N321 Care Plan #2

Lakeview College of Nursing

Whitney Simlin

Demographics (3 points)

Date of Admission	Patient Initials	Age	Gender
9/22/21	C.R.	23 years old	Female
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
White	Not employed	Married	Grape extract(hives), Aloe vera(rash)
Code Status	**Height**	**Weight**	
Full	4'11"	250 lb	

Medical History (5 Points)

Past Medical History: Asthma, Chronic PTSD, Diabetes Mellitus, Asperger's, Hypothyroidism, Irritable Bowel Syndrome w/ Diarrhea

Past Surgical History: Appendectomy 9/10/2014, Lymph Node Dissection 04/22/2016

Family History: Ovarian Cysts (Maternal), Kidney Stones (Paternal)

Social History (tobacco/alcohol/drugs): Former smoker (cigars), No history of drug or alcohol use

Assistive Devices: Walker

Living Situation: Lives with husband

Education Level: Highschool

Admission Assessment

Chief Complaint (2 points): Pain in all extremities and face

History of present Illness (10 points):. On September 22, 2021 the patient was admitted to Carle Foundation Hospital for pain in all extremities and face, fever, malaise, and dizziness. Her illness is moderate to severe. There are no known aggravating factors. Relieving factors are sitting in the chair, instead of laying in the bed. She is currently being treated at Carle

Foundation Hospital with prescribed medication. Because the patient is receiving pain medication as needed, she stated “I am not in any pain right now. I feel better.”

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Sepsis

Secondary Diagnosis (if applicable): Hyperbilirubinemia

Pathophysiology of the Disease, APA format (20 points): Sepsis results when an infectious insult triggers a localized inflammatory reaction that then spills over to cause systemic symptoms of fever (as seen in the patient) or hypothermia, tachycardia, tachypnea, and either leukocytosis or leukopenia (Martini et. al., 2018). Clinical symptoms are referred to as a systemic inflammatory response syndrome.

The inflammatory reaction is mediated by the release of cytokines, including tumor necrosis factor-alpha, interleukins, and prostaglandins, from neutrophils and macrophages (Martini et. al., 2018). Once the cytokines are activated, fibrinolysis is inhibited. Overlapping processes result in microvascular thrombosis; thrombosis is one potential factor producing organ dysfunction (Martini et. al., 2018). Activation of the coagulation system leads to consumption of endogenous anticoagulants (e.g., protein C and antithrombin); this may be an important factor in the development of microvascular coagulation (Martini et. al., 2018). Sepsis is a body- wide infection that overwhelms the immune system and cause severe multi organ compromise (Capriotti & Frizzell, 2016).

A risk factor for having sepsis is having a urinary tract infection (Capriotti & Frizzell, 2016). We do not have any inclination that the patient had a urinary tract infection. The patient does have hyperbilirubinemia. This may have resulted in the patient becoming septic.

Symptoms of severe sepsis include hypoxemia, oliguria, and systolic hypertension (Martini et al., 2018). Severe symptoms often do not appear until significant damage has occurred, and they usually worsen over time. (Martini et al., 2018).

Some physical findings found in sepsis are poor perfusion, including cool skin, cool extremities, and delayed capillary refill (cold shock) (Martini et al., 2018). Other physical findings may include decreased urine output and cyanosis (blueish discoloration of the lips and/or digits) (Martini et al., 2018).

Diagnosing sepsis can be difficult. We pay attention to high or low body temperature, tachycardia, and dyspnea. Knowing the normal ranges of these vital signs are helpful when trying to determine the patient's diagnosis of sepsis.

The most common form of treatment for sepsis is an antibiotic. Our patient was given an antibiotic when sepsis was confirmed. She is currently being treated with an antibiotic, Invanz, for the sepsis infection.

Pathophysiology References (2) (APA):

Capriotti, T.M., & Frizzell, J.P., "Pathophysiology: Introductory Concepts and Clinical Perspectives" (2016).

Martini, F., Ober, C. E., Welch, K., & Hutchings, R. T. “Visual Anatomy & Physiology” (2018)

Jacobi J. (2018). Pathophysiology of sepsis. *American journal of health-system pharmacy AJHP: official journal of the American Society of Health-System Pharmacists*, *59 Suppl 1*, S3–S8. https://doi.org/10.1093/ajhp/59.suppl_1.S3

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	**Male 4.7-6.1 Female 4.2-5.4**	**n/a**	**4.76**	
Hgb	**Male: 14-18 g/dL Female:12-16 g/dL**	**n/a**	**12.2**	
Hct	**Male:40-52% Female:36-47%**	**n/a**	**36.3%**	
Platelets	**150-400 x 10^9L**	**n/a**	**393**	
WBC	**5-10x 10^9/L**	**n/a**	**7**	
Neutrophils	**55-70**	**n/a**	**60**	
Lymphocytes	**20-40**	**n/a**	**22.5**	
Monocytes	**2-8**	**n/a**	**5.2**	

Eosinophils	**1-4**	**n/a**	**2.6**	
Bands	**0.5-1**	**n/a**	**0.7**	

Chemistry Highlight All Abnormal Labs— Explanations must be in complete sentences and contain in-text citations in APA format.Lab	**Normal Range**	**Admission Value**	**Today's Value**	**Reason For Abnormal**
Na-	**136-145 mEq/L**	**n/a**	**136**	
K+	**3.5-5 mEq/L**	**n/a**	**3.8**	
Cl-	**98-106 m/Eq/L**	**n/a**	**100**	
CO2	**23-30 mEq/L**	**n/a**	**25 mg/dL**	
Glucose	**74-106 mEq/L**	**n/a**	**82**	
BUN	**10-20 mEq/L**	**n/a**	**20**	
Creatinine	**0.5-1.1 mEq/L**	**n/a**	**0.64**	
Albumin	**3.5-5 g/dL**	**n/a**	**3.5 g/dL**	
Calcium	**9-10.5 mg/dL**	**n/a**	**9.3 mg**	
Mag	**1.3-2.1 mEq/dL**	**n/a**	**2.1 mg/dL**	
Phosphate	**3-4.5 mg/dL**	**n/a**	**-**	
Bilirubin	**0.3-1 mg/dL**	**n/a**	**.4 mg**	
Alk Phos	**30-120 U/L**	**n/a**	**119**	
AST	**8-33 U/L**	**n/a**	**22**	

ALT	**7-55 U/L**	**n/a**	**45**	
Amylase	**40-140 U/L**	**n/a**	**-**	
Lipase	**10-140 U/L**	**n/a**	**97**	
Lactic Acid	**4.5-19.8 mg/dL**	**n/a**	**5.6**	

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

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
INR	**< 1.1**		**1.1**	
PT	**11-13.5**		**13.2**	
PTT	**25-35**		**29.3**	
D-Dimer	**<250**		**150**	
BNP	**<100**		**n/a**	
HDL	**60>**		**n/a**	
LDL	**<100**		**n/a**	
Cholesterol	**<130 mg/dL**		**n/a**	
Triglycerides	**<150 mg/dL**		**n/a**	
Hgb A1c	**4-5.6**	**n/a**	**5.2**	
TSH	**0.5-5.0 mIU/L**	**n/a**	**3.786**	

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	**Clear,**	**n/a**	**amber**	

	Amber/Yellow			
pH	**4.6- 8.0**	**n/a**	**6.0**	
Specific Gravity	**1.005-1.030**	**n/a**	**1.026**	
Glucose	**50-300 mg/day**	**n/a**	**Neg**	
Protein	**0-8 mg/dL**	**n/a**	**7**	
Ketones	**negative**	**n/a**	**Negative**	
WBC	**0-4 per low-power field Negative for cast**	**n/a**	**Negative**	
RBC	**Less than or equal to 2 Negative for cast**	**n/a**	**2**	
Leukoesterase	**negative**	**n/a**	**negative**	

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: less than 10,000 per mm of U** **Positive: greater than 100,000 per mm of U**	**n/a**	**negative**	
Blood Culture	**Negative**	**n/a**	**n/a**	
Sputum Culture	**Normal Upper RT**	**n/a**	**n/a**	

Stool Culture	**Normal intestinal flora**	**n/a**	**n/a**	

Lab Correlations Reference (1) (APA):

Chernecky, C. C., & Berger, B. J. (2008). ***Laboratory tests and diagnostic procedures*****. St. Louis, MO: Saunders Elsevier.**

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2020). ***Mosby's diagnostic and laboratory test reference*****. St. Louis, MO: Elsevier.**

Diagnostic Imaging

All Other Diagnostic Tests (5 points): 12 lead EKG 9/29 Sinus Tachycardia

Diagnostic Test Correlation (5 points): n/a

Diagnostic Test Reference (1) (APA): n/a

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2020). ***Mosby's diagnostic and laboratory test reference*****. St. Louis, MO: Elsevier.**

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

Home Medications (5 required)

Brand/ Generic	**Tylenol/ acetaminophen**	**ProAir HFA/ Albuterol sulfate**	**Amrix /Cyclobenzaprine hydrochloride**	**Glucose/ dextrose**	**Melatonin/ N-acetyl-5-methoxy tryptamine**
Dose	**500 mg**	**2 puff, 9 mcg**	**10 mg**	**BG 54-69 30 mg**	**3 mg**
Frequency	**PRN/every 12 hours**	**Every 4 hours, PRN**	**PRN, 3x daily**	**PRN**	**Bedtime**
Route	**PO**	**PO**	**PO**	**PO**	**PO**
Classification	**Pain relief**	**Bronchodilator**	**Skeletal muscle relaxant**	**Glucose-elevating agent**	**Acetamides**
Mechanism of Action	**Reduce production of prostaglandins**	**Relax bronchial smooth-muscle cells and inhibit histamine release**	**Acts in the brain stem to reduce or abolish tonic muscle hyperactivity**	**Prevents nitrogen and protein loss, promotes glycogen deposition**	**Inhibits adenylate cyclase and activates phospholipase C**
Reason Client Taking	**Pain**	**Asthma**	**Muscle Spasms**	**Insulin-induced**	**Insomnia**

				hypoglycemia	
Contraindications (2)	**Severe active liver disease, Severe hepatic impairment**	**Hypersensitivity to Albuterol, Hypersensitivity to it's components**	**Acute recovery phase of MI, arrhythmias**	**Diabetic coma with excessively elevated blood glucose level, Anuria**	**Depression, High Blood Pressure**
Side Effects/Adverse Reactions (2)	**Nausea, stomach pain**	**Anxiety, dizziness**	**Asthenia, confusion**	**Chills, Glycosuria**	**Bad dreams, grogginess**
Nursing Considerations (2)	**Temporary use only, may cause hepatic damage**	**Monitor serum potassium level, may develop drug tolerance**	**Use cyclobenzaprine cautiously in patients with a history of low seizure threshold, avoid giving drug to elderly patients, if possible, because of its anticholinergic**	**Use dextrose cautiously is patients with renal failure, Give highly concentrated dextrose solution by venous catheter**	**Instruct patient to take at bedtime. Avoid alcohol or other CNS depressants**

Hospital Medications (5 required)

Brand/ Generic	**Lovenox/ Enoxaparin**	**Invanz/ Ertapenem**	**Atarax /Hydroxine**	**Toprol-XL/**	**Synthroid/ Levothyroxi**

	sodium	**sodium**	**hydrochloride**	**Metoprolol succinate**	**ne sodium**
Dose	**40 mg**	**120 ml/hr**	**25 mg**	**12.5 mg**	**88 mcg**
Frequency	**Every 12 hours**	**Every 24 hours**	**3x daily**	**2x daily**	**Daily**
Route	**Sub-q**	**IVPB**	**PO**	**PO**	**PO**
Classification	**Anticoagulant**	**Antibiotic**	**Antiemetic**	**Antianginal**	**Mild hypothyroidism**
Mechanism of Action	**Potentiates the action of antithrombin III, a coagulation inhibitor**	**Inhibits bacterial cell wall synthesis by binding to specific proteins inside the cell wall.**	**Competes with histamine for histamine, sedative actions occur at SNS**	**Inhibits stimulation of beta 1 receptor sites**	**Replaces endogenous thyroid hormone and increases energy expenditure**
Reason Client Taking	**Prevent DVT**	**Sepsis**	**Edema**	**Helps reduce blood pressure**	**hypothyroidism**
Contraindications (2)	**Active major bleeding, pork products or their components**	**Hypersensitivity to ertapenem, hypersensitivity to beta lactams**	**Breastfeeding, early pregnancy**	**Acute heart failure, cardiogenic shock**	**Acute MI, hypersensitivity to levothyroxine**
Side Effects/Adverse Reactions (2)	**Confusion, pulmonary edema**	**Anaphylaxis, prolonged PT**	**Drowsiness, Hallucinations**	**CVA, depression**	**Anxiety, angina**
Nursing Considerations (2)	**Use cautiously with those with bleeding diathesis, be aware the drug isn't recommended for people with prosthetic heart valves**	**Obtain sputum and urine for culture sensitivity testing, expect to start therapy before results are**	**Don't give hydroxyzine with subcutaneous or IV route because tissue necrosis may occur, Observe**	**Use cautiously with patients that have angina, use cautiously in patients that have**	**Use cation when administering levothyroxine to children, use cation when administering to elderly**

		available	**for oversedation if a patient takes another CNS depressant**	**hypertension**	**with underlying cardiovascular disease**

Medications Reference (1) (APA):

Chernecky, C. C., & Berger, B. J. (2008). ***Laboratory tests and diagnostic procedures*****. St. Louis, MO: Saunders Elsevier.**

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2020). ***Mosby's diagnostic and laboratory test reference*****. St. Louis, MO: Elsevier.**

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	 **Alert and Oriented x 4** **No distress noted** **Adequately groomed and dressed appropriately**

INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☐** **Type:**	 **Pale** **Normal** **Cool** **Normal <3 secs.** **No rashes** **No bruises** **No wounds** **19** **No**
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	 Head and neck symmetrical, normal cephalic **Ears are free of discharge.** **Eyes symmetrical, EOM's intact** **Nose symmetrical, no deviation,** **No missing teeth, good oral hygiene**
CARDIOVASCULAR (2 points): **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 without murmurs, gallops, or rubs. PMI auscultated at 5th intercostal space at MCL. Normal rate and rhythm. Pulses 2+ throughout bilaterally. Capillary refill less than 3 seconds fingers and toes bilaterally. No edema inspected or palpated in all extremities. Epitrochlear lymph nodes nonpalpable bilaterally. Homans sign negative bilaterally**
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☐** **Breath Sounds: Location, character**	 **No accessory muscle use** **Normal breathing sounds**
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:**	Regular diet **4'11"** **250 lbs.** **Bowel sounds are normal/ active in all 4 quadrants.** **Today** **No CVA tenderness** **No abnormalities found upon inspection for distention, incision, scars, drains, or wounds**

Distention: **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☐** **Nasogastric: Y ☐ N ☐** **Size:** **Feeding tubes/PEG tube Y ☐ N ☐** **Type:**	
GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N ☐** **Dialysis: Y ☐ N ☐** **Inspection of genitals:** **Catheter: Y ☐ N ☐** **Type:** **Size:**	 **Yellow** **Clear** **250 cc** **Unable to assess** **No** **No** **Yes** **No** **No**
MUSCULOSKELETAL (2 points): **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☐ N☒** **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	 **Appropriate for age** **Normal ROM** **uses 1 assist, walker** **Strength in both upper and lower extremities**
NEUROLOGICAL (2 points): **MAEW: Y ☐ N☐** **PERLA: Y ☐ N☐** **Strength Equal: Y ☐ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	 **Yes** **Yes** **Yes, equal strength bilaterally** **A &O x4** **n/a** **Normal** **Lethargic**
PSYCHOSOCIAL/CULTURAL (2 points):	

Coping method(s): **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	**Good coping skills** **n/a** **Husband is POA. Pt lives at home with husband.**

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0700	**115**	**133/70**	**24**	**98.3**	**92**
1100	**120**	**120/80**	**22**	**98.4**	**92**

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0700	**1-10**	**Non-specific**	**0**	**n/a**	**None**
0900	**1-10**	**Head**	**5**	**Headache, dull pain**	**Notified RN**

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: **Location of IV:** **Date on IV:** **Patency of IV:** **Signs of erythema, drainage, etc.:** **IV dressing assessment:**	n/a n/a n/a n/a n/a n/a

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
400	**250**

Nursing Care

Summary of Care (2 points)

Overview of care: The patient was treated for the sepsis. The infection is being managed according the provider's order.

Procedures/testing done: Upper extremity imaging- x-ray shows bilateral effusions and air space densities

Complaints/Issues: Sepsis

Vital signs (stable/unstable): Stable

Tolerating diet, activity, etc.: tolerating diet and activity

Physician notifications: n/a

Future plans for patient: patient will be discharged home after treatment

Discharge Planning (2 points)

Discharge location: p/t address is listed in chart

Home health needs (if applicable): oxygen therapy

Equipment needs (if applicable): walker

Follow up plan: n/a

Education needs: n/a

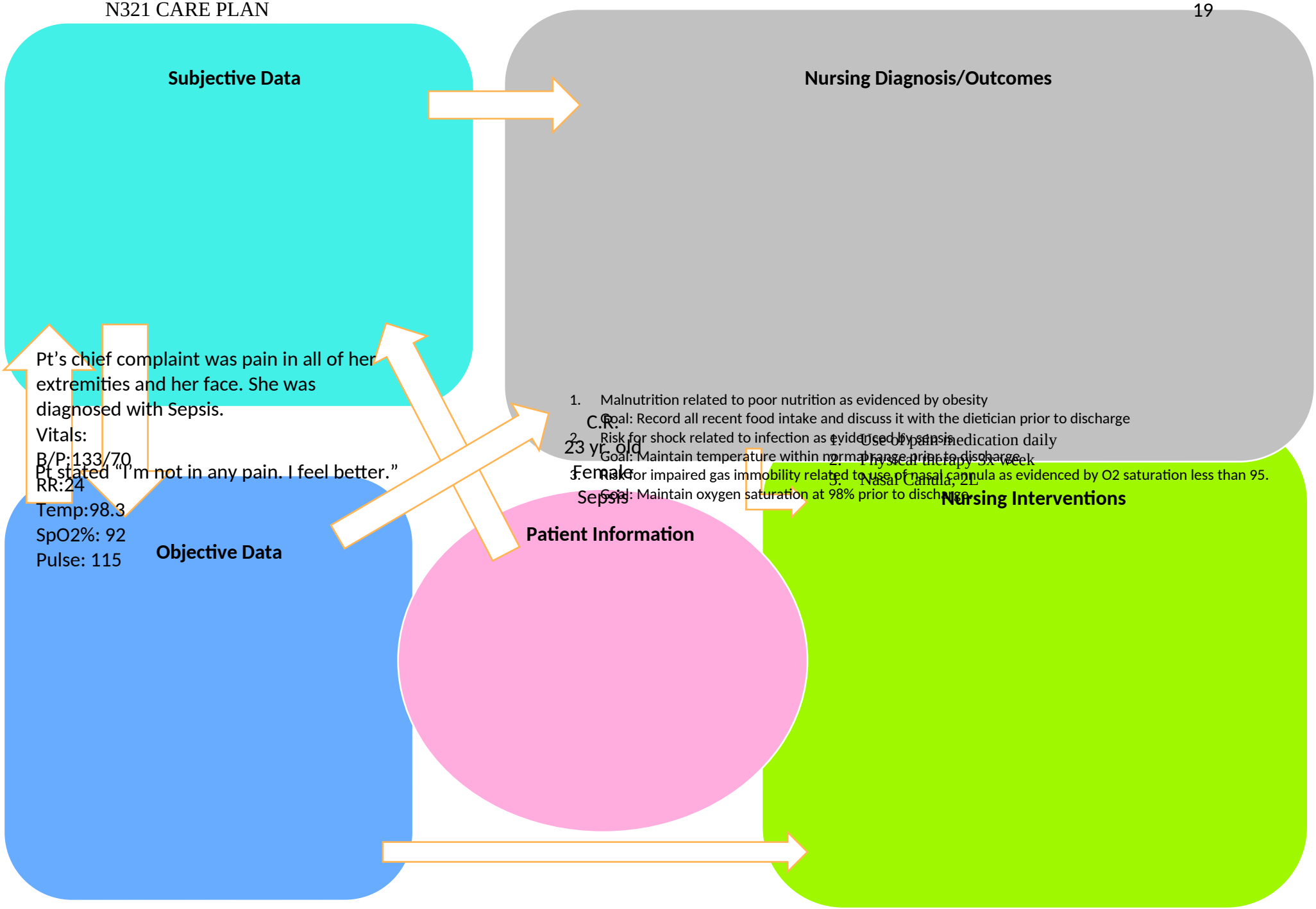
Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis	Rational	Intervention (2 per dx)	Evaluation
• Include full nursing diagnosis with "related to" and	• Explain why the nursing diagnosis was chosen		• How did the patient/family respond to the nurse's actions?

"as evidenced by" components			• Client response, status of goals and outcomes, modifications to plan.
1. Malnutrition related to poor nutrition as evidenced by obesity	The patient is obese.	1. Dietician consult 2. Meal intake should be documented at every meal	Patient is appreciative of the nurses' actions and will work with a nutritionist to make some lifestyle changes. The client's response is appropriate. She is will to do what is necessary to meet her goals and to be healthy.
3. Risk for shock related to infection as evidenced by sepsis	The patient had sepsis	1. Check temperature regularly for signs of infection 2. Patient will be assessed for feelings of malaise regularly	The patient is appreciative of the nurse showing her how to check her vitals. The client is willing to participate in keeping track of her vitals.
4. Risk for impaired gas immobility related to use of nasal cannula as evidenced by O2 saturation less than 95.	The patient has oxygen saturation of 92	1. Nurse will have nasal cannula available for patient to use 2. Nurse will assess the oxygen saturations regularly to make sure the oxygen therapy is enough	The patient will monitor changes in her breathing as suggested by the nurse. The patient will use the oxygen she was prescribed as needed.

Other References (APA):

Concept Map (20 Points):


Subjective Data
Pt's chief complaint was pain in all of her extremities and her face. She was diagnosed with Sepsis.
Pt stated "I'm not in any pain. I feel better."
Objective Data
Vitals:
B/P:133/70
RR:24
Temp:98.3
SpO2%: 92
Pulse: 115
Nursing Diagnosis/Outcomes
1. Malnutrition related to poor nutrition as evidenced by obesity
Goal: Record all recent food intake and discuss it with the dietician prior to discharge
2. Risk for shock related to infection as evidenced by sepsis
Goal: Maintain temperature within normal range prior to discharge
3. Risk for impaired gas immobility related to use of nasal cannula as evidenced by O2 saturation less than 95.
Goal: Maintain oxygen saturation at 98% prior to discharge
Patient Information
C.R.
23 yr. old
Female
Sepsis
Nursing Interventions
1. Use of pain medication daily
2. Physical therapy 3x week
3. Nasal Canula, 2L