

N311 Care Plan #1

Lakeview College of Nursing

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### Demographics (5 points)

<b>Date of Admission</b> 10/4/2021 Sarah Bush Hospital	<b>Patient Initials</b> T.C.M.	<b>Age</b> 52yrs	<b>Gender</b> Female
<b>Race/Ethnicity</b> Caucasian	<b>Occupation</b> Homemaker	<b>Marital Status</b> Married	<b>Allergies</b> No known allergies
<b>Code Status</b> Full Code	<b>Height</b> 157.4cm	<b>Weight</b> 60.7 kg	

### Medical History (5 Points)

**Past Medical History:** Anxiety, arthritis, depression, lower back pain, lumbar spinal stenosis

**Past Surgical History:** Cesarean section x2 (date unknown)  
Spinal fusion surgery (10/4/2021)

**Family History:** Mother- Heart failure, COPD

**Social History (tobacco/alcohol/drugs):** Former smoker. Quit in 2018. Patient claims no tobacco use and occasional alcohol use (1-2 times weekly).

### Admission Assessment

**Chief Complaint (2 points):** Patient states “I have severe lower back pain; my pain is 10/10”

**History of present Illness (10 points):** Patient was in a serious car accident in 2012 and has had back lower back pain intermittently since then. The last three years, she has suffered from constant back pain. Chiropractic care, physical therapy and other CAM methods did not treat the pain. Doctors felt it was in her best interest to receive a spinal fusion surgery on L3 and L4 vertebrae after diagnosing her with lumber spinal stenosis.

### **Primary Diagnosis**

**Primary Diagnosis on Admission (3 points):** Lumbar Spinal Stenosis

**Secondary Diagnosis (if applicable):** chronic lower back pain

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

Lumbar spinal stenosis is the narrowing of the spinal canal which compresses the spinal nerves. Spinal stenosis is not typically caused by a traumatic event, such a car wreck like my patient was in. It is typically caused by degenerated disc disorder or osteoarthritis (Capriotti, 2020). Some common signs and symptoms of spinal stenosis are lower back pain, neck pain, numbness, weakness, cramping, or pain in the legs or arms. Some other not as common symptoms would include foot drop, urinary incontinence, and bowel incontinence (Capriotti, 2020). In rare cases, spinal stenosis will be asymptomatic (Lee et al., 2020). The greatest risk factor for spinal stenosis is being over the age of 50. Other risk factors would include degenerative changes in the body, trauma, scoliosis, congenital spine deformities, or genetic diseases (Mayo Clinic, 2020). Spinal stenosis can be diagnosed by a spinal X-ray, an MRI, or a CT scan. Doctors will also take into consideration a patient's health history as well as signs and symptoms to conclude the diagnoses (Mayo Clinic, 2020). Many patients with spinal stenosis have successful treatment with rest, the use of NSAIDs or muscle relaxants, and physical therapy. Many patients also try chiropractic care and acupuncture. Opioid analgesics, nerve blocks

and steroid injections are the next forms of treatment if the previous treatments do not help. The last resort for treatment would be a decompressive laminectomy (Capriotti, 2020). My patient was at a high risk for spinal stenosis due to her age, and her history of arthritis. In 2012, my patient was in a serious car accident which led to worsening lower back pain and this could have also played a role in the worsening spinal stenosis. With her history of arthritis, my patient would be at risk for an overgrowth of osteophytes which compresses the spinal nerves and causes pain (Capriotti, 2020). My patient was treated with a spinal fusion surgery to relieve the compression on the spinal nerves and to ease the lower back pain. My patient should be educated on the benefits of physical therapy, massage therapy, acupuncture, and chiropractor care to avoid future back problems.

APA References:

Capriotti, T. M. (2020). *Davis Advantage for Pathophysiology Introductory Concepts and*

*Clinical Perspectives* (2nd Edition). F. A. Davis

Company. <https://fadavisreader.vitalsource.com/books/9781719641470>

Lee, B. H., Moon, S.-H., Suk, K.-S., Kim, H.-S., Yang, J.-H., & Lee, H.-M. (2020, October). *Lumbar Spinal Stenosis: Pathophysiology and Treatment Principle: A Narrative Review*. *Asian spine journal*. Retrieved October 12, 2021, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7595829/>.

Mayo Foundation for Medical Education and Research. (2020, October 24). *Spinal Stenosis*. Mayo Clinic. Retrieved October 12, 2021, from

<https://www.mayoclinic.org/diseases-conditions/spinal-stenosis/symptoms-causes/syc-20352961>.

### 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	3.90-4.98x10 <sup>6</sup> /mcL		2.32 L	Low RBC could be due to patient being post-surgery. Post-surgery inflammation can cause reduction in erythropoiesis (Capriotti, 2020).
Hgb	12.0-15.5 gm/dL		7.2 L	This value could be low due to the blood loss during and after surgery (Capriotti, 2020).
Hct	35-45%		21.6 L	This value could be low due to blood loss during and after surgery (Capriotti, 2020).
Platelets	140-400/mm <sup>3</sup>		175/mm <sup>3</sup>	
WBC	4.0-9.0K/mcL		7.8/mcL	
Neutrophils	40-70%		72.9	A high neutrophil count could be associated with a post-surgery inflammatory response (Capriotti, 2020).
Lymphocytes	10-20%		19.2	A high lymphocyte count could be due to being post-surgery and is a natural immune response to protect against infection and inflammation (Capriotti, 2020) .
Monocytes	3.0-13.0%		7.3	
Eosinophils	0.0-8.0%		0.2	
Bands	0.0-10.0%		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 Value	Today's Value	Reason For Abnormal
Na-	135-145 mmol/L		142 mmol/L	
K+	3.5-5.1 mmol/L		3.7 mmol/L	
Cl-	98-107 mmol/L		106 mmol/L	
CO2	22-29 mmol/L		28 mmol/L	
Glucose	70-99		106	Patient had just eaten breakfast and was drinking a coke; this could cause an increase in glucose levels in the blood.
BUN	6-20		7	
Creatinine	0.50-1.0		.56	
Albumin	3.5-5.2		4.1	
Calcium	8.4-10.5		8.9	
Mag	N/A		N/A	
Phosphate	N/A		N/A	
Bilirubin	0.0-1.2		1.1	
Alk Phos	35-105		N/A	

**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	N/A			
pH	N/A			

<b>Specific Gravity</b>	N/A			
<b>Glucose</b>	N/A			
<b>Protein</b>	N/A			
<b>Ketones</b>	N/A			
<b>WBC</b>	N/A			
<b>RBC</b>	N/A			
<b>Leukoesterase</b>	N/A			

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

<b>Test</b>	<b>Normal Range</b>	<b>Value on Admission</b>	<b>Today's Value</b>	<b>Explanation of Findings</b>
<b>Urine Culture</b>	N/A			
<b>Blood Culture</b>	N/A			
<b>Sputum Culture</b>	N/A			
<b>Stool Culture</b>	N/A			

**Lab Correlations Reference (APA):**

Capriotti, T. M. (2020). *Davis Advantage for Pathophysiology Introductory Concepts and*

*Clinical Perspectives* (2nd Edition). F. A. Davis

Company. <https://fadavisreader.vitalsource.com/books/9781719641470>

**Diagnostic Imaging**

**All Other Diagnostic Tests (10 points):**

**MRI Completed in June 2021-** Patient exhibited signs of lower back injury due to chronic back pain that was unresolved by other methods. The MRI showed lumbar spinal stenosis.

**Current Medications (10 points, 2 points per completed med)  
\*5 different medications must be completed\***

Medications (5 required)

<b>Brand/ Generic</b>	<b>Biotin</b>	<b>Benadryl</b>	<b>DULoxetine</b>	<b>Diazepam</b>	<b>Norco</b>
<b>Dose</b>	<b>600mg</b>	<b>25mg</b>	<b>20mg</b>	<b>5mg</b>	<b>7.5-325mg</b>
<b>Frequency</b>	<b>QD</b>	<b>HS</b>	<b>BID</b>	<b>PRN</b>	<b>PRN</b>
<b>Route</b>	<b>PO</b>	<b>PO</b>	<b>PO</b>	<b>PO</b>	<b>PO</b>
<b>Classification</b>	<b>Water-soluble vitamin (Bistas, 2021)</b>	<b>Antihistamine, Antianaphylaxis adjunct (Jones, 2021).</b>	<b>Selective serotonin/nor epinephrine reuptake inhibitor (Jones, 2021).</b>	<b>Benzodiazepines (Jones, 2021).</b>	<b>Opioid agonist/ Non-opioid analgesic combination (Jones, 2021).</b>

<b>Mechanism of Action</b>	<b>“Biotin acts as a coenzyme for multiple carboxylases in humans. Biotin works by attaching to specific lysine residues” (Bistas, 2021).</b>	<b>Binds to central and peripheral H1 receptors, preventing histamine from binding to the site of action (Jones, 2021).</b>	<b>Inhibits dopamine, neuronal serotonin, and norepinephrine reuptake to potentiate noradrenergic and serotonergic activity in the CNS (Jones, 2021)</b>	<b>Diazepam will bind to receptors in various regions of the brain and spinal cord. This increases the inhibitory effects of GABA (Jones, 2021).</b>	<b>Hydrocodone relieves pain by changing the way the brain and the nervous system respond to pain (MedlinePlus, 2021). Acetaminophen is a less potent pain reliever that increases the effects of hydrocodone.</b>
<b>Reason Client Taking</b>	<b>To promote growth of hair and nails</b>	<b>Seasonal allergies</b>	<b>Depression</b>	<b>Anxiety disorder</b>	<b>Lower back pain, post-surgery</b>
<b>Contraindications (2)</b>	<b>There are no evident contraindications to taking this vitamin (Bistas, 2021).</b>	<b>Breastfeeding, hypersensitivity to diphenhydramine, similar antihistamines, or their components, use in newborns (Jones, 2021).</b>	<b>Cirrhosis, hypersensitivity to duloxetine (Jones, 2021).</b>	<b>Drowsiness, tiredness, weakness, loss of balance (Jones, 2021)</b>	<b>Hypersensitivity to acetaminophen or hydrocodone, severe asthma or breathing problems (Jones, 2021).</b>
<b>Side Effects/Adverse Reactions (2)</b>	<b>Upset stomach (Bistas, 2021).</b>	<b>Confusion, dizziness, drowsiness, palpitations, blurred vision,</b>	<b>Abnormal dreams, aggression, seizures, syncope, hot flashes,</b>	<b>Vertigo, blurred vision, depression, lethargy, constipation</b>	<b>Vomiting, nausea, slowed or irregular breathing (MedlinePlus)</b>

		nausea (Jones, 2021).	headaches, insomnia, chills, anxiety (Jones, 2021).	n, nausea, hypotension, tremor (Jones, 2021)	us, 2021).
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**Medications Reference (APA):**

Bistas, K. G. (2021, July 10). *Biotin*. StatPearls [Internet]. Retrieved October 12, 2021, from <https://www.ncbi.nlm.nih.gov/books/NBK554493/>.

Jones, D.W. (2021). Nurse’s drug handbook. (A. Bartlett, Ed.) (20th ed.). Jones & Bartlett Learning.

MedlinePlus. (updated 2021, March 1). MidlinePlus. U.S. National Library of Medicine. <http://medlineplus.gov/>

**Assessment**

**Physical Exam (18 points)**

<p><b>GENERAL:</b>  <b>Alertness:</b>  <b>Orientation:</b>  <b>Distress:</b>  <b>Overall appearance:</b></p>	<p>Patient was alert and oriented to person, place, time, and situation. (x4)                  Patient was relaxed and accepting of her situation during assessment. Overall appearance was clean, neat, and put together.</p>
<p><b>INTEGUMENTARY:</b>  <b>Skin color:</b>  <b>Character:</b>  <b>Temperature:</b>  <b>Turgor:</b>  <b>Rashes:</b>  <b>Bruises:</b>  <b>Wounds:</b>  <b>Braden Score:</b>  <b>Drains present:</b> Y <input checked="" type="checkbox"/>      N <input type="checkbox"/>  <b>Type:</b></p>	<p>Patient’s skin was warm, dry, tan, and intact. Patient has yellowing of the feet and hands due to iodine used during surgery. Skin turgor was less than 3 seconds. Patient had no rashes or wounds. Patient had small purple, round bruise on lower lip due to intubation during surgical procedure. Braden Score: 19 which represents low risk of pressure injury.                   Patient had a hemovac drain. Sanquineous drainage present.</p>

<p><b>HEENT:</b>  <b>Head/Neck:</b>  <b>Ears:</b>  <b>Eyes:</b>  <b>Nose:</b>  <b>Teeth:</b></p>	<p>Patient’s head appears normocephalic. Neck appeared symmetrical with trachea at midline. Ears had no visible drainage, and no redness. Patient claims no hearing loss or pain in the ears. Eyes showed PERRLA and had strong extra ocular movements when tested, pupils were observed to be 2 mm.  Eyes appeared to be symmetrical with no drainage present, conjunctive was pink and not inflamed. Patient’s nose was symmetrical and deviated septum was seen. Patient has good oral hygiene, tongue appeared pink and midline with no sores. No dental carries were present. Buccal mucosa was pink and moist.</p>
<p><b>CARDIOVASCULAR:</b>  <b>Heart sounds:</b>  <b>S1, S2, S3, S4, murmur etc.</b>  <b>Cardiac rhythm (if applicable):</b>  <b>Peripheral Pulses:</b>  <b>Capillary refill:</b>  <b>Neck Vein Distention:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>  <b>Edema</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/>  <b>Location of Edema:</b></p>	<p>S1 and S2 heard. S3 and S4 not heard. Regular heartbeat was heard upon auscultation Pulses were palpable at carotid, radial, and brachial pulse sites bilaterally. No jugular vein distention was noted. Capillary refill was less than 3 seconds. Patient had edema in both hands due to stopping arthritis medication for the surgery.</p>
<p><b>RESPIRATORY:</b>  <b>Accessory muscle use:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>  <b>Breath Sounds: Location, character</b></p>	<p>No abnormal lung sounds were heard upon auscultation. Respiratory rate was observed while client was seated in her chair to be 14 breaths per minute. Patient has no chest deformities. Respirations were observed to be even, calm, and regular. No accessory muscles were used. Patient denies mucus and coughing.</p>
<p><b>GASTROINTESTINAL:</b>  <b>Diet at home:</b>  <b>Current Diet</b>  <b>Height:</b>  <b>Weight:</b>  <b>Auscultation Bowel sounds:</b>  <b>Last BM:</b>  <b>Palpation: Pain, Mass etc.:</b>  <b>Inspection:</b>  <b>Distention:</b>  <b>Incisions:</b>  <b>Scars:</b>  <b>Drains:</b>  <b>Wounds:</b>  <b>Ostomy:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p>	<p>Patient states she eats a healthy diet while living at home. She focuses on eating enough protein, fruits, and vegetables. Her current diet in the hospital is regular and unlimited. Patient has a good appetite and was able to eat eggs and toast for breakfast.  Patient’s height is 157.4cm.  Patient’s weight is 60.7 kg.  Bowel sounds were heard in all four quadrants. Patient’s last bowel movement was the evening of 10/3/2021. Patient states that bowel movement was normal in consistency and color. Abdomen was soft and not tender to palpation. Patient had a hemovac drain and sanguineous drainage present.</p>

<p><b>Nasogastric:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>  <b>Size:</b>  <b>Feeding tubes/PEG tube</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>  <b>Type:</b></p>	
<p><b>GENITOURINARY:</b>  <b>Color:</b>  <b>Character:</b>  <b>Quantity of urine:</b>  <b>Pain with urination:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>  <b>Dialysis:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>  <b>Inspection of genitals:</b>  <b>Catheter:</b> Y <input type="checkbox"/> N <input checked="" type="checkbox"/>  <b>Type:</b>  <b>Size:</b></p>	<p>Patient had a urinary output of 200ml during this shift. Patient states there was no pain, urgency, or frequency upon urination. Urine was yellow, clear, and presented no foul odor. No dialysis or catheters in place upon assessment. Inspection of genitals was not completed.</p>
<p><b>MUSCULOSKELETAL:</b>  <b>Neurovascular status:</b>  <b>ROM:</b>  <b>Supportive devices:</b>  <b>Strength:</b>  <b>ADL Assistance:</b> Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/>  <b>Fall Risk:</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/>  <b>Fall Score:</b> 45  <b>Activity/Mobility Status:</b>  <b>Independent (up ad lib)</b> <input type="checkbox"/>  <b>Needs assistance with equipment</b> <input type="checkbox"/>  <b>Needs support to stand and walk</b> <input type="checkbox"/></p>	<p>Patient has a fall risk score of 45 due to spinal surgery. She is a one person assist with gait belt. Patient ambulated well with assistance. Upper extremity strength is 5/5 on right side and 5/5 on left side. Lower extremity strength is 5/5 on right side and 5/5 on left side. Patient exhibited equal strength in both arms and legs. Patient exhibited full ROM in both arms and legs. Patient was able to display opposition with all fingers and thumbs. Patient will need minor assistance with ADLs for the first week post-surgery.</p>
<p><b>NEUROLOGICAL:</b>  <b>MAEW:</b> Y <input type="checkbox"/> N <input type="checkbox"/>  <b>PERLA:</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/>  <b>Strength Equal:</b> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> <b>if no -</b>  <b>Legs</b> <input type="checkbox"/> <b>Arms</b> <input type="checkbox"/> <b>Both</b> <input type="checkbox"/>  <b>Orientation:</b>  <b>Mental Status:</b>  <b>Speech:</b>  <b>Sensory:</b>  <b>LOC:</b></p>	<p>Patient is A&amp;O x4. Eyes exhibit PERLA signs. Patient's speech is well articulated and clear. Patient exhibits no signs of confusion or delay. Patient moves all extremities well and displays no signs of paralysis or weakness. Patient senses touch in both arms and legs.</p>
<p><b>PSYCHOSOCIAL/CULTURAL:</b>  <b>Coping method(s):</b>  <b>Developmental level:</b>  <b>Religion &amp; what it means to pt.:</b>  <b>Personal/Family Data (Think about home environment, family structure, and available family support):</b></p>	<p>Patient states she copes by cleaning her house. Patient has Christian beliefs and attends church regularly. She prays to help relieve stress and anxiety. Patient has her husband and two children who will be her caretaker's post-surgery.</p>

**Vital Signs, 1 set (5 points)**

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
11:11am	66 bpm LA	94/58mmhg LA	14/min	98.2 temporal	99% RA

**Pain Assessment, 1 set (5 points)**

Time	Scale	Location	Severity	Characteristics	Interventions
11:15am	2/10 during shift	Lower back and hips	N/A	Constant, achy pain	Valium, Norco

**Intake and Output (2 points)**

Intake (in mL)	Output (in mL)
1,000mL of normal saline solution Patient ate 100% of her breakfast	Patient went to bathroom during shift, 200mL of urinary output

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

Nursing Diagnosis	Rational	Intervention (2 per dx)	Evaluation
<ul style="list-style-type: none"> <li>Include full nursing diagnosis with “related to” and “as evidenced by” components</li> </ul>	<ul style="list-style-type: none"> <li>Explain why the nursing diagnosis was chosen</li> </ul>		<ul style="list-style-type: none"> <li>How did the patient/family respond to the nurse’s actions?</li> <li>Client response, status of goals and outcomes, modifications to plan.</li> </ul>
<b>1. Pain related to lower back injury AEB</b>	<b>This nursing diagnosis was chosen because</b>	<b>1.Encourage patient to do her stretches and</b>	<b>Goal met. Patient was content with the interventions. Patient</b>

<p><b>“My back is causing me excruciating pain”</b></p>	<p><b>patient is experiencing extreme lower back pain.</b></p>	<p><b>exercises daily as ordered by her physical therapist.</b></p> <p><b>2.Ambulate in hallway as much as tolerated.</b></p>	<p><b>was willing and able to go for a walk around the unit. Patient states she is ready to be in the comfort of her own home and get back to her normal schedule. Patient had no family present during this shift.</b></p>
<p><b>2. Immobility related to back surgery AEB lower back incision and patient states “I had spinal surgery yesterday”</b></p>	<p><b>This nursing diagnosis was chosen because patient had spinal surgery yesterday so therefore, she’s a fall risk.</b></p>	<p><b>1. Assist patient to move and use the bathroom.</b></p> <p><b>2.Put the bed in low position, give call light to patient.</b></p>	<p><b>Goal met. I helped patient to bathroom and patient moved well with assistance.</b></p> <p><b>Goal met. Patient used the call light as needed. I put the bed in lowest position.</b></p>

**Overall APA format (5 points):**

**Concept Map (20 Points):**

### Subjective Data

Patient stated, "My lower back pain is severe".  
Patient stated, "My pain is getting worse, I think it may be time for more pain medication".  
Patient stated, "My back has constantly been hurting for the past three years, nothing has seemed to help".

### Nursing Diagnosis/Outcomes

Pain related to lower back injury AEB "My back is causing me excruciating pain"  
Outcome: Goal met. Patient will show signs of lessened pain in lower back.  
Immobility related to back surgery AEB lower back incision and patient states "I had spinal surgery yesterday"  
Goal met. Patient will remain on fall risk prevention with safety measures in place. Patient will gain strength in her back and be able to ambulate without assistance.

### Objective Data

MRI scan showed lumbar spinal stenosis between L3 and L4.  
B/P: 94/58 in LA  
P: 66 in LA  
RR: 14/min  
O2: 99% on RA  
Temp: 98.2 F  
Pain: 2/10 during shift (8/10 before surgery)

### Patient Information

Patient is a 52-year-old female with a history of severe, chronic lower back pain.  
Patient was admitted 10/4/2021 to the hospital due to needing a spinal fusion due to a lumbar spinal stenosis.

### Nursing Interventions

Encourage the patient to perform stretches and exercises as directed from her physical therapist. Encourage patient to ambulate in hallway. Make sure the bed is in the lowest position and encourage patient to use her call bell. Maintain safety precautions at all times.





