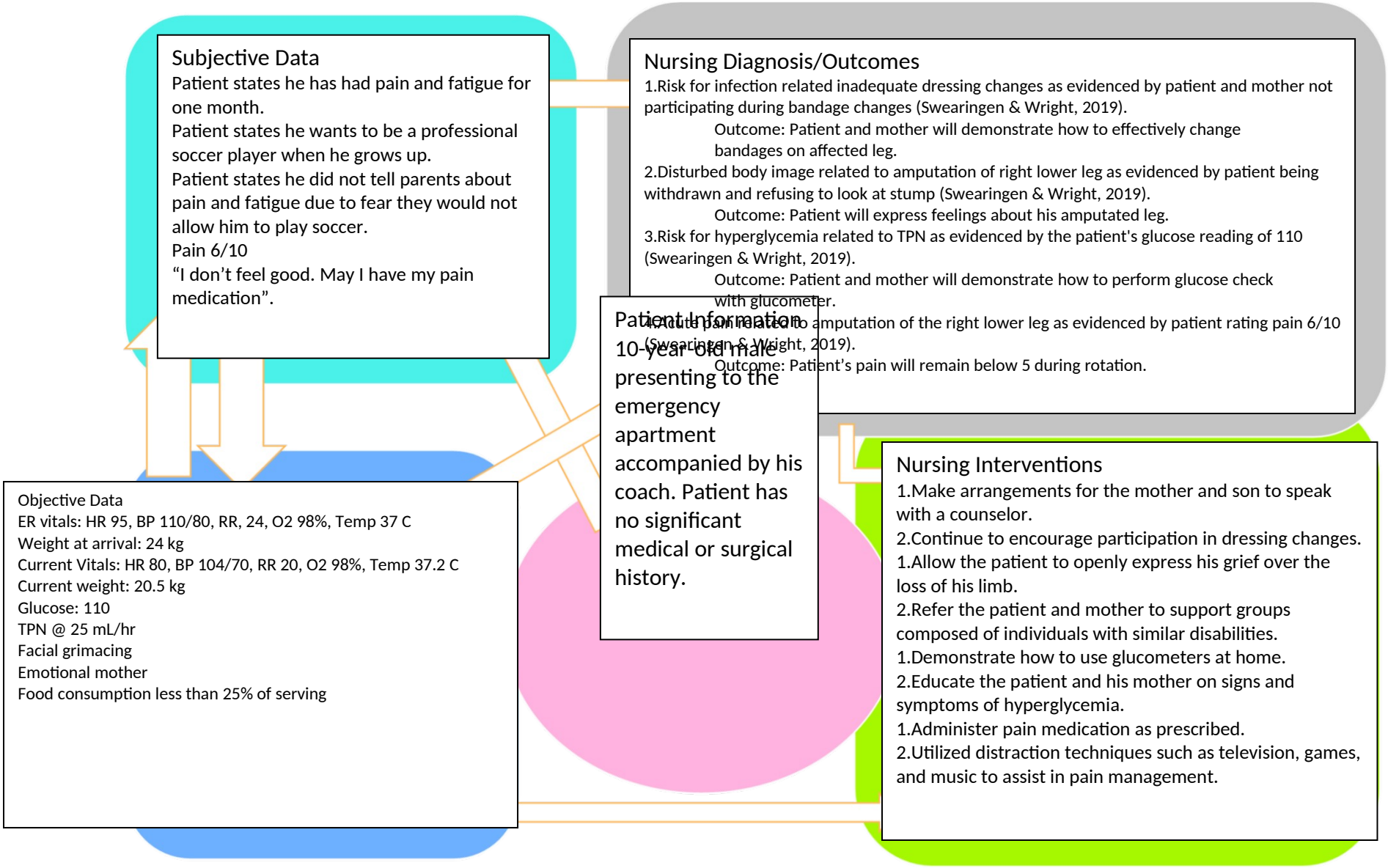
● Include complete nursing diagnosis with "related to" and "as evidenced by" components	● Explain why the nursing diagnosis was chosen	**dx)**	● How did the patient/family respond to the nurse's actions? ● Client response, goals and outcomes, modifications to plan.
1. Risk for infection-related inadequate dressing changes as evidenced by patient and mother not participating during bandage changes (Swearingen & Wright, 2019).	This diagnosis was chosen due to the patient and mother's lack of acknowledgment of the son's condition. Neither of them will look at the amputation site. I do not believe that the mother will adequately attend to her son's dressing and keep them changed effectively.	1. Make arrangements for the mother and son to speak with a counselor. 2. Continue to encourage participation in dressing changes.	I was unable to evaluate these interventions. Hopefully, after speaking with a counselor, the child would express his feelings, accept his new body, and actively participate in his treatment plan.
2. Disturbed body image related to amputation of the right lower leg as evidenced by the patient being withdrawn and refusing to look at stump (Swearingen & Wright, 2019).	This diagnosis was chosen based on the child being quiet and withdrawn. The child previously stated he wanted to be a professional soccer player when he grew up. This made accepting his condition more challenging. He has been unable to look at his amputated leg, and his mother is not supportive.	1. Allow the patient to openly express his grief over the loss of his limb. 2. Refer the patient and mother to support groups composed of individuals with similar disabilities.	I was unable to observe these interventions. The patient needs to be able to express how he is feeling. As the nurse acknowledging these feelings will help validate them for the patient. The patient stated he wanted to be a professional soccer player. Currently, he is feeling like that is no longer a possibility. Meeting with others with a similar disability will help him see how others have adapted to their lives. Hopefully, he will meet someone who also plays sports and encourage him

			to continue his goals.
3. Risk for hyperglycemia related to TPN as evidenced by the patient's glucose reading of 110 (Swearingen & Wright, 2019).	This diagnosis was chosen based on the client's need for TPN and its associated risk of hyperglycemia. The patient's glucose upon admission was 86. After TPN was administered, his glucose levels rose to 110.	1. Demonstrate how to use glucometers at home. 2. Educate the patient and his mother on the signs and symptoms of hyperglycemia.	I was unable to observe these interventions. If I had been able to, I hope the mother and son would have been actively involved in learning how to use the glucometer to monitor S.C's glucose level while receiving TPN. Patient and mother would also verbalize signs and symptoms of hyperglycemia, including increased thirst, confusion, and shortness of breath.
4. Acute pain related to amputation of the right lower leg as evidenced by patient rating pain 6/10 (Swearingen & Wright, 2019).	I chose this diagnosis because the patient stated his pain was rated a 6/10. The patient will likely have pain while his leg is healing from the amputation.	1. Administer pain medication as prescribed. 2. Utilized distraction techniques such as television, games, and music to assist pain management.	I was unable to observe these interventions. The patient's pain will hopefully be managed with pharmacological intervention. Distraction is also an effective technique in pain management as it occupies the brain and interrupts pain sensation.

Other References (APA):

Swearingen, P. L., & Wright, J. D. (2019). *All-in-one nursing care planning resource: Medical-surgical, pediatric, maternity, and psychiatric-mental health* (5th ed.). Elsevier.

Concept Map (20 Points):


Subjective Data
Patient states he has had pain and fatigue for one month.
Patient states he wants to be a professional soccer player when he grows up.
Patient states he did not tell parents about pain and fatigue due to fear they would not allow him to play soccer.
Pain 6/10
“I don’t feel good. May I have my pain medication”.
Nursing Diagnosis/Outcomes
1.Risk for infection related inadequate dressing changes as evidenced by patient and mother not participating during bandage changes (Swearingen & Wright, 2019).
Outcome: Patient and mother will demonstrate how to effectively change bandages on affected leg.
2.Disturbed body image related to amputation of right lower leg as evidenced by patient being withdrawn and refusing to look at stump (Swearingen & Wright, 2019).
Outcome: Patient will express feelings about his amputated leg.
3.Risk for hyperglycemia related to TPN as evidenced by the patient's glucose reading of 110 (Swearingen & Wright, 2019).
Outcome: Patient and mother will demonstrate how to perform glucose check with glucometer.
4.Acute pain related to amputation of the right lower leg as evidenced by patient rating pain 6/10 (Swearingen & Wright, 2019).
Outcome: Patient’s pain will remain below 5 during rotation.
Patient Information
10-year-old male presenting to the emergency apartment accompanied by his coach. Patient has no significant medical or surgical history.
Objective Data
ER vitals: HR 95, BP 110/80, RR, 24, O2 98%, Temp 37 C
Weight at arrival: 24 kg
Current Vitals: HR 80, BP 104/70, RR 20, O2 98%, Temp 37.2 C
Current weight: 20.5 kg
Glucose: 110
TPN @ 25 mL/hr
Facial grimacing
Emotional mother
Food consumption less than 25% of serving
Nursing Interventions
1.Make arrangements for the mother and son to speak with a counselor.
2.Continue to encourage participation in dressing changes.
1.Allow the patient to openly express his grief over the loss of his limb.
2.Refer the patient and mother to support groups composed of individuals with similar disabilities.
1.Demonstrate how to use glucometers at home.
2.Educate the patient and his mother on signs and symptoms of hyperglycemia.
1.Administer pain medication as prescribed.
2.Utilized distraction techniques such as television, games, and music to assist in pain management.