N311 Care Plan 3

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N311: Foundations of Professional Practice

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Demographics (5 points)

Date of Admission 10/7/24	Client Initials DM	Age 78	Gender Male
Race/Ethnicity White	Occupation Retired	Marital Status Married	Allergies Vancomycin (rash)
Code Status Full	Height 6'0''	Weight 200 lbs	

Medical History (5 Points)

Past Medical History: anxiety, arrythmia, arthritis, PTSD

Past Surgical History: total hip arthroplasty (bilateral), total knee arthroplasty (bilateral)

Family History: no known family history

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use):

Stopped smoking 26 years ago

No drugs

No tobacco

Does drink

Admission Assessment

Chief Complaint (2 points): left knee pain

History of Present Illness – OLD CARTS (10 points):

patient complaint of left knee pain

intermittent pain coming and going

pain is a 6 out of 10 on the pain scale

the patient took acetaminophen for the pain

before admission, the patient states being confused for two days

Primary Diagnosis

Primary Diagnosis on Admission (3 points): left periprosthetic knee infection

Secondary Diagnosis (if applicable): none noted

Pathophysiology

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

Pathophysiology References (2) (APA):

Pathophysiology of left periprosthetic knee infection

Periprosthetic is a serious complication of an arthroplasty infection. This disease's characterizations include a low cure rate, recurrences, and a long duration of time. Even though fungal infections are known to be infrequent, they can often be catastrophic. This disease can be easily misdiagnosed or even missed entirely, which leads to wrong treatment options. Periprosthetic joint infection is the most serious complication after an arthroplasty surgery. The most common pathogen of this disease is Staphylococcus. There are fungal periprosthetic joint infections that are less common. The most common fungal periprosthetic joint infection is Candida. Fungal periprosthetic joint infections can lead to joint damage if not treated early (Liu & Lin, 2024). Periprosthetic joint infections are hard to identify, but if not identified early, it can lead to damage of that joint it has infected. An important developmental factor in periprosthetic joint infection includes the formation of a biofilm. Staphylococcus, more specifically coagulase-negative, have adhesins on their surface that produce "extracellular polysaccharide biofilms." These biofilms then promote an adherence onto foreign objects, including things such as catheters and prosthetic devices. Biofilms take about four weeks to fully mature which then leads to an impact on how therapeutic regimens work. This disease is considered recurrent because strains of Staphylococcus form slow-growing colonies, which leads to recurrent, more challenging infections (Ayoade, 2023). The longer a periprosthetic joint infection is left alone, the more damaging it is. The more damaging the disease becomes, the harder it is to find therapeutic treatments that will benefit the client, maintain their pain level, and stop the spread of infection. The treatment for periprosthetic joint infections is known as "DAIR" which stands for "debridement, antibiotics, and implant retention" (Liu & Lin, 2024).

References

Ayoade, F. (2023, October 14). *Periprosthetic joint infection*. StatPearls [Internet]. https://www.ncbi.nlm.nih.gov/books/NBK448131/

Liu, Y., & Lin, J. (2024, April 13). *Periprosthetic bacterial and fungal infection after total knee arthroplasty with one-stage debridement: A case report - journal of medical case reports*. BioMed Central. https://jmedicalcasereports.biomedcentral.com/articles/10.1186/s13256-024-04492-5

Laboratory Data (20 points)

If laboratory data is unavailable, values will be assigned by the clinical instructor

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	4.59	4.24	Caused by a decrease in bone marrow production
Hgb	13.0-16.5	13.2	12.2	Indication of anemia
Hct	38.0-50.0	39.9	36.5	Can be an indication of anemia
Platelets	140-440	333	311	
WBC	4.0-12.0	11.70	10.30	
Neutrophils	40.0-68.0	77.1	85.0	Can be an indication of an autoimmune disease
Lymphocytes	19.0-49.0	12.5	9.1	Can be an indication of an infection
Monocytes	3.0-13.0	9.7	5.8	
Eosinophils	0.0-0.8	0.2	0.0	
Bands	Not done →			

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	140	141	
K+	3.5-5.1	4.1	4.4	
Cl-	98-107	105	109	Caused by parallel shifts in sodium and bicarbonate levels
CO2	22-30	24	24	
Glucose	70-99	92	127	Indication of diabetes mellitus

BUN	**8-26**	**10**	**14**	
Creatinine	**0.70-1.30**	**0.79**	**0.70**	
Albumin	**3.5-5.0**	**3.5**	**3.0**	**Sign of disease**
Calcium	**8.7-10.5**	**9.9**	**9.2**	
Mag	**1.6-2.6**	**Not done on admission**	**2.2**	
Phosphate	**Not done →**			
Bilirubin	**0.2-1.2**	**1.2**	**0.4**	
Alk Phos	**40-150**	**83**	**66**	

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 clear →**		**Not done**	
pH	**5.0-9.0**	**8.0**	**Not done**	
Specific Gravity	**1.003-1.030**	**1.016**	**Not done**	
Glucose	**Negative**	**Negative**	**Not done**	
Protein	**Negative**	**Trace**	**Not done**	**Sign of disease**
Ketones	**Negative**	**Negative**	**Not done**	
WBC	**Negative**	**Negative**	**Not done**	
RBC	**Negative**	**Negative**	**Not done**	
Leukoesterase	**Not done**	**Not done**	**Not done**	

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**	**Not done →**		
Blood Culture	**Negative**	**Not done →**		
Sputum Culture		**Not done →**		
Stool Culture		**Not done →**		

Lab Correlations Reference (1) (APA):

References

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2024). *Mosby's® Diagnostic and Laboratory Test Reference*. Elsevier.

Diagnostic Imaging

All Other Diagnostic Tests (10 points): CT head on brain without contrast

A CT scan is a noninvasive way to take a picture of a part of the body to see what is going on. CT scans use X-ray technology to produce images of the body, such as the brain, to see what is happening on the inside. This type of scan provides more detail and information than can a standard X-ray machine. CT scans use a circular motion around the body to be able to see many images of the brain. Due to the patient being disoriented and having mood changes, a CT scan was done to see if there is any blood or damage of some sort in his brain.

Diagnostic Imaging Reference (1) (APA):

References

Computed Tomography (CT or cat) scan of the brain. Johns Hopkins Medicine. (2021, August 8). https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/computed-tomography-ct-or-cat-scan-of-the-brain

Assessment

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

General, Psychosocial/Cultural, and ONE focused assessment specific to the client is required.

The student and instructor may complete these assessments together.

GENERAL: **Alertness:** **yes; tired** **Orientation:** **yes** **Distress:** **no** **Overall appearance:** **good, flushed**	
INTEGUMENTARY: **Skin color:** **tan** **Character:** **redness around surgical site** **Temperature:** **warm** **Turgor:** **slower than 2 seconds** **Rashes:** **dry skin on face** **Bruises:** **bruises on arm** **Wounds:** **no open wound; small wound on knee**	

Braden Score: 21 **Drains present: Y☐ N ☒** **Type:**	
HEENT: **Head/Neck: symmetrical, nodule on left side of neck** **Ears: symmetric, no bumps** **Eyes: symmetric, no swelling** **Nose: deviated septum** **Teeth: no real teeth; all fake**	**Has cataracts; right eye in the last 10 years** .
CARDIOVASCULAR: **Heart sounds: normal** **S1, S2, S3, S4, murmur etc. no murmur** **Cardiac rhythm (if applicable):** **Peripheral Pulses: strong** **Capillary refill: 3 seconds; good** **Neck Vein Distention: Y ☐ N ☒ Edema Y ☒ N ☐** **Location of Edema: swelling in left knee**	**Has a Holter monitor**
RESPIRATORY: **Accessory muscle use: Y☒ N ☐** **Breath Sounds: Location, character all normal; no wheezing or crackles**	.
GASTROINTESTINAL: **Diet at home: vegetarian** **Current Diet: vegetarian but eats meat loaf** **Height: 6’0’’**	.

Weight: 200 lbs **Auscultation Bowel sounds:** normal **Last BM:** yesterday morning (stool softeners) **Palpation: Pain, Mass etc.:** no pain **Inspection:** **Distention:** left knee swollen **Incisions:** left knee to take culture **Scars:** surgery **Drains:** none **Wounds:** on left knee **Ostomy: Y** ☐ **N** ☒ **Nasogastric: Y** ☐ **N** ☒ **Size:** **Feeding tubes/PEG tube Y** ☐ **N** ☒ **Type:**	
GENITOURINARY: **Color:** yellow **Character:** clear **Quantity of urine:** 240 mL **Pain with urination: Y** ☐ **N** ☒ **Dialysis: Y** ☐ **N** ☒ **Inspection of genitals:** normal **Catheter: Y** ☐ **N** ☒ **Type:** **Size:**	
MUSCULOSKELETAL: **Neurovascular status:** WDL normal **ROM:** tight shoulders, limited range in hips and knees	Mostly independent; helps make the bed

Supportive devices: always uses a cane **Strength:** good strength everywhere but left leg **ADL Assistance: Y☒ N ☒** **Fall Risk: Y ☒ N☐** **Fall Score:** 21 **Activity/Mobility Status:** walks occasionally **Independent (up ad lib)** ☒ **Needs assistance with equipment** ☒ cane **Needs support to stand and walk** ☐	
NEUROLOGICAL: **MAEW: Y ☒ N☐** **PERLA: Y ☒ N☐** **Strength Equal: Y ☐ N ☒ if no - Legs ☒ Arms ☐ Both ☐** **Orientation:** alert and awake **Mental Status:** appropriate for age/WDL **Speech:** can talk **Sensory:** intact **LOC:** alert and oriented x4 with no signs of acute distress	Left knee weakness
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** sleep **Developmental level:** WDL/appropriate **Religion & what it means to pt.:** no stated religion **Personal/Family Data (Think about home environment, family structure, and available family support):** husband and patient program with dinner	.

Vital Signs, 1 set (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0700	60	120/67 mmHG	18	97 F	98%

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0756	0-10	Left knee	4	intermittent	Pain management

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
480 mL P.O. 150 mL IV	240 mL urine

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis

Nursing Diagnosis	Rationale	Interventions (2 per dx)	Outcome Goal (1 per dx)	Evaluation
• Include full nursing diagnosis with “related to” and “as evidenced by” components • Listed in order by priority – highest priority to lowest priority	• Explain why the nursing diagnosis was chosen			• How did the client/family respond to the nurse’s actions? • Client response, status of goals and outcomes, modifications to plan.

pertinent to this client				
1. Risk for falls related to left knee surgery as evidenced by an unsteady gait	**This nursing diagnosis was chosen to decrease the patient's risk for falls**	**1.Non-slip socks** **2.Consistently continuing to use a cane**	**1. The patient will have no falls during the day**	**The patient was fine with this action because he is used to using a cane daily**
2. Risk for imbalanced fluid related to multiple infections as evidenced by mood changes and dizziness	**This nursing diagnosis was chosen to help improve the patient's nutrition**	**1. Monitor vitals** **2.Encourage fluid intake**	**1. The patient will drink one cup of water every hour for one shift (12 hours)**	**The patient was fine with this action and agreed to increase his fluid intake to help with his dehydration and nutritional intake**

Other References (APA):

Concept Map (20 Points):

Subjective Data

Nursing Diagnosis/Outcomes

Objective Data

Client Information

Nursing Interventions