MEDICAL CHRONOLOGY - INSTRUCTIONS TO FOLLOW

General Instructions:

I: Accident report: *This report has been captured in detail.*

II. Injury report: *This comprises of an abstract of the patient's related damages, surgical details, disability, etc – This table will be filled only if there is one date of loss available.*

III: Missing medical record: *This table comprises of all the missing records, inclusive of interim, probable, and confirmatory missing records.*

IV. Patient History: *Details related to the patient's history (medical, surgical, social, occupational, family history and allergy details) are captured from the medical records.*

Verbatim Detailed Medical Chronology:
Information is captured "as it is" from the medical records without alteration of the meaning. Type of information capture (all details/zoom-out model and relevant details/zoom-in model) is as per the requirement of the case which will be elaborated under the 'Specific Instructions'.

Reviewer's Comments:
*Comments on contradictory information and misinterpretations in the medical records, illegible handwritten notes, missing records, clarifications needed etc. are given in italics and red font color and will appear as * Reviewer's Comment*

Illegible Dates: *Illegible and missing dates are presented as "00/00/0000" (MM/DD/YYYY format)*

Illegible Notes: *Illegible handwritten notes are left as a blank space "_____" with a note as "Illegible Notes" in the heading of the particular medical record.*

Specific Instructions:

- *Medical chronology focuses on the **MVA on XX/XX/2018**, the resulting injuries (cervical spine, left shoulder and lumbar spine injury) and their treatment.*
- ***Hospitalization records:*** *ER records, history and physical examinations, inpatient consultations, inpatient progress notes, operative reports and radiological studies were presented in detail. The other related documents such as nurse daily assessments, medication sheets, physician orders, flow sheets, etc. has not been elaborated. Only the PDF REF of the same has been provided under "related documents".*
- ***Therapy records (Physical therapy):*** *A detailed description of initial, re-evaluations and final therapy visits are provided. Interim therapy visits have been combined and summarized briefly.*
- ***Laboratory report:*** *Only abnormal lab values have been elaborated.*
- *Repeated information has not been captured in the chronology.*
- *Case specific details have been highlighted in yellow for easy reference.*
- *A snapshot of the provider signature is given when the provider's name is illegible*

I. Police Report/Accident Scene Investigation Report

Page Reference: 1121-1123

**Reviewer's comments: The crash investigation report codes have been web searched. The information available in the report has been elaborated from the codes.*

PARAMETER	DETAILS		PDF REF
Date and Time of Accident	**Date of accident:** ***XX/XX/2018*** **Time of accident:** @1744 hours		1121
Location	**Crash occurred on:** State Highway		1121
	Route no: XX		
	Milepost: XXX		
Direction of Travel	North		1121
Speed *(of the vehicle)*	35		1121
Scene of Accident	• **Light condition**: Daylight • **Road system**: State Highway • **Road character**: Straight and level • **Road surface type**: Blacktop • **Road surface condition**: Dry • **Environmental condition**: Clear		1121
No of Vehicles Involved	Two		1121
Party Details	**Party #1:** XXX XXX, Driver **Party #2:** John Doe, Driver		1121
Vehicle Details #1	**Make/Model/Type/Use**	Ford/XXX/Pickup/Business/commercial	1121
	Year	2016	
	Color	Brown	
	VIN Number	XXXXXX	
	Policy Number	XXXXXX	
Vehicle Details #2	**Make/Model/Type**	Toyota/TAC/Pickup/Personal	1121
	Year	2017	
	Color	Blue	
	VIN Number	XXXXXX	
	Policy Number	XXXXXX	
Description of Accident	**Crash type:** Same direction (rear end). **Vehicle action:** **Vehicle #1 and #2:** Making U turn. **Sequence of events:** **Vehicle #1:** Motor vehicle in transport. **Vehicle #2:** Thrown/falling object. **Narrative:** **Driver #1 stated in effect:** I was driving straight and thought I saw an animal in the roadway. I was distracted and took my eyes off the road. I		1121-1123

PARAMETER	DETAILS	PDF REF
	then struck the other car from behind. The accident was my fault. **Driver #2 stated in effect:** I was stopped in traffic and was attempting to make a left turn. I was hit from behind by another car. I felt like I was hit twice. **Investigation at scene revealed**: Vehicle 2 was stopped in traffic on State Highway (SH) XXX township near MP 17 and was attempting to make a left hand turn into the XXXX parking lot. Vehicle 1 was travelling on SH 15 behind vehicle 2's location. Driver 1 failed to pay full time and attention to the roadway and subsequently struck vehicle 2 from behind. **Driver 2, John Doe:** **Victim's physical condition and type of most severe physical injury:** Complaint of pain. **Location of most severe physical injury**: Back.	
Did Airbag Deploy?	*Unavailable*	
Seat Belt Applied?	*Unavailable*	
Seating Position	**Vehicle #1:** Driver	1121
Vehicle Damages/Vehicle Towed	**Vehicle damages:** **Vehicle #2:** Back end and side. **Vehicle towed:** **Vehicle #1: Vehicle removed to:** XXXX body works. Towed, disabled. **Vehicle #2:** Left at scene.	1121
Property loss (Damage amount)	*Unavailable*	
Violation Code/Reason for Accident/ Sobriety and Distraction Factors	**Reason for accident:** Driver 1 failed to pay full time and attention to the roadway and subsequently struck vehicle 2 from behind. **Sobriety and distraction factors:** Driver 1 saw an animal in the roadway. He was distracted and took his eyes off the road. **Apparent contributing circumstances:** **Vehicle #1:** Driver inattention.	1121-1122
Parties Cited/At Fault Party	**At fault party:** Driver 1	1121-1122
Was 911 Called?	*Unavailable*	
Who Arrived at the scene First?	Police. XXXX Police Department.	1121
Other Details (Witness statements, etc)	*Unavailable*	

II. Injury Report

PARAMETER	DETAILS	PDF REF
Date of injury	XX/XX/2018	460
Related Injuries and Medical Condition Before incident	**Past medical history:** Soccer injury to the right ankle at the age of 18. **Past surgical history:** Right ankle surgery at the age of 18.	460
Damages Developed/Sustained as a result of incident (diagnoses alone)	• Chronic cervical and lumbar strains (whiplash injury) • Left shoulder impingement syndrome. • Radiculopathy, cervical region • Spinal stenosis, cervical region • Cervicalgia • Radiculopathy, lumbar region • Herniated nucleus pulposus, lumbosacral spine • Lumbar facet joint arthropathy • Lumbar spinal stenosis • Lumbar disc disease • Cellulitis of back • Sepsis, due to unspecified organism • Wound infection status post lumbar laminectomy	461, 239, 293, 543, 226-227, 38, 819
Surgeries or procedures underwent as a result of incident	**Procedures:** XX/XX/**2019:** Epidural steroid injection of the lumbar spine at the level of L5-S1. **Surgeries:** XX/XX/**2020:** • Anterior lumbar discectomy and fusion at L5-S1 with partial corpectomies of L5 and S1 vertebral bodies • Placement of an interbody fusion device with anterior spinal instrumentation at L5-S1 XX/XX/**2020:** Irrigation and debridement of deep back wound with closure of wound.	917, 227, 691
Postsurgical complications (infection, DVT, etc)	As of XX/XX/2020, he had lower back wound infection status post lumbar laminectomy. As of XX/XX/2020, the wound culture was positive for Methicillin-susceptible staphylococcus aureus infection.	819, 756
Aggravation of pre-existing conditions (Physician or therapist's statement alone)	*Physician or therapist's statement regarding aggravation of pre-existing conditions is unavailable for review.*	
Did patient return to work (Date and work status as per the last few visits/therapies)	As of XX/XX/2019, he was working.	391
Disability (Physician or therapist's statement alone)	*Physician or therapist's statement regarding disability is unavailable for review.*	

III. Missing Medical Records

What Records are Needed	Hospital/ Medical Provider	Date/Time Period	Is Record Missing Confirmatory or Probable?	Hint/Clue that records are missing	PDF REF
Ambulance report	Unknown	XX/XX/2018	Confirmatory	Mentioned in the orthopedic evaluation dated on XX/XX/2018	460-462
ER visit and X-ray reports	XXXX Hospital	XX/XX/2018	Confirmatory	Mentioned in the orthopedic evaluation dated on XX/XX/2018	460-462
Interim medical records	Unknown	XX/XX/2019 to XX/XX/2020	Probable	-	-
Office visit for low back pain	XXXX XXXX, D.O.	Unknown	Confirmatory	Mentioned in the X-ray dated XX/XX/2020	496
Ambulance report	XXXX Ambulance XXXX	XX/XX/2020	Confirmatory	Medical necessity questionnaire available dated on XX/XX/2020	636
Orthopedic evaluation for low back pain	XXXX XXXX	XX/XX/2020	Confirmatory	Mentioned in the correspondence report dated on XX/XX/2020	4-8
X-ray of lumbar spine	XXXX Care Centers	XX/XX/2020	Confirmatory	Mentioned in the correspondence report dated on XX/XX/2020	4-8

IV. Patient History

Past medical history: Hypertension, hyperlipidemia, and gastric cancer. Soccer injury to the right ankle at the age of 18. (PDF REF: 536, 460)

Past surgical history: Right ankle surgery at the age of 18, cardiac stent, esophagogastroduodenoscopy. (PDF REF: 460, 536)

Prior occupational history: He owned a XXXX. (PDF REF: 239)

Current occupational status: As of XX/XX/2019, he was working. (PDF REF: 391)

Family History: Hypertension. (PDF REF: 598)

Social History: He is divorced. He is nonsmoker. He drinks alcohol. No drug use. (PDF REF: 41-42)

Drug Allergy: No known drug allergies. (PDF REF: 460)

Other allergies: *Unavailable*

Detailed Chronology

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Motor vehicle accident on XX/XX/2018 **Reviewer's comments: Patient was involved in a motor vehicle accident on XX/XX/2018. However, medical records (if any) on the day of accident are unavailable for review. We have medical records beginning only from 08/01/2018.*	
XX/XX/2018	Orthopedic Hospital XXXX XXXX XXX, M.D., FAAOS	**Initial orthopedic evaluation for motor vehicle accident:** **Date of accident:** XX/XX/2018 Patient presents today with his son for initial orthopedic evaluation. The patient was driver involved in the motor vehicle accident which occurred on XX/XX/2018. He reports he came to a complete stop when rear-ended twice behind at high rate of speed. He was quite shaken up following the accident. The patient's vehicle was totaled. Police and ambulance arrived at the scene. The patient was taken via ambulance to XXXX Hospital where he was evaluated and underwent radiographs of his cervical and lumbar spines as well as left shoulder. The patient presents today complaining of severe lower back pain with radiating pain into his bilateral lower extremities left greater than right. The patient describes sharp pain into the posterior aspect of the left lower extremity. He reports increased pain if he attempts to bend at his waist. He is limited in the amount that he can stand or ambulate. The patient is also experiencing neck pain with associated headaches. He describes pain which radiates into his shoulders as well as mid back. He describes significant numbness throughout his hands. He has difficulty grasping or lifting objects he is attempting to hold. The patient is also experiencing significant pain in both the superior and anterior aspects of his left shoulder. He has difficulty when trying to lie on his left side or reach overhead with his left upper extremity. The patient is also experiencing pain if he attempts to place his left hand behind his back. The patient often must rely on right upper extremity when attempting to reach overhead. The patient denies any previous accidents or injuries except soccer injury to his right ankle when he was 18-year-old which required surgical intervention. **Physical examination**: He is seen ambulating with a slight kyphotic posture. The patient can walk on his heels and toes; however, this irritates his lower back especially with heel walking. There are multiple taut bands noted throughout the trapezius musculature with tenderness over the greater occipital notch as well as the left suprascapular notch. There is tenderness over the medial border of the left scapula. There is	460-462

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		decreased sensation noted in the patient's left C5-C6 dermatomal distribution. Left lateral rotation is limited to 50 degrees with right lateral rotation restricted to 60 degrees. Cervical flexion and extension are restricted to 55 degrees with moderate pain on end range of motion. There is negative Hoffmann sign. There is decreased sensation noted in the patient's left C5, C6 and C7 dermatomal distribution. Spurling sign is positive to the left. There is tenderness at the thoracolumbar junction, lumbar paraspinals as well as both sciatic notches left greater than right. Anterior slump test is positive. Multiple taut bands are noted throughout the patient's lumbar paraspinals with tenderness over the lower facet joints. Oblique lumbar extension reproduces pain. There is decreased sensation noted in the patient's left L5-S1 dermatomal distribution. There is hyporeflexia of the patient's Achilles found to be 1+. There is tenderness over the deltopectoral line of the left shoulder. Neer and Hawkins signs are positive with the positive crossover impingement sign reproducing pain in the superior aspect of the patient's left shoulder with a positive empty can test. Forward flexion of the left shoulder is restricted to 170 degrees with moderate pain on end range of motion. **Impression:** • Chronic cervical and lumbar strains (whiplash injury) rule out internal disc disruption and disc herniation. • Left shoulder impingement, rule out rotator cuff tendinitis or tear. **Plan**: At this time, the findings have been discussed with the patient. I have reviewed the diagnoses with patient and his son in detail today. The patient will be away Portugal for the next several weeks. He has been given a prescription for physical therapy treatment sessions which he may be able to start before he begins his vacation or following his return. The patient has been made aware of appropriate home exercise program as he could be out of country for the next several weeks. The patient has been encouraged to continue with current medication. He has been asked to return for reevaluation in approximately in one to two months to see how is progressing with regards to his treatment and continued discussion regarding his treatment options.	
XX/XX/2018	XXX XXX XXXX XXXX, DPT	**Initial physical therapy evaluation for neck, left shoulder, and low back pain:** **Diagnosis:** • Radiculopathy, cervical region • Impingement syndrome of left shoulder • Low back pain • Spinal stenosis, cervical region **General information**: Patient referred to Physical Therapy (PT) with diagnosis of cervical radiculopathy to the left shoulder secondary to	239-247

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		stenosis. Patient also presents with low back pain and left shoulder impingement as per MD prescription. **History of injury:** Patient reports being in an MVA on XXXX in which he was rear ended twice. Neck and shoulder pain started then. Patient has had low back pain for months but worse since the accident. **Occupation:** Patient owns a XXXX**.** **Activities of Daily Living (ADL)/functional status:** **Premorbid status: Basic care:** Independent without difficulty. **Status: Basic care:** Adaptive assistance required. **Chief complaint:** • **Pain: Location:** Left lateral cervical spine radiating to the left anterior shoulder. **Lumbar**: Left posterior low back into buttock after sitting for> 10 minutes, gets stuck and pain • **Pain:** 6/10 worst in the neck to the shoulder • **Abnormal sensation:** Tingling (a couple times a day in the fingers) **Client knowledge/awareness of:** Pathology, rehabilitative process, home exercise program and physical therapy role – Good. **Mechanism of injury:** Motor vehicle accident. Direction of contact: Rear ended. **Rehabilitation expectations/goals: Eliminate:** Pain, loss of motion/stiffness, weakness, and loss of function. **Chief complaint: Pain:** 6/10 pain in the left anterior shoulder. **Objective examination:** **Palpation: Cervical region: Musculature, posterior:** **Tenderness:** Left erector spinae and upper trapezius – 2, pain with wincing. **Cervical region:** 3+ Tenderness to Palpation (TTP) to left cervical spine paraspinals, laterally on neck, roughly at the C4/5 level. **Range of motion:** **Pre-treatment: Active cervical (%):** Extension: 50% Flexion: 90% Retraction: 25% Rotation left (left pain increased): 25% Rotation right: 75% Side bending left (left neck pain): 25% Side bending right: 75%	

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<tr><th>DATE</th><th>PROVIDER</th><th>OCCURRENCE/TREATMENT</th><th>PDF REF</th></tr>
<tr><td></td><td></td><td>
Pre-treatment: Active lumbosacral (%):
<table>
<tr><td>Extension</td><td>25%</td></tr>
<tr><td>Flexion (low back pain increased)</td><td>50%</td></tr>
<tr><td>Rotation left</td><td>75%</td></tr>
<tr><td>Rotation right</td><td>75%</td></tr>
</table>

Treatments: Chest lift-chin tuck, extension, retraction, and moist hot pack.

Assessment: In my professional opinion, this client requires skilled physical therapy in conjunction with a home exercise program to address the problems and achieve the goals outlined below. Overall rehabilitation potential is good. The patient has been educated regarding their diagnosis, prognosis, and related pathology. The patient exhibits good understanding and performance of the therapeutic activity/instructions outlined during this skilled rehabilitation session. The expected length of this episode of skilled therapy services required to address the patient’s condition is estimated to be 6 weeks.

Clinical decision making: Personal factors- occupation, language barrier; multiple participation restrictions and activity limitations; fluctuations in pain, radicular pain- evolving; results in moderate complexity.

Initiated: Exercise: With decreased symptoms.

Presentation: Symptoms consistent with referring diagnosis.

Recommendations: Continue with current rehabilitation program.

Skilled intervention: Required to: Decrease pain. Improve function. Increase range of motion. Increase strength. Return to premorbid state.

Signs/symptoms: Pain: Increased. Stiffness: Increased. Range of motion: Decreased. Muscular strength: Decreased. Mobility: Decreased. Functional capacity: Decreased.

Treatment emphasis to focus on: Muscle function improvements. Range of motion/mobility improvements. Postural improvements. Pain relief.

Plan: The patient was instructed in the independent performance of a home exercise program that addresses the problems and achieving the goals outlined in the plan of care.

Frequency and duration: It is recommended that the client attend rehabilitative therapy for 3 visits a week with an expected duration of 4 weeks. Interventions during treatment will be directed toward addressing the problems and achieving the goals previously outlined.
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DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Daily plan: Continue with current rehabilitation program. Advance as tolerated. **Recommendations:** Continue with current program. **Therapeutic contents:** Active assistive range of motion activities, active range of motion activities, aerobic conditioning - bicycle ergometer, home exercise program, joint mobilization techniques, manual range of motion activities, manual therapy techniques, modalities as needed, neuromuscular re-education, proprioceptive/closed kinetic chain activities, soft tissue mobilization techniques, stretching/flexibility activities, therapeutic activities, and therapeutic exercise. **Resistive activities:** Isotonic, isometric, machines/free weights and tubing/bands.	
XX/XX/2018	Orthopedic Hospital XXXX XXXX XXX, M.D., FAAOS	**Orthopedic evaluation notes for neck and lower back pain:** Patient presents today for continued orthopedic evaluation. The patient presents today complaining of severe disabling lower back pain, which he localizes to the left lumbosacral region with extension of his pain into his left lower extremity. He describes numbness throughout his left leg with sharp pain to the posterior aspect of his left lower extremity. The patient is limited in the amount that he can stand or ambulate and has pain if he is seated for any length of time. The patient often must modify activities he is attempting to perform. He is also complaining of neck pain with associated headaches. He describes muscular pain and stiffness throughout his cervical region. The patient has been experiencing significant left shoulder pain and stiffness. He has difficulty reaching overhead as well as placing his left arm behind his back. He reports he is often awoken at night as he inadvertently rolls on to his left side. **Physical examination:** The patient is seen in moderate distress. He is slow to rise from a seated position. He ambulates with a slight kyphotic posture. He avoids pressure on his left gluteus musculature while seated. There is tenderness over the thoracolumbar junction, lumbar paraspinals as well as the left sciatic notch. Anterior slump test is positive. There is tenderness over the L4-L5 and L5-S1 interspace with significant tenderness over the left sciatic notch. There is decreased sensation noted in the patient’s left L4-L5, L5-S1 dermatomal distribution. There is hyporeflexia of the patient’s left Achilles and found to be 1+. There is tenderness throughout the trapezius musculature with significant tenderness over the medial border of the left scapula. Neuroforaminal distraction test is positive. Cervical flexion and extension are limited to 50 degrees with moderate pain on end range of motion with right lateral rotation restricted to 60 degrees. There is decreased sensation noted in the patient’s left C5, C6 and C7 dermatomal distribution. There is tenderness over the deltopectoral line of the left shoulder with a positive Neer’s and Hawkins signs. Empty can test is positive. There is a positive	912-913

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Apley scratch test. There is weakness in the patient's left rotator cuff muscle when compared to the opposite extremity. **Plan:** At this time, the findings have been discussed with the patient. I have reviewed the diagnoses with patient in detail today. The patient at this time should obtain MRI evaluation of his lumbar spine as well as his left shoulder. He has been asked to the actual films with him to his next office visit for further review. The patient will be away for the next several weeks. He has been asked to bring the actual films with him to his next office visit for further review and continued discussion regarding his treatment options. Complex consideration was given to deciphering medical issues in this patient. Issues described in the literature regarding causality and secondary gain were thoughtfully considered in determining the treatment algorithm for this specific patient. **Reviewer's comments: Assessment remains same as visit dated XX/XX/2018.*	
XX/XX/2018 – XX/XX/2018	XXX XXXX XXXX, DPT Tanya Choudhry, PTA	**Summary of multiple interim physical therapy visits for neck, left shoulder, and low back pain:** **Total no. of visits:** 10. **Treatment rendered:** Therapeutic exercises, therapeutic activities, and modalities. **Summary of events:** XX/XX/2018**:** States felt ok after the first session, but he worked all day yesterday, so he is hurting a little today. 6/10 pain in the left anterior shoulder. XX/XX/2018**:** States overall having a little less pain since starting PT. Patient tolerated today's treatment/therapeutic activity with minimal complaints of pain and difficulty. XX/XX/2018**:** Reports overall doing better and having less pain in the neck. States the back is still bothersome and still causing him to interrupt his work to do exercises. XX/XX/2018**:** States overall doing better and having more motion and less pain in the neck. Reports however that the low back is still in some pain. XX/XX/2018**:** Reports that overall, his neck is not hurting quite as much, but the back is still painful. XX/XX/2018**:** Reports overall doing better and having more motion in the neck. States that the back is still bothersome.	248-280

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		XX/XX/2018**:** Reports overall that his neck is doing better with less pain and more motion. States that the back is doing a little better, but still causes a lot of pain when he is working for a long shift. XX/XX/2018**:** States overall that he is doing better and having more motion. States the neck is barely bothering him but the back more painful. XX/XX/2018**:** Patient reports low back pain today. XX/XX/2018**:** States overall doing better and having better motion with less pain. Accelerate rehabilitation program. Progression under current plan. Advance as tolerated. **Reviewer's comment: Multiple interim physical therapy visits are summarized with significant events.*	
XX/XX/2018	XXX XXXX XXX XXXX, DPT	**Physical therapy discharge notes for neck, left shoulder, and low back pain:** **Chief complaint: Pain – location:** Just neck. Lumbar - Left posterior low back into buttock after sitting for> 60 minutes, gets stuck and pain. **Pain**: 2/10 worst in the neck to the shoulder. 2/10 pain in the left anterior shoulder. **Abnormal sensation:** None in last 3 weeks. **Daily comments:** Reports overall doing better and not having as much pain in the neck or the back, though the back is still present just less severe. **Objective examination:** **Palpation: Cervical region: Musculature, posterior:** **Tenderness:** Left erector spinae and upper trapezius – 1, complaint of pain. **Cervical region:** 1+ TTP to left cervical spine paraspinals, laterally on neck, roughly at the C4/5 level. **Range of motion:** **Pre-treatment: Active cervical (%):** Extension: 80% Flexion: 90% Retraction: 75% Rotation left (left pain increased): 80% Rotation right: 90% Side bending left (left neck pain): 80% Side bending right: 90% **Pre-treatment: Active lumbosacral (%):**	281-285

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<tr><th>DATE</th><th>PROVIDER</th><th>OCCURRENCE/TREATMENT</th><th>PDF REF</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Extension</td><td>80%</td></tr>
<tr><td>Flexion (low back pain increased)</td><td>80%</td></tr>
<tr><td>Rotation left</td><td>90%</td></tr>
<tr><td>Rotation right</td><td>90%</td></tr>
</table>

Treatments: Chest lift-chin tuck, extension, retraction, retraction-extension, rotation, side glide, side-bending, standing backbends and moist hot pack.

Assessment: The client tolerated today’s treatment/therapeutic activity with minimal complaints of pain and difficulty. In my professional opinion, this client exhibits a fair prognosis at time of discharge from skilled rehabilitative therapy in conjunction with a home exercise program. The client was educated regarding the discharge prognosis and related pathology. The client exhibits fair understanding and is independent in their home exercise program and instructions outlined in this skilled rehabilitation program. From the initiation of treatment to discharge the patient’s status is improved.

Recommendations:
Discharge, secondary to: Patient will be traveling for> a month.

Tolerance: Increased capacity: Range of motion. Flexibility.

Treatment emphasis to focus on: Range of motion/mobility improvements. Muscle function improvements. Enhanced dynamic stability. Postural improvements. Pain relief.

Plan: Discharge from physical therapy.

Discharge due to: Patient will be away for> a month.

Recommendations:
Discharge from: Patient will be away for over a month.
</td><td></td></tr>
<tr><td>XX/XX/2018</td><td>XXXX XXXX

XXXX XXX, M.D., FAAOS

XXX XXX, PA-C</td><td>Orthopedic evaluation notes for neck and lower back pain:
Patient presents today for continued orthopedic evaluation. The patient presents today complaining of significant neck pain with radiating pain into his left upper extremity. He describes numbness and tingling throughout his left arm. The patient reports his neck pain is constant and worse with rotational movements. The patient is also experiencing pain, which extends from his lower back into the posterior lateral aspect of his left lower extremity. He reports that he is limited in the amount that he can stand or ambulate. He has difficulty when seated for extended periods of time. He must constantly adjust between various positions. The patient finds himself leaning to his right side while seated. The patient is also experiencing persistent pain and stiffness in his left shoulder. He has difficulty reaching overhead.

Physical examination: The patient is seen in moderate distress. Multiple</td><td>910-911</td></tr>
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DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		trigger points are present throughout the trapezius musculature with tenderness over the medial border of the left scapula. Neuroforaminal distraction test is positive. Spurling sign is positive to the left. There is hyporeflexia of the patients left biceps and brachioradialis and found to be 1+. There is tenderness over the deltopectoral line of the left shoulder with positive Neer and Hawkins signs. Crossover impingement sign reproduces pain in the superior aspect of the patients left shoulder. There is tenderness throughout the lumbosacral junction as well as throughout the lumbar paraspinals. Anterior slump test is positive. Straight leg raise test is positive on the left in the seated position at 60 degrees. There is a positive Lasegue maneuver. Logrolling of the lower extremity does not produce pain. **Assessment/plan:** The patient has noticed progression with regards to his neck pain with radiating pain throughout his left upper extremity. At this time, he has been advised to obtain MRI evaluations of both his cervical and lumbar spine. He has also been made aware of further treatment options including interventional pain management procedures. The patient at this time will proceed with physical therapy treatment sessions. There was a gap in care as the patient was visiting Portugal for several weeks. The patient just flew in last night. He will begin once again with conservative treatment including physical therapy treatment sessions. He has been asked to bring the MRI evaluation with him to his next office visit for further review.	
XX/XX/2018	XXX XXX XXX XXX, DPT	**Initial physical therapy evaluation for neck and low back pain:** **Diagnosis:** • Cervicalgia • Radiculopathy, lumbar region **General information**: Patient owns a pizzeria/restaurant and is referred to PT with diagnosis of cervical spine pain and lumbar radiculopathy. **History of injury:** XX/XX/2018. Patient was rear ended injuring neck and back. Patient was attending PT and had mild relief of symptoms, however then traveled for roughly 2 months, now returning for more PT. **ADL/functional status:** **Premorbid status:** **Basic care:** Independent without difficulty. **Work status:** Independent without difficulty. **Status:** **Basic care:** Adaptive assistance required. Unable to bend forward without pain, unable to turn head without pain. **Chief complaint: Loss of motion/stiffness:** Moderate degree. **Weakness:** Moderate degree. **Pain:** 8/10 worst in the cervical spine; 7/10 worst in the lumbar spine.	293-299

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<tr><th>DATE</th><th>PROVIDER</th><th>OCCURRENCE/TREATMENT</th><th>PDF REF</th></tr>
<tr><td></td><td></td><td>
Objective examination:
Palpation: Cervical region: musculature, posterior:
<table>
<tr><th>Tenderness</th><th>Left</th><th>Right</th></tr>
<tr><td>Erector spinae (mid cervical)</td><td>2=Pain with wincing</td><td>2=Pain with wincing</td></tr>
<tr><td>Trapezius, upper</td><td>3=Wincing and withdrawal</td><td>3=Wincing and withdrawal</td></tr>
</table>
Range of motion: Spine: Pre-treatment: Active cervical (%):
<table>
<tr><td>Extension</td><td>50%</td></tr>
<tr><td>Flexion</td><td>50%</td></tr>
<tr><td>Retraction</td><td>25%</td></tr>
<tr><td>Rotation left</td><td>50%</td></tr>
<tr><td>Rotation right</td><td>90%</td></tr>
<tr><td>Side bending left</td><td>50%</td></tr>
<tr><td>Side bending right</td><td>90%</td></tr>
</table>
Range of motion: Spine: Lumbar range of motion vastly coming from upper lumbar spine, significant low lumbar hypomobility.
Treatments: Chest lift-chin tuck, standing backbends and moist hot pack.
Assessment: In my professional opinion, this client requires skilled physical therapy in conjunction with a home exercise program to address the problems and achieve the goals outlined below. Overall rehabilitation potential is good. The patient has been educated regarding their diagnosis, prognosis, and related pathology. The patient exhibits good understanding and performance of the therapeutic activity/instructions outlined during this skilled rehabilitation session. The expected length of this episode of skilled therapy services required to address the patient’s condition is estimated to be 2-3 months.
Clinical decision making: Personal factors- occupational activities, language barrier; multiple participation restrictions and activity limitations; fluctuations in pain- evolving; result in moderate complexity.
Initiated: Exercise: With decreased symptoms.
Presentation: Symptoms consistent with referring diagnosis.
Recommendations: Continue with current rehabilitation program.
Skilled intervention: Required to: Decrease pain. Improve function. Increase range of motion. Increase strength. Return to pre-morbid state.
Signs/symptoms: Pain: Increased. Stiffness: Increased. Range of
</td><td></td></tr>
</table>

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		motion: Decreased. Muscular strength: Decreased. Functional capacity: Decreased. **Treatment emphasis to focus on:** Range of motion/mobility improvements. Muscle function improvements. Enhanced dynamic stability. Postural improvements. Pain relief. **Plan**: The patient was instructed in the independent performance of a home exercise program that addresses the problems and achieving the goals outlined in the plan of care. **Frequency and duration:** It is recommended that the client attend rehabilitative therapy for 3 visits a week with an expected duration of 4 weeks. Interventions during treatment will be directed toward addressing the problems and achieving the goals previously outlined. **Daily plan:** Continue with current rehabilitation program. Advance as tolerated. **Recommendations:** Continue with current program. **Therapeutic contents:** Active assistive range of motion activities. Active range of motion activities. Aerobic conditioning - upper body ergometer. Client education. Home exercise program. Joint mobilization techniques. Manual range of motion activities. Manual therapy techniques. Modalities as needed. Neuromuscular re-education. Soft tissue mobilization techniques. Stretching/flexibility activities. Therapeutic activities. Therapeutic exercise. **Resistive activities:** Isotonic, isometric, machines/free weights and tubing/bands.	
XX/XX/2018	XXX XXX XXX XXX, PT, DPT	**Physical therapy re-evaluation for neck and low back pain:** **ADL/functional status:** **Status:** Unable to bend forward without pain, unable to turn head without pain. **Chief complaint:** Pain: 8/10 worst in the cervical spine; 7/10 worst in the lumbar spine. **Daily comments**: Patient reports that he had to leave for a funeral in Portugal for the last 2 weeks. He reports that his neck is feeling a little better, but his lower back still hurts. Patient must make an appointment with his MD to get a new prescription for PT. **Treatments**: Therapeutic exercises, therapeutic activities, manual interventions, and modalities. Rehabilitative program. **Assessment**: In my professional opinion, this client requires skilled physical therapy in conjunction with a home exercise program to address	312-318

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		the problems and achieve the goals outlined below. Overall rehabilitation potential is good. The patient and family/caregiver has been educated regarding the patient's diagnosis, prognosis, and related pathology. The patient and family/caregiver exhibits good understanding and performance of the therapeutic activity/instructions outlined during this skilled rehabilitation session. **Presentation:** Patient progress limited due to recent visit to Portugal. Patient reports that his neck pain is a little better, but he still limits his neck motion due to pain and has severely limited lumbar motion due to pain and stiffness. Patient would benefit from skilled physical therapy services in order to due pain, increase cervical and lumbar motion, and increase functional strength in order to perform work duties owning a pizzeria. **Recommendations:** Re-check with physician. **Progress program, adding: Postural stabilization training:** Extension principle. Soft tissue mobilization techniques. Neural mobilization techniques. **Treatment emphasis to focus on:** Pain relief. Postural improvements. Range of motion/mobility improvements. Muscle function improvements. Strengthen disuse components. **Daily plan:** Continue with current rehabilitation program. Advance as tolerated. **Recommendations:** Continue with current program. **Aerobic conditioning:** Recumbent bicycle. Treadmill. **Resistive activities:** Isotonic, isometric and tubing/bands.	
XX/XX/2018	XXXX XXXX XXX XXX, M.D., FAAOS	**Orthopedic evaluation notes for neck and lower back pain:** The patient presents today with complaints of significant lower back pain, which extends into his bilateral lower extremities. The patient describes greater pain into the posterior aspect of his left lower extremity, although he has more recently been experiencing sharp pain into his hips bilaterally. The patient reports his pain is worse if he is sitting or standing for an extended period of time. He often must alternate between various positions in order to obtain some relief. The patient is also experiencing muscular pain and stiffness throughout his cervical region. He describes difficulty reaching overhead with his left upper extremity. He has become more reliant on his right upper extremity when performing overhead tasks. The patient has noted some improvement with regards to physical therapy treatment sessions, although he does remain symptomatic. He presents today for further reevaluation.	908-909

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Physical examination: The patient is seen in moderate distress. He is slow to rise from a seated position. There is tenderness over the sciatic notch with positive anterior slump test. Straight leg raise test is positive on the left in the seated position at 60 degrees. There is positive Lasegue maneuver. Log rolling of the lower extremities does not reproduce pain. There is hyporeflexia of the patient's Achilles and found to be 1+. There is tenderness over the lower facet joints as well as the L4-L5 and L5- S1 interspaces. There is tenderness throughout the trapezius musculature with multiple taut bands noted. Neuroforaminal distraction test is positive. Isometric muscle testing of the cervical spine does reveals weakness. There is tenderness over the medial border of the left scapula with hyporeflexia of the patient's triceps and brachioradialis and found to be 1+. There is tenderness over the deltopectoral line of the left shoulder with negative apprehension test. Crossover impingement sign does reproduce pain in the superior aspect of the patient's left shoulder with forward flexion limited to 160 degrees. Empty can test is positive. There is a positive Apley scratch test. **Assessment/plan**: The patient has noted significant progression regarding his neck and lower back pain. He does require MRI evaluations, which should be obtained over the next several weeks. The patient has been asked to bring the actual films with him to his next office visit for further review. The patient will continue with physical therapy treatment sessions and return for reevaluation in approximately one month to see how he is progressing with regards to his treatment and continued discussion regarding his treatment options.	
XX/XX/2019	XXX XXX XXX XXX, DPT	**Physical therapy re-evaluation for neck and low back pain:** **Chief complaint:** Pain: 6/10 worst in the cervical spine; 7/10 worst in the lumbar spine. **Daily comments**: Patient reports overall doing a little better with a little more motion in the neck and the back. States the neck is feeling a little better, but the low back is still the chief complaint. **Objective examination:** **Muscle testing: Thoracolumbar planes:** Right and left extension +3/5, flexion +3/5 and transverse abdominals (significant Verbal Cues (VC) and tactile cueing required) 3/5. **Treatments**: Therapeutic exercises, therapeutic activities, manual interventions, and modalities. Rehabilitative program. **Assessment**: In my professional opinion, this client requires skilled physical therapy in conjunction with a home exercise program to address the problems and achieve the goals outlined below. Overall rehabilitation potential is good. The patient has been educated regarding their diagnosis, prognosis, and related pathology. The patient exhibits good	328-335

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		understanding and performance of the therapeutic activity/instructions outlined during this skilled rehabilitation session. The client exhibits a good capacity for advancement of therapeutic activity during treatment. Above average improvements are noted at this time. The potential for continued improvement with skilled therapeutic intervention is good. The potential for continued progress toward the established rehabilitation goals is good. Patient has lack of improved since the last re-evaluation due to patient being on hold due to authorization restrictions. **Presentation:** Symptoms consistent with referring diagnosis. **Recommendations:** Accelerate rehabilitation program. **Skilled intervention: Required to:** Decrease pain. Improve function. Increase range of motion. Increase strength. Return to pre-morbid state. **Signs/symptoms**: Pain: Increased. Stiffness: Increased. Range of motion: Decreased. Muscular strength: Decreased. Mobility: Decreased. Functional capacity: Decreased. **Treatment emphasis to focus on:** Muscle function improvements. Range of motion/mobility improvements. Proprioception/balance improvements. Enhanced dynamic stability. Postural improvements. Pain relief. **Daily plan:** Advance as tolerated. Progression under current plan. **Recommendations:** Accelerate rehabilitation program. **Aerobic conditioning:** Recumbent bicycle. Treadmill. **Resistive activities:** Isotonic, isometric and tubing/bands. Machines/free weights.	
XX/XX/2019	XXXX XXXX XXXX XXX, M.D., FAAOS,	**Follow-up visit for neck and lower back pain:** Patient presents today complaining of considerable neck pain with sharp pain noted when attempting to turn his head to the left side. The patient describes numbness and tingling throughout his left arm. The patient describes diffuse muscular pain and stiffness throughout his cervical region as well as across his lumbosacral region, the patient will experience occasional pain into the posterolateral aspect of his left lower extremity. He often must modify activities attempting to perform. The patient is currently waiting to obtain further authorization regarding MRI evaluation of his cervical and lumbar spine. He has been receiving physical therapy treatment sessions, which he states has provided some improvement, although he does remain symptomatic. **Physical examination:** The patient is seen in moderate distress. He is	906-907

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		slow to rise from a seated position. He reports significant pain with attempted heel walking. There is tenderness throughout the trapezius musculature as well as the interscapular region. Multiple taut bands are present with positive jump off sign with significant tenderness over the left suprascapular notch. Neuroforaminal distraction test is positive. Isometric muscle testing of the cervical spine does reveals weakness. There is decreased sensation over the patient's left C5-C6 dermatomal distribution. There is tenderness throughout the lumbosacral junction, lumbar paraspinals as well as the lower facet joints with oblique lumbar extension reproducing pain. Anterior slump test is positive. There is hyporeflexia of the patient's Achilles and found to be 1+ with weakness in the patient's hip flexors as well as the left dorsi and plantar flexors and found to be 4/5. Straight leg raise test is positive on the left in the seated position at 70 degrees. **Assessment/plan:** The patient has noted some improvement with physical therapy treatment sessions. The patient still requires MRI evaluation of his cervical and lumbar spine. He has been provided with another prescription for physical therapy treatment sessions two to three times a week for the next four weeks. The patient to be seen for reevaluation in approximately one month to see how he is progressing with regards to his treatment and continued discussion regarding his treatment options.	
XX/XX/2019	XXX XXX XXX XXX, DPT	**Physical therapy re-evaluation for neck and low back pain:** **Chief complaint:** Pain: 4/10 worst in the cervical spine; 6/10 worst in the lumbar spine. **ADL/functional status:** **Status:** Able to bend forward with mild pain, able to turn head with mild pain. **Daily comments**: Reports overall doing better and having more motion in the neck and back. States still having pain but can move a little more. **Objective examination:** **Muscle testing: Thoracolumbar planes:** Right and left extension -4/5, flexion -4/5 and transverse abdominals (significant VC and tactile cueing required) +3/5. **Palpation: Cervical region: musculature, posterior:** **Tenderness** / **Left** / **Right** Erector spinae (mid cervical) / 1=Complaint of pain / 1=Complaint of pain Trapezius, upper / 2=Pain with wincing / 2=Pain with wincing **Range of motion: Spine: Pre-treatment: Active cervical (%):** Extension / 90%	368-375

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<tr><td></td><td></td><td>
<table>
<tr><td>Flexion</td><td>50%</td></tr>
<tr><td>Retraction</td><td>75%</td></tr>
<tr><td>Rotation left</td><td>50%</td></tr>
<tr><td>Rotation right</td><td>75%</td></tr>
<tr><td>Side bending left</td><td>90%</td></tr>
<tr><td>Side bending right</td><td>75%</td></tr>
</table>

Range of motion: Spine: Lumbar range of motion vastly coming from upper lumbar spine, significant low lumbar hypomobility; lumbar flexion- 50%, extension 50%, rotation bilaterally 75%.

Treatments: Therapeutic exercises, therapeutic activities, manual interventions, and modalities. Rehabilitative program.

Assessment: In my professional opinion, this client requires skilled physical therapy in conjunction with a home exercise program to address the problems and achieve the goals outlined below. Overall rehabilitation potential is good. The patient has been educated regarding their diagnosis, prognosis, and related pathology. The patient exhibits good understanding and performance of the therapeutic activity/instructions outlined during this skilled rehabilitation session. The client exhibits a good capacity for advancement of therapeutic activity during treatment. Above average improvements are noted at this time. The potential for continued improvement with skilled therapeutic intervention is good.

Presentation: Symptoms consistent with referring diagnosis.

Recommendations: Accelerate rehabilitation program.

Treatment emphasis to focus on: Range of motion/mobility improvements. Muscle function improvements. Enhanced dynamic stability. Postural improvements. Pain relief. Education.
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<tr><td>XX/XX/2018 – XX/XX/2019</td><td>XXX XXXX

XXX XXX, DPT

XXX XXX, PTA</td><td>
Summary of multiple interim physical therapy visits for neck and low back pain:
Total no. of visits: 28.

Treatment rendered: Therapeutic exercises, therapeutic activities, and modalities.

Summary of events:
XX/XX/2018**:** 8/10 worst in the cervical spine pain; 7/10 worst in the lumbar spine pain. States motion is a little better but still having the pain in the back and the neck.

XX/XX/2018**:** Patient reports his neck and back both hurting him today.
</td><td>300-311, 319-327, 336-367, 376-412</td></tr>
</table>

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		XX/XX/2018**:** Patient reports neck and back pain today. XX/XX/2018**:** Stiff and sore today. XX/XX/2018**:** Patient reports that his back and neck both still hurt, back is worse today. Patient reports that his back and neck pain both continue, but back pain is greater today. Patient is limited in English and does not have much to report otherwise. Tolerated treatment well with no complaints. XX/XX/2018**:** Reports overall doing a little better since returning to PT. States that he has a little more motion with turning the head but does still having some pain. Reports the low back is still painful but feels better after PT sessions. XX/XX/2018**:** States overall doing a little better and having a little more motion in the neck, but the back is still really painful. Patient continues to have tenderness in bilateral Upper Trapezius (UT) and cervical and lumbar paraspinals with manual soft tissue mobilizations. XX/XX/2019**:** Patient reports' having a busy weekend and that he is sore. 6/10 worst in the cervical spine pain; 7/10 worst in the lumbar spine pain. Patient reports that his neck and upper trapezius are very sore today and reports relief following Soft Tissue Mobilization (STM). Patient given timer for exercises and instructed to rest even while timer going if needed. Patient tolerated today's treatment well with some challenge and VC for correction for double knee to chest lowers. XX/XX/2019**:** No new complaints. XX/XX/2019**:** Reports overall doing a little better with a little less pain and more motion. However, still having pain on the left side of the neck with left rotation and low back with bending. Patient continues to have noted lack of ROM of the cervical and lumbar spine, though improving over the past week. Patient's pain levels are decreased as per report. Noted weakness of the core and cervical spine musculature. Patient tolerated session with mild complaints of pain at end ROM stretching. XX/XX/2019**:** Patient states his back is really bothering him in mid low back. Patient reports that his neck is feeling okay today, but that his back is really hurting. Points to the center of his low back and states that it hurts there. Patient felt relief from STM performed to the area today, I lieu of his neck, which he reports is good today. Was able to tolerate and perform exercises today with timers as patient does not do well with assigned repetitions. XX/XX/2019**:** Doing well today. Patient reports that he has an MRI scheduled, but is unsure of the date.	

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		XX/XX/2019**:** Patient reports overall doing better but still having stiffness and pain in the neck and back. Patient tolerated session with mild complaints of pain with deep tissue mobilizations. Patient continues to have limited cervical ROM. XX/XX/2019**:** Stiff today. XX/XX/2019**:** Patient reports that his lower back is a little sore today. XX/XX/2019**:** Patient reports the same spot in his back is hurting him today. Patient chief complaint is his back today. Points to the center of his low back and reports that is the cause of most of his pain. Patient tolerated all treatment well today. Initiated Upper Extremity/Lower Extremity (UE/LE) lifts and planks today with PTA assist to correct form. XX/XX/2019**:** Patient reports that his back is really bothering him today and his left UT. Patient reports relief with STM to left UT and to back. Patient reports that he has been feeling better in general but today was a bad day. XX/XX/2019**:** Reports overall doing better and having less severe pain. States the motion in the neck and the back is improving, though the back pain is a little worse. 4/10 worst in the cervical spine pain; 6/10 worst in the lumbar spine pain. XX/XX/2019**:** Patient reports that his back is hurting in the same spot, mid low back. Patient tolerated today's treatment well, states that his back is hurting in the same spot and points to his mid low back. STM + central PA mobilizations give patient relief. Superman's initiated today as well with demonstration provided for patient. XX/XX/2019**:** Doing well today. Patient performed all exercises with 2' timer today with noted fatigue after superman's and moderate difficulty during alternating UE/LE lifts. XX/XX/2019**:** States overall doing a little better but still having pain in the left neck and in the low back. XX/XX/2019**:** Patient reports his low back hurts today "not too much". Patient continues to report that his center of his low back is bothering him. States that it gets worse after working or being on his feet a long time. Patient states that he feels better than when he started. XX/XX/2019**:** Reports overall doing belier and having more motion in the neck and back, but still having pain in the left side of the neck to the shoulder and in the low back. XX/XX/2019**:** Patient reports that his back is hurting in the same spot in	

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<tr><th>DATE</th><th>PROVIDER</th><th>OCCURRENCE/TREATMENT</th><th>PDF REF</th></tr>
<tr><td></td><td></td><td>his mid low back. Patient continues to report that his back is hurting in the same spot in the center of his low back. Patient reports that his neck pain has been improving but his back pain persists. Patient requires VC and demonstrations for exercises to ensure they are performed correctly.

XX/XX/2019: No new complaints.

XX/XX/2019: States overall doing a little better but still having some pain in the neck and low back with too much movement. The patient tolerated today’s treatment/therapeutic activity with minimal complaints of pain and difficulty.

XX/XX/2019: Patient reports that his back is hurting in his low back in the center today. Patient reports that his back is still hurting in the same spot. States that being at work all day makes it worse, reports that he feels good after PT. Patient requires timer for all exercises, as he will perform more reps than prescribed, also requires some demonstrations.

XX/XX/2019: No new complaints. Doing well today.

*Reviewer’s comment: Multiple interim physical therapy visits are summarized with significant events.</td><td></td></tr>
<tr><td>XX/XX/2019</td><td>XXX XXXX

XXX XXX, DPT</td><td>Physical therapy re-evaluation for neck and low back pain:
Chief complaint: Pain: 3/10 worst in the cervical spine; 6/10 worst in the lumbar spine.

Daily comments: Reports overall doing better and having less pain. States still having pain in the low back and the left side of the neck.

Objective examination:
Muscle testing: Thoracolumbar planes: Right and left extension 4/5, flexion 4/5 and transverse abdominals (significant VC and tactile cueing required) +3/5.

Palpation: Cervical region: musculature, posterior:
<table>
<tr><th>Tenderness</th><th>Left</th><th>Right</th></tr>
<tr><td>Erector spinae (mid cervical)</td><td>1=Complaint of pain</td><td>1=Complaint of pain</td></tr>
<tr><td>Trapezius, upper</td><td>1=Complaint of pain</td><td>2=Pain with wincing</td></tr>
</table>

Range of motion: Spine: Pre-treatment: Active cervical (%):
<table>
<tr><td>Extension</td><td>75%</td></tr>
<tr><td>Flexion</td><td>80%</td></tr>
<tr><td>Retraction</td><td>75%</td></tr>
<tr><td>Rotation left</td><td>75%</td></tr>
<tr><td>Rotation right</td><td>90%</td></tr>
<tr><td>Side bending left</td><td>80%</td></tr>
</table></td><td>413-420</td></tr>
</table>

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Side bending right: 90% **Range of motion: Spine:** Lumbar range of motion vastly coming from upper lumbar spine, significant low lumbar hypomobility lumbar flexion - 75%, extension 75% and rotation bilaterally 90%. **Treatments**: Therapeutic exercises, therapeutic activities, manual interventions, and modalities. Rehabilitative program. **Assessment**: In my professional opinion, this client requires skilled physical therapy in conjunction with a home exercise program to address the problems and achieve the goals outlined below. Overall rehabilitation potential is good. The patient has been educated regarding their diagnosis, prognosis, and related pathology. The patient exhibits good understanding and performance of the therapeutic activity/instructions outlined during this skilled rehabilitation session. The client exhibits a good capacity for advancement of therapeutic activity during treatment. Above average improvements are noted at this time. The potential for continued improvement with skilled therapeutic intervention is good. **Daily plan:** Progression under current plan. Advance as tolerated. **Recommendations:** Accelerate rehabilitation program.	
XX/XX/2019	XXXX XXX Centers XXX XXX, M.D.	**MRI of cervical spine without Gadolinium:** **Clinical indication:** Neck pain. **Findings:** **Bones:** There is mild C4-5 through C6-7 intervertebral disc space narrowing with degenerative endplate changes noted. **C2-3:** There is mild bilateral neural foraminal narrowing secondary to uncovertebral hypertrophy. **C3-4:** There is a concentric disc bulge and bilateral uncovertebral hypertrophy causing mild left and moderate right neural foraminal narrowing without spinal canal stenosis. **C4-5:** There is a concentric disc bulge and bilateral uncovertebral hypertrophy causing mild spinal canal stenosis with mild left and moderate right neural foraminal narrowing. **C5-6:** There is a concentric disc bulge with focal central disc herniation and bilateral uncovertebral hypertrophy causing mild to moderate bilateral neural foraminal narrowing with moderate spinal canal stenosis. **C6-7:** There is a concentric disc bulge and bilateral uncovertebral hypertrophy causing moderate left and mild right neural foraminal narrowing with mild to moderate spinal canal stenosis.	922-923

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Impression: • Multilevel disc disease and uncovertebral hypertrophy of the cervical spine, worst at the C5-6 level, as described. • C5-6 concentric disc bulge with focal central disc herniation and uncovertebral hypertrophy causing mild to moderate bilateral neural foraminal narrowing with moderate spinal canal stenosis	
XX/XX/2019	XXXX XXXX XXXX XXX, M.D., FAAOS	**Orthopedic evaluation notes for neck and lower back pain:** The patient presents today complaining of persistent lower back pain, which radiates into his bilateral lower extremities. The patient is limited in the amount that he can stand or ambulate. He reports sense of heaviness and weakness throughout his legs. The patient has considerable pain if he attempts to bend at his waist. He reports difficulty when first getting out of bed in the morning hours. The patient is also complaining of neck pain with associated headaches. He describes pain, which radiates into his shoulders as well as his mid back. He reports he has significant difficulty with attempted lateral rotation of his cervical spine to the left side. The patient has also been experiencing numbness throughout his hands as well as sharp pain into his left upper extremity. **Physical examination:** The patient is seen in moderate distress. The patient has difficulty getting on an off the examination table. There is a positive spinal Gower sign if the patient attempts to rise from a forwardly flexed position restricted to 60 degrees. There is tenderness throughout the lower facet joints as well as the sciatic notches currently left greater than right. Logrolling of the lower extremities does not produce pain. There is positive straight leg raise test on the left in the seated position at 70 degrees. There is hyporeflexia of the patient's left Achilles found to be 1+. There is weakness in the patient's left dorsi and plantar flexors found to be 4/5. Multiple taut bands are present throughout the trapezius musculature with tenderness over the greater occipital notch as well as the area of the C5-C6 interspace. There is tenderness throughout the interscapular region with significant tenderness over the medial border of the left scapula. Neuroforaminal distraction test is positive. Spurling sign is positive to the left with decreased sensation noted in the patient's left C5-C6 dermatomal distribution. There is tenderness over the deltopectoral line of the left shoulder with positive Neer and Hawkins sign. There is positive Apley scratch test. Forward flexion of the left shoulder is restricted to 170 degrees with moderate pain on end range of motion. **Impression:** • Chronic cervical strain (whiplash injury) with concentric disc bulge, focal and central disc herniation with uncovertebral hypertrophy resulting in bilateral neuroforaminal stenosis with moderate spinal stenosis present at C5-C6, multilevel disc disease worse being the C5-C6 level	904-905

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Chronic lumbar strain rules out internal disc disruption and disc herniation
Left shoulder impingement, rule out rotator cuff tendinitis or tear.

Plan: The patient requires extension regarding the authorization of the MRI evaluation of his lumbar spine. The patient has been made aware of further treatment options including interventional pain management procedures as well as surgical intervention. The patient has been asked to bring the actual films of the MRI evaluation of his lumbar spine with him to his next office visit. At today’s office visit, I have had the opportunity to review the MRI evaluation of the cervical spine. I concur with the radiologist report. The patient has been made aware of further treatment options including interventional pain management procedures as well as surgical intervention. At this time, he will return for reevaluation in approximately one month for discussion regarding his treatment options.
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<tr><td>XX/XX/2019</td><td>XXX XXX

XXX XXX, DPT</td><td>
Physical therapy discharge summary for neck and low back pain:
Chief complaint: Pain: 3/10 worst in the cervical spine; 6/10 worst in the lumbar spine.
Objective examination:
Muscle testing: Thoracolumbar planes: Right and left extension 4/5, flexion 4/5 and transverse abdominals (significant VC and tactile cueing required) +3/5.
Palpation: Cervical region: musculature, posterior:
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Range of motion: Spine: Pre-treatment: Active cervical (%):
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<tr><td>Rotation left</td><td>75%</td></tr>
<tr><td>Rotation right</td><td>90%</td></tr>
<tr><td>Side bending left</td><td>80%</td></tr>
<tr><td>Side bending right</td><td>90%</td></tr>
</table>
Range of motion: Spine: Lumbar range of motion vastly coming from upper lumbar spine, significant low lumbar hypomobility lumbar flexion - 75%, extension 75% and rotation bilaterally 90%.
Treatments: Therapeutic exercises, therapeutic activities, manual interventions, and modalities. Rehabilitative program.
</td><td>421-423</td></tr>
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DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Assessment: In my professional opinion, this client exhibits a good prognosis at time of discharge from skilled rehabilitative therapy in conjunction with a home exercise program. The client vas educated regarding the discharge prognosis and related pathology. The client exhibits good understanding and is independent in their home exercise program and instructions outlined in this skilled rehabilitation program. From the initiation of treatment to discharge the patient's status is improved. **Recommendations:** Discharge, secondary to: Insurance visit limitations. **Plan**: The patient is discontinuing therapy due to insurance visit limitations. Discharge from physical therapy.	
XX/XX/2019	XXX XXX Centers XXX XXX, M.D.	**MRI of lumbar spine without Gadolinium:** **Clinical indication:** Low back pain with bilateral lower extremity radiculopathy. Status post MVA 1 year ago. History of lymphoma. **Findings:** **Bones:** The last intervertebral disc space is designated the L5/S1 level for the numbering purpose of this examination. The vertebral body heights are well maintained. Straightening of the lumbar lordosis is noted. Lumbar spinal canal appears patent. Ligamentous structures are intact. Age-appropriate marrow signal is noted. Endplate Schmorl's nodes are noted from the T11/12 to the L2/3 level. Mild retrolisthesis is noted at the L2/3 level. Disc desiccation throughout the lumbar spine. Endplate type 1 Modic changes at the L2/3 level. Mild retrolisthesis at L5/S1 and L1/2 level is also noted. **T12-L1:** Moderate disc bulge with mild bilateral foraminal narrowing. Central disc protrusion with mild central stenosis is noted on evaluation of the sagittal images. **L1-2:** Mild disc bulge with small central disc protrusion 0.9 x 0.3 cm effaces the ventral thecal sac with mild central stenosis. Mild-to-moderate bilateral foraminal narrowing. Mild facet hypertrophic changes with fluid in the facet joints. **L2-3:** Moderate disc bulge, left eccentric with mild retrolisthesis and central disc osteophyte complex 0.9 x 0.3 cm. Left foraminal disc protrusion 1 x 0.4 cm. Mild facet hypertrophic changes. Mild to moderate bilateral foraminal stenosis, right greater than left. **L3-4:** Mild facet hypertrophic changes and ligamentum flavum hypertrophy. Moderate disc bulge with mild-to- moderate bilateral foraminal stenosis. Right foraminal disc protrusion 0.8 x 0.3 cm. Mild central stenosis. **L4-5:** Moderate disc bulge with central disc protrusion 1 x 0.4 cm. Mild facet hypertrophic changes. Moderate bilateral foraminal stenosis.	1117-1118

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		L5-S1: Moderate disc bulge with right paracentral disc protrusion 0.8 x 0.3 cm. Mild facet hypertrophic changes. Mild retrolisthesis Moderate bilateral foraminal stenosis. **Soft tissues:** Mild degenerative changes sacroiliac joints. Limited evaluation of the prevertebral soft tissues demonstrates nonspecific perinephric stranding around the kidneys and tiny cortical cysts within the kidneys. Atherosclerotic changes and ectasia of the abdominal aorta. Minimal edema noted within the right psoas muscle. **Impression:** Straightening of the lumbar lordosis. Degenerative changes of the lumbar spine most significant from the L3/4 through L5/S1 levels with central disc protrusion L5/S1 level and moderate disc bulge with moderate bilateral foraminal stenosis impinging the L5 nerve roots bilaterally. Central disc protrusion L4/5 level with moderate bilateral foraminal stenosis. Right foraminal disc protrusion L3/4 level with mild central stenosis and moderate foraminal stenosis. Multilevel mild to moderate foraminal stenosis as discussed.	
XX/XX/2019	XXXX XXXX XXX XXX, M.D., FAAOS	**Orthopedic evaluation notes for neck and lower back pain:** The patient continues to experience persistent neck pain as well as left shoulder pain and stiffness. The patient's main complaint continues to be constant and severe lower back pain and stiffness, which radiates along the posterior aspects of both legs, more severe on the left side. Due to the patient's lower back symptoms, he has difficulty with prolonged sitting, standing, or ambulating as well as sleeping at night as it is hard to find a comfortable position to rest in. The patient also has difficulty rising from a seated position. The patient has completed a course of chiropractic and physical therapy but states that "it didn't help at all." The patient continues to feel he is living a very decreased quality of life due to his current condition, which adversely affects most of his activities of daily living. The patient presents today for further evaluation. **Physical examination**: The patient appears to be under moderate duress. He is ambulating with a slow antalgic gait and kyphotic posture. He is slow to rise from a seated position. The patient is able to ambulate on the heels and toes, but this irritates his lower back pain. Examination of the lumbar spine reveals tenderness over the lumbosacral junction, the paralumbars and the bilateral sciatic notches. There is significant tenderness over the left sciatic notch. The patient is seen while ambulating avoiding full weight bearing on the left lower extremity. Straight leg raise testing is positive in the seated position at 60 degrees with a positive Lasegue maneuver. There is a positive spinal Gower's sign noted indicative of spinal weakness and instability. Multiple trigger points are noted along the lumbar paraspinals consistent with areas of chronic muscular spasm and fibrous adhesions. Lumbar range of motion is stiff and restricted with forward flexion limited to 50 degrees, normal is 90. Extension is limited to 15 degrees, normal is 40.	902-903

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Oblique lumbar extension also reproduces pain. Tenderness is noted over the L2-L3, L3-L4, L4-L5, and L5-S1 interspaces and the lower facet joints. There is a diminished left Achilles deep tendon reflex graded at +1/2. There is weakness of the left dorsi, and plantar flexors graded at +4/5. Babinski sign is downgoing. In the meantime, the patient will continue with his home exercise program and return for further orthopedic evaluation in approximately one month or the early postoperative period to see how he is progressing with his treatment and continued discussion of his treatment options.	
XX/XX/2019	XXXX XXXX XXX XXX, M.D., FAAOS	**Orthopedic evaluation notes for neck and lower back pain:** The patient continues to experience persistent and severe lower back pain, which radiates into both lower extremities more severe on the left side "all the way down to my feet." The patient describes a sensation of numbness, tingling and weakness throughout his legs. The patient also continues to experience persistent neck and left shoulder pain. The patient has difficulty with prolonged sitting, standing, or ambulating as well as sleeping at night as it is hard to find a comfortable position to rest in. The patient continues to feel he is living a very decreased quality of life and can no longer tolerate his lower back pain. The patient presents today for further orthopedic evaluation. **Physical examination:** The patient appears to be under moderate duress. He is ambulating with a slow antalgic gait and kyphotic posture. He is slow to rise from a seated position. The patient can ambulate on the heels and toes, but this irritates his lower back pain. He avoids full weight bearing on the left lower extremity. Examination of the lumbar spine reveals tenderness over the lumbosacral junction, the lumbar paraspinals and the bilateral sciatic notches. There is significant tenderness over the left sciatic notch. Multiple trigger points are noted along the lumbar paraspinals consistent with areas of chronic muscular spasm and fibrous adhesions. Straight leg raise testing is positive in the seated position at 60 degrees with a positive Lasegue maneuver. Anterior slump test is positive. There is a positive spinal Gower's sign noted. Lumbar range of motion remains stiff and restricted with forward flexion limited to 50 degrees, normal is 90. Extension is limited to 15 degrees, normal is 40. Oblique lumbar extension also reproduces pain. There is a diminished left Achilles deep tendon reflex graded at +1/2. There is weakness of the left dorsi, and plantar flexors graded at +4/5. There is diminished sensation noted along the left L5 and SI dermatomal distributions. Tenderness is noted over the L2-L3, L3-L4, L4-L5 and L5-S1 interspaces and the lower facet joints. Examination of the cervical spine reveals tenderness over the posterior cervical muscles, the interscapular region, the bilateral trapezius muscles, and the lower spinous processes. Multiple trigger points are noted along the trapezius muscles consistent with areas of chronic muscular spasm and fibrous adhesions.	899-901

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Tenderness is noted over the occiput and the medial border of the left scapula. Spurling sign is positive to the left. Neuroforaminal distraction test is positive. Hypoesthesia is noted along the left C5 and C6 dermatomal distributions with weakness of the left rotator cuff muscles graded at +4/5. Tenderness is noted over the C5-C6 interspace. Tenderness is noted over the deltopectoral line of the left shoulder. Neer and Hawkins signs are positive on the left. Crossover impingement sign is positive reproducing pain along the anterior and superior aspects of the left shoulder. Empty can test is positive. The patient can place the first digit of the left hand to the level of T8, normal is T4. **Impression**: • Chronic cervical strain (whiplash injury) with concentric disc bulge, focal and central disc herniation with uncovertebral hypertrophy resulting in bilateral neuroforaminal stenosis with moderate spinal stenosis present at C5-C6, multilevel disc disease, worse at the C5-C6 level • Chronic lumbar strain with multilevel disc bulging and superimposed disc herniations, most severe at L2-L3, L3-L4, L4-L5 and L5-S1 with multilevel facet arthropathy resulting in thecal sac and nerve root impingement, rule out lumbar radiculopathy. • Left shoulder impingement, rule out rotator cuff tendinitis and tear. **Plan:** The patient is indicated for a lumbar epidural steroid injection. The patient understands the risks and benefits associated with this type of procedure. I have answered all the patient's questions satisfactorily today. The patient understands and would like to proceed as planned as he can no longer tolerate his lower back pain. The patient's injection is scheduled to be performed on XX/XX/2019. If the patient does not respond to interventional pain management, he could be a candidate for spinal fusion surgery in the lumbar spine. The patient has been encouraged to continue with his home exercise program and will return for further orthopedic evaluation in approximately one month or the early postoperative period to see how he is progressing with his treatment and continued discussion of his treatment options.	
XX/XX/2019	Surgical Center at XXXX XXXX XXX, M.D., FAAOS	**Procedure notes for lumbar epidural steroid injection:** **Indications for procedure:** Patient was in his usual state of good health without pain until he was involved in a significant motor vehicle accident on XX/XX/2018 with direct injury to his lower back. Since then, the patient has had persistent complaints of severe and constant pain with radiates across his lower back into his buttocks and down the posterior aspect of both legs into his feet. He has associated feelings of numbness, tingling and weakness in his leg. Workup including X-ray and MRI showed that the patient had internal disc disruption and herniated discs at L3-4, L4-5 and L5-S1 with nerve room impingement bilateral. Clinically, the patient had lumbar radicular complaints of pain, numbness, and weakness in the same dermatomal distribution. The patient continues to have great difficulty with his activities daily	917-919

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		including sitting, standing, and walking. A lot of problems with sleeping, he cannot get comfortable. The patient does feel he is leading a very decreased quality of life due to his current symptoms. The patient has now failed conservative care and refuses any further conservative treatment. He has now been indicated for a series of lumbar epidural steroid injections. Of note, the patient has received no injections in the past. The indications as well as the risks and benefits of these surgical procedures as well as alternatives to these procedures including continued non-operative treatment and other surgical considerations including laminectomy and spinal fusion as well as the risks of alternative treatments have been discussed with the patient and an informed consent has been obtained. The patient's current symptoms, injury, and diagnoses as noted above are directly causally related to the motor vehicle accident, which occurred on XX/XX/2018 **Pre- and post-operative diagnosis:** Herniated discs at L3-4, L4-5 and L5-S1 with bilateral lumbar radiculopathy right greater than left with neurological involvement. **Procedure performed:** Epidural steroid injection of the lumbar spine at the level of L5-S1 with intraoperative epidurogram and radiologic interpretation with the use of multiplanar fluoroscopy. The steroid preparation contained 2 cc of Kenalog, containing 80 mg of Triamcinolone, 2 cc of normal saline, and 2 cc of 0.25% Marcaine. This gave a total of 6 cc of steroid preparation, which was then administered into the epidural space without complications. The patient was then placed back onto his stretcher and taken to the recovery room in stable condition. The patient tolerated the procedure well. There were no specimens and there were no compilations, in the recovery room, the patient was noted to remain neurologically intact. **Anesthesia:** Monitored anesthesia care. **Complications:** None. **Estimated blood loss:** Minimal.	
XX/XX/2019	XXXX XXXX XXX XXX, M.D., FAAOS	**Orthopedic evaluation notes for neck and lower back pain:** The patient continues to experience persistent and severe neck pain with numbness in the left hand. The patient states that "I can't even turn my head to the right." The patient has difficulty sleeping at night as it is hard to find a comfortable position to rest in. The patient also is status post his first lumbar epidural steroid injection performed two weeks ago. The patient states that unfortunately "it's not really helping as of yet." The patient continues to experience persistent lower back pain which is unchanged from his last examination which is across his lumbosacral region and is found to radiate into both buttocks, more severe on the left side as well as "all the way down my left leg" to just below the knee. The	896-898

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		patient describes a sensation of numbness and tingling in his left foot and calf. The patient also continues to experience persistent left shoulder pain. The patient has difficulty with prolonged sitting, standing, or ambulating. The patient continues to feel he is living a very decreased quality of life due to his current condition which adversely affects most of his activities of daily living. The patient presents today for further evaluation. **Physical examination:** The patient appears to be under moderate duress, He is ambulating with a slow antalgic gait and kyphotic posture. He is slow to rise from a seated position. The patient is able to ambulate on the heels and toes, but this irritates his lower back pain. The patient is seen avoiding full weight bearing on the left lower extremity. Examination of the cervical spine reveals tenderness over the posterior cervical muscles, the interscapular region, the bilateral trapezius muscles, and the lower spinous processes. Multiple trigger points are noted along the trapezius muscles consistent with areas of chronic muscular spasm and fibrous adhesions. Tenderness is noted over the occiput and the medial border of the left scapula. Spurling sign is positive to the left. Neuroforaminal distraction test is positive. Cervical range of motion is stiff and restricted with forward flexion and extension limited to 45 degrees, normal is 60. Lateral bending and rotation are restricted to 40 degrees to the right and near full to the left, normal is 60 with pain elicited at the end of range of motion. Isometric muscle testing of the cervical spine reveals weakness. There is diminished sensation noted along the left C5 and C6 dermatomal distributions. Tenderness is noted over the C5-C6 interspace. Tenderness is noted over the acromioclavicular joint of the left shoulder with a positive Neer and Hawkins signs. Crossover impingement sign is positive reproducing pain along the anterior and superior aspects of the left shoulder. Empty can test is positive. Apley scratch test is positive. Apprehension sign is negative. Left shoulder range of motion is stiff and restricted with forward flexion limited to 160 degrees, normal is 180. Abduction is limited to 100 degrees, normal is 120. There is weakness of the left rotator cuff graded at +4/5. Examination of the lumbar spine reveals tenderness over the lumbosacral junction, the paralumbars and the bilateral sciatic notches. There is significant tenderness over the left sciatic notch. Multiple trigger points are noted along the paralumbars consistent with areas of chronic muscular spasm and fibrous adhesions. Straight leg raise testing is positive in the seated position at 60 degrees with a positive Lasegue maneuver. There is a positive spinal Gower's sign noted indicative of spinal weakness and instability. Lumbar range of motion is stiff and restricted with forward flexion limited to 50 degrees, normal is 90. Extension is limited to 15 degrees, normal is 40. Oblique lumbar extension also reproduces pain. There is diminished sensation noted	

<table>
<tr><th>DATE</th><th>PROVIDER</th><th>OCCURRENCE/TREATMENT</th><th>PDF REF</th></tr>
<tr><td></td><td></td><td>along the left L5 and S1 dermatomal distributions with weakness of the left dorsi and plantar flexors graded at +4/5 when compared to the opposite side. Also noted is hyporeflexia of the left Achilles deep tendon reflex graded at +1/2. Tenderness is noted over the L2-L3, L3-L4, L4-L5 and L5-S1 interspaces and the lower facet joints.

Impression:
• Chronic cervical strain (whiplash injury) with concentric disc bulge, focal and central disc herniation with uncovertebral hypertrophy resulting in bilateral neuroforaminal stenosis with moderate spinal stenosis present at C5-C6 with multilevel disc disease, most severe at C5-C6.
• Chronic lumbar strain with multilevel disc bulging and superimposed disc herniations, most severe at L2-L3, L3-L4, L4-L5 and L5-S1 with multilevel facet arthropathy resulting in thecal sac and nerve root impingement, rule out lumbar radiculopathy.
• Left shoulder impingement syndrome, rule out rotator cuff tendonitis or tear.

Plan: The patient has been made aware of further treatment options including a second lumbar epidural steroid injection which the patient would only be indicated for if he does realize significant improvement following his first injection. The patient requires more time to evaluate if he has experienced any benefit from his first lumbar epidural steroid injection. The patient has also been made aware that he would be a surgical candidate if he fails his course of interventional pain management.

The patient has been encouraged to continue with his home exercise program and will return for further orthopedic evaluation in approximately one month, to see how he is progressing with his treatment and continue discussion of his treatment options.</td><td></td></tr>
<tr><td></td><td></td><td>*Reviewer's comments: Interim record between XX/XX/2019 to XX/XX/2020, if any is unavailable for review.</td><td></td></tr>
<tr><td>XX/XX/2020</td><td>XXXX</td><td>Laboratory report: Illegible notes
Collected date: XX/XX/2020

Comprehensive metabolic panel:<table><tr><th>Test</th><th>Results</th></tr><tr><td>Glucose</td><td>112, high</td></tr><tr><td>BUN/creatinine ratio</td><td>28, high</td></tr><tr><td>AST (SGOT)</td><td>71, high</td></tr><tr><td>ALT (SGPT)</td><td>138, high</td></tr></table>
Urinalysis:
Protein: 1+, abnormal.

Mucus threads: Present.</td><td>500-503</td></tr>
</table>

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Hemoglobin A1C: 6.8, high. **Reviewer's comments: Only abnormal lab values have been elaborated.*	
XX/XX/2020	XXXX	**Laboratory report** *Illegible notes* **Collected date:** XX/XX/2020	504
XX/XX/2020	XXXX	**Electrocardiogram:** *Illegible notes* **Impression:** Normal Sinus Rhythm (NSR), RT 60, old ___ unchanged. Lateral T wave inversions – unchanged. Unchanged from yearly ECG's ___ back to XX/XX/2013.	495
XX/XX/2020	XXXX XXXX XXX XXX, M.D., FAAOS	**Correspondence report regarding anterior lumbar interbody fusion/posterior spinal decompression fusion:** Patient is under my professional care. He is scheduled for an anterior lumbar interbody fusion/posterior spinal decompression fusion L5-S1 at XXXX XXXX on XX/XX/2020. The patient is experiencing severe pain and is at risk of progression of neurological loss. Without surgery, the patient will become bedridden and or wheelchair bound.	470
	XXXX Care Center XXXX XXXX, M.D.	**X-ray of chest:** **Referring physician:** XXX XXX, D.O. **Reviewer's comments: Referring physician visit from XXXX, D.O. (date unknown) is unavailable for review.* **Clinical indication:** Pre-operative exam. **Impression:** No acute pulmonary findings.	496
XX/XX/2020	XXX XXX	**Laboratory report** **Collected date:** XX/XX/2020 **Hepatic function panel:** <table><tr><th>Test</th><th>Results</th></tr><tr><td>AST (SGOT)</td><td>67, high</td></tr><tr><td>ALT (SGPT)</td><td>124, high</td></tr></table> **Reviewer's comments: Only abnormal lab values have been elaborated.*	498-499
XX/XX/2020	XXXX XXX XXX XXX, D.O.	**Medical clearance for surgery:** **Diagnosis:** Degenerative disc disease of lumbar spine, Hypertension (HTN), hyperlipidemia and elevated Liver Function Tests (LFTs). **Procedure:** Anterior Lumbar Interbody Fusion (ALIF))/Posterior Spinal Decompression Fusion (PSDF) L5-S1. **Diagnostic testing**: ECG, X-ray of chest, labs, repeat LFT's and coccyx testing. Patient is cleared for proposed surgical procedure and anesthesia.	472
XX/XX/2020	XXXX XXXX	**Laboratory report:**	494, 505

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		COVID-19: Not detected.	
XX/XX/2020	XXXX XXXX	**History and physical examination for severe lower back pain:** Motor Vehicle Accident (MVA) – Date of Accident (DOA) XX/XX/2018 Patient complaints of constant and severe lower back pain radiating into both lower extremities. Herniated Nucleus Pulposus (HNP) L5-S1 with radiculopathy. **Plan**: Anterior/posterior spinal decompression and fusion L5-S1.	475
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D., FAAOS	**@0613 hours: Operative report of anterior lumbar discectomy and fusion and placement of an interbody fusion:** **Indications for procedure:** Patient was in his usual state of good health without pain until he was involved in a significant motor vehicle accident on XX/XX/2018 with direct injury to his lower back. Since then, the patient has had persistent complaints of severe pain across his lower back with radiation into his buttocks and down the posterior aspect of both legs left greater than right. He also has associated feelings of numbness, tingling and weakness especially of his left leg. His pain has continued to be very severe and is affecting his ability to walk or stand with radiation of pain down both legs. Workup including X-ray and MRI revealed severe internal disc disruption and herniated disc at L5-S1 level associated with facet joint arthropathy and nerve root impingement. The patient continues to have great difficulty with his activities daily and does feel he is leading a very decreased quality of life due to his current symptoms. The patient has now failed a very long course of conservative care including time, medication, therapy, as well as pain management treatment and refuses any further conservative treatment. The patient feels as if his back is not supporting him. The patient has now failed conservative care and refuses any further conservative treatment. He has now been indicated for operative treatment as noted above. Of note, the patient is undergoing a circumferential 360-degree fusion with anterior and posterior surgical procedures. Each one will be dictated as a separate report since they are distinctly different surgical procedures. The indications as well as the risks and benefits of this surgical procedure as well as alternatives to the surgery including continued non-operative treatment and other surgeries as well as the risks of alternative treatments have been discussed with the patient and an informed consent has been obtained. The patient's current symptoms, injury and diagnoses as noted above are directly causally related to the motor vehicle accident which occurred on XX/XX/2018 **Pre- and post-operative diagnosis:** Internal disc disruption and disc herniation at L5-S1 with facet joint arthropathy, spinal stenosis and bilateral lumbar radiculopathy left greater than right. Lumbar disc disease. **Procedures performed:** • Anterior lumbar discectomy and fusion at L5-S1 with partial corpectomies of L5 and S1 vertebral bodies • Placement of an interbody fusion device with anterior spinal	226-229, 478

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		instrumentation at L5-S1 • Use of bone morphogenic protein Actifuse. • Use of multiplanar fluoroscopy. Sterile dressings were applied. The patient tolerated this well, was hemodynamically stable with palpable pedal pulses. **Anesthesia:** General. **Specimens**: Disc and bone from the L5-S1 level. **Complications**: None. **Estimated blood loss:** 25 ml.	
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D., FAAOS	**@1110 hours: Intra-operative fluoroscopy/X-ray of lumbar spine:** **Clinical indication:** Herniated nucleus pulposus. Intractable back pain. Image-guided anatomic localization. **Findings/impression:** Intra-operative fluoroscopy was provided for anterior lumbar interbody fusion and posterior decompression at the L5-S1 level. Static image intensifier views reveal well-seated interbody cage device with associated diverging intrinsic screws projecting over the respective height-restored disc interspace. No immediate hardware complication. Operative segment alignment appears anatomic. Follow-up post-procedure conventional radiographs of the lumbar spine are recommended to assess adequacy of hardware placement and operative segment alignment.	563-564
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D., FAAOS	**Discharge notes status post anterior lumbar discectomy and fusion and placement of an interbody fusion:** **Diet:** Regular. **Prescriptions**: Percocet. **Activity**: Ad lib, walk daily for exercises. **Follow-up**: 7-10 days in office. **Disposition:** Home.	492
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D., FAAOS	**@2041 hours: History and physical examination for back pain:** **Chief complaint:** Back pain. **History of present illness**: Patient known to have Herniated Nucleus Pulposus (HNP) L5-S1 admitted for Transforaminal Lumbar Interbody Fusion (TLIF). **Review of system:** **Skin:** Wounds. **Physical examination:**	542-544

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		• **Constitutional:** Appears uncomfortable • **Musculoskeletal:** Wound draining • **Neurological:** Decreased muscle tone **Impression/plan:** HNP lumbosacral spine status post TLIF. Monitor neuro checks, urine output. Gastrointestinal (GI) prophylaxis – Protonix. Deep Vein Thrombosis (DVT) prophylaxis – Venodynes. Patient-controlled analgesia (PCA) for pain.	
XX/XX/2020	XXXX XXXX XXX XXX, PT	**@1109 hours: Initial physical therapy evaluation status post back surgery:** **Referring/admission diagnosis:** Status post back surgery. Status post anterior/posterior spinal decompression and fusion L5-S1. **Therapy precautions**: Spinal precautions. **Previous level of function:** • **Functional activities of daily living**: Independent • **Ambulation**: Independent • **Weight-bearing status – right**: Full • **Weight-bearing status – left**: Full. **Living situation**: With family. **Front stairs**: Number of steps – 2. **Physical assessment:** **Mobility:** • **Bed:** Supine to sit and sit to supine - Contact Guard Assist (CGA) • **Transfers:** Sit to stand and stand to sit – CGA • **Gait**: Assistive device used – Roller Walker (RW). Guarding – CGA. Distance – 100 feet x 2 • **Stairs:** Unable to perform • **Sitting**: Static and dynamic – Fair+ • **Standing**: Static and dynamic – Fair **Range of motion:** Within functional limits. **Muscle strength:** Right and left shoulder, elbow, wrist, fingers, hip, knee, and ankle – 3+/5. **Assessment summary:** Patient referred to PT for evaluation/treatment with diagnosis status post back surgery and status post anterior/posterior spinal decompression and fusion L5-S1. Patient presents with decline in overall functional status including bed mobility, transfers, and ambulation. **Problems identified**: Bed mobility, transfers, gait/ambulation, range of motion, balance, coordination, strength, and endurance.	536-542

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Musculoskeletal problems: • Difficulty with ADLs. • Limited ROM. • Orthopedic surgery decompression and fusion of L5-S1. **Plan**: Patient will benefit with skilled physical therapy treatment to attain maximum functional status. Physical therapy 5-7 x/week. Home with services. Assistive device needed – Walker. **Plan of care**: Bed mobility training, gait training, range of motion exercises, endurance training, transfers training, therapeutic exercises, balance training and patient/family education and training. **Musculoskeletal interventions:** • Evaluate safety of immediate environment. • Assist with ADLs. • Rehabilitation consultation as ordered. • Assist to commode. • Out of Bed (OOB) to chair as ordered. • Therapy equipment back brace • Maintain functional alignment with stabilization devices – spine. • Encourage ROM • Encourage ambulation	
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@2042 hours: Inpatient progress note for back pain:** **Subjective:** Patient complaining back pan. **Review of system:** **Skin:** Wounds. **Physical examination:** • **Constitutional:** Appears uncomfortable • **Musculoskeletal**: Wound dry • **Neurological:** Decreased muscle tone **Assessment/plan:** HNP L5-S1 status post TLIF on Oxycodone. For PT. **Nurse notes:** **@1716 hours:** Alert, oriented x 3. IVF infusing well. Back dressing clean and dry. Abdominal small dressing 2 x 2 intact. Patient was medicated once verbalized relief after ambulated to bathroom and voided. Physical therapy today. Tolerating diet. Circulation to lower extremities good. No impairment noted. Comfortable. **@1930 hours:** Patient resting in bed with side rails up and intact. Patient voiding 250 ml in urinal. Tolerating liquids well. **@2100 hours:** Patient complaints of mild spasm lower abdominal inguinal area. Flexeril Per Oral (PO) tolerated. Resting in bed for now.	533-536

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Lower extremities - mobile toes, warm to touch and capillary refill less than 3 seconds. Sequential Compression Device (SCD) in place. Patient encouraged to use Incentive Spirometry (IS) and cooperative.	
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@1331 hours: Inpatient progress note status post back surgery:** Patient seen Post-Operative Day (POD) #2. Status post TLIF. Surgical site with staples dry and intact edges well approximated. Denies radicular symptoms, no numbness/tingling, 5/5 Bilateral Lower Extremities (BLE), sensation intact. Remains continent of both bowel and bladder. Pain controlled with current medication regimen. PT in progress. Discharge home today with Percocet and Colace. Dr. XXXX concurred. **Nurse notes**: Small lower abdominal dressing clean, dry and intact. Lumbar dressing intact. Old serosanguinous drainage noted. Ice to lumbar refused. SCD on and off. Incentive spirometry encouraged. Head of Bed (HOB) elevated 30 degrees. OOB ad-lib to bathroom. Ambulating ad-lib in hall. Lumbar brace on.	525-527
XX/XX/2020	XXXX XXXX XXX XXX, PT	**@1916 hours: Inpatient physical therapy progress note status post back surgery:** Patient seen on this date for gait training. Patient is currently independent with all aspects of functional mobility including bed mobility, transfers and ambulation x 250’. Patient demonstrates overall fair balance and good safety awareness. Patient instructed on the importance of functional mobility and reports understanding. Patient is safe for discharge home. Pending MD clearance.	525
XX/XX/2020	XXXX XXXX	***Related records:*** *Physician’s orders, operating room record, consent, antologous blood recovery record, intraoperative record, vitals, patient’s information, nursing assessment, surgical checklist, plan of care, anesthesia record, medication administration summary, orders, labs and discharge instructions.*	506-508, 512-526, 469, 11-14, 544-545, 476-477, 479-490, 493, 568-585, 547-562
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@2044 hours: Discharge summary status post back surgery:** **Admission date:** XX/XX/2020 **Discharge date:** XX/XX/2020 **History of present illness**: Patient known to have HNP L5-S1 admitted for TLIF. **Pain**: No pain. **Physical examination:** **Musculoskeletal:** Wound dry. **Discharge diagnosis**: Post surgery back pain. **Final diagnosis**: HNP L5-S1 status post TLIF. **Hospital course:** Unremarkable.	565-567

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Condition at discharge: Good.	
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**History and physical examination for wound infection:** **Chief complaint:** Wound infection. **Present illness:** Status post TLIF admitted for wound infection. **Review of system:** **Skin:** Wounds. **Physical examination:** • **Constitutional:** Appears uncomfortable. • **Musculoskeletal:** Wound – infected. **Assessment/plan:** Status post TLIF with wound infection for washout. Cleared medically for surgery.	598-599
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@1606 hours: Emergency department physician record for cellulitis:** **Means of arrival:** Car. **Patient acuity**: 3. **ED complaint:** Infection in back. **Chief complaint**: Skin infection (Per patient, having pain and infection on back). **Pain score**: 5, moderate pain. **History of present illness**: Patient with a history of hypertension, hyperlipidemia, and lumbosacral disc disease, who reports that he had surgery on his lumbosacral spine on May 11th with Dr. XXXX (neurosurgeon). Patient was recovering well since the surgery and he had his sutures removed last week. Three days ago, however, patient states that he started with increased pain at the surgical site associated with drainage from the wound, fevers, chills, and dizziness described as lightheadedness. He denies any fevers today; reports that he took Tylenol this morning. Denies chest pain, shortness of breath, leg pain/swelling. Denies numbness, weakness, or incontinence. **Sepsis screen and Cincinnati stroke scale:** **Is there a suspected infection?** Yes. **Johns Hopkins fall risk assessment:** **Total fall risk score:** 0. **Fall risk level:** Low fall risk. **Review of system:** **Musculoskeletal**: Other aches or pains. **Initial assessment:**	37-49, 52-54, 66, 125

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Skin integrity: Weeping. **Complex assessment:** **HEENT**: Right and left eye – impaired vision, glasses. Right and left ear – Mildly impaired hearing. Missing teeth. Lower dentures. **Integumentary:** • **Skin integrity**: Scaling, surgical incision • **Location of scaling**: Right and left foot • **Location of surgical incision**: Abdomen, midsection, and lower back **Braden scale:** Score 20. **Physical examination:** **Generalized appearance:** Patient is awake, alert, and in mild distress. **Skin:** Incision site below umbilicus is clean/dry/intact. Surgical site is intact in lumbosacral spine with surrounding erythema, tenderness, and purulent drainage. **Diagnostics:** **Pulse Oximetry:** 100% on Room Air (RA) indicating adequate oxygenation. Labs were reviewed. **Reviewer's comments: Radiological studies performed at ED was reviewed and presented below in separate row.* **Admitting diagnosis**: Cellulitis. **Visit diagnosis:** • Cellulitis of back (primary) • Sepsis, due to unspecified organism, unspecified whether acute organ dysfunction present **Emergency course and treatment**: Patient placed in Emergency Department physician observation status at XX/XX/2020 14:53 for back pain, fever of unknown etiology. Initial assessment and exam completed. Decision made to obtain prior medical records. No prior ED records found in EPIC. Orders written. Airborne Personal Protective Equipment (PPE) precautions were initiated. The patient was wearing a surgical mask. I was wearing N95 mask, eye protection, and gloves. Clinical information manager was not present in the room. Patient initially treated with Normal Saline (NS) 1 L IVFB, Morphine 2 mg Intravenous Push (IVP). The risk of contrast nephropathy was	

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		discussed with the patient and patient verbalized understanding of the risks. Diagnostics pending. Patient re-evaluated multiple times during the evaluation. First re-assessment, patient's examination reveals patient resting comfortably, lungs clear to auscultation bilaterally, heart regular rate and rhythm. Ongoing treatment included continued Intravenous (IV) fluids. Second re-assessment, the patient's examination reveals exam unchanged, patient is afebrile and hemodynamically stable. Diagnostics reviewed. Call placed to Dr. XXXX , ID, and case discussed; she will evaluate patient at bedside. Dr. XXXX evaluated patient and states that he will need to be admitted for IV antibiotics. She recommends consulting Dr. XXXX to see if patient can be transferred to the hospital where he had the initial surgery. Call placed to Dr. XXXX, operating surgeon, and case discussed. Dr. XXXX requests that a picture of the wound be sent to him to review. Patient consented to image which was taken and sent to Dr. XXXX. He recommends admitting patient to XXXX XXXX Center overnight on IV antibiotics. He will arrange for transfer of the patient to XXXX Regional tomorrow. Call placed to Dr. XXXX, and case discussed; she discussed the case with Dr. XXXX , and per their conversation Dr. XXXX states there is no emergent need for surgical consult at this time. Patient is Systemic Inflammatory Response Syndrome (SIRS) positive. **Criteria**: (-) Fever >38C or less than 36C (-) tachycardia>90, (+) respiratory rate > 20, (+) White Blood Cell (WBC) count >12, or less than 4. Sepsis alert acknowledged and sepsis protocol initiated. Lactate level, urine, and blood cultures as well as other diagnostic laboratory studies obtained. Antibiotics already ordered as above. Vancomycin 1 g IVPB, Zosyn 4.5 g IVPB ordered along with remainder of 30 mL/kg fluid bolus. The observation discharge examination revealed patient resting comfortably, lungs clear to auscultation bilaterally, heart regular rate and rhythm. Based on the patient's reassessment and response to treatment arrangements made for admission. Results reviewed and discussed with patient who is agreeable with plan	

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		for further evaluation and therapy in the hospital. After the completion of initial fluid bolus with 30mL/kg a focused reassessment of the patient was performed. The patient remained under the direct care of an emergency physician until XX/XX/2020 **Medication administration summary**: • Vancomycin 1,000 mg in Dextrose 5% (D5W) 200 mL IVPB • Sodium Chloride 0.9% (NS) bolus 1,000 mL • Morphine syringe 2 mg IV • Iohexol 300 mg iodine/mL injection 100 mL • Piperacillin-Tazobactam 4.5 grams in Dextrose 5% (D5W) 200 mL IVPB **Condition:** Guarded. **Plan:** Patient admitted.	
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@1608 hours: CT scan of lumbar spine without contrast:** **Clinical indication:** Infection status post surgery. **Findings:** • **Bones:** The left intravertebral disc space is designated the L5/S1 level for the numbering purposes of this examination. There is a laminectomy defect at L5. • **T12-L1:** Moderate loss of intervertebral disc space height. No disc herniation or bulges are present. • **L1-2:** Moderate severe loss of intervertebral disc space height. Mild posterior disc osteophyte complex • **L2-3:** Moderate to severe loss of intervertebral disc space height. Mild posterior disc osteophyte complex • **L3-4:** Mild diffuse disc bulge • **L4-5:** Mild diffuse disc bulge • **L5-S1:** Metallic strut spacer device. Minimal grade 1 retrolisthesis of L5 relative to S1 • **Soft tissues:** Multiple small irregular calcifications in the dorsal soft tissues at the level of the operative bed. Additionally, there are few tiny foci of gas seen in the operative bed. However, no discrete drainable collection or distinct abscess is distinguished. Mild stranding and inflammatory changes are seen in the dorsal subcutaneous tissues at the lower lumbar and upper sacral levels. **Impression:** • No discrete abscess or focal drainable collection, however few small foci of gas are seen at the operative bed. While these could be reflective of recent postsurgical changes infection by gas producing organisms cannot be excluded	106-107

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		• Laminectomy defect and intervertebral disc spacer device at L5-S1 • Multilevel degenerative joint disc disease	
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D..	**@1925 hours: History and physical examination for low back pain:** Patient arriving from home. **Chief complaint**: Low back pain. **History of present illness:** Patient with past medical history significant for hyperlipidemia, hypertension, recent lumbosacral spine surgery on XX/XX/2020 with Dr. XXXX neurosurgeon in XXXX Hospital who presents to ER with low back pain. Patient states 2 days ago he started having fever of 102 which gradually resolved however he continued having severe low back pain and therefore presented to the emergency department. He also noted bleeding at the surgical site in the back. In the ER he was given IV Vancomycin and IV Zosyn and case was discussed by PA XXX XXX with Dr. XXXX who asked for admission at XXXX XXXX overnight and thereafter Dr. XXXX will touch base with hospitalist for transfer to XXXX Hospital tomorrow. Patient received IV Morphine in the emergency department which did help him control somewhat of the pain. Otherwise no current fever and chills, no nausea, vomiting, diarrhea and constipation, no shortness of breath, no cough and no sick contacts. Patient has been home for the past 2 weeks. **Physical examination:** • **Body habitus:** Obese • **Back**: Positive lumbar surgical scar with surrounding erythema tenderness as well as purulent drainage • **Abdomen**: Low mid abdominal surgical scar with good wound healing **Assessment/plan:** • Cellulitis • Lumbar spine surgery on XX/XX/2020 by Dr. XXXX Hospital • Hypertension • Hyperlipidemia Patient will be admitted to medical floor IV Vancomycin and IV Zosyn will be continued. CT of the lumbar spine was performed no discrete abscess or focal drainable collection was noted however few small foci of gas were seen this was discussed with Dr. XXXX who was okay with admitting the patient overnight with a plan to transfer the patient as soon as possible to Dr. XXXX for wound debridement. As per conversation of Dr. XXXX with ER PA XXXX XXXX plan is to transfer patient to XXXX Hospital tomorrow. I tried to contact Dr. XXXX however still awaiting call back. Continue outpatient medication. Place the patient on SCDs in case patient needs surgery tomorrow. Wound culture was done in the emergency department. **DVT prophylaxis:** SCDs.	68-73

<table>
<tr><th>DATE</th><th>PROVIDER</th><th>OCCURRENCE/TREATMENT</th><th>PDF REF</th></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX

XXXX XXXX, M.D.</td><td>@2130 hours: Infectious disease consultation note for low back pain:
History reviewed.

At time of my examination there is a small area dehiscence in proximal part of the wound. Purulent material from this was noted when area was palpated. No crepitus. Patient complained of tenderness.

Physical examination:
Skin: Incision site with minimal surrounding erythema. Purulent material noted when area is palpated.

Radiology: All studies personally reviewed by me. Small gas bubbles noted in operative bed.

Recommendations:
• I am concerned for a surgical site infection.
• Given fever and noted purulent material from wound the incision will likely need to be opened and washed out.
• Start Vancomycin and Zosyn
• Gas noted on CT is likely due to post-operative changes.

Addendum:
• Patient’s surgeon requested patient be transferred in morning.
• Continue with Vancomycin and Zosyn
• Will follow along.
• Discussed with Dr. XXXX</td><td>78-83</td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX

XXXX XXXX, M.D.</td><td>Laboratory report:
Comprehensive metabolic panel:
<table>
<tr><th>Components</th><th>Value</th></tr>
<tr><td>Glucose</td><td>119, high</td></tr>
<tr><td>BUN</td><td>23, high</td></tr>
<tr><td>Sodium</td><td>133, low</td></tr>
<tr><td>Albumin</td><td>3.3, low</td></tr>
<tr><td>A/G ratio</td><td>0.79, low</td></tr>
<tr><td>ALT (SGPT)</td><td>106, high</td></tr>
</table>

CBC with automated differential:
<table>
<tr><th>Components</th><th>Value</th></tr>
<tr><td>WBC</td><td>13.76, high</td></tr>
<tr><td>Hemoglobin</td><td>13.6, low</td></tr>
<tr><td>Neutrophils</td><td>84.5, high</td></tr>
<tr><td>Lymphocytes</td><td>5.2, low</td></tr>
<tr><td>Neutrophils absolute</td><td>11.62, high</td></tr>
<tr><td>Monocytes absolute</td><td>1.21, high</td></tr>
<tr><td>Immature Granulocytes absolute</td><td>0.06, high</td></tr>
</table>

Lactic acid: 2.7, high.</td><td>91-96</td></tr>
</table>

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Sedimentation rate, automated: 61, high. **Reviewer's comments: Only abnormal lab values have been elaborated.*	
XX/XX/2020	XXXX XXXX,	**Laboratory report:** **Blood culture:** **Specimen type:** Blood. **Specimen source**: Peripheral. **Results**: No growth after 4 days. **Anaerobic and aerobic culture (includes gram stain):** **Specimen type:** Surgical (wound). **Specimen source**: Back. **Results:** **Anaerobic culture:** No anaerobes isolated. **Gram stain:** Moderate WBC seen. Few epithelial cells. Moderate gram-positive cocci in clusters. Few gram-positive bacilli. **Aerobic culture:** Mixed bacterial flora. Staphylococcus aureus many. **COVID-19 stat in-house:** **SARS CoV-2 by RT-PCR:** Negative.	101-105
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@1122 hours: XXXX transfer form:** **Transfer from:** XXX Medical Center. **Transfer to:** XXXX Regional Hospital. **Reasons for transfer:** Surgeon requested PT to receiving hospital for immediate examination. **Skin condition:** **Type:** Surgical. **Site**: Lower back. **Primary diagnosis**: Cellulitis of back. **Secondary diagnosis**: Sepsis. **Diet**: Cardiac although currently None Per Oral (NPO) for possible procedure. **IV access:** Saline lock.	214, 217
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@1203 hours: Infectious Disease progress note for cellulitis of back:** **Length of Stay (LOS)**: 1 day. **Subjective**: Afebrile overnight. Less pain today.	84-88

<table>
<tr><th>DATE</th><th>PROVIDER</th><th>OCCURRENCE/TREATMENT</th><th>PDF REF</th></tr>
<tr><td></td><td></td><td>Active wounds and incisions: Coccyx incision less than 1 day.

Recommendations:
• Surgical site infection
• Given fever and noted purulent material from wound the incision will likely need to be opened and washed out.
• Patient febrile on admission. Afebrile since starting antibiotic last night.
• Will need to be transferred to XXXX Hospital today
• All cultures are negative.
• Discussed with XXX XXX, M.D.</td><td></td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX</td><td>Laboratory report:
Basic metabolic panel:
<table>
<tr><th>Components</th><th>Value</th></tr>
<tr><td>Sodium</td><td>133, low</td></tr>
<tr><td>Glucose</td><td>101, high</td></tr>
</table>

CBC:
<table>
<tr><th>Components</th><th>Value</th></tr>
<tr><td>RBC</td><td>4.17, low</td></tr>
<tr><td>Hemoglobin</td><td>13.1, low</td></tr>
</table>

*Reviewer's comments: Only abnormal lab values have been elaborated.</td><td>97-100</td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX</td><td>Related records:

Patient's information, patient care timeline, after visit summary, medication administration record, orders, flow sheets, patient education, and case manager assessment.</td><td>33-36, 50-68, 184-188, 190, 108-155, 88-91</td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX

XXXX XXXX, M.D.</td><td>Discharge summary:
Admission date: XX/XX/2020
Discharge date: XX/XX/2020

Length of stay: 1

Presenting problem at admission: Low back pain.

Hospital course: Patient with past medical history significant for hyperlipidemia, hypertension, and recent lumbar spine surgery on XX/XX/2020 with Dr. XXXX XXXX in XXXX XXXX who presented to emergency department with chief complaint of worsening lower back pain. Patient also reported having fever at home with them of 102. In the emergency department patient noted with bloody drainage at the surgical site with small area of dehiscence in the proximal part of the wound. Purulent matter also noted. CT of the lumbar spine showed no discrete abscess or focal drainable collection however few small foci of gas are seen at the operative bed which could be reflective of recent postsurgical changes infection cannot be excluded.</td><td>73-77, 38, 196</td></tr>
</table>

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		No discrete abscess or focal drainable collection, however few small foci of gas are seen at the operative bed. While these could be reflective of recent postsurgical changes infection by gas producing organisms cannot be excluded. Mild stranding and inflammatory changes are seen in the dorsal subcutaneous tissues at the lower lumbar and upper sacral levels. Laminectomy defect and intervertebral disc spacer device at L5-S1. Patient started on empiric antibiotic and Infectious Disease consult for their recommendation. Patient admitted for management of cellulitis of the back. Patient seen and evaluated by Infectious Disease. There was a concern for surgical site infection given the patient reported fever and purulent material noted from the wound incision site. Discussed case with Dr. XXXX, primary neurosurgeon and recommended to transfer patient to XXXX Regional Center for further evaluation and possible wound debridement. Wound culture noted growing staphylococcus infection. Patient received Zosyn and Vancomycin during hospitalization. Discuss with primary neurosurgeon Dr. XXXX and will resume antibiotics once admitted at XXXX XXXX. Discuss with patient and family regarding plan for transfer. Patient and family agreed with plan. Patient will be transferred to XXXX Regional Center with Dr. XXXX as the accepting physician. Further recommendation will be made once patient admitted and evaluated by surgeon. **Physical examination:** **Skin:** Surgical incision site noted in the lower back with moderate amount of purulent drainage noted. **Discharge medications:** **New medications:** Acetaminophen 325 mg, Docusate Sodium 100 mg, Ondansetron 4 mg and Sennosides 8.6 mg. **Medications to continue:** Amlodipine 5 mg, Atorvastatin 10 mg, Oxycodone-Acetaminophen 5-325 mg and Ramipril 5 mg. **Discharge diagnosis:** **Principal problem:** Cellulitis of back. **Active problems:** Hypertension and hyperlipidemia. **Present on admission:** • Cellulitis of back • Hypertension • Hyperlipidemia **Recommendations**: Follow-up with general surgeon Dr. XXXX upon arrival at XXXX Center.	

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Additional comments: Continue medications as prescribed. **Condition at discharge:** Stable. **Discharge disposition:** XXXX XXXX. **Follow-up information:** Follow-up with Dr. XXXX. Call in 1 day. Upon arrival at XXXX XXXX. **Discharge information:** **Discharge disposition:** Acute inpatient facility/hospital (short term). **Discharge destination:** Acute care hospital.	
XX/XX/2020	XXX XXXX XXXX XXXX, M.D.	**Medical necessity questionnaire:** **Transport date:** XX/XX/2020 **Origin**: NMC. **Destination**: XXXX XXXX. **If hospital-hospital transfer, describe services needed at 2nd facility not available at 1st facility:** Status post spine surgery with back cellulitis. **If hospice patient, is this transport related to patient's terminal illness?** No. **Describe the medical condition of this patient at the time of ambulance transport that requires the patient to be transported in an ambulance and why transport by other means is contraindicated by the patient's condition:** Status post spine surgery with lower back cellulitis. Needs and follow-up with primary surgeon per surgeon request. **Is this patient "bed confined" as declined below?** No. **Can this patient safely be transported by car or wheelchair van (i.e., seated during transport, without a medical attendant or monitoring):** Yes. **In addition to completing questions 1-3 above**: Moderate/severe pain on movement. **Reviewer's comments: Ambulance report from Atlantic Ambulance Corporation on XX/XX/2020 is unavailable for review.*	636
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@1308 hours: Emergency service triage record for lower back cellulitis:** **Mode of arrival:** Stretcher. Basic Life Support (BLS). **Triage category**: Urgent – 3.	820-822, 817, 819

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Patient complaints and assessment: Alert and oriented x 3, ambulatory, sent here from XXXX Hospital to be evaluated by Dr. XXXX for status post spine surgery with lower back cellulitis wound check, abdominal pad to back and steri-strips to abdomen in place, IV left AC present and intact. Patient was swabbed yesterday resulted COVID negative. Patient has been receiving IV antibiotics (Zosyn and Vancomycin). **Pain**: 0/10, no pain. **@1314 hours: Nursing assessment:** • **Skin:** Surgical incision • **Turgor**: Elastic • **Moist**: Yes • **Color**: Pink **@1316 hours: Emergency room treatment record:** • **IV #1:** Gauge – 20. Location: Right and left AC • **Solution**: 200 ml/hr • **Condition of site:** Clear • **Condition of catheter:** Intact **Ongoing assessment:** Lower back dressing changed. **Medications**: Zosyn 3.375 gm IVPB.	
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@1315 hours: Emergency department physician record for lower back cellulitis:** **Chief complaint:** Spine surgery for lower back cellulitis. **History of present illness:** Patient with a past medical history as below sent in by Dr. XXXX for status post spine surgery with lower back cellulitis wound check. Patient transferred in and seen by the ED at Medical Center. Patient has been receiving IV antibiotics (Zosyn and Vancomycin). With the last dose in the early morning. Patient denies any bowel or bladder retention or incontinence. Patient denies any numbness, tingling or weakness. Patient denies any chest pain or shortness of breath. **Physical examination:** **Back:** Lower back with a vertical incision with surrounding erythema and purulent discharge. **Pulse oximetry**: 98% on room air interpreted as normal. **Medical Decision Making (MDM):** Patient given IV fluids and Zosyn antibiotics. Vancomycin was given early in the morning. Patient seen and evaluated by patient's surgeon Dr. XXXX in the ED. Reviewed all lab and radiology findings with the patient. Will admit to MedSurg floor to Dr. XXXX . All of patient's questions were answered and patient agrees with the plan. Patient leaves ambulatory and in good spirits with	817-819, 813-815

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		family. **Final diagnosis:** Wound infection status post lumbar laminectomy. **@1543 hours: Nursing disposition:** Admit to 3W. Clean and dry dressing applied and no signs of infection. **@1555 hours:** Patient transported via stretcher to 3W with no incidents. **Disposition:** Admit to XXX	
XX/XX/2020	XXXX XXXX *Provider unavailable*	**@1403 hours: Electrocardiogram:** **Impression:** • Normal sinus rhythm • Inferior infarct, age undetermined • Abnormal ECG	816
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@1723 hours: X-ray of chest:** **Clinical indication:** Pre-operative. **Impression**: No evidence of acute disease.	861
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**Inpatient nursing progress note for lower back cellulitis:** **@1600 hours:** Received from ER Alert and Oriented x 3 (AO x 3). Lumbar surgical site with drainage and foul smell noted. NPO after midnight, fluids ordered. Antibiotics and pain medication ordered. **@1635 hours: Admission assessment:** Living situation: Home with significant other, dependent in ADLs. Reason for admission – Septic. Braden scale - Score is 20. Patient is not at risk for skin breakdown. Lumbar surgical incision, dressing soiled. Fall risk score 4. **@1708 hours:** Patient denies pain at this time. Patient does have weakness/paraparesis to their lower extremities – prior and current. Visual impairment. Patient wears glasses for distance/reading. **@1900 hours:** Patient in bed Alert, Awake and Oriented (AAO) x 3. Back surgery site pus draining. Dr. XXXX saw patient. OR on Thursday. NPO Wednesday night, for OR in morning on Thursday XX/XX/2020	801-813
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@2115 hours: History and physical examination for wound infection:** **Chief complaint:** Wound infection. **Present illness:** Status post TLIF admitted for wound infection. **Review of system:** **Skin:** Wounds. **Physical examination:** • **Constitutional:** Appears uncomfortable. • **Musculoskeletal:** Wound – Red.	799-801

<table>
<tr><th>DATE</th><th>PROVIDER</th><th>OCCURRENCE/TREATMENT</th><th>PDF REF</th></tr>
<tr><td></td><td></td><td>Assessment: Status post TLIF with wound infection. Hypertension.</td><td></td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX</td><td>Laboratory report:
Lactic acid:
Specimen: Plasma.
Results: 2.20, high.

Urinalysis:
Specimen: Urine.
<table>
<tr><th>Test</th><th>Results</th></tr>
<tr><td>Appearance</td><td>Hazy</td></tr>
<tr><td>Blood</td><td>Trace-in</td></tr>
<tr><td>RBC</td><td>3-5, high</td></tr>
<tr><td>Epithelial cells</td><td>Few</td></tr>
</table>

Activated PTT:
Specimen: Plasma.
Results: 124.3, high.

Specimen: Serum.
<table>
<tr><th>Test</th><th>Results</th></tr>
<tr><td>EGFR</td><td>113, high</td></tr>
<tr><td>ALT</td><td>86, high</td></tr>
<tr><td>AST</td><td>36, high</td></tr>
</table>

Specimen: Blood.
<table>
<tr><th>Test</th><th>Results</th></tr>
<tr><td>WBC</td><td>9.34, high</td></tr>
<tr><td>Red blood count</td><td>4.35, low</td></tr>
<tr><td>MCV</td><td>93.80, high</td></tr>
<tr><td>RDW-CV</td><td>11.40, low</td></tr>
<tr><td>Neutrophils</td><td>79.20, high</td></tr>
<tr><td>Absolute polycytes</td><td>7.39, high</td></tr>
<tr><td>Lymphocytes</td><td>8.00, low</td></tr>
<tr><td>Absolute lymphocytes</td><td>0.75, low</td></tr>
<tr><td>Absolute monocytes</td><td>1.03, low</td></tr>
</table>

*Reviewer’s comments: Only abnormal lab values have been elaborated.</td><td>856-860, 794</td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX

XXXX XXXX, M.D.</td><td>@1909 hours: Inpatient physician progress note for lower back cellulitis:
Patient awake and alert in No Acute Distress (NAD). Patient is afebrile. Patient able to move all extremities. Dressing to the sacrum area saturated with serouse 30%.

Physical examination:
Musculoskeletal: Normal range of motion. Edema
Neurological: Decreased muscle tone</td><td>783-785, 795-799, 786-793</td></tr>
</table>

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		• **Peripheral pulses:** Right and left radial and pedal: +2, weak, palpable. Total Braden scale score is 21. **Weekly wound assessment:** • **Type of wound:** Surgical • **Anatomical location**: Lower back **Assessment/plan:** • Status post TLIF wound infection on IV antibiotic • For washout • HTN on Norvasc and Ramipril **Venous Thromboembolism (VTE) prophylaxis provided:** Mechanical device was applied. Pneumatic compression device – Intermittent Pneumatic Compression (IPC). **Discharge status**: Patient discharge is undetermined at this time.	
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@1118 hours: Infectious disease consultation note lower back cellulitis:** **Admitting diagnosis:** Wound infection status. Post-surgery back pain. **Subjective**: Patient sent in by Dr. XXXX for status post spine surgery with lower back cellulitis wound check. Patient transferred in and seen by the ED at Medical Center. Patient was swabbed yesterday resulted COVID negative. Patient has been receiving IV antibiotics (Zosyn and Vancomycin). With the last dose in the early morning. Patient denies any bowel or bladder retention or incontinence. Patient denies any numbness, tingling or weakness. Patient denies any chest pain or shortness of breath. Patient seen at the bedside. Case discussed with family and Primary Medical Doctor (PMD). No new complaints noted. Pain scale – 0/10. **Review of system:** **Skin:** Wound. **Physical examination:** • **Constitutional:** Appears comfortable • **Skin**: Wound erythema/drainage • Lines inspected for signs of infection. **Impression and plan**: Post-operative infection status post TLIF. For OR debridement and IV antibiotics. Await cultures. Post-injury back pain.	765-773

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Septic work up is in progress and therapy is in progress and being evaluated on a continual basis. Case has been discussed on rounds. Patient's cultures are pending, and IV therapy has been instituted after careful review and discussion. Will review medications, order lab tests and imaging as appropriate. Wound care and nutritional support will be continued.	
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D., FAAOS	**@1300 hours: Operative report for irrigation and debridement of wound:** **Reason for admission:** Infected back wound. **Indications for procedure**: Patient did undergo an anteroposterior spinal decompression sad fusion surgery on XX/XX/2020. This was related to a motor vehicle accident, which occurred on XX/XX/2018 The patient initially did well after a surgery; however, he did develop fever and drainage of his wound; approximately two weeks after the surgical procedure. This did improve and in fact the patient came to the emergency room at XXXX Hospital where he was diagnosed with a wound infection and was admitted for IV antibiotics. The patient was then transferred to XXXX XXXX for definitive surgical treatment. The indications as well as the risks and benefits of this surgical procedure as well as alternatives of the procedure had been discussed with the patient and an informed consent has been obtained. **Procedure performed**: Irrigation and debridement of deep back wound with closure of wound. The patient tolerated the procedure well. The patient will be maintained on IV antibiotics postoperatively. The patient was then taken to the recovery room in stable condition. There were no intraoperative or postoperative complications noted.	691-692, 602
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@1909 hours: Inpatient physician progress note status post irrigation and debridement of back wound:** Patient awake and alert in NAD. Denies pain at this time. **Physical examination:** • **Musculoskeletal:** Edema • **Neurological**: Decreased muscle tone • Surgical wound on mid/lower back, dressing clean, dry and intact. **IV assessment:** • **Location:** Left forearm • **Gauge:** 20G • **IV site condition:** No swelling, redness, or drainage. Flushed with NSS without resistance Total Braden scale score is 21. **Assessment/plan:** • Status post TLIF wound infection on IV antibiotic	763-765, 774-782

<table>
<tr><th>DATE</th><th>PROVIDER</th><th>OCCURRENCE/TREATMENT</th><th>PDF REF</th></tr>
<tr><td></td><td></td><td>For washout
HTN on Norvasc and Ramipril</td><td></td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX</td><td>Laboratory report:
Specimen: Plasma.
<table>
<tr><th>Test</th><th>Results</th></tr>
<tr><td>Activated PTT</td><td>142.9 and 116.2, high</td></tr>
<tr><td>PT</td><td>14.90, high</td></tr>
<tr><td>INR</td><td>1.14, high</td></tr>
</table>
Specimen: Serum.
<table>
<tr><th>Test</th><th>Results</th></tr>
<tr><td>EGFR</td><td>113, high</td></tr>
<tr><td>ALTI</td><td>90, high</td></tr>
<tr><td>AST</td><td>41, high</td></tr>
<tr><td>Protein total</td><td>6.2, low</td></tr>
</table>
Specimen: Blood.
<table>
<tr><th>Test</th><th>Results</th></tr>
<tr><td>Red blood count</td><td>4.25, low</td></tr>
<tr><td>Hematocrit</td><td>39.90, low</td></tr>
<tr><td>MCV</td><td>93.90, high</td></tr>
<tr><td>RDW-CV</td><td>11.50, low</td></tr>
<tr><td>Neutrophils</td><td>77.80, high</td></tr>
<tr><td>Absolute polycytes</td><td>6.48, high</td></tr>
<tr><td>Lymphocytes</td><td>9.40, low</td></tr>
<tr><td>Absolute lymphocytes</td><td>0.78, low</td></tr>
<tr><td>Absolute monocytes</td><td>0.89, high</td></tr>
</table>
*Reviewer’s comments: Only abnormal lab values have been elaborated.</td><td>851-854</td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX

XXXX XXXX, M.D.</td><td>@1128 hours: Inpatient physician progress note for back pain: Patient has no new complaints. Tolerated surgery well. Wound dressing intact, minimal serosanguinous drainage.

Nurse notes: No signs/symptoms of distress noted, breathing unlabored. Low back surgical dressing clean, dry, and intact. Patient complains of low back pain 7/10, Oxycodone HCL 5 mg/APAP 325 mg administered and well tolerated.

Total Braden scale score is 21.

Physical examination:
Constitutional: Appears comfortable
Skin: Dressing intact
Assessment/plan: Improving status post washout. Wound culture positive for Methicillin-Susceptible Staphylococcus Aureus (MSSA). Continue IV then PO antibiotics. Continue treatment, wound care, IV antibiotics and nutritional support.</td><td>753-756, 746-753</td></tr>
</table>

<table>
<tr><th>DATE</th><th>PROVIDER</th><th>OCCURRENCE/TREATMENT</th><th>PDF REF</th></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX

XXXX XXXX, M.D.</td><td>@1911 hours: Inpatient physician progress note status post irrigation and debridement of back wound:
Patient awake and alert in NAD. Patient laying on bed. No signs of distress. Patient denied pain or any discomfort. Vital signs within normal limits. Dressing dry and intact on low back. Patient repositioned. Active ROM performed.

Nursing assessment:
Motor response: Ambulatory but unsteady gait.

Peripheral pulses: Right and left radial and pedal: +3, strong, palpable.

Pain re-assessment: Pre-medication 7/10.

Total Braden scale score is 18. Patient is at risk for skin breakdown.

Wound assessment:
Anatomical location: Posterior. Dressing is dry and intact on the low back.

Plan:
Off loaded heels
HOB not higher than 30 degrees, unless contraindicated.
Turn and position patient every two hours in bed.
Skin care:
Remedy hydrating cleansing foam
Remedy moisturizing body lotion</td><td>744-746, 757-763</td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX</td><td>Laboratory report:
Specimen: Plasma.
Vancomycin T: <0.42, low.

Specimen: Serum.<table><tr><th>Test</th><th>Results</th></tr><tr><td>EGFR</td><td>112, high</td></tr><tr><td>Glucose</td><td>119, high</td></tr></table>
Specimen: Blood.<table><tr><th>Test</th><th>Results</th></tr><tr><td>WBC</td><td>9.35, high</td></tr><tr><td>Red blood count</td><td>3.914, low</td></tr><tr><td>Hematocrit</td><td>36.00, low</td></tr><tr><td>RDW-CV</td><td>11.20, low</td></tr><tr><td>Neutrophils</td><td>81.40, high</td></tr><tr><td>Absolute polycytes</td><td>7.60, high</td></tr><tr><td>Lymphocytes</td><td>8.00, low</td></tr><tr><td>Absolute lymphocytes</td><td>0.75, low</td></tr><tr><td>Absolute monocytes</td><td>0.90, high</td></tr></table></td><td>850-851</td></tr>
</table>

<table>
<tr><th>DATE</th><th>PROVIDER</th><th>OCCURRENCE/TREATMENT</th><th>PDF REF</th></tr>
<tr><td></td><td></td><td><table><tr><td>Eosinophils</td><td>0.60, low</td></tr><tr><td>Basophils</td><td>0.10, low</td></tr></table>
Reviewer's comments: Only abnormal lab values have been elaborated.</td><td></td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX</td><td>**Wound culture report:**
Collected date: XX/XX/2020

Site/specimen: Swab.
Comment on specimen: Lower back wound culture.

Bacteriology final report:
Gram stain: Few white blood cells. Few gram-positive cocci.

Culture results: Staphylococcus aureus.

Bacteriology remarks:
• Moderate growth of staphylococcus species
• Staphylococcus aureus
• Scant growth of normal skin flora</td><td>854-855</td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX

XXXX XXXX, M.D.</td><td>**@1912 hours: Inpatient physician progress note status post irrigation and debridement of back wound:**
Patient awake and alert in NAD. Patient complaints of back pain 7/10. No complaints of distress. Denies any pain at this time. Lumbar wound dressing intact, with scant amount of serosanguinous drainage. Percocet administered, will continue to monitor. Patient states pain relieved. No additional complaints at this time. Complains of difficulty breathing.

Pain assessment:
• **Location**: Lower back
• **Provoking factors**: Positioning, post-operative. Other symptoms
• **Alleviating factors**: Medications, rest, and positioning
• **Quality**: Achy
• **Pain level**: 1-8/10
• **Symptoms duration**: 1 day

Total Braden scale score is 18-21.

Objective findings:
Musculoskeletal: Decreased range of motion.

Pillow support provided for comfort.</td><td>729-731, 724-728, 732-743</td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX

XXXX XXXX, M.D.</td><td>**@1122 hours: Inpatient physician progress note for back pain:**
Patient has no new complaints. Less pain and stiffness. No focal weakness.

Physical examination:
Skin: Wound healing, less redness/drainage.</td><td>717-724</td></tr>
</table>

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Assessment/plan: Post-operative wound infection status post TLIF. Went to OR for washout. Culture positive for MSSA. Vancomycin discontinued. Continue IV antibiotics for now. Continue treatment and wound care.	
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D.	**@1913 hours: Inpatient physician progress note status post irrigation and debridement of back wound:** Patient awake and alert in NAD. No respiratory distress. Dressing to mid/lower back intact. Encouraged OOB and ambulation, cough, and deep breathing. Contact isolation for staphylococcus in wound. Patient complaints of pain to back. Medicated with Percocet. On antibiotic. **Pain assessment:** • **Location**: Back • **Provoking factors**: Other symptoms • **Alleviating factors**: Medications • **Pain level**: 2-7/10 **Physical examination:** • **Constitutional:** Appears uncomfortable • **Musculoskeletal**: Edema. Decreased range of motion, mid/lower back surgery. • **Neurological**: Decreased muscle tone • **Skin**: Erythema Total Braden scale score is 19-20.	708-714, 716-717, 704-707
XX/XX/2020	XXXX XXXX	**Laboratory report:** **Collected date:** XX/XX/2020 **Blood culture:** **Site/specimen:** Blood. **Bacteriology final report:** Day 1-5 no growth.	855-856
XX/XX/2020	XXXX XXXX	**Wound culture report:** **Collected date:** XX/XX/2020 **Site/specimen:** Swab. **Comment on specimen**: Post-operative wound infection/aerobic culture. **Bacteriology final report:** **Gram stain**: Rare white blood cells. Few gram-positive cocci. **Culture results**: Staphylococcus aureus. **Bacteriology remarks:** • Moderate growth of staphylococcus species • Staphylococcus aureus	848-849
XX/XX/2020	XXXX XXXX	**@1144 hours: Inpatient physician progress note for back pain:** Patient has no new complaints. Pain level 3/10. Denies pain. No	697-704

<table>
<tr><th>DATE</th><th>PROVIDER</th><th>OCCURRENCE/TREATMENT</th><th>PDF REF</th></tr>
<tr><td></td><td>XXXX XXXX, M.D.</td><td>signs/symptoms distress. Dressing to back dry and intact. Heplocks removed and dressing applied.

Physical examination:
• Constitutional: Appears comfortable
• Skin: Wound healing

Assessment/plan: MSSA wound status post debridement. Continue IV then PO treatment. Surgical follow-up.</td><td></td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX</td><td>Laboratory report:
Specimen: Serum.
CRPQ: 9.14, high.
EGFR: 117, high.
Sodium: 135, low.

Specimen: Blood.
<table><tr><th>Test</th><th>Results</th></tr><tr><td>Red blood count</td><td>3.89, low</td></tr><tr><td>Hematocrit</td><td>36.20, low</td></tr><tr><td>MCV</td><td>93.10, high</td></tr><tr><td>RDW-CV</td><td>11.10, low</td></tr><tr><td>Neutrophils</td><td>79.90, high</td></tr><tr><td>Absolute polycytes</td><td>5.93, high</td></tr><tr><td>Lymphocytes</td><td>8.70, low</td></tr><tr><td>Absolute lymphocytes</td><td>0.72, low</td></tr><tr><td>ESR</td><td>77, high</td></tr></table>
*Reviewer's comments: Only abnormal lab values have been elaborated.</td><td>847-848</td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX</td><td>Related records: Medication administration record, plan of care, nutritional assessment, patient's information, intraoperative record, sepsis worksheet, orders, anesthesia record, post anesthesia recovery room record and nurse assessments.</td><td>866-879, 694-697, 714-716, 586, 600-601, 603-610, 685-690, 882-888, 628-631, 825-846</td></tr>
<tr><td>XX/XX/2020</td><td>XXXX XXXX

XXXX XXXX, M.D.</td><td>Discharge summary:
Admission date: XX/XX/2020
Discharge date: XX/XX/2020

Admitting diagnosis/reason for hospitalization:
Wound infection status.

Physical examination:
• Constitutional: Appears comfortable

Discharge diagnosis:
• Post-surgery back pain
• Post-operative wound infection</td><td>862-865, 692-694</td></tr>
</table>

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		Final diagnosis: Status post TLIF wound infection. **Hospital course:** Unremarkable. **Instructions/follow-up**: Patient to follow-up with primary physician/surgical in 1 week. **Activities/equipment**: Up as desired. **Bath**: Sponge (Patient to discuss with surgeon when he can shower). **Driving limitations**: None specified. Patient to discuss with surgeon when he can drive. **Nutrition**: Type 2-gram sodium. **Pain and comfort:** **Has your pain been managed**: Yes, pain managed during admission. **Condition at discharge**: Good. **Discharge to:** Home. **Method of discharge**: Wheelchair.	
XX/XX/2020	XXXX XXXX	**Anaerobic culture report:** **Bacteriology final report:** No anaerobics isolated.	849
XX/XX/2020	XXXX XXXX, M.D.	**X-ray of lumbar spine:** **Clinical indication:** Post-operative. **Findings:** • **Bones:** Disc spacer with orthopedic screws are seen at the level of L4-5 • **Discs**: Moderate disc space narrowing seen involving L1-2 and L2-3. Mild disc space narrowing is seen involving L3-4 **Impression:** Good alignment status post surgery at L5-S1.	1124
XX/XX/2020	XXXX XXXX XXXX XXXX, M.D., FAAOS	**Correspondence report regarding low back pain:** Enclosed is my narrative report regarding the care and treatment of patient, related to the motor vehicle accident of XX/XX/2018 He gave the following history when he presented for initial orthopedic evaluation on 08/01/2018. The patient reported he came to a complete stop when rear-ended twice behind at high rate of speed. He stated he was quite “shaken up” following the accident. The patient stated that his vehicle was totaled. Police and ambulance arrived at the scene. The patient was taken via ambulance to XXXX Hospital where he was evaluated and underwent radiographs of his cervical and lumbar spines as well as left shoulder. The patient presented to my office with complaints of severe	4-8

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		lower back pain with radiating pain into his bilateral lower extremities left greater than right. The patient described sharp pain into the posterior aspect of the left lower extremity. He reported increased pain when he attempts to bend at his waist. He was limited in the amount that he can stand or ambulate. The patient was also experiencing neck pain with associated headaches. He described pain which radiated into his shoulders as well as mid back. He described significant numbness throughout his hands. He has had difficulty grasping or lifting objects he is attempting to hold. The patient was also experiencing significant pain in both the superior and anterior aspects of his left shoulder. He has had difficulty when trying to lie on his left side or reach overhead with his left upper extremity. The patient was also experiencing pain when he attempted to place his left hand behind his back. The patient stated that he often had rely on right upper extremity when attempting to reach overhead. The patient denied any previous accidents or injuries except a soccer injury to his right ankle when he was 18-years-old which required surgical intervention. The patient stated he was in his usual state of good health prior to the motor vehicle accident XX/XX/2018 As of his most recent evaluation of XX/XX/2020, the patient presents for continued orthopedic treatment following the motor vehicle accident of XX/XX/2018 The patient presents to my office with complaints of persistent radicular pain into the left lower extremity, although it has improved, he states that it is still bothersome and interferes with many of his activities of daily living. The patient states that although his pain is constant, he rates it as a four out of ten. The patient is status post anterior and posterior spinal fusion at L5-S1 performed by me on XX/XX/2020 as well as irrigation and debridement of the posterior wounds in the lumbar region performed on XX/XX/2020 which required hospitalization for seven days. The patient states that he has pain which starts in his left buttock, which is residual from the infection he suffered. The patient states he has difficulty getting comfortable at night and as a result has a hard time sleeping. The patient also continues to experience persistent neck pain and stiffness secondary to multilevel discogenic pathology, most severe at C5-C6 level. The patient reports neck pain that radiates into his left shoulder. He states that he feels he continues to lead a much-decreased quality of life due to his symptoms and injuries. The patient presents for further orthopedic evaluation. **Reviewer's comments: Orthopedic evaluation on XX/XX/2020 is unavailable for review.* **Physical examination**: The patient appears to be under mild duress. The patient is seen ambulating with a non-antalgic gait. He is slow to rise from a seated position. The patient avoids full weight bearing on the left lower extremity. Examination of the lumbar spine reveals that the patient's surgical incision is finally healed with no sign of infection, erythema, or warmth.	

DATE	PROVIDER	OCCURRENCE/TREATMENT	PDF REF
		No drainage is present. Tenderness is noted over the lumbosacral junction, the lumbar paraspinals and the left sciatic notch. Several trigger points are noted along the paralumbars consistent with areas of chronic muscular spasms and fibrous adhesions. Straight leg raise testing is positive on the left in the seated position at 70 degrees with a positive Lasegue maneuver and negative on the right at 90 degrees. Lumbar range of motion is mildly stiff and restricted with forward flexion limited to 70 degrees, normal is 90. Extension is limited to 30 degrees, normal is 40. Oblique lumbar extension also reproduces pain. There is diminished sensation noted along the left L5 and S1 dermatomal distributions. There are diminished Achilles deep tendon reflexes graded at +1/2 and symmetrically equal. Examination of the cervical spine reveals tenderness over the posterior cervical muscles, the interscapular region, the bilateral trapezius muscles, and the lower spinous processes. Several trigger points are noted along the trapezius muscles consistent with areas of chronic muscular spasm and fibrous adhesions. Tenderness is noted over the occiput and the medial border of the left scapula. Spurling sign is positive to the left. Hoffmann sign is negative. Neuroforaminal distraction test is positive. Cervical range of motion is stiff and restricted with forward flexion and extension limited to 50 degrees, normal is 60. Lateral bending and rotation are near full; however, the patient experiences pain elicited at the end of range of motion. Isometric muscle testing of the cervical spine reveals weakness. Hypoesthesia is noted along the left C5, C6, C7 and C8 dermatomal distributions. Tenderness is noted over the C5-C6 interspace. **Radiographic review**: I have read and reviewed by report as well as actual films the X-ray of the lumbar spine from XXXX dated 06/26/2020 which revealed status post-surgery with good alignment at the level of L5-S1; X-ray of the lumbar spine from XXXX Centers dated 06/04/2020 which revealed good alignment status post-surgery at L5-S1; MRI of the lumbar spine from XXXX Centers dated XX/XX/2019 which revealed multilevel disc bulging at superimposed disc herniations in the lumbar spine, most severe at L5-S1 level with multilevel facet arthropathy resulting in thecal sac and right sided nerve root impingement; and MRI of the cervical spine from The XXXX Centers dated XX/XX/2019 which revealed multilevel internal disc disruption most severe at C5-C6 where there is a concentric disc bulge, focal and central disc herniation with uncovertebral hypertrophy resulting in bilateral neuroforaminal stenosis and moderate spinal stenosis. **Reviewer's comments: X-ray of lumbar spine at XXXXX Centers on* XX/XX/2020 is unavailable. **Impression:** • Multilevel disc disease in the cervical spine, most severe at C5-C6 where there is a concentric disc bulge, focal and central disc	

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		herniation with uncovertebral hypertrophy resulting in bilateral neuroforaminal stenosis and moderate spinal stenosis. • Status post anterior and posterior spinal fusion at the L5-S1 level requiring postoperative irrigation and debridement for a complex postoperative deep wound infection, which is now fully healed. Surgery was secondary to multilevel disc bulging and superimposed disc herniations in the lumbar spine, most severe at the L5-S1 level with multilevel facet arthropathy, thecal sac and right-sided nerve root impingement. **Plan**: At this time, the findings have been discussed with the patient. I have reviewed the diagnosis with patient in detail. Based on the initial presentation, the history provided by the patient, the physical examinations performed, the patient's medical records reviewed, the treatment rendered and my review of the actual diagnostic studies, it is my opinion, within a reasonable degree of medical certainty, that the patient's condition, injuries, treatment, and surgery are causally related to the motor vehicle accident of XX/XX/2018 The patient had failed a very long course of conservative care. With regards to his back, the patient underwent one lumbar epidural steroid injection which provided temporary relief, and many months of physical therapy with little relief. The patient eventually required surgical intervention as he could no longer tolerate his back pain. I performed anterior and posterior spinal fusion at L5-S1 performed on XX/XX/2020. The patient developed a post-operative infection in his lumbar region, which required irrigation and debridement which was performed by me on XX/XX/2020. At this time, the patient's surgical incision is fully healed, and he is starting to show improvement following his surgery. The patient states that he still has difficulty sleeping at night and his pain is constant, but less severe. The patient has been encouraged to continue to utilize as needed over-the-counter medication for his pain. With regards to his neck, I have discussed further treatment options including cervical epidural steroid injections as well as anterior cervical discectomy and fusion surgery at C5-C6 if his pain should persist or worsen. I have discussed the risks of these procedures which include but are not limited to bleeding, infection, continued pain, swelling, stiffness, numbness, nerve damage, spinal fluid leak, paralysis, recurrent tear, or herniation, need for further surgery, risks of anesthesia, heart attack, stroke, blindness, and death. The patient understands the risks and would like to consider his treatment options as he is still recovering from his recent lumbar surgeries which have caused him to fear further surgery. The cost of neck surgery if needed, including the use of assistance, the hospital facility fee, anesthesia, and postoperative rehabilitation and follow-up is approximately $200,000.00. The estimated fees listed above are fair, accurate and reasonable surgical fees in line with the surgical fees generally charged by orthopedic surgeons in the state of New Jersey. Patient continues to suffer residual pain and radiculopathy but further	

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		surgery to his lumbar spine is not expected at this time. His condition is permanent, not likely to get much better, and he is at risk of adjacent level disease which may require further lumbar fusion surgery in the future. At this time, the patient will continue with his home exercise program and return for further orthopedic evaluation in approximately two months to see how he is progressing with his treatment and continued discussion of his treatment options. Of note, it is my medical opinion that even with further treatment/surgery the patients' current symptoms, injuries and diagnosis noted above are permanent in nature. It is my medical opinion that the patient's overall prognosis is very guarded since he has been left with significant residual sequelae from the accident of XX/XX/2018, interference with his activities of daily living, and requires continued and ongoing treatment in the future, including surgery as noted above. All my medical opinions as stated are within a reasonable degree of medical certainty.	