Medical Chronology/Summary

Confidential and privileged information

Usage guidelines/Instructions

***Verbatim summary:** All the medical details have been included "word by word' or "as it is" from the provided medical records to avoid alteration of the meaning and to maintain the validity of the medical records. The sentence available in the medical record will be taken as it is without any changes to the tense.

***Case synopsis/Flow of events:** For ease of reference and to know the glimpse of the case, we have provided a brief summary including the significant case details.

***Injury report:** Injury report outlining the significant medical events/injuries is provided which will give a general picture of the case.

Comments:** We have included comments for any noteworthy communications, contradictory information, discrepancies, misinterpretation, missing records, clarifications, etc for your notification and understanding. The comments will appear in red italics as follows: "*Comments***".

Indecipherable notes/date:** Illegible and missing dates are presented as "00/00/0000" (mm/dd/yyyy format). Illegible handwritten notes are left as a blank space "_____" with a note as ***"Illegible Notes" in heading reference.

***Patient's History:** Pre-existing history of the patient has been included in the history section.

***Snapshot inclusion:** If the provider name is not decipherable, then the snapshot of the signature is included. Snapshots of significant examinations and pictorial representation have been included for reference.

***De-Duplication:** Duplicate records and repetitive details have been excluded.

General Instructions:

- *The medical summary focuses on **Motor Vehicle Accident** on **MM/DD/YYYY,** the injuries and clinical condition of **XXXX** as a result of **MVA injury,** treatments rendered for the complaints and progress of the condition.*
- *Initial and final therapy evaluation has been summarized in detail. Interim visits have been presented cumulatively to avoid repetition and for ease of reference.*

Injury Report:

DESCRIPTION	DETAILS
Prior injury details	*None available*
Date of injury	02/15/YYYY
Description of injury	Patient was involved in motor vehicle accident on 02/15/YYYY. He was the fully restrained driver of a 2008 Mercedes Benz E350 traveling East Down Arden way. A Honda accord traveling in the westbound direction turned left in front of him to turn down La Pasas Way and he impacted her passenger side front and rear door. He did not see the accident coming, and therefore, he did not for the impact. He tried to break, but she turned in front of him so fast he could not stop. At the time of the impact, his right knee hit the dashboard, and he is not sure what happened but thinks his right foot was wedged under the break peddle. The seat belt tugged on his right side. The airbags did not deploy. He denies loss of consciousness.
Injuries/ Diagnoses	• Cause of injury, MVA • Right knee joint pain • Right foot pain • C2, C3, C6, C7 cervical segmental and somatic dysfunction • T1, T4, T5, T9, T10 thoracic segmental and somatic dysfunction • L4, L5 lumbar segmental and somatic dysfunction • Right SI sacral segmental and somatic dysfunction • Neck pain • Lumbar back pain • Pain in right shoulder • Neuropathy • Dorsalgia • Mild traumatic brain injury • Post-concussion syndrome • Post traumatic headache • Sprain of ligaments of cervical, thoracic, and lumbar spine • Acute post-traumatic headache, intractable • Sleep disturbance-insomnia • Pain in right ankle and joints of right foot • Pain in right knee • Cervical, thoracic, and lumbar segmental and somatic dysfunction • Cervical, thoracic strain of muscles, fascia and tendons • Cervical, thoracic, and lumbar spinal enthesopathy • Cervical, thoracic, and lumbar myospasm • Cervical, thoracic, and lumbar myalgia • Cervicalgia • Thoracalgia • Lumbago • Other intervertebral disc displacement, lumbar and cervical region • Cervical and lumbar radiculopathy • Lumbar spondylolisthesis • Cervical spondylosis

	• Lumbar axial low back pain discogenic • Lumbar post-laminectomy syndrome
Treatments rendered	**Medications:** • Pain medications • Muscle relaxants **Procedures/surgeries:** Cervical or thoracic and lumbar interlaminar epidural steroid injection on 09/20/YYYY Posterior lumbar approach left sided trans facet, far lateral discectomy, facetectomy at lumbar 4-5 and lumbar 5 - sacral 1 on 02/27/YYYY Insertion of two HFX high-frequency spinal cord stimulator trial leads with fluoroscopic needle guidance, and neurostimulator programming and analysis on 04/22/YYYY **Rehabilitation sessions:** Chiropractic therapy sessions from 02/28/YYYY to 05/30/YYYY Physical therapy sessions from 08/02/YYYY to 08/30/YYYY, 06/26/YYYY to 08/15/YYYY, 08/20/YYYY to 09/06/YYYY Occupational therapy sessions from 06/27/YYYY to 09/10/YYYY Acupuncture therapy session on 05/10/YYYY
Condition of the patient as per the last available record	As per the last available record on **07/01/YYYY**, patient presented for right knee pain. The patient was here that day due to the fact he had an MRI that showed a medial meniscus tear from 05/27/YYYY. Assessed to have right knee medial meniscus tear. Patient would benefit from a right knee arthroscopy with partial meniscectomy with surgery as needed, including possible chondroplasty and synovectomy with a diagnostic arthroscopy. It was hope that resolving the patient's knee symptoms might also help his spine pain as he was walking with an antalgic and imbalanced gait. We would plan to proceed with this. We also discussed the possibility of proceeding postoperatively with a bone marrow aspirate concentrate injection in the future four to six weeks after surgery to help improve the patient's cartilage healing. This was discussed in detail, and the patient was given some literature about this.

Patient History

Past Medical History: Denies (PDF ref: 411)

Surgical History: None (PDF ref: 412)

Family History: Maternal: Diabetes type 1 (PDF ref: 413)

Social History: Tobacco use: Smoking status: Every day. Packs/day: 0.50. Years: 10.00. Pack years: 5. Types: Cigarettes. Smokeless tobacco: Never. Alcohol use: None. Patient does not use recreational drugs. (PDF ref: 414-415, 416)

Allergy: No known drug allergies (PDF ref: 413)

Detailed Summary

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		Motor Vehicle Accident on 02/15/YYYY	
02/20/YYYY	Hospital/Provider	**@0954 hours: Telephone visit for motor vehicle accident**: I called the provided number in the chart, and introduced myself. After verifying the correct person, limitations of telephone appointment were discussed and if necessary patient will need to make office visit. Patient expresses understanding and agreement to proceed with the call and treatment if necessary. **History of present illness**: Patient called. He was in a motor vehicle accident 6 days ago, patient hit his right leg against dashboard. Has been complaining of right knee pain since. Pain radiates to his right leg down towards the toes. Able to bear partial weight. Initially had swelling in his right knee. Has been taking over-the-counter Tylenol and icing. **Call notes**: **Key symptoms and assessment**: MVA 02/15/YYYY patient was driver, lady cut patient off, patient t-boned a car in front, air bags didn't deploy, seat belt was on, right leg got jammed into the dashboard- right foot - top at end of great toe and 2nd toe, right knee pain swelling, can barely bend the knee - shooting pains all over the leg, not able to bear weight, pain level: 9/10 - Tylenol, icing, essential oils, and elevation - no relief, cold makes it better **Pertinent history**: None **Other**: Patient currently lives in Natomas okay so i have to order antibiotics Cause of injury, MVA, NOS, init **Note**: Schedule in person visit for clinical correlation **Plan**: XR right knee The patient indicates understanding of these issues and agrees with the plan. Call or return to clinic if these symptoms worsen or fail to improve as anticipated. *Discharge instructions were given*. **Follow up appointments**: On 02/20/YYYY with XXXX, M.D.	1-4
02/20/YYYY	Hospital/Provider	**@1514 hours: X-ray of right knee:** **History:** Trauma, concern for fracture. **Comparison:** None available. **Findings:** No acute fracture or dislocation. No significant joint effusion. No significant degenerative changes.	5-7

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		Impression: No acute fracture or dislocation.	
02/20/YYYY	Hospital/Provider	**@1515 hours: X-ray of right foot:** **History:** Trauma, concern for fracture. **Comparison:** None available. **Findings:** No acute fracture or dislocation. **Impression:** No acute fracture or dislocation.	8-10
02/20/YYYY	Hospital/Provider	**@1520 hours: Follow-up visit for accident**: Patient presents with a chief complaint of accident (car accident on Wednesday) 02/15/YYYY **History of present illness**: Patient usual self *history per Dr. XXXX MVA 02/15/YYYY patient was driver, lady cut patient off, patient t-boned a car in front, air bags didn't deploy, seat belt was on, right leg got jammed into the dashboard- right foot - top at end of great toe and 2nd toe, right knee pain swelling, can barely bend the knee - shooting pains all over the leg, not able to bear weight, pain level: 9/10 - Tylenol, icing, essential oils, and elevation - no relief, cold makes it better" Works as a Lyft driver painful both with walking and in the use of right leg. I have reviewed the patient's: Medical history with no changes 02/20/YYYY and social history with no changes 02/20/YYYY **Review of systems**: *Remains unremarkable* **Physical examination**: **Extremities** -Right lower extremity knee 2+ tender anterior patella area and along joint line. Anterior drawer intact yet resists. Right foot tender on the dorsal aspect of instep overlying 1 -2-3 mm TP area *Otherwise unremarkable* *Diagnostic studies were reviewed.* **Assessment and plan:** **Cause of injury, MVA, NOS, init (primary encounter diagnosis)**: **Note**: *Patient drive-in an acceleration deceleration injury where patient car struck and t-boned another car. Patient denies loss of consciousness although did have airbag deployed. He reports his knee hit the dashboard and as such been painful since. Treat with anti-inflammatories along with ice range of motion exercises follow-up if not improving **Declines vaccination**: Note: Noted **Right knee joint pain**:	11-15

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		Note no fractures yet likely contusion. Will use range of motion exercises see AVS **Plan**: XR right knee Naproxen 500 mg oral tab - take 1 tablet by mouth 2 times a day as needed for pain. Take with food Crutches **Right foot pain**: **Note**: Likely contusion would use arch support shoes at all times no barefoot crutches the next 3 weeks or so. See AVS **Plan**: XR right foot Naproxen 500 mg oral tab - take 1 tablet by mouth 2 times a day as needed for pain. Take with food Crutches **Patient instructions**: Up to Tylenol 3000 mg per day. Follow up or call if not improving or if worsening Patient was allowed to ask questions	
02/28/YYYY	Hospital/Provider	**Chiropractic initial evaluation**: **History of present illness**: The patient presents for treatment of injuries secondary to a motor vehicle collision that occurred on 02/15/YYYY. He was the fully restrained driver of a 2008 Mercedes Benz E350 traveling East Down Arden way. A Honda accord traveling in the westbound direction turned left in front of him to turn down La Pasas Way and he impacted her passenger side front and rear door. He did not see the accident coming, and therefore, he did not for the impact. He tried to break, but she turned in front of him so fast he could not stop. At the time of the impact, his right knee hit the dashboard, and he is not sure what happened but thinks his right foot was wedged under the break peddle. The seat belt tugged on his right side. The airbags did not deploy. He denies loss of consciousness. Immediately at the scene, he felt shocked and surprised. He was dazed. He experienced pain in his right knee and great toe. He called the police and pulled his car over to a side street. The police arrived and filed a report he was not able to drive home. *Reviewer's comment: Police report is not available for review* And his car was towed from the scene, and he called his friend to pick him up. Upon arriving home, he called Kaiser, and the soonest available appointment was not until Monday, several days later. Friday began having a sharp pain in his right shoulder blade and right lower back. Between that time, he was resting and taking OTC analgesic and using deep blue. His right knee was very swollen after the accident. He was evaluated at Kaiser Sacramento on response road, an examination was performed, and radiographic imaging was performed of his right foot and knee. He advised him to keep taking the OTC analgesics and told wear a boot and use	16-21

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		crutches. He has not seen any other providers and presents to see if chiropractic care **Symptoms**: The patient reports the following complaints. The following terms are used to explain the intensity, frequency and grade of patient's symptoms. Intensity may be minimal (meaning symptom is bothersome to the patient, but does not interfere with activity), slight (meaning symptom interferes with activity), moderate (meaning symptom inhibits activity), or severe (meaning symptom is so painful that it prohibits any activity). Frequency may be intermittent (symptom occurs up to 25% of the time), occasional (symptom occurs 25% to 50% of the time), frequent (symptom occurs 50% to 75% of the time) or continuous (symptom occurs 75% to 100% of the time). Pain grade is based on a scale from 0 to 10, with 10 being the highest possible level of pain. **Headaches**: This complaint is frequent and the patient rates the pain as a 9 on a 10-point VAS. Patient describes the feeling associated with this complaint as throbbing, around the right side of the face and around the right side of the forehead. **Neck pain**: This complaint is frequent and the patient rates the pain as a 9 on a 10-point VAS. Patient describes the symptoms associated with this complaint as achy, soreness, tension, pain in the back of the neck, pain at the C/T junction, pain from the neck to the shoulders, pain worse on the right. **Mid back pain**: This complaint is constant and the patient rates the pain as a 9 on a 10-point VAS. Patient describes the symptoms associated with this complaint as sharp, stabbing. **Lower back pain**: This complaint is constant and the patient rates the pain as a 9 on a 10-point VAS. Patient describes the symptoms associated with this complaint as stabbing, numbness, spasm in the muscles on the right, spasm in the muscles on the left. He is experiencing numbness in the right calf area and shin. **Sleep disruption/anxiety**: Patient is unable to sleep due to pain., patient is waking at night due to pain., patient needs to change position at night in order to get comfortable enough to sleep. Patient is still anxious, but getting better about being in a car. **Physical examination**: **Range of motion evaluation**: **Cervical spine range of motion (degrees)**: Flexion: 40/50 Extension: 40/50 Left lateral flexion: 30/45 Right lateral flexion: 20/45 Left rotation: 60/80	

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		Right rotation: 50/80 **Thoracic spine range of motion (degrees)**: Flexion: 40/60 Extension: 10/20 Left lateral flexion: 20/40 Right lateral flexion: 15/40 Left rotation: 20/30 Right rotation: 15/30 **Lumbar spine range of motion (degree)**: Flexion: 50/90 Extension: 15/30 Left lateral flexion: 20/25 Right lateral flexion: 15/25 Left rotation. 25/30 Right rotation: 20/30 **Cervical spine musculoskeletal evaluation**: There was tenderness to digital palpation and muscle tension on both sides of the cervical spine. Digital palpation for trigger points was positive in the cervical area. Multiple active trigger points are stimulated with moderate digital pressure to the cervical muscles and are consistent with referred pain. Trigger points are located on bilateral cervical paraspinal muscles, bilateral temporalis, right occipitalis, right SCM, bilateral levator scapulae, bilateral semispinalis capitis, right scalene. **Thoracic spine musculoskeletal evaluation**: There was tenderness to digital palpation and muscle tension on both sides of the thoracic spine. Digital palpation for trigger points was positive in the thoracic area. Multiple active trigger points are stimulated with moderate digital pressure to the thoracic muscles and are consistent with referred pain. Trigger points are located on bilateral thoracic paraspinal muscles, bilateral trapezius, right deltoid, bilateral rhomboids, right supraspinatus, right infraspinatus, right teres minor. **Lumbar spine musculoskeletal evaluation**: There was tenderness to digital palpation and muscle tension on both sides of the lumbar spine. Digital palpation for trigger points was positive in the lumbar area. Multiple active trigger points are stimulated with moderate digital pressure to the lumbar muscles and are consistent with referred pain. Trigger points are located on bilateral lumbar paraspinal muscles, bilateral quadratus lumborum, right piriformis, right gluteus medius, right psoas, right it band. **Cervical orthopedic tests**: **Cervical compression test**: Positive. Manual downward compression is applied by the examiner to the top of the patient's head. A positive result of spinal pain may suggest ligamentous instability and/or osseous pathology in the spine frequently seen in sprain and strain injuries. **Maximum cervical rotary compression test**: Positive bilaterally.	

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		This is performed with the patient passively rotating, laterally bending and extending the head, while the doctor waits and watches for the patient's response. A positive result of spinal pain or radicular pain on the opposite side of rotation may suggest muscular strain in the cervical spine. **Foraminal compression test**: Positive bilaterally. A positive sign of spinal pain as a result of downward compression and applied rotation of the patient's head may suggest foraminal encroachment. **Soto hall test**: Positive. A positive test of localized non-radiating pain in the cervico dorsal spine during passive flexion may suggest likely ligamentous sprain in the posterior spinal segments or possible vertebral fracture. **Lumbar orthopedic tests**: **Bechterew's sitting test**: Positive right. A positive result of low back pain during seated leg extension may suggest lumbosacral injury. **Kemp's test**: Positive bilaterally. A positive result of localized non-radiating low back pain as the patient extends and rotates the trunk may suggest vertebral facet or pericapsular inflammation. **Minor's sign**: Positive right. The patient rises from a chair. Patient needs to support their weight by using the arms of the chair or the hand on the healthy side of the back. **Patrick's Fabere (hip) test**: Positive right Patient's thigh is flexed, abducted, externally rotated, and extended. Hip pain may indicate hip joint disease. **Nachlas' test**: Positive bilaterally. The doctor passively flexes the heel to the ipsilateral buttock. Localized pain points to SI/lumbar ligament sprain. Radiation of pain on performance indicates femoral nerve pathology, **Ely's test**: Positive bilaterally. Doctor flexes the foot to the contralateral buttock. Decreased motion may indicate rectus femoris or hip flexion contracture. **Hibb's test**: SI positive bilaterally. Doctor stabilizes the pelvis with one hand. The femur is then internally rotated. Positive SI joint pain indicates SI lesion. Positive hip pain indications hip lesion (sprain). Radiation of pain down the back of the leg indicates piriformis entrapment of the sciatic nerve. **Yeoman's test**: Positive bilaterally Doctor extends hip and presses down on the ipsilateral PSIS. Pain at the SI joint indicates a sprain/strain of the SI. Pain and neurologic symptoms into the anterior	

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		thigh indicate femoral nerve tension. *Otherwise unremarkable* **Diagnosis**: **Subluxations were found at the following levels**: Cervical region: C2, C3, C6, C7 cervical segmental & somatic dysfunction Thoracic region: T1, T4, T5, T9, T10 thoracic segmental & somatic dysfunction Lumbo-sacral region: L4, L5 lumbar segmental & somatic dysfunction Sacral iliac region: Right SI sacral segmental & somatic dysfunction Driver Cervical segmental & somatic dysfunction, cervical sprain, cervical strain of muscles, fascia and tendons, cervical spinal enthesopathy, cervicalgia, cervical myospasm, cervical myalgia, loss of range of motion Thoracic segmental & somatic dysfunction, thoracic sprain, strain of muscles, fascia and tendons of the anterior thorax, strain of muscles, fascia and tendons of the posterior thorax, thoracic spine enthesopathy, thoracalgia, thoracic myospasm, thoracic myalgia, loss of range of motion Lumbar segmental & somatic dysfunction, lumbar sprain, strain of muscles, fascia and tendons of the low back, lumbar spine enthesopathy, lumbago, lumbar myospasm, lumbar myalgia, loss of range of motion Acute post-traumatic headache, sleep disturbance, pain in right foot, pain in right knee **Goals and recommendations**: **Initial recommendations**: Chiropractic adjustments at a frequency of 3 times per week for 4 weeks. Chiropractic manual manipulation to the cervical, thoracic and lumbar regions (see exam for segmental listings), to improve the activities of daily living listed in the subjective portion of the daily notes. Myofascial release therapy to the cervical, thoracic and lumbar area to facilitate healing, reduced adhesions, reduce trigger points and facilitate neuromuscular coordination. Mechanical traction to the cervical, thoracic, and lumbar area to increase joint mobilization, with vibration to increase blood flow and oxygen to the discs, ligaments, and muscles Electrical muscle stimulation to stimulate muscle contraction in order to break muscle spasm and tissue adhesions. Cryotherapy to reduce localized swelling, edema and inflammation. **Today's treatment**: Today's treatment consisted of initial evaluation, CMT 3-4 regions, mechanical traction, electric stimulation. **Causation**:	

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		It is my opinion, within a reasonable degree of chiropractic/medical certainty, that the objective and quantitative findings, as described above, have caused permanent and consequential limitations which are a direct result of the injury caused on 02/15/YYYY. This concludes the initial report for this patient. Please feel free to contact me with any questions or concerns.	
03/22/YYYY	Hospital/Provider	**Cervical spine 7 views and lumbar spine 4 views:** **Findings:** Osseous alignment demonstrates mild flattening of the cervical lordosis with minimal anterior head carriage, minimal pelvic unleveling which is high in the left and a moderately hyperlordotic lumbar curvature. L5 is anteriorly translated over S1 by approximately 1.0 cm which does not change between flexion and extension. There is suggestion of a pars interarticularis defect at L5, however evaluation is limited. Between flexion and extension of the cervical spine there is no evidence of excessive intersegmental translational or angular motion. Bone density appears adequate. There is nonunion of the posterior arch of L5 and S1 in the midline. There is suggestion of pseudoarticulation between the L3/L4 spinous processes with mild flattening and sclerosis of their opposing surfaces. The bilateral intravertebral neuroforamina in the cervical spine are patent. A synovial herniation pit is incidentally noted at the right femoral neck. Minimal osteophyte formation is present at the inferior endplate of C5 anteriorly. Disc spaces are maintained throughout the cervical and lumbar spine. Soft tissues are unremarkable. **Impressions:** 1. Grade 1 bordering on grade. 2 spondylolisthesis of L5 without evidence of instability, likely isthmic in etiology but possibly congenital. If desired, oblique radiographs of the lumbar spine could be obtained for a more definitive visualization of etiology. 2. Postural alterations as described above. 3. Possible Baastrup pseudoarthrosis between the L3/L4 spinous processes. 4. Minimal degenerative spondylosis at C5/C6. 5. Synovial herniation pit at the right femoral neck, likely of no clinical significance but can occasionally be associated with symptoms of femoroacetabular impingement. 6. Spina bifida occulta at L5 and S1, of no clinical significance.	22
03/28/YYYY	Hospital/Provider	**Office visit for neck, right shoulder, low back, right foot, and right knee pain**: **Subjective**: **Chief complaints**: This is a patient with the complaint of neck, right shoulder, low back, right foot, and right knee pain. **History of present illness**: **Personal injury pain management evaluation**: Medical assistant MA daisy **Reason for visit**: Reason for visit: Patient is being seen today for evaluation and treatment of neck, right shoulder, low back, right foot, and right knee pain due to a motor vehicle accident that occurred on 02/15/YYYY	23-26

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		History of pain & injury: Pain location: Cervical, shoulder, lumbar, knee, foot Pain is described: Aching, burning, numb, sharp, pins/needles Duration of your pain: Constant Pain radiates: Right shoulder, right foot Pain is aggravated by: Movement Pain is alleviated: Lying down, resting, sitting Mechanism of injury: Motor vehicle accident (MVA) Details of injury: Patients states he was going about his right of way when this car cut him off and he t-boned their passenger side Was your car a total loss? Yes Did the patient lose consciousness after incident? Yes Did you receive medical treatment prior to us? No Have you had any diagnostic imaging? No Has the incident affect your daily living activities? Yes Previous related injuries No **Sleep history**: How has your sleep been affected since the accident? Yes Has your sleep been disturbed by your pain? Yes How many hours are you sleeping? 1-2 **Opioid monitoring**: Opioid risk stratification low risk, patient is currently not taking any opioids or benzos Cures opioid monitoring opioid monitoring will consist of PDMP/cures report management, administration of random urine tests and periodic pill counts. The patient has signed a pain agreement that he or she is taking pain medication only from our office and form no other provider. As part of the pain agreement, the patient will have random urine testing. The patient is receiving the lowest effective dose of pain medication. Post op questionnaire (pain clinics of central California) Interventional procedure completed with the last 30 days? No **Review of system**: Visit via Telemed. **Examination**: Visit via Telemed. **Assessment**: 1. Neck pain (primary) 2. Lumbar back pain 3. Pain in right shoulder 4. Pain in right knee 5. Neuropathy Having had the opportunity to review the mechanism of the injury, the subjective	

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		complaints of pain, and my objective findings, I have arrived at the above noted diagnosis. Absent evidence to the contrary, based on the information available to me at this time, it does appear that the patients' complaints are related to the injuries sustained on 02/15/YYYY. **Plan**: **1. Neck pain**: **Imaging**: MRI: Cervical without contrast Based on the patient's symptoms of radicular/impingement pain. The physical exam is compatible with disc/tendon injury. We feel an MRI will provide information that a nerve is injured. If the nerve is injured an epidural has a more likely chance of decreasing the patient's pain and allowing him/her to work harder in rehabilitation and return to work sooner. The MRI will help guide further treatment at this point. I plan to see the patient after the study to review the images and further discuss treatment options. **Procedure**: Cervical Colar **Procedure**: Tens unit **2. Lumbar back pain**: **Imaging**: MRI: Lumbar without contrast Based on the patient's symptoms of radicular/impingement pain. The physical exam is compatible with disc/tendon injury. We feel an MRI will provide information that a nerve is injured. If the nerve is injured an epidural has a more likely chance of decreasing the patient's pain and allowing him/her to work harder in rehabilitation and return to work sooner. The MRI will help guide further treatment at this point. I plan to see the patient after the study to review the images and further discuss treatment options. **Procedure**: Back support Back brace is needed to support spine mobility to assist with pain control. Patient is not able to move freely, patient cannot sit down without having any pain, patient is having a hard time walking, patient would like back brace to ease the pain to complete mobility of related activities. **Procedure**: Tens unit **3. Pain in right shoulder**: **Imaging**: MRI: Shoulder, right MRI right shoulder without contrast based on the patient's symptoms of shoulder impingement pain. The physical exam is compatible with tendinopathy or rotator cuff injury. We feel an MRI will provide information that a nerve or rotator cuff is injured. If the tendon is injured an orthopedic surgical intervention has a more likely chance of decreasing the patient's pain and allowing him to work harder in rehabilitation and return to work sooner. The MRI will help guide further treatment at this point. I plan to see the patient after the study to review the images and further discuss treatment options **Procedure**: Tens unit **4. Pain in right knee**: **Imaging**: MRI: Knee, right	

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		MRI right knee without contrast based on the patient's symptoms of knee pain. The physical exam is compatible with possible tears, cartilage thinning, etc. We feel an MRI will provide that information. If so, the treatment plan may consist of steroid injection, genicular nerve block, or a referral to an orthopedic surgeon for possible surgery, which will likely decrease the patient's pain and allowing him/her to work harder in rehabilitation and return to work/ADLs sooner. The MRI will help guide further treatment at this point. I plan to see the patient after the study to review the images/report and further discuss treatment options. **Procedure**: Tens unit **5. Neuropathy**: **Procedure**: EMG bilateral lower extremities Patient with numbness and/or weakness accompanied by tingling sensation. An EMG nerve test can provide specific information about the extent of nerve and/or muscle injury and can also determine the exact location of injury and give some indication whether the damage is reversible. **6. Others**: **Notes**: Patient is a patient currently complains of chronic increased neck, lower back, right shoulder and right knee pain radiating to BLE since MVA that occurred on 02/15/YYYY. Pain is progressively increased. No recent history of falls, surgery, or injury. And is consistent with history, examination, and above given diagnoses. The plan is to prescribe DME to help alleviate patients pain. Patient has not completed imaging, will order MRI cervical, lumbar, right shoulder and right knee. Patient states have radiating pain, will order EMG BLE. Once patient is scheduled, patient is to follow up in 4 weeks. The cures report and radiology reports were reviewed. **Recommendation and plan**: Recommended multidisciplinary approach to achieve better outcome and multimodal analgesia to minimize systemic adverse reaction related to chronic opioids pain management and treatment. Patient is very motivated and actively pursuing multidisciplinary and multimodal pain management and functional restoration to achieve best progress. **Complimentary and alternative medicine**: Complimentary and alternative medicine such as acupuncture, acupressure and massage therapy may be considered as a part of the comprehensive pain management plan. Material risk discussion held on the use of opioid medications for chronic, non-malignant pain. Opioid treatment agreement reviewed and consented. Encouraged incorporation of gentle range of motion exercises into daily routine. Opportunities for structured physical rehabilitation explored. Extensive med counseling patient to safeguard post dated prescription will not be	

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		replaced if stolen or lost. Patient verbalized understanding. Extensive med counseling patient to refrain from driving while under the influence of prescription narcotics. Patient verbalized understanding. Discussed in detail the safe and appropriate use of narcotics for chronic pain. The principles of addiction, pseudo addiction, and tolerance were discussed. Using a long acting narcotic as a base with limited use of break through medication were also reviewed. Mixing medications with alcohol or other medication was discouraged. The terms of the narcotic contract were re-iterated. The patient was advised to avoid driving making important decisions, or operating dangerous machinery until they became stable on these medications. Patient was advised to call the clinic with any concerns. Patient was also asked to avoid any dangerous activities if they felt impaired and to report these promptly to the clinical staff.	
05/05/YYYY	Hospital/Provider	**MRI of cervical spine without contrast:** **History:** Patient was involved in a motor vehicle accident on 02/15/YYYY. **Comparison:** None. **Findings:** **Paraspinous soft tissues:** Normal. **Alignment:** There is loss of normal cervical lordosis. The alignment of the vertebrae is normal. **Vertebrae:** Schmorl's nodes are seen at few levels. Marginal osteophytes are seen at multiple levels. The vertebral body heights are normal. Marrow signal is normal. **C2-3:** Unremarkable. **C3-4:** Disc reveals right paracentral as well as foraminal bulge. It indents the anterior subarachnoid space, without any significant central canal or neural foraminal narrowing. The bulge measures approximately 2 mm in size. **C4-5:** Disc reveals broad based posterior protrusion. It indents the anterior subarachnoid space, both C5 nerve roots and causes mild narrowing of the central canal and neural foramina, bilaterally. The protrusion measures approximately 3 mm in size. **C5-6:** Disc reveals diffuse bulge. It indents the anterior subarachnoid space, without any significant central canal or neural foraminal narrowing. The bulge measures approximately 2 mm in size. **C6-7:** Disc reveals diffuse bulge, with annular tear. It indents the anterior subarachnoid space, without any significant central canal or neural foraminal narrowing. The bulge measures approximately 2 mm in size. **C7-T1:** Unremarkable. **Spinal Cord:** Normal in thickness and reveals normal signal intensity. No focal area of abnormal signal is detected within the cord. No intraspinal mass lesion is detected. **Impression:** 1. Broad based posterior protrusion of C4-5 disc, causing mild narrowing of the central canal and neural foramina, bilaterally. The protrusion measures approximately 3 mm in size.	27-28

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		2. Right paracentral as well as foraminal bulge of C3-4 disc, without any significant central canal or neural foraminal narrowing. The bulge measures approximately 2 mm in size. 3. Diffuse bulge of C5-6 disc, without any significant central canal or neural foraminal narrowing. The bulge measures approximately 2 mm in size. 4. Diffuse bulge of C6-7 disc, with annular tear, without any significant central canal or neural foraminal narrowing. The bulge measures approximately 2 mm in size.	
05/05/YYYY	Hospital/Provider	**MRI of lumbar spine without contrast:** **History:** Patient was involved in a motor vehicle accident on 02/15/23. **Comparison:** None. **Findings:** **Paraspinous soft tissues:** Normal. **Alignment:** There is loss of normal lumbar lordosis. Bilateral spondylolysis is seen at L5 level, with mild anterolisthesis of L5 vertebra over S1 is seen. **Vertebrae:** The vertebral body heights are normal. Marrow signal is normal. **Conus:** Conus signal and configuration are unremarkable. **T12-L1:** Unremarkable. **L1-2:** Unremarkable. **L2-3:** Disc reveals diffuse bulge. It indents the thecal sac, without any significant central canal or neural foraminal narrowing. The bulge measures approximately 2 mm in size. **L3-4:** Disc reveals broad based posterior protrusion, with annular tear. It indents the thecal sac, both L3 and L4 nerve roots and causes mild narrowing of the central canal and neural foramina, bilaterally. The protrusion measures approximately 3 mm in size. **L4-5:** Disc reveals broad based posterior protrusion. It indents the thecal sac, both L4 and L5 nerve roots and causes mild narrowing of the central canal and neural foramina, bilaterally. The protrusion measures approximately 3 mm in size. **L5-S1:** Disc reveals broad based posterior herniation. Along with vertebral offset, it indents the thecal sac, both L5 and Sl nerve roots and causes mild narrowing of the central canal and neural foramina, bilaterally. The herniation measures approximately 4 mm in size. **Impression:** 1. Broad based posterior herniation of L5-Sl disc, causing mild narrowing of the central canal and neural foramina, bilaterally. The herniation measures approximately 4 mm in size. 2. Broad based posterior protrusion of L3-4 disc, with annular tear, causing mild narrowing of the central canal and neural foramina, bilaterally. The protrusion measures approximately 3 mm in size. 3. Broad based posterior protrusion of L4-5 disc, causing mild narrowing of the central canal and neural foramina, bilaterally. The protrusion measures approximately 3 mm in size. 4. Diffuse bulge of L2-3 disc, without any significant central canal or neural foraminal narrowing. The bulge measures approximately 2 mm in size.	29-30

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		5. Bilateral spondylolysis at L5 level, with mild anterolisthesis ofL5 vertebra over SI.	
05/16/YYYY	Hospital/Provider	**New pain medicine evaluation**: **History of present illness**: This is who was involved in an MVA on 02/15/YYYY. They state they received conservative treatments. However, they are consulting with me today for the following: Patient reports being hit from the front and since then has had neck, shoulder blade, and low back pain that will go to his hamstrings. Sometimes "it's a sharp pain, sometimes shooting pain, sometimes aching." feels these pains "are all connected." he did not have any issues prior to the accident and was working out frequently. He states his pain has not improved and has stayed the same even with chiropractic treatment. Had taken Tylenol initially to help with the pain, and that's all he uses currently along with essential oils which he rubs on. Endorses tenderness to touch in neck and back but "feels the pain is on the inside." in certain positions such as twisting really causes pain. Sometimes feels "numbness in my right arm" and also has soreness going into his right hamstrings. Denies weakness in his arms or legs. **Chiropractor treatment**: 3 times a week initially, now once a week **Activities of daily living affected**: Moving, shifting, lying down, sitting down **Physical exam**: Of note, this was done via audio means due to patient preference. *Remains unremarkable* *Diagnostic studies were reviewed.* **Assessment**: **Working diagnosis**: Patient status post MVA 02/YYYY who presents for neck and back pain. His pain sounds primarily discogenic and myofascial but he likely does have a component of radicular pain in his arms and legs. MRI results show small bulges in multiple levels in both cervical and lumbar spine with annular tears as well. Patient educated that body does tend to reabsorb discs with time so hopefully he will continue to improve. Will start with conservative analgesics such as lidocaine patch and utilizing NSAIDS along with a referral to pt. Did briefly talk about injections but patient hesitant and wishes to defer for now. All other questions/concerns addressed today. **Diagnoses attached to this encounter:** Dorsalgia, unspecified acute Myalgia, unspecified site acute Cervicalgia Low back pain, unspecified	31-33

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		Plan: **Recommendations**: **Interventions**: (Please note a focused physical exam will be completed prior to procedures on the day of the injection.) - None today, can consider epidural steroid injections and TPI in the future **Medications**: (Note: The patient may stop taking the medication if they feel it is ineffective or causing any intolerable side effects.) - Lidocaine patch 5% prescription sent today, can utilize both acetaminophen and NSAID as needed **Rehabilitation**: - Please set up physical therapy for neck and back pain, 1x a week for 6 weeks and call patient to schedule **Diagnostic**: - None **Follow-up**: - 6-8 week follow up telephone The patient's diagnoses, prognosis, treatment plan, and examination findings were discussed in detail. All questions were answered. If there was new imaging not commented upon earlier then the significant findings were reviewed with the patient. Thank you for allowing me to participate in this patient's care. Please contact the office at (562) 414-4452 if you have any questions. The patient provided consent and agreed to an audio-only visit. A focused physical exam will be conducted prior to procedures, if required, to confirm objective/subjective findings.	
05/19/YYYY	Hospital/Provider	**New neurology evaluation note**: **Chief complaint**: Headaches **History of present illness**: Description of events: Patient was involved in MVA on 02/15/YYYY. He reports being in front end collision. He reports LOC. Patient reports headaches since the injury. Reports constant headaches since the accident. Mostly pressure sensation. However, it becomes throbbing at times. Located on right occipital area or frontal areas. Mild to severe intensity. Associated photophobia and nausea when headaches are severe. He reports taking Tylenol at times. Patient reports neck pain since the injury. Goes to chiropractor and physical therapy. Since the injury, the patient is complaining of sleep-wake disturbances. He reports problems falling asleep and staying asleep frequently.	34-35

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		Patient also complains of dizziness since the injury. He describes it as lightheaded sensation. Since the injury, patient complains of cognitive symptoms. He reports impairment in memory and concentration since the accident. Patient also reports psychological symptoms since the injury. He reports frequent mood swings. He reports being irritable. The patient denies any symptoms of anosmia. Denies any visual changes. Patient denies any facial pain or palsy. Current the patient has been treating symptoms by: Chiropractor **Objective**: Relevant diagnostic imaging: Brain imaging not received. Today a telemedicine video exam was conducted as per patient preference. *Remains unremarkable* **Assessment**: **Diagnosis**: 1. Mild traumatic brain injury. 2. Cervical strain/sprain. 3. Post-concussion syndrome. 4. Post traumatic headache. **Plan**: 1. Cyclobenzaprine 5 mg q hs as needed for neck pain/headache 2. Magnesium Glycinate 400 mg daily at bedtime 3. Follow up in 1 month **Discussion**: The patient's diagnoses, prognosis. Treatment plan, and examination findings were discussed in detail. All questions were answered. Thank you for allowing me to participate in this patient's neurologic care, please feel free to call us if there are any questions or problems. **Disclosure**: If you have any questions, please do not hesitate to contact this office at your earliest convenience. **Medications/prescription orders attached to encounter**: Cyclobenzaprine HCl 5 mg oral tablet sig: Take 1 tablet (5 mg) by mouth at bedtime as needed for neck pain/headache.	
03/02/YYYY-05/22/YYYY	Hospital/Provider	**Interim chiropractic therapy visits:**	36-87

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		Treatment dates: 03/02/YYYY, 03/03/YYYY, 03/06/YYYY, 03/07/YYYY, 03/10/YYYY, 03/13/YYYY, 03/15/YYYY, 03/17/YYYY, 03/20/YYYY, 03/22/YYYY, 03/24/YYYY, 03/28/YYYY, 03/31/YYYY, 04/03/YYYY, 04/05/YYYY, 04/10/YYYY, 04/12/YYYY, 04/17/YYYY, 04/21/YYYY, 04/24/YYYY, 04/28/YYYY, 05/03/YYYY, 05/08/YYYY, 05/15/YYYY, 05/22/YYYY **Admitting complaint:** Sprain of ligaments of cervical, thoracic, and lumbar spine Acute post-traumatic headache, intractable Sleep disturbance-insomnia Pain in right ankle and joints of right foot Pain in right knee Cervical, thoracic, and lumbar segmental and somatic dysfunction Cervical, thoracic strain of muscles, fascia and tendons Cervical, thoracic, and lumbar spinal enthesopathy Cervicalgia Cervical, thoracic, and lumbar myospasm Cervical, thoracic myalgia Thoracalgia Lumbago Lumbar myalgia **Procedures**: CMT 3-4 region Mechanical traction Electric stimulation **03/02/YYYY:** Patient stated: "His right foot is severely swollen. He has difficulty walking. He called his MD's office and asked for a follow up appointment. He was instructed to follow orders by the ED. His neck and back continue to be in severe pain." **03/03/YYYY:** Patient stated: "His neck and back continue to be in severe pain. He was unable to sleep last night as a result of his pain levels. He is trying to stay as active as possible but he has too much pain and is limping." **03/06/YYYY:** Patient stated: "His foot is still swollen and painful, but not as swollen as it was. He is limping and notes it is affecting his left leg and lower back. His neck and back continue to be painful." **03/07/YYYY:** Patient stated: "He continues to have pain in his neck and lower back. He has not been sleeping over the last several nights, and he is in pain. He has not been able to work out and notes this is frustrating. He feels restricted by his pain levels."	

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		03/10/YYYY: Patient stated: "He cannot bend his right knee and has been walking on heel and he feels as if this affecting his back and neck. He has not been able to sleep; lays awake at night tossing a turning." **03/13/YYYY:** Patient stated: "He continues to have neck and back pain. He is now having pain in the back of his right knee, and limping on his right foot. He has not been able to work much because he has not been able to drive consistently due to his pain levels," **03/15/YYYY:** Patient stated: "His back and neck continue to be painful. He is limping on his right foot, and he thinks this is making his pain worse. He is trying to stay active, but his foot is too painful to be on his feet for prolonged periods." **03/17/YYYY:** Patient stated: "He continues to be unable to drive for long periods and he right foot continues to be swollen. His pain is persistent in his neck and back. He is very frustrated because he is not used to taking It easy and when he is moving, he is in pain. He does not want to slow down, and is pain all the time." **03/20/YYYY:** Patient stated: "He is having problems sleeping due to his neck and back pain. He cannot fall asleep and then he wakes up in pain." **03/22/YYYY:** Patient stated: "His lower back is very painful and notes he has not been able to sleep as result. He is frustrated all the time and notes pain and cannot do anything." **03/24/YYYY:** Patient stated: "He is walking better and his foot is less swollen. His neck and back continue to be painful." **03/28/YYYY:** The patient reports the following complaints. The following terms are used to explain the intensity, frequency and grade of patient's symptoms. Intensity may be minimal (meaning symptom is bothersome to the patient, but does not interfere with activity), slight (meaning symptom interferes with activity), moderate (meaning symptom inhibits activity), or severe (meaning symptom is so painful that it prohibits any activity). Frequency may be intermittent (symptom occurs up to 25% of the time), occasional (symptom occurs 25% to 50% of the time), frequent (symptom occurs 50% to 75% of the time) or continuous (symptom occurs 75% to 100% of the time). Pain grade is based on a scale from 0 to 10, with 10 being the highest possible level of pain. **03/31/YYYY:** Patient stated: "He continues to be in pain and he is very frustrated that he has no relief in his day to day. He has not been working due to his pain levels. He is not	

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		sleeping well due to his pain levels." **04/03/YYYY:** Patient stated: "His neck and back are painful today. He has been sleeping on the floor and he feels as this is helping. His neck and upper back have been flared for the last several days and he is not sure that he did anything." **04/05/YYYY:** Patient stated: "His headaches have been persistent and he has them daily.' **04/10/YYYY:** Patient stated: "He woke up with a headache today. His has pressure in the back of his head. He feels as if his headache is worse today." **04/12/YYYY:** Patient stated: "He tried to do a little bit of housework yesterday and notes his middle back become very pain after sitting down and resting." **04/17/YYYY:** Patient stated: "His lower back is very painful. His foot and knee are not as painful and he is limping less. He continues to have pain in the neck and back. He has not been working due to his neck and back pain." **04/21/YYYY:** Patient stated: "His right knee and foot started to become painful last night. His lower back and neck are painful today. He has an MRI scheduled for May 5th." **04/24/YYYY:** Patient stated: "neck and back pain remains painful and severe. He is pending MRI procedure next week, May 5th." **04/28/YYYY:** The patient reports the following complaints. The following terms are used to explain the intensity, frequency and grade of patient's symptoms. Intensity may be minimal (meaning symptom is bothersome to the patient, but does not interfere with activity), slight (meaning symptom interferes with activity), moderate (meaning symptom inhibits activity), or severe (meaning symptom is so painful that it prohibits any activity) Frequency may be intermittent (symptom occurs up to 25% of the time), occasional (symptom occurs 25% to 50% of the time), frequent (symptom occurs 50% to 75% of the time) or continuous (symptom occurs 75% to 100% of the time). Pain grade is based on a scale from 0 to 10, with 10 being the highest possible level of pain. **05/03/YYYY:** Patient stated: "His MRI's are scheduled for Friday this week. He continues to have pain in his lower back and neck with little improvement. The pain in his right knee has returned." **05/08/YYYY:** Patient stated: "He continues to have pain in his neck and back today with little	

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		changes" **05/15/YYYY:** Patient stated: "He continues to have pain in his lower back and yesterday his pain was flared. An extrusion was found in the lumbar spine and he has an appointment with a spine specialist. He has a neurologist telemed appointment tomorrow for his headaches." **05/22/YYYY:** Patient stated: "He had an appointment with an MD who prescribed him flexural. He had an appointment with a neurologist who diagnosed him with post-concussion syndrome. He was prescribed some meds and he will pick them up today. He has an appointment with the spinal's specialist June 14th. He is trying to stay active and wants to try a course PT as well." **Comment: The interim chiropractic therapy visits are combined elaborating the initial and final evaluation to know the progress of the patient and to avoid repetition.*	
05/30/YYYY	Hospital/Provider	**Chiropractic re-evaluation record**: **History of present illness**: Patient presents for a follow-up evaluation of injuries sustained in the motor vehicle accident. He has been compliant with care and continues to report minimal to mild symptomatic improvement. He is taking Tylenol daily once to twice a day. Since the last evaluation, he continues to have frequent headaches and no changes in his neck and back pain. He has relief from treatment, but about a couple of hours later, his pain returns. He feels as if there is a hot coil in his C/T junction region and lower back as well. His right posterior thigh, right knee, and foot pain returned the other day when he puts his hand on it, he feels the heat emanating from it. Injections were recommended for his lower back, but he has declined this for the moment as he does not want injections and medications. He has been referred to pt and is waiting on the call from the referral. He will try a course of care with PT. He has been unable to take the muscle relaxers as they make him feel droopy and sleepy and unable to function properly. He could not go on vacation with his girlfriend's family as his pain is too great. He has been unable to perform any of the recreational actives that he used to, such as fishing, as he is afraid to load the boat. He is seeing the spine specialist in two weeks. **Symptoms**: The patient reports the following complaints. The following terms are used to explain the intensity, frequency and grade of patient's symptoms. Intensity may be minimal (meaning symptom is bothersome to the patient, but does not interfere with activity), slight (meaning symptom interferes with activity), moderate (meaning symptom inhibits activity), or severe (meaning symptom is so painful that it prohibits any activity). Frequency may be intermittent (symptom occurs up to 25% of the time), occasional (symptom occurs 25% to 50% of the time), frequent (symptom occurs 50% to 75% of the time) or continuous (symptom occurs 75% to 100% of the time). Pain grade is based on a scale from 0 to 10, with 10 being the	88-92

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		highest possible level of pain. **Headaches**: This complaint is frequent and the patient rates die pain as a 9 on a 10 point VAS. Patient describes the feeling associated with this complaint as throbbing, around the right side of the face and around the right side of the forehead. **Neck pain**: This complaint is occasional and the patient rates the pain as an 8 on a 10 point VAS. Patient describes the symptoms associated with this complaint as achy, soreness, tension, pain in the back of the neck, pain at the C/T junction, pain from the neck to the shoulders, pain worse on the right. **Mid back pain**: This complaint is constant and the patient rates the pain as a 9 on a 10 point VAS. Patient describes the symptoms associated with this complaint as burning, sharp, stabbing, tight. **Lower back pain**: This complaint is constant and the patient rates the pain as a 9 on a 10 point VAS. Patient describes the symptoms associated with this complaint as stabbing, burning, achy, tightness, numbness, spasm in the muscles on the right, spasm in the muscles on the left. He continues to have numbness in his right lateral toes and his right knee continues to feel hot. **Sleep disruption/anxiety**: Patient is unable to sleep due to pain., patient is waking at night due to pain., patient needs to change position at night in order to get comfortable enough to sleep. Patient is still anxious about being in a car. **Physical examination**: **Range of motion evaluation**: **Cervical spine range of motion (degrees)**: Flexion: 45/50 Extension: 50/60 Left lateral flexion: 35/45 Right lateral flexion: 30/45 Left rotation: 65/80 Right rotation: 55/80 **Thoracic spine range of motion (degrees)**: Flexion: 50/60 Extension: 15/20 Left lateral flexion: 35/40 Right lateral flexion: 25/40 Left rotation: 25/30 Right rotation: 20/30 **Lumbar spine range of motion (degree):**	

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		Flexion: 70/90 Extension: 20/30 Left lateral flexion: 20/25 Right lateral flexion: 15/25 Left rotation: 25/30 Right rotation: 20/30 **Cervical spine musculoskeletal evaluation**: There was tenderness to digital palpation and muscle tension on both sides of the cervical spine. Digital palpation for trigger points was positive in the cervical area. Multiple active trigger points are stimulated with moderate digital pressure to the cervical muscles and are consistent with referred pain. Trigger points are located on bilateral cervical paraspinal muscles, right occipitalis, bilateral levator scapulae, bilateral semispinalis capitis, right scalene. **Thoracic spine musculoskeletal evaluation**: There was tenderness to digital palpation and muscle tension on both sides of the thoracic spine. Digital palpation for trigger points was positive in the thoracic area. Multiple active trigger points are stimulated with moderate digital pressure to the thoracic muscles and are consistent with referred pain. Trigger points are located on bilateral thoracic paraspinal muscles, bilateral trapezius, bilateral rhomboids, right supraspinatus. **Lumbar spine musculoskeletal evaluation**: There was tenderness to digital palpation and muscle tension on both sides of the lumbar spine. Digital palpation for trigger points was positive in the lumbar area. Multiple active trigger points are stimulated with moderate digital pressure to the lumbar muscles and are consistent with referred pain. Trigger points are located on bilateral lumbar paraspinal muscles, bilateral quadratus lumborum, right piriformis, right gluteus medius, right psoas. **Cervical orthopedic tests**: **Cervical compression test**: Positive. Manual downward compression is applied by the examiner to the top of the patient's head. A positive result of spinal pain may suggest ligamentous instability and/or osseous pathology in the spine frequently seen in sprain and strain injuries. **Maximum cervical rotary compression test**: Positive bilaterally. This is performed with the patient passively rotating, laterally bending and extending the head, while the doctor waits and watches for the patient's response. A positive result of spinal pain or radicular pain on the opposite side of rotation may suggest muscular strain in the cervical spine. **Foraminal compression test**: Positive bilaterally. A positive sign of spinal pain as a result of downward compression and applied rotation of the patient's head may suggest foraminal encroachment. **Soto hall test**: Positive. A positive test of localized non-radiating pain in the cervico dorsal spine during	

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		passive flexion may suggest likely ligamentous sprain in the posterior spinal segments or possible vertebral fracture. **Lumbar orthopedic tests**: **Bechterew's sitting test**: Positive right. A positive result of low back pain during seated leg extension may suggest lumbosacral injury. **Kemp's test**: Positive bilaterally. A positive result of localized non-radiating low back pain as the patient extends and rotates the trunk may suggest vertebral facet or pericapsular inflammation. **Minor's sign**: Positive right. The patient rises from a chair. Patient needs to support their weight by using the arms of the chair or the hand on the healthy side of the back. **Nachlas' test**: Positive right. The doctor passively flexes the heel to the ipsilateral buttock. Localized pain points to SI/lumbar ligament sprain. Radiation of pain on performance indicates femoral nerve pathology. **Ely's test**: Positive bilaterally. Doctor flexes the foot to the contralateral buttock. Decreased motion may indicate rectus femoris or hip flexion contracture. **Hibb's test**: SI positive bilaterally. Doctor stabilizes the pelvis with one hand. The femur is then internally rotated. Positive SI joint pain indicates SI lesion. Positive hip pain indications hip lesion (sprain). Radiation of pain down the back of the leg indicates piriformis entrapment of the sciatic nerve. **Yeoman's test:** Positive bilaterally. Doctor extends hip and presses down on the ipsilateral PSIS. Pain at the SI joint indicates a sprain/strain of the SI. Pain and neurologic symptoms into the anterior thigh indicate femoral nerve tension. *Otherwise unremarkable* **Diagnosis**: Subluxations were found at the following levels: **Cervical region**: C2, C3, C6, C7 cervical segmental & somatic dysfunction **Thoracic region**: T1, T4, T5, T9, T10 thoracic segmental & somatic dysfunction **Lumbo-sacral region**: L4, L5 lumbar segmental & somatic dysfunction **Sacral iliac region**: Right SI sacral segmental & somatic dysfunction Driver Cervical segmental & somatic dysfunction, cervical sprain, cervical strain of muscles, fascia and tendons, cervical spinal enthesopathy, cervicalgia, cervical myospasm, cervical myalgia, loss of range of motion	

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		Thoracic segmental & somatic dysfunction, thoracic sprain, strain of muscles, fascia and tendons of the anterior thorax, strain of muscles, fascia and tendons of the posterior thorax, thoracic spine enthesopathy, thoracalgia, thoracic myospasm, thoracic myalgia, loss of range of motion Lumbar segmental & somatic dysfunction, lumbar sprain, strain of muscles, fascia and tendons of the low back, lumbar spine enthesopathy, lumbago, lumbar myospasm, lumbar myalgia, loss of range of motion Acute post-traumatic headache, sleep disturbance, pain in right foot, pain in right knee **Goals and recommendations**: Treatment today consisted of the following procedures and therapies: Re-evaluation, CMT 3-4 regions. Patient is released from active chiropractic care and will continue active home rehabilitative stretches and exercise. Patient was instructed to present for care should they experience a flare up of their condition. He will proceed with PT as recommended by his MD. This concludes the re-evaluation report for this patient. Please feel free to contact me with any questions or concerns.	
06/16/YYYY	Hospital/Provider	**Neurosurgical consultation report**: **Reason for appointment**: Neurosurgical consultation **History of present illness**: **History**: Patient stated that on February 15, YYYY, he was the restrained driver of his vehicle on a surface-street in Sacramento. He was traveling through an intersection with the green light when the driver of another vehicle heading the opposite direction made an unsafe left turn without yielding and collided against the front-drivers side of his vehicle. He indicated that he sustained injuries to his right foot, knee, neck and lower back. A police report was filed. He stated that he self-procured treatment at Kaiser Permanente where he underwent multiple x-rays and MRI studies. He was prescribed pain medications. He stated that he also underwent chiropractic treatment for three months, however he only felt slight pain relief. He has not undergone other treatment. He complains of constant neck pain, which he rated at up to a 9/10. He described the pain as achy, pulling and at times sharp. He complains of pain, numbness and tingling radiating into his bilateral upper extremities. His pain becomes worse with prolonged sitting, standing, reclining, lifting and carrying heavy items. He complains of constant lower back pain, which he rated at 9/10. He described the pain as achy, sharp and burning. He complains of numbness, tingling and pain radiating into his bilateral lower extremities. His pain becomes worse with prolonged sitting, standing, reclining, lifting and carrying heavy items.	93-94

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		He complains of intermittent right knee pain, which he rated at 5/10. His pain becomes worse with prolonged standing, using stairs, walking on uneven surfaces, lifting and carrying heavy items. He complains of intermittent right foot pain, which he rated at 6/10. His pain becomes worse with prolonged standing, using stairs, walking on uneven surfaces, lifting and carrying heavy items. He denied undergoing prior surgeries. He stated denied prior injuries. He denied a history of medical conditions. **Examination**: **Deep tendon reflexes**: Reflexes +1 and symmetric. Pain with palpation of the cervical thoracic and lumbar spine. Positive spurling sign. Cervical spine range of motion extremely limited due to pain. Lumbar spine range of motion limited flexion 60 degrees extension 20 degrees rotation 50% of normal. Pain with tandem tiptoe and heel gait. Pain with palpation of the right shoulder as well. *Otherwise unremarkable* **Assessments**: 1. Cervicalgia (primary) 2. Low back pain, unspecified Patient had both cervical and lumbar pain after accident. Patient is treated only with chiropractic care as to date. Has not been evaluated by pain management. Patient underwent MRI imaging of the cervical spine dated 05/05/YYYY which i the opportunity to review. He has evidence of multiple disc bulges from C4-C7 without any severe cord compression or nerve root compression. MRI of his lumbar spine dated May 5, YYYY was reviewed as well which shows significant disc bulge at L5-S1 with moderate foraminal narrowing as well as a disc bulge at L4-5 and L3-4. There is a small annular tear at the L3-4 level. At this juncture appears the patient is symptomatic from his accident. Has had treatment with chiropractic care but has not seen pain management. Will recommend patient be evaluate by pain management for potential epidural steroid injections versus other modalities of treatment. Answered all the patient's questions or concerns. Patient to follow-up in 3 months' time to continue assess his progress. By history appears accidents because of become symptomatic and the treatment as today's been reasonable and necessary. **Treatment**: **1. Cervicalgia**:	

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		Referral to: Pain medicine Reason: Dr. XXXX pain management **2. Low back pain, unspecified**: Referral to: Pain medicine Reason: Dr. XXXX pain management **3. Others**: **Clinical notes**: Pain management evaluation and treatment for cervical and lumbar pain as well as right shoulder pain. Follow-up 3 months. **Procedure codes**: Initial consultation **Follow up**: 3 months	
08/02/YYYY	Hospital/Provider	**Physical therapy initial evaluation**: **Diagnoses**: Spine: Dorsalgia, unspecified Cervicalgia Low back pain, unspecified Myalgia, unspecified site **General information**: **History of injury**: On February 15th, YYYY, patient reports he was involved in an MVA. He does note hitting his right knee on the dashboard. He did go to the md two days later when he could get an appointment. He did have radiographs, MRI and CT scan of the involved structures. He notes that pain began in different forms ranging from aching to sharp/stabbing. He did receive chiropractic care, was prescribed pain patches and pain medication. He notes he feels unsteady on his feet and worries about falling. He notes constant headaches as well as intermittent radicular sx into the bilateral upper extremities. Denies N&T into the bilateral lower extremities. He notes most pain is mid-lower shoulder blades. PMH: Reviewed and on file. Patient has been identified as a fall risk at the time of this evaluation therefore requiring fall precaution education. Patient has been identified as a fall risk at the time of this evaluation therefore requiring close supervision in clinic. **Treatment guidelines**: Contraindications 1: none	95-101

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		Subjective examination: **Spine**: ADL / functional status: Premorbid status: ADL/ IADL: independent without difficulty. Mechanism of injury: See history. Rehabilitation expectations/goals: Normalize: Loss of function. The Oswestry Disability Index (ODI) is used to assess symptoms and severity of low back pain in terms of disablement and the degree to which back or leg pain impacts functional activities. The medical history questionnaire has been completed and signed by the patient, reviewed by the evaluating therapist, and is on file. The neck disability index (NDI) is a self-report questionnaire used to determine how neck pain affects a patient's daily life. **ADL / functional status: current status: ADL/ IADL: activities**: Lifting: Difficulty >10# Sitting: Inc pain > 5-10 min **Chief complaint: pain: severity**: Current: 9/10 At best: 8/10 At worst: 10/10 **Questionnaires: M-O: Oswestry disability index (ODI): scoring**: Date: 08/02/YYYY Assessment: Initial Total score: 72.00 **Questionnaires: M-O: Neck disability index (NDI): scoring**: Date: 08/02/YYYY Assessment: Initial Total score: 76.00 **Objective examination**: **Spine**: **Palpation**: TTP with hypertonicity of right sub-occipitals, left cervical paraspinals at C3-4, right cervical paraspinals at C5-7 + right UT and LS. Hypertonicity with TTP over thoracolumbar paraspinals (right>left). **Muscle testing: grip/pinch: dynamometer ii elbow flexed: measures**: | | **Left** | **Right** | | Average | 50.0 pounds | 50.0 pounds | **Range of motion: spine: pre-treatment: active lumbosacral (%)**: Extension (aching at mid-low scapular): 100% Flexion (aching at mid/low-scapular): 75%	

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		Range of motion: spine: pre-treatment: cervical (degrees): Active extension (complaints of pinching): 36 degrees Active flexion (complaints of pulling to the mid-thoracic spine): 45 degrees Active rotation left (pain on both left and right): 65 degrees Active rotation right (pain on both right and left): 60 degrees *Otherwise unremarkable* **Treatments**: **Spine**: Patient/family education Exercise activities: Stabilization training Exercise activities: Tubing/bands (U. Quarter) Exercise activities: Tubing/bands (L Quarter) **Documented procedural code summary documented procedural code summary**: Description Evaluation, moderate complexity Neuromuscular reeducation Self-care/home management training **Assessment**: **Recommendations**: Skilled intervention: Required to: Decrease pain. Improve balance. Improve function. Increase range of motion. Increase strength. Improve motor control. Return to work. The patient requires skilled physical therapy to address the problems identified, and to achieve the individualized patient goals as outlined in the problems and goals section of this evaluation. Overall rehabilitation potential is good. The patient was educated regarding their diagnosis, prognosis, related pathology & plan of care. The patient demonstrates a good understanding of the risks, benefits, precautions/contraindications, & prognosis of their skilled rehabilitation program. **Tolerance**: Patient is presenting to PT about 5 months' status post MVA. He demonstrates limited and painful cervicothoracic and lumbopelvic rom with hypertonicity of upper quarter and lower quarter musculature. His sxs are consistent with cervicogenic headache, neck pain and movement coordination impairment and low back pain and movement coordination impairment. He will benefit from continued skilled care to address the aforementioned impairments to be able to progress toward long term goal of return to PLOF. **Plan**: Spine	

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		Amount, frequency and duration: Frequency and duration: It is recommended that the patient attend rehabilitative therapy for 2 visits a week with an expected duration of 6 weeks. The outlined therapeutic procedures and services in the plan of care will address the problems and goals identified. **Therapeutic contents**: Client education. Home exercise program. Manual therapy techniques. Modalities: As needed. Neuromuscular re-education. Self-care/home management. Stretching/flexibility activities. Therapeutic activities. Therapeutic exercise.	
08/17/YYYY	Hospital/Provider	**Follow-up for pain medicine evaluation**: **Interval history**: Patient reports that he has not improved since the last time we spoke. Today, his back pain is "twice as worse" as it normally is since he has been doing the exercises from patient and may have "tweaked something" last night. He also did cupping with patient yesterday and he thinks that also exacerbated things. Still having low back pain and midline neck pain between shoulder blades with occasionally numbness in his right arm and his right leg. He is having trouble sleeping, taking Tylenol (but this is not working anymore), and utilizing Lidocaine patches. **History of present illness**: This is patient who was involved in an MVA on 02/15/YYYY. They state they received conservative treatments. However, they are consulting with me today for the following: Patient reports being hit from the front and since then has had neck, shoulder blade, and low back pain that will go to his hamstrings. Sometimes "it's a sharp pain, sometimes shooting pain, sometimes aching." feels these pains "are all connected." he did not have any issues prior to the accident and was working out frequently. He states his pain has not improved and has stayed the same even with chiropractic treatment. Had taken Tylenol initially to help with the pain, and that's all he uses currently along with essential oils which he rubs on. Endorses tenderness to touch in neck and back but "feels the pain is on the inside." in certain positions such as twisting really causes pain. Sometimes feels "numbness in my right arm" and also has soreness going into his right hamstrings. Denies weakness in his arms or legs. **Chiropractor treatment**: 3 times a week initially, now once a week **Activities of daily living affected**: Moving, shifting, lying down, sitting down *Diagnostic studies were reviewed.*	102-104

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		Physical exam: Of note, this was done via audio means due to patient preference. *Remains unremarkable* **Assessment**: **Working diagnosis**: Patient status post MVA 02/YYYY who presents for neck and back pain. His pain sounds primarily discogenic and myofascial but he likely does have a component of radicular pain in his arms and legs. MRI results show small bulges in multiple levels in both cervical and lumbar spine with annular tears as well. Went over MRI results again and since patient continues to be in severe pain, we discussed extensively the risks/benefits/expectations of an epidural injection. He wished to proceed after this discussion to try the injections. **Diagnoses attached to this encounter**: Other intervertebral disc displacement, lumbar region Other cervical disc displacement, unspecified cervical region Radiculopathy, cervical region Radiculopathy, lumbar region **Plan**: **Recommendations**: **Interventions**: (Please note a focused physical exam will be completed prior to procedures on the day of the injection.) - Please schedule C7-T1 epidural + L5-S1 epidural steroid injections **Medications**: (Note: The patient may stop taking the medication if they feel it is ineffective or causing any intolerable side effects.) - Lidocaine patch 5%, acetaminophen and NSAID as needed **Rehabilitation**: - Continue PT as tolerated **Diagnostic**: - None **Follow-up**: - Follow up after procedure The patient's diagnoses, prognosis, treatment plan, and examination findings were discussed in detail. All questions were answered. If there was new imaging not commented upon earlier then the significant findings were reviewed with the patient. Thank you for allowing me to participate in this patient's care. Please contact the office at (562) 414-4452 if you have any questions. The patient provided consent and agreed to an audio-only visit. A focused physical exam will be conducted prior to procedures, if required, to confirm objective/subjective findings.	
08/19/YYYY	Hospital/Provider	**Follow-up visit for neurology evaluation**:	105-106

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		Chief complaint: Headaches **History of present illness**: **Description of events**: Patient was involved in MVA on 02/15/YYYY. He reports being in front end collision. He reports LOC. The patient presents with a chief complaint of severe back pain. They report that the pain has been persistent and has not been alleviated by the previously prescribed cyclobenzaprine. The patient is currently under the care of a pain management doctor, Dr. XXXX, who is planning to perform trigger point injections or an epidural to address the pain. Additionally, the patient reports experiencing persistent headaches that have not subsided. They express interest in trying prescription medication to manage the headache symptoms. The patient also mentions difficulty sleeping, attributing the issue to their ongoing pain, which prevents them from staying asleep. Current the patient has been treating symptoms by: Chiropractor **Objective**: Relevant diagnostic imaging: Brain imaging not received. Today a telemedicine exam was conducted as per patient preference. *Remains unremarkable* **Assessment**: **Diagnosis**: 1. Mild traumatic brain injury. 2. Cervical strain/sprain. 3. Post traumatic headache. **Plan**: 1. Amitriptyline 10 mg q hs 2. Magnesium Glycinate 400 mg daily at bedtime 3. Follow up in 1 month. **Discussion**: The patient's diagnoses, prognosis. Treatment plan, and examination findings were discussed in detail. All questions were answered. Thank you for allowing me to participate in this patient's neurologic care, please feel free to call us if there are any questions or problems. **Disclosure**: If you have any questions, please do not hesitate to contact this office at your earliest convenience. **Medications/prescription orders attached to encounter**: Amitriptyline HCl 10 mg oral tablet sig: take 1 tablet (10 mg) by mouth daily at bedtime	

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
08/08/YYYY-08/28/YYYY	Hospital/Provider	**Interim physical therapy visits:** **Treatment dates**: 08/08/YYYY, 08/15/YYYY, 08/23/YYYY, 08/25/YYYY, 08/28/YYYY **Admitting complaint:** Dorsalgia, unspecified Cervicalgia Low back pain, unspecified Myalgia, unspecified site **Procedures**: Neuromuscular reeducation Therapeutic activities Therapeutic procedure Manual therapy techniques Self-care/home management training **08/08/YYYY:** Notes the exercises are going well at home and are easier day-by-day. Continues to note right lower scapular pain. Good tolerance to progressive scapulothoracic and lumbopelvic motor control/strength exercises today. Able to perform with minimal cueing. Moderate fatigue reported. Notes some discomfort at the right posterior scapula with wall slides and suitcase carries today. **08/15/YYYY:** Patient notes he has some increased pain in the mid-thoracic/scapular region after last session that is lingering into today. Patient tolerated adjustments to the POC today. Patient verbalized understanding of aftercare for cupping. No verbalization of exacerbation of symptoms following today's session. Will assess and progress as appropriate. **08/23/YYYY:** Patient reports when performing BER at home he had discomfort on left side of neck mid back and flank (Patient points). **08/25/YYYY:** Patient reports relief with thoracic joint mobilizations and soft tissue work to the scapular upper quarter musculature. He has significant hypomobility of T4-7 (Right>Left). Will progress into cervicothoracic and scapulothoracic motor control and strength as tolerated. **08/28/YYYY:** Performed STM as Patient agreeable to applied pressure. He finds relief w/ t/s PAs. He notes tolerance w/ given exercises. Attempted UE strengthening however patient notes wanting to wait until feeling less strain from previous strengthening session. He demos limited mobility in UE. No pain or discomfort reported post session.	107-121

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		**Comment: The interim physical therapy visits are combined elaborating the initial and final evaluation to know the progress of the patient and to avoid repetition.*	
08/30/YYYY	Hospital/Provider	**Physical therapy record:** **Diagnoses**: Spine: Dorsalgia, unspecified Cervicalgia Low back pain, unspecified Myalgia, unspecified site **History of injury**: On February 15th, YYYY, Patient reports he was involved in an MVA. He does note hitting his right knee on the dashboard. He did go to the MD two days later when he could get an appointment. He did have radiographs, MRI and CT scan of the involved structures. He notes that pain began in different forms ranging from aching to sharp/stabbing. He did receive chiropractic care, was prescribed pain patches and pain medication. He notes he feels unsteady on his feet and worries about falling. He notes constant headaches as well as intermittent radicular sx into the bilateral upper extremities. Denies N&T into the bilateral lower extremities. He notes most pain is mid-lower shoulder blades. **Subjective examination:** **Spine:** **Chief complaint: Pain: Severity:** Current: 9/10 At best: 8/10 At worst: 10/10 **Daily comments**: Patient reports feeling better when leaving physical therapy for the rest of the day into the next however sxs cont after and cause pain and discomfort. He notes having a lot of pain and soreness when waking up this morning. **Objective examination:** Range of motion: Spine: Pre-treatment: Active lumbosacral (%): Extension (aching at mid-low scapular): 100% Flexion (Aching at mid/low-scapular): 75% **Palpation**: TTP with hypertonicity of R suboccipitals, L cervical paraspinals at C3-4, R cervical paraspinals at C5-7 + right UT and LS. Hypertonicity with TTP over thoracolumbar paraspinals (R>L). **Range of motion: Spine: Pre-treatment: Cervical (Degrees):** • Active extension (Complaints of pinching): 36 degrees • Active flexion (Complaints of pulling to the mid-thoracic spine): 45 degrees	122-125

<table>
<tr><th>DATE</th><th>FACILITY/ PROVIDER</th><th>MEDICAL EVENTS</th><th>PDF REF</th></tr>
<tr><td></td><td></td><td>• Active rotation left (Pain on both left and right): 65 degrees
• Active rotation right (Pain on both right and left): 60 degrees

Muscle testing: grip/pinch: dynamometer II elbow flexed: Measures:<table><tr><th></th><th>Left</th><th>Right</th></tr><tr><td>Average</td><td>50.0 pounds</td><td>50.0 pounds</td></tr></table>Otherwise unremarkable

Description:
Manual therapy techniques
Neuromuscular reeducation
Self-care/home management training
Therapeutic procedure

Assessment: Performed STM as patient agreeable to applied pressure. Patient notes finding relief w/ manual techniques. He notes not wanting to perform standing wall angels or pivot prone as this causes him "soreness and pain". He tolerated added exercises w/ no exacerbation of pain or discomfort. No exacerbation of sxs reported post session. Verbally reviewed HEP and suggested use of MH, cryo, and stretching as Pt notes performing at this time and doesn't find relief for long.

Plan:
Spine:
Daily plan: Continue with current rehabilitation program.</td><td></td></tr>
<tr><td>09/20/YYYY</td><td>Hospital/Provider</td><td>Procedure report for cervical or thoracic interiaminar epidural steroid injection and lumbar interiaminar epidural steroid injection:

Physical exam: Remains unremarkable

Procedure 1:
Injection of diagnostic and/or therapeutic substances, including needle without catheter placement, with imaging guidance, into the cervical epidural space at the C7-T1 level (Cervical or thoracic interlaminar epidural steroid injection, CPT 62321).

Anesthesia: Local

Indication: Cervical radiculopathy

Date: 09/18/YYYY
Procedure in detail: Patient who presents for planned procedure. A thorough discussion was had with the patient regarding risks, benefits and alternatives to the above-named procedure. All questions were answered to the patient's satisfaction. The patient agreed to proceed and written informed consent was obtained with a witness present. A universal time-out protocol was performed per the usual clinical fashion.

The patient was able to position themselves prone on the fluoroscopy table. The</td><td>126-129</td></tr>
</table>

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		upper back was prepped with chlorhexidine and draped in the usual sterile fashion. Initially, ap views were obtained of the C7-T1 interspace. The skin and subcutaneous tissues overlying this were anesthetized with 1 % lidocaine through a 27-gauge 1.25-inch needle. Then, using a 17-ga Touhy epidural needle, we advanced the needle in a coaxial fashion until the T1 lamina was contacted. Then the needle was then walked off of the lamina and a loss-of-resistance syringe filled with air was applied and a firm loss of resistance was noted at 6 cm. Following negative aspiration, 0.5m l of nonionic contrast was injected revealing appropriate epidural spread. After negative aspiration was again confirmed, 6 ml of injectate consisting of preservative free dexamethasone 5mg in 5.5cc of preservative free normal saline was injected. The needle was restyletted and removed with the tip intact. Hemostasis was easily achieved. An image of the procedure was saved into the patient's chart. **Procedure 2**: Injection of diagnostic and/or therapeutic substances, including needle without catheter placement, with imaging guidance, into the lumbar epidural space at the L5-S1 level (Lumbar interlaminar epidural steroid injection, CPT 62323). **Indication**: Lumbar radiculopathy and lumbar discogenic pain **Procedure in detail**: The patient was kept prone the fluoroscopy table. The low back was prepped with chlorhexidine and draped in the usual sterile fashion. Initially, ap views were obtained of the L5-S1 interspace. The skin and subcutaneous tissues overlying this were anesthetized with 1% lidocaine through a 27-gauge 1.25-inch needle. Then, using an 18 gauge Touhy epidural needle, we advanced the needle in a coaxial fashion until ligamentum flavum was engaged. A loss-of-resistance syringe filled with air was applied and a firm loss of resistance was noted at 8.5 cm. Following negative aspiration, 1.0 ml of Lohexol (Omnipaque) 300 was injected revealing appropriate epidural spread. After negative aspiration was again confirmed, 10 ml of injectate consisting of dexamethasone 5mg + 2.5cc 0.5% bupivacaine + 7cc preservative free normal saline was then injected at the target location. The needle was restyletted and removed with the tip intact. Hemostasis was easily achieved. An image of the procedure was saved into the patient's chart. **Disposition**: The patient tolerated the procedure well without apparent complication. There were no paresthesias. The patient was able to ambulate out of the facility in the same fashion in which they had entered. No apparent complications were observed. **Assessment**: Diagnoses attached to this encounter: Cervicalgia Low back pain, unspecified Other intervertebral disc displacement, lumbar region Other cervical disc displacement, unspecified cervical region Radiculopathy, cervical region Radiculopathy, lumbar region	

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
10/18/YYYY	Hospital/Provider	**Follow-up visit for pain medicine evaluation**: **Interval history**: Patient underwent a C7/T1 ILESI and L5/S1 ESI with Dr. XXXX on 09/20/YYYY. He feels that this injection did help reduce his pain somewhat. He is still feeling sore at the injection site. He denies fevers, chills, or night sweats. In the morning he feels a pulling sensation in his mid-back. It is a squeezing pain sensation. His lower back is doing ok at this time. His right biceps and triceps are sore. **History of present illness**: This is patient who was involved in an MVA on 02/15/YYYY. They state they received conservative treatments. However, they are consulting with me today for the following: Patient reports being hit from the front and since then has had neck, shoulder blade, and low back pain that will go to his hamstrings. Sometimes "it's a sharp pain, sometimes shooting pain, sometimes aching." feels these pains "are all connected." he did not have any issues prior to the accident and was working out frequently. He states his pain has not improved and has stayed the same even with chiropractic treatment. Had taken Tylenol initially to help with the pain, and that's all he uses currently along with essential oils which he rubs on. Endorses tenderness to touch in neck and back but "feels the pain is on the inside." in certain positions such as twisting really causes pain. Sometimes feels "numbness in my right arm" and also has soreness going into his right hamstrings. Denies weakness in his arms or legs. **Chiropractor treatment**: 3 times a week initially, now once a week **Activities of daily living affected**: Moving, shifting, lying down, sitting down *Diagnostic studies were reviewed*. **Physical exam**: Of note, this was done via audio means due to patient preference. *Remains unremarkable* **Assessment**: **Working diagnosis**: Patient status post MVA 02/YYYY who presents for neck and back pain. He is feeling better after the C7/T1 and L5/S1 ESIS on 09/20/23. He is having pain in his biceps and triceps on the right side. He continues to do some exercises for his low back pain. Diagnoses attached to this encounter: Dorsalgia, unspecified, acute Myalgia, unspecified site, acute Cervicalgia Low back pain, unspecified	130-132

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		Other intervertebral disc displacement, lumbar region Other cervical disc displacement, unspecified cervical region Radiculopathy, cervical region Radiculopathy, lumbar region **Plan**: **Recommendations**: **Interventions**: (Please note a focused physical exam will be completed prior to procedures on the day of the injection.) - Can consider repeat C7/T1 ESI in the near future if the pain does not improve. **Medications**: (Note: The patient may stop taking the medication if they feel it is ineffective or causing any intolerable side effects.) - Continue lidocaine patch 5%, acetaminophen and NSAID as needed **Rehabilitation**: - Continue PT as tolerated. Gentle exercises for his low back and neck. **Diagnostic**: - None **Follow-up**: - In two months to review his progress. The patient's diagnoses, prognosis, treatment plan, and examination findings were discussed in detail. All questions were answered. If there was new imaging not commented upon earlier then the significant findings were reviewed with the patient. Thank you for allowing me to participate in this patient's care. Please contact the office at (562) 414-4452 if you have any questions. The patient provided consent and agreed to an audio-only visit. A focused physical exam will be conducted prior to procedures, if required, to confirm objective/subjective findings.	
11/27/YYYY	Hospital/Provider	**Follow-up visit for neurology evaluation**: **Chief complaint**: Headaches **History of present illness**: **Description of events**: Patient was involved in MVA on 02/15/YYYY. He reports being in front end collision. He reports LOC. The patient's chief complaint continues to be back/neck pain. The patient has previously been under the care of pain management doctor, Dr. XXXX, and felt that he experienced improvements with last procedure/s. Today he reports temporary relief but has noticed some returning pain lately including: -Shoulder pain, achiness, radiates to posterior neck -Lower back pain is much improved but seems to be returning	133-134

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		Concerning headaches, patient reports improvement and near resolution of headaches for a time, however these seem to be worsening as of late. He notes headaches upon awaking, sometimes they are also present at night. Patient does express some correlating neck pain and attributes headaches to this. He does note some previous adverse effects from amitriptyline and declines additional medications today preferring alternative options. Current the patient has been treating symptoms by: Chiropractor, PM **Objective**: Relevant diagnostic imaging: Brain imaging not received. Today a telemedicine exam was conducted as per patient preference. *Remains unremarkable* **Assessment**: **Diagnosis**: 1. Mild traumatic brain injury. 2. Cervical strain/sprain. 3. Post traumatic headache. Diagnoses attached to this encounter: Post-traumatic headache, unspecified, not intractable **Plan**: 1. Brain MRI without contrast if not previously obtained 2. Continue magnesium glycinate 3. Refer to pain management for ongoing neck/back pain, considered today possible cervicogenic ha source 4. Follow up in 6-8 weeks. **Discussion**: The patient's diagnoses, prognosis. Treatment plan, and examination findings were discussed in detail. All questions were answered. Thank you for allowing me to participate in this patient's neurologic care, please feel free to call us if there are any questions or problems. **Disclosure**: If you have any questions, please do not hesitate to contact this office at your earliest convenience. **Attestation**: This patient was seen by the aforementioned mid-level provider who has been thoroughly trained to provide the same standard of care as i provide. I was made available for real-time feedback and discussion in regard to this case. I personally reviewed the HPI, PH, FH, SH, ROS, and medications. I agree with the findings, assessment, and plan as documented.	
12/12/YYYY	Hospital/Provider	**Consultation report**:	135-137

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		Chief complaint: Consult **History of present illness**: Patient presents to clinic today by way of self-referral. On or around 02/15/YYYY he was involved in a motor vehicle accident. He was a restrained driver. He had a greenlight in front of him and was traveling approximately 50 miles an hour. Another vehicle made an illegal left turn in front of him and he t-boned that vehicle. Airbags went off and the other vehicle but not his. He did not hit his head or lose consciousness. His vehicle was a total loss. He was able to self-extricate. He had immediate onset of right knee right shoulder and right foot pain. He reports his right foot got stuck under the brake pedal. He reports the fire department told him that there were no beds in the local ER and so he tried to make an appointment with his primary care physician in the Kaiser system. The following Monday he got x-rays that showed no fractures. These were x-rays of the right foot and right knee. About 5 days later he started noticing low back pain as well as thoracolumbar pain in the middle. He also reports headaches that come on from the base of the neck up to the back of the head and sometimes to the left eye. He denies any prior headache shoulder knee foot or back pain prior to the accident. He does report when he presses at the base of his neck he gets pain in the upper teeth. He also reports occasional numbness and tightness into the posterior right thigh. He also reports pain that radiates from his neck to his right greater than left shoulder as well as left triceps pain. This is all new since the accident. He reports his symptoms are made better with laying down and exercising and made worse with standing bending lifting and twisting. He does report he started smoking about a year ago. He smokes 1 to 2 cigarettes a day. Pain in clinic is 8/10 at its worst 10/10 at its best 8/10. Previous treatments tried: -Tylenol -Muscle relaxers -09/20/YYYY a lumbar and cervical epidural steroid injection per his reports by Dr. James XXXX in Fremont. **Review of system**: Review of system as noted in the history of present illness **Physical exam**: **Constitutional**: General appearance: Overweight. He does have pain with range of motion of the lumbar and cervical spine. He has facet loading sign on the right in the low back and bilaterally in the cervical spine left greater than right. He does have pain in the thoracic spine as well with flexion and extension as well as the lumbar spine. He does have impingement signs of the bilateral shoulders. He does have pain to palpation of the paraspinal muscles in the cervical spine and cervical thoracic junction. **Assessment and plan**: Patient is suffering from low back pain neck pain possibly cervical radiculopathy shoulder impingement as well as lumbar spondylosis spondylolysis and spondylolisthesis. I did review MRIs of the cervical and lumbar spine as well as x-rays. He has anterolisthesis of L5-S1 with bilateral pars defect. It appears to worsen	

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		when he stands upright versus when he is laying down for his MRI scan. He does have bilateral foraminal stenosis at that level as well. He does have some degenerative disc disease at L4-S1. In the lower thoracic region there is some degenerative disc disease but no cord compression. In the cervical spine he does have some central disc bulges but no cord or nerve root compression. At this point time I discussed the options. We will send him to a concussion specialist for his headaches as these are new since the accident. He does request a local interventional pain specialist and we will send him to interventional pain specialist who can do cervical and lumbar injections. At this point time he wishes to avoid surgery and i do support his decision. He will continue non operative treatment. I would like to see him back in 3 months at which point time he may have had more injections as well as seeing the concussion specialist. All questions were answered and patient was happy with this plan. I also counseled him on tobacco cessation. He is working on quitting. Documentation assistance provided by voice recognition software. I have read the medical record and software entries. My best effort was made to identify and correct any inadvertent errors created by the software. **1. Overweight** - Above normal range of BMI = > 25kg/m2 Overweight • Body mass index: care instructions **2. Tobacco use cessation education** - Patient has indicated they are a current tobacco user. Recommendation is for tobacco cessation. Tobacco abuse counseling • Learning about benefits from quitting smoking **3. Spondylolysis**: Spondylolysis, site unspecified **4. Lumbar spondylolisthesis**: Spondylolisthesis, lumbar region **5. Cervical spondylosis**: Spondylosis without myelopathy or radiculopathy, cervical region **Return to office**: Patient will return to the office as needed.	
12/19/YYYY	Hospital/Provider	**Follow-up visit for pain medicine evaluation**: **Interval history**: Patient feels as if his pain has returned. His low back pain and his headaches are at the same intensity as before and bother him daily. He has done some PT and he feels as if it does help for a short time. He has just seen a spine specialist who states	138-140

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		he may be a candidate for spine surgery for his spondylolysis, but they also mentioned that they want to watch and wait first. **History of present illness**: This is patient who was involved in an MVA on 02/15/YYYY. They state they received conservative treatments. However, they are consulting with me today for the following: Patient reports being hit from the front and since then has had neck, shoulder blade, and low back pain that will go to his hamstrings. Sometimes "it's a sharp pain, sometimes shooting pain, sometimes aching." feels these pains "are all connected." he did not have any issues prior to the accident and was working out frequently. He states his pain has not improved and has stayed the same even with chiropractic treatment. Had taken Tylenol initially to help with the pain, and that's all he uses currently along with essential oils which he rubs on. Endorses tenderness to touch in neck and back but "feels the pain is on the inside." in certain positions such as twisting really causes pain. Sometimes feels "numbness in my right arm" and also has soreness going into his right hamstrings. Denies weakness in his arms or legs. **Chiropractor treatment**: 3 times a week initially, now once a week **Activities of daily living affected**: Moving, shifting, lying down, sitting down Patient underwent a C7/T1 ILESI and L5/S1 ESI with Dr. XXXX on 09/20/YYYY. He feels that this injection did help reduce his pain somewhat. He is still feeling sore at the injection site. He denies fevers, chills, or night sweats. In the morning he feels a pulling sensation in his mid-back. It is a squeezing pain sensation. His lower back is doing ok at this time. His right biceps and triceps are sore. *Diagnostic studies were reviewed*. **Physical exam**: Of note, this was done via audio means due to patient preference. *Remains unremarkable* **Assessment**: **Working diagnosis**: Patient status post MVA 02/YYYY who presents for neck and back pain. He is feeling better after the C7/T1 and L5/S1 ESIS on 09/20/YYYY. He is having pain in his biceps and triceps on the right side. He continues to do some exercises for his low back pain. Diagnoses attached to this encounter: Dorsalgia, unspecified, acute Myalgia, unspecified site, acute Cervicalgia Low back pain, unspecified	

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		Other intervertebral disc displacement, lumbar region Other cervical disc displacement, unspecified cervical region Radiculopathy, cervical region Radiculopathy, lumbar region Post-traumatic headache, unspecified, not intractable **Plan**: **Recommendations**: **Interventions**: (Please note a focused physical exam will be completed prior to procedures on the day of the injection.) - Repeat C7/T1 epidural steroid injection vs cervical facet joint injection at bilateral C3/4 for his headaches, (will need special approval for bilateral) -May repeat L5/S1 ILESI vs bilateral L5/S1 transforaminal epidural steroid injection (will need special approval for bilateral) **Medications**: (Note: The patient may stop taking the medication if they feel it is ineffective or causing any intolerable side effects.) - Gabapentin 300 mg up to thrice daily. **Rehabilitation**: - Continue PT as tolerated. Gentle exercises for his low back and neck. **Diagnostic**: - None **Follow-up**: - For procedures (he would like to go somewhere closer to Sacramento, traveling to Fremont is difficult for him) - Follow up in one month. The patient's diagnoses, prognosis, treatment plan, and examination findings were discussed in detail. All questions were answered. If there was new imaging not commented upon earlier then the significant findings were reviewed with the patient. Thank you for allowing me to participate in this patient's care. Please contact the office at (562) 414-4452 if you have any questions. The patient provided consent and agreed to an audio-only visit. A focused physical exam will be conducted prior to procedures, if required, to confirm objective/subjective findings. **Medications/prescription orders attached to encounter**: Gabapentin 300 mg oral capsule sig: take 1 capsule (300 mg) by mouth 3 times per day	
01/10/YYYY	Hospital/Provider	**Initial neurological spine consultation report:** **History of present illness:** Patient presents to my office in Sacramento for spine consultation. The patient was involved in a motor vehicle accident. On the date of injury, the patient was driving a sedan at an intersection when another sedan pulled in front of him. The patient ended up T boning the other vehicle. Impact was significant. The patient's vehicle was significantly damaged and considered a total	141-146

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		loss. The patient was restrained, did not lose consciousness. Police and ambulance presented at the scene. *Reviewer's comment: Police and ambulance report are not available for review* The patient went to the emergency room for evaluation and treatment. Subsequently underwent several months of chiropractic care. Has been seen by Dr. XXXX, a pain management doctor who started performing injections both in the cervical and lumbar spine with some improvement of symptoms. The patient had persistent symptoms and presents for spine consultation. **Current symptoms:** The patient complains of lower back pain. Pain is rated 7-8/10 depending of level of activity. Injections improved neck pain significantly, but back pain persists. Radiates to lower extremity, buttocks, thigh and calf more on the left side. Occasional numbness into the left leg. The patient denied symptomatology prior to date of injury. The patient currently is not working. Takes Motrin and Aleve for pain control. **Physical exam:** **Lumbar spine:** **Palpation**: Mild to moderate discomfort to palpation mid to low lumbar spine. Back pain upon extension up on 20 degrees, flexion up on 30 degrees. **Sensory testing:** There is diminished light touch left lateral shin. *Otherwise unremarkable* **Record review**: *Reviewed* **Diagnoses**: 1. Lumbar disc displacement with radiculopathy. 2. Lumbar axial low back pain discogenic. **Discussion / plan:** Patient with symptoms of back and leg pain after the motor vehicle accident. The patient denied symptomatology prior to date of injury. The patient's presenting symptoms correlates with imaging of lumbar spine. The patient's symptoms have persisted despite limitations of activity, chiropractic care and interventional pain management procedure. This patient benefits from surgery. I recommend lumbar discectomy at L4-L5 and L5-S1 with fusion and instrumentation to address back and leg pain. Alternatives were discussed such as a trial for spinal cord stimulation to relieve symptomatology. If such trial improve symptoms significantly, then permanent placement of the spinal cord stimulator is recommended. Approximate cost for this operation including professional, facility, anesthesia is $200,000 to $300,000. Based on the clinical evidence, the radiographic studies that I have reviewed, my history taking, review of records, examining the patient, it is my opinion that with the reasonable medical probability, the patient's current symptoms regarding the cervical and lumbar spine is directly related and caused by the impacted injury the patient experienced on 02/15/YYYY.	
02/27/YYYY	Hospital/Provider	**Procedure report for posterior lumbar approach left sided trans facet:** **Clinical note:** The patient presents with back and leg pain after an injury. MRI revealed disc protrusion, foraminal narrowing with spondylolisthesis, and pars	147-149

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		defect bilaterally, especially at lumbar 5 - sacral 1. Discectomy and fusion at these levels was offered. Potential risks including but not limited to numbness, weakness, paralysis, infection, bleeding, nerve damage, failure of improvement of symptoms, need for additional surgery, cardiopulmonary complications, and anesthesia mention. All questions were answered. A written consent was obtained. **Preoperative and postoperative diagnosis:** Other intervertebral disc displacement lumbar region. **Procedure:** 1. Posterior lumbar approach left sided trans facet, far lateral discectomy, facetectomy at lumbar 4-5 and lumbar 5 - sacral 1. 2. Right sided medial facetectomy foraminotomy lumbar 5 - sacral 1. 3. Arthrodesis interbody lumbar 5 - sacral 1. 4. Arthrodesis interbody 4-5. 5. Arthrodesis posterolateral lumbar 4-5 and lumbar 5 - sacral 1. 6. Instrumentation pedicle screw placements bilaterally at lumbar 4, lumbar 5, and sacral 1. 7. Interbody device placement at lumbar 4-5 and lumbar 5 - sacral 1 for arthrodesis. 8. Autologous bone graft for fusion. 9. Allograft for fusion. 10. Using intraoperative fluoroscopy assistance for localization and instrumentation. 11. Stimulation of pedicle screws bilaterally at lumbar 4, lumbar 5 and sacral 1 with 15 milliamps of nerve stimulation. **Anesthesia:** John Juve, CRNA **Fluoroscopy**: Fluoroscopic services were required and provided by San Joaquin Valley Imaging Services. Fluoroscopic X- ray is an integral part of the procedure and was utilized to demonstrate a minimum of two or more views of the desired anatomical site. **Procedure note:** The patient was brought to the surgical suite at the Comprehensive Pain Management Center. Once adequate anesthesia was obtained, lower extremity EMG electrodes were placed for intraoperative nerve monitoring. The patient was placed prone on the Jackson table. The pressure points were padded. The posterior lumbar area was prepped and draped in sterile fashion. The C-arm was brought into the field. An incision was made over the midline. Fascial incision was made on both sides. Muscles were split bilaterally between the multifidus and longissimus. This area was followed towards the transverse process and the facet junction of each level. Pedicles were entered. Appropriately sized screws were placed at each level on both sides. Heads of the screws were then stimulated with 15 milliamps of nerve stimulation. There was no adjacent nerve root irritation indicating adequate placement of pedicle screws. The rods were then placed on top of the screws. Then attention was turned to the midline. Subperiosteal elevation of the muscles was performed to expose the spinous process, lamina, and the facets. Laminectomy and facetectomy was performed at lumbar 5 - sacral 1. Lamina were removed on both	

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		sides. The superior facet and pars interarticularis were removed on both sides. The pars defect was apparent on both sides. Foramina were undermined significantly and the nerve roots were decompressed on both sides. On the left side, superior facet and pars interarticularis was removed. Magnification was used. The sacral 1 nerve roots were slightly retracted medially. Epidural veins were coagulated. A #11-blade was used to cut through the posterior longitudinal ligament. Disc shavers were used to enter into the disc space. All the disc materials were removed. Endplates were heavily decorticated. The patient's bone and allograft was then used to packed into the disc space. Subsequently, an interbody device filled with the patient's bone and allograft was also placed into the disc space. At this time, distraction was discontinued. Similar steps were performed at the lumbar 4 and lumbar 5 on the left side. Lamina and the facets were removed as well as pars interarticularis were undermined. The lumbar 5 nerve root was slightly retracted medially. Epidural veins were coagulated. Disc bulge here was apparent. A #11-blade was used to cut through the posterior longitudinal ligament. Disc shavers were placed into the disc and all the disc material was removed. Curettes were used to empty out the disc and decorticate the endplates. The patient's bone and allograft was then packed into the disc space. Subsequently an interbody device filled with the patient's bone and allograft was also placed into the disc space. At this time, distraction was discontinued. Set screws were locked. A cross link was applied from one rod to the other. After vigorous irrigation, the patient's bone and allograft was placed posterolaterally at lumbar 4, lumbar 5, and sacral 1 after the transverse processes and the ala were decorticated. Soft tissue was injected with lidocaine and epinephrine. Local drain was placed. Retractors removed. Overlying muscle fascia and the skin closed in the usual fashion. The patient tolerated the procedure well. **Complications**: None. **Blood loss:** 100 cc **Specimen**: None.	
02/27/YYYY	Hospital/Provider	**Intra-operative neurophysiology:** **Surgery date:** 02/27/YYYY **Diagnosis:** Spine stenosis **Procedure:** TLIF L4 - S1 **Conditions of the recording:** All studies were performed on the aforementioned patient under real-time physician direct supervision via internet communication allowing continuous or immediate contact between the interpreting neurologist and surgeon. Please see tech notes for details of stimulation and recording. **Description of the recording:** Somatosensory evoked potentials (SSEPs) were performed to monitor the sensory system by stimulating nerves in the upper and lower extremities. Baseline responses were recorded prior to the start of the procedure and subsequent responses were compared to baseline.	150-151

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		Upper SSEP stimulation site: Median nerve. **Lower SSEP stimulation site:** Posterior tibial. Motor pathways were monitored by means of transcranial electrical stimulation. Data were obtained following biphasic, normal, and or inverse stimulation patterns. Motor responses were measured at the following muscles: **Upper MEP muscles:** ADM muscle, APB muscle, deltoid muscle, trapezuis muscle. **Lower MEP muscles:** Abductor hallucis. Lower extremity free running electromyography (EMG) was performed to monitor the integrity of the motor system and for nerve/root irritability. Recording electrodes were placed in muscles appropriate to the site of the procedure. **Lower EMG muscles:** Abductor hallucis, ext hallucis longus L4-S1, tib ant L5, vastus lateralis L2-L4. Bil needle EMG performed. Electrical stimulation of the pedicle screws was evaluated by using triggered EMG performed by stimulating each screw and recording a compound muscle action potential response in the appropriate muscles. A response to stimulus intensities of 8.0 mA or less raises concern for improper screw placement and potential breach in the pedicle wall. Corresponding thresholds were noted and communicated to the surgeon. **Summary:** Recording as above. Details on file. Good quality signals were obtained and no significant abnormality or change was demonstrated. **Impression:** This intra-operative monitoring study was unremarkable, as described above.	
02/27/YYYY	Hospital/Provider	**Technical report:** **Date of surgery:** 02/27/YYYY **Procedure:** TLIF L4 - S1 **Diagnosis:** Spine stenosis **Introduction:** Surgeon requested upper and lower SSEP's, EMG's and motor evoked potentials. **Upper SSEP:** Upper and lower extremities SSEP **Stimulation sites:** Median nerve **Results:** Bilateral ulnar nerve SSEP baselines were reproducible and reliable. There were no significant changes in either the latency (>10%) or amplitude (>50%) from baselines throughout the case. Dr. was informed and he acknowledged.	152-153

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		Lower SSEP: Upper and lower extremities SSEP **Stimulation sites:** Posterior tibial. **Results:** Bilateral posterior tibial nerve SSEP baselines were reproducible and reliable. There were no significant changes in either the latency (>10%) or amplitude (>50%) from baselines throughout the case. Dr. was informed and he acknowledged. **Upper MEP:** Upper and lower extremities TCeMEP **Recording sites:** ADM muscle, APB muscle, deltoid muscle, trapezius muscle **Results:** Upper bilateral motor responses were reliable and present throughout the procedure. **Lower MEP:** Upper and lower extremities TCeMEP **Recording sites:** Abductor hallucis. **Results:** Lower bilateral motor responses were reliable and present throughout the procedure. **Lower EMG:** EMG and lt; 5 muscles **Recording sites:** Abductor hallucis, ext hallucis longus L4-S1, tib ant L5, vastus lateralis L2-L4. **Results:** Bilateral free running lower EMG responses were recorded from the muscles listed above throughout the procedure. All EMG channels were quiet at closing. Dr. was informed and acknowledged. **Pedicle testing:** Nerve conduction studies; 5-6 studies, simulation sites: 6, bilateral **Summary:** As indicated above no changes were noted throughout this procedure.	
03/13/YYYY	Hospital/Provider	**Follow-up neurological spine consultation:** **Interim history:** The patient presents for follow-up for re-evaluation. The patient is status post lumbar fusion. **Current symptoms**: The patient has had significant improved of neck pain. Back pain is mild-to-moderate, rated at 3-4/10. Takes occasional pain medications. **Physical examination:** There is a well-healed incision in the lower lumbar spine. There is mild discomfort to palpation in the paraspinous muscles. **Diagnosis**: Postop lumbar fusion with improvement of radiculopathy. **Discussion/plan:** The patient needs x-ray of the lumbar spine to evaluate for progress of fusion. The patient will benefit from physical therapy for the lumbar spine to improve postoperative back pain. The patient will be re-evaluated in six weeks. PT 2 times a week for 6 weeks	154-156
04/16/YYYY	Hospital/Provider	**X-ray of lumbar spine:** **History:** Postop imaging. Surgery 02/YYYY. No pain.	157

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		Comparison: None available. **Findings:** **Alignment:** 1.7 anterolisthesis of L5 on S1. **Vertebral bodies:** Bilateral pedicle screws and interconnecting rods at L4, L5 and S1 with interbody spacers at L4-5 and L5-S1. **Disc spaces:** Interbody spacers at L4-5 and L5-S1. Remaining disc spaces are well maintained. **Pars:** No pars defects are identified. **Sacroiliac joints:** The sacroiliac joints appear unremarkable. **Soft tissues**: No soft tissue abnormality is appreciated. **Impression:** 1. Postoperative changes at L5/S1. 2. 1.7 cm anterolisthesis of L5 on S1.	
04/17/YYYY	Hospital/Provider	**Follow-up neurological spine consultation:** **Interim history:** The patient presents for follow-up for re-evaluation. The patient is status post lumbar fusion. **Current symptoms:** The patient is seven weeks postop. The patient walks 30-40 minutes a day. Able to do more of the activities of daily living throughout the day. Does not take any pain medications. **Neurosurgical physical examination:** There is a well-healed incision in the anterior abdominal and posterior lumbar area. *Otherwise unremarkable* *Diagnostics studies were reviewed* **Diagnosis**: Postop multilevel lumbar fusion with improvement of back and leg pain. **Discussion/plan:** The patient to increase activities as tolerated. The patient will be re-evaluated in two to three months.	158
05/03/YYYY	Hospital/Provider	**Brain MRI with advanced neuro diagnostic imaging including diffusion tensor imaging (3D), volumetric analysis of the brain utilizing the neuroquant triage brain atrophy protocol, and Susceptibility-Weighted Imaging (SWI):** **History**: Status post motor vehicle accident 02/15/YYYY. History of head trauma. Orthopedic injuries. Numbness in the hands and legs. Involuntary shaking in movements. Posttraumatic headache. **Comparison**: None **Findings**: **Intracranial hemorrhage**: No acute intracranial hemorrhage. Normal signal on gradient echo imaging or susceptibility-weighted imaging. No definitive evidence	159-260

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		to suggest hemosiderin or old blood products. Midline shift or mass effect: None. Ventricles: Within normal limits. Brain parenchyma: There is abnormal signal in the left greater than right gyrus rectus most compatible with the sequelae of posttraumatic encephalomalacia and permanent injury liquefied brain tissue secondary to impaction with the frontal skull and a coup/contrecoup injury. Limited assessment of the susceptibility images in this region secondary to artifact from the sinuses. There are a few subcortical frontal lobe white matter signal foci, centered at the gray-white matter junction. The pattern is most typically seen in the setting of posttraumatic gliosis/scarring. Clinical correlation is recommended to exclude hypertensive/small vessel ischemic changes or vasospastic phenomenon associated with chronic migraine headaches. The remainder of the brain parenchyma is unremarkable. No masses are present. No evidence of prior stroke. No structural abnormality. Midline structures: Within normal limits. No Chiari malformation. Vascular flow voids and major dural sinuses: Patent. Skull and osseous structures: Unremarkable. Visualized sinuses: Mild mucosal thickening anterior ethmoid sinuses and right frontal sinus. The remainder the sinuses are clear. Middle ears and mastoids: Clear. Orbits: Unremarkable. Soft tissues: Unremarkable. **Diffusion tensor imaging analysis:** Please refer to the advanced diagnostic neuro imaging (ANDI REPORT) for full evaluation. The diffusion tensor imaging of this patient's brain was compared to a normative database of 1266 healthy subjects an age and gender matched control group. Below is a summary of the findings: 86.7%: 26 Out of 32 white matter tracts are statistically significant out of the normal range in terms of microstructural measurements. The majority of the abnormal white matter tracts that are statistically abnormal are within the left hemisphere. 6 out of 32 white matter tracts demonstrate statistically significant abnormal fractional anisotropy values. This results in a statistically significant probability of greater than 95% of abnormal FA values which can be seen in the setting of traumatic axonal dysfunction. 15 out of 32 white matter tracts demonstrate statistically significant abnormal ADC (mean diffusivity) values. This results in a statistically significant probability of greater than 95% of abnormal Mean Diffusivity values which can be seen in the setting of traumatic axonal dysfunction. 21 out of 32 white matter tracts demonstrate statistically significant abnormal axial diffusivity values. This results in a statistically significant probability of greater than 95% of abnormal Axial Diffusivity values which can be seen in the setting of traumatic axonal dysfunction. 8 out of 32 white matter tracts demonstrate statistically significant abnormal radial	

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		diffusivity values. This results in a statistically significant probability of greater than 95% of abnormal Radial Diffusivity values which can be seen in the setting of traumatic axonal dysfunction. 2 out of 32 white matter tracts demonstrate statistically significant abnormal volume. This results in a statistically significant probability of greater than 95% of abnormal Fiber Tract Volume which can be seen in the setting of traumatic axonal dysfunction. 1 out of 12 the paired white matter tracts demonstrates statistically significant abnormal asymmetry. This results in a statistically significant probability of greater than 95% of abnormal asymmetric microstructural measurements which correlates with traumatic axonal dysfunction. There is abnormal tractography demonstrating decreased fiber bundle density and several truncated and broken fiber tracts corresponding to areas of abnormal fractional anisotropy values which result in 2-D and 3-D Volumetric imaging and models of traumatic axonal injury. **Volumetric imaging: neuroguant:** General morphometry: Within normal limits. NeuroQuant triage brain atrophy study was performed and compared to a normal database. When compared to that normal database: There is statistically significant decreased brain volume [more than 2 standard deviations below normal] in the following segments. The following segments represent less than 5 percentile compared to a normal database of the same age and gender: Right cingulate gyrus Right and total anterior cingulate gyrus Left medial occipital lobe This pattern can be seen in the setting of mild posttraumatic neuronal loss. There is statistically significant increased brain volume [more than 2 standard deviations above normal]. The following segments represent abnormal increased brain volume more than 95% of a normal database of the same age and gender: Left, right, and total cerebellar Right temporal lobe Left, right, and total entorhinal cortex Left parahippocampal gyrus Left fusiform gyrus Right middle temporal gyrus Left, right, and total primary sensory cortex These findings can be seen in the setting of posterior matter gliosis and scarring. **Impression**: In summary, the above findings are abnormal and compatible with the	

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		history of traumatic brain injury with objective quantitative evidence of permanent traumatic brain injury on these advanced brain imaging techniques. Positive predictive value [the probability this patient with a positive test truly suffered a traumatic brain injury]: >99% Overall, there is abnormal diffusion tensor imaging as described above with evidence suggesting microstructural abnormalities in several segments of the brain which can be seen in the setting of traumatic axonal injury. I do not see any other specific findings to suggest an alternative diagnosis. There are no visualized strokes. No brain tumors or masses. No evidence of inflammation or demyelination. No evidence of infection. No congenital brain or structural brain anomaly. 86.7% :26 Out of 320 white matter tracts are statistically significant out of the normal range in terms of microstructural measurements. The majority of the abnormal white matter tracts that are statistically abnormal are within the left hemisphere. 1 out of 12 the paired white matter tracts demonstrates statistically significant abnormal asymmetry. This results in a statistically significant probability of greater than 95% of abnormal asymmetric microstructural measurements which correlates with traumatic axonal dysfunction. There is abnormal tractography demonstrating decreased fiber bundle density and several truncated and broken fiber tracts corresponding to areas of abnormal fractional anisotropy values which result in 2-D and 3-D Volumetric imaging and models of traumatic axonal injury. No acute intracranial hemorrhage. The susceptibility weighted images and/or gradient echo images are unremarkable without definitive evidence of hemosiderin or old blood products. There is abnormal signal in the left greater than right gyrus rectus most compatible with the sequelae of posttraumatic encephalomalacia and permanent injury liquefied brain tissue secondary to impaction with the frontal skull and a coup/contrecoup injury. Limited assessment of the susceptibility images in this region secondary to artifact from the sinuses. There are a few subcortical frontal lobe white matter signal foci, centered at the gray-white matter junction. The pattern is most typically seen in the setting of posttraumatic gliosis/scarring. Clinical correlation is recommended to exclude hypertensive/small vessel ischemic changes or vasospastic phenomenon associated with chronic migraine headaches. The remainder of the brain parenchyma is unremarkable. No masses are present. No evidence of prior stroke. No structural abnormality. NeuroQuant triage brain atrophy report results: Abnormal volumetric imaging of the brain as above which can be seen in the setting of traumatic brain injury. Clinical correlation with the patient's history, physical, and symptoms is recommended. Comparison to any prior brain imaging is recommended. If any prior brain imaging becomes available, a direct comparison to the study could be	

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		performed, and an addendum can be provided at that time. The ANDI TBI report uses a normative reference to identify white matter (WM) regions where the subject specific microstructural and macrostructural measures are out of normative range and to create a visual representation of the relation between the observed value and the normative range. The normative range was calculated based on the distribution of the microstructural and macrostructural measures in the white matter regions of a large sample of healthy-appearing subjects. Datasets constituting the normative reference were chosen to represent the full range of subjects for whom ANDI TBI is applicable. The normative reference is provided as a reference to help clinicians interpret the observed values. The normative range is based upon 1266 healthy subjects aged between 20 to 80 years old, with 51.3% female / 48.7% male and 76.7% right-handed, 7.66% left-handed and 1.74% ambidextrous and 13.9% unknown handedness. Subjects included in the database are from North America (55%), Europe (43%), and Worldwide (2%). Images were acquired from various MRI manufacturers and acquired on 3T and 1.5T MRI Scanners.	
05/09/YYYY	Hospital/Provider	**NeuroPraxis evaluation:** **Diagnosis:** Mild traumatic brain injury **Date of injury**: 02/15/YYYY **Medical history**: A follow-up neurology evaluation-telemedicine for patient with Cheryl Gourley, PA-C under the supervision of Hirsh Kaveeshvar, DO, of Synergex Med on 11/27/YYYY noted the following **Chief complaint:** Headaches. **History of present illness:** Description of events: Patient was involved in MVA. He reports being in a front-end collision. He reports LOC. The patient's chief complaint continues to be back/neck pain. The patient has previously been under the care of pain management physician, Dr. XXXX, and felt that he experienced improvements with the last procedure/s. Today he reports temporary relief but has noticed some returning pain lately, including: shoulder pain, achiness, radiates to posterior neck. Lower back pain is much improved but seems to be returning. Concerning headaches, patient reports improvement and near resolution of headaches for a time, however these seem to be worsening as of late. He notes headaches upon awaking, sometimes they are also present at night. Patient does express some correlating neck pain and attributes headaches to this. He does note some previous adverse effects from amitriptyline and declines additional medications today, preferring alternative options. **Plan** for patient per Cheryl Gourley, PA-C: 1. Brain MRI w/o contrast if not previously obtained. 2. Continue magnesium glycinate. 3. Refer to pain management for ongoing neck/back pain, considered today possible cervicogenic HA source. 4. Follow up in 6-8 weeks.	261-265

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		Primary and secondary diagnoses: Mild traumatic brain injury Cervical strain/sprain Post-traumatic headache, unspecified, not intractable **Proposed plan of care:** At NeuroPraxis, our mission is to deliver a personalized and comprehensive brain injury rehabilitation program right in the client's home. Our community-oriented approach combines careful assessment, treatment planning, rehabilitation, support, and advocacy to achieve optimal results. Patient is an excellent candidate for NeuroPraxis and will benefit from continued rehabilitation in a structured in-home and community day treatment level for 4 days a week / 3 to 5 months to improve overall independence in higher independent living skills, cognition, community, avocational engagement, overall health and well-being, set-up of community activities to improve overall strength and endurance and; follow through of use of strategies and program. Additional support to the rehabilitation services will include access to technology and wellness coaching. Some services may be delivered via tele-health following the core guidelines of the American Telemedicine Association. Patient will receive a comprehensive and individualized evaluation and team treatment plan to improve his overall independence, higher independent living skills, functional mobility, safety in the home and community settings, and set-up of meaningful avocational activities. Upon start of services, an evaluation of the home environment, set-up of recommended strategies and identification of a functional routine would be arranged to ease transition of care. **It is recommended that the initial program may include:** **Services**: Occupational therapy Physical therapy Case management The plan of care will be re-evaluated after the initial 30 days and every 30 days thereafter. The proposed plan of care includes the mentioned services but does not include medical services except those specified above, translation services, medications, medical supplies, laboratory testing and services, adaptive and durable medical equipment, personal items, fees for recreational activities, and transportation. **Recommendation**: NeuroPraxis will provide the structure, support, and therapy needed to meet patients individualized requirements while working toward maximizing his functional potential. Please be advised that this is a proposed plan of care, which	

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		has been provided to determine the appropriateness of this candidate for home and community rehabilitation services. The proposed plan of care is subject to revision and increased specificity following the completion of the intake process. Regarding Home and Community-Based Rehabilitation, the California MTUS states the following: Outpatient home and community-based rehabilitation is selectively recommended for TBI patients. The indications are for sufficient residual symptoms and/or signs of post TBI to necessitate ongoing treatment, be it medical, physical therapy, occupational therapy, or other. These programs are generally more helpful for those with greater numbers and magnitudes of mismatch between current abilities and job cognitive and physical demands. There may be select cases with mild TBI with ongoing symptoms who may be candidates. In this case, there is evidence that the patient is deemed to be an appropriate candidate with functional deficits and goals to warrant certifying the request for authorization. NeuroPraxis appreciates the opportunity to evaluate patient's rehabilitation needs towards a life of purpose, social connection and optimism. **Addendum**: Cheryl Gourley, PA-C, Synergex Med, Follow-Up Neurology Evaluation-Telemedicine, 11/27/YYYY. I have reviewed and agree to the treatment plan.	
06/12/YYYY	Hospital/Provider	**Follow-up neurological spine consultation:** The patient presents for follow-up for re-evaluation. The patient was last evaluated on April 17, YYYY. **Interim history:** The patient has a history of the lumbar fusion. The patient has been doing physical therapy. The patient is able to do more activities of daily living with less discomfort. **Physical examination:** Well-healed incision in the lower lumbar spine. There is mild discomfort to palpation paraspinous muscles. *Otherwise unremarkable* **Diagnosis**: Postoperative lumbar fusion with improvement in radiculopathy. **Discussion/plan:** The patient to continue with physical therapy. The patient will be evaluated with x-ray of lumbar spine for evaluation of progress of fusion. The patient will be is three months.	266-268
06/26/YYYY	Hospital/Provider	**Physical therapy evaluation:** **Subjective:** Patient answered the door and agrees to PT evaluation. Patient that was involved in a MVA 02/15/YYYY resulting in LOC and injuries to spine. Patient had been undergoing pain management with minimal success. Patient underwent L5/S1 fusion on 02/27/YYYY. Patient lives with his girlfriend in two story home.	269-270

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		Objective: Patient presents with A/5 BLE strength throughout, 4-/5 trunk strength: B HS flexibility measured at 0-65 deg. Transfers: Patient has significant difficulty with transfers to the floor due to decreased LE and trunk ROM and strength. Balance: Tinetti score measured to be 24/28. Established HEP with written instructions. Educated patient on safety, pacing and fall prevention and reviewed spinal precautions. **Assessment**: Patient with recent hx of spinal surgery resulting in residual weakness, decreased flexibility, difficulty with transfers and decreased safety during ambulation. Patient will require further skilled physical therapy to work on balance, safety, gait training, LE/trunk strengthening and stability which cannot be met with HEP alone. **Plan for the next session:** Review HEP with written instructions Progress HEP as tolerated Dynamic standing balance activities LE/core strengthening	
06/27/YYYY	Hospital/Provider	**Occupational therapy evaluation:** **Subjective:** Patient reporting stiffness and weakness resulting in impaired ADLs. **Objective:** Patient with continued complaints of pain and weakness resulting in self-care management deficits. Patient reports some improvement in ability to care for self safely with adaptations as needed. **Assessment:** Patient modified Barthel index score of 75 indicates minimal physical assist in self-care management and functional mobility continues to be required. **Home exercise plan:** Per plan as provided supplementally **Effective strategies used:** Verbal, visual and tactile cueing as needed **Plan for the next session:** Follow up RE ADL and HEP	271-273
06/29/YYYY	Hospital/Provider	**Case management clinical interaction note:** **30-day goal:** Improve lower extremity and trunk strength, flexibility, and overall mobility to enhance safety during transfers and daily activities. **Team goal:** Increase patient's independence in activities of daily living by improving core stability and reducing the risk of falls. **Medical management:** Continued monitoring of pain levels and adjustments to the home exercise program as needed to manage symptoms effectively. **Functional abilities:** Patient demonstrates partial improvement in flexibility and lower extremity strength. During the session, he performed seated hip flexion exercises, heel raises, standing hip abductions, and hamstring curls to target these	274

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		areas. Despite these efforts, he continues to struggle with core stability, which affects his ability to safely perform self-care tasks and maintain functional mobility. **Rehabilitation progress:** Patient is actively participating in his home exercise program and has shown some progress in flexibility and strength. However, he continues to experience significant pain and weakness, particularly in his back and trunk, which impacts his ability to perform daily activities safely. These ongoing symptoms highlight the need for continued focus on core strengthening, pain management, and improving overall balance to reduce the risk of falls and further injury. Case management plays a crucial role in organizing and coordinating patient's appointments, ensuring that his rehabilitation schedule is consistent and aligned with his overall care plan. **Recommendations for family:** Support patient in adhering to his home exercise program and provide assistance with balance and safety during daily activities to reduce the risk of falls. Additionally, be attentive to his pain levels and assist with any necessary adjustments to daily routines to accommodate his physical limitations.	
06/29/YYYY-07/22/YYYY	Hospital/Provider	**Interim physical therapy visits:** **Treatment dates**: 06/29/YYYY, 07/03/YYYY, 07/05/YYYY, 07/08/YYYY, 07/11/YYYY, 07/15/YYYY, 07/18/YYYY, 07/22/YYYY **Admitting complaint:** Decreased trunk strength Left and right knee pain Muscle fatigue Low back pain **Procedures**: HEP Dynamic standing balance activities LE/Core strengthening **06/29/YYYY:** Patient answered the door and agrees to PT session. Patient states that he has been doing HEP regularly and noticing a difference in his flexibility. Patient tolerated progression of therex. Patient continues to have decreased trunk/LE strength and decreased LE flexibility with difficulty transferring to/from the floor. Patient will require further skilled physical therapy to work on balance, safety, gait training, LE/trunk strengthening and stability which cannot be met with HEP alone. **07/03/YYYY:** Patient answered the door and agrees to PT session. Patient states that he has been doing HEP regularly and noticing a difference in his flexibility. Patient had occasional LOB during dynamic balance activity. Patient continues to have decreased trunk/LE strength and decreased LE flexibility with difficulty transferring to/from the floor due to stiffness. Patient will require further skilled	275-290

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		physical therapy to work on balance, safety, gait training, LE/trunk strengthening and stability which cannot be met with HEP alone. **07/05/YYYY:** Patient answered the door and agrees to PT session. Patient states that he has been doing HEP daily. Patient continues to have decreased trunk strength, left knee pain and muscle fatigue. Patient had improved balance during dynamic balance activity. Patient will require further skilled physical therapy to work on balance, safety, gait training, LE/trunk strengthening and stability which cannot be met with HEP alone. **07/08/YYYY:** Patient states he is noticing positive changes in balance and endurance. **07/11/YYYY:** Patient states he is "a little sore" from the progressed therex. Patient tolerates session well. Instructed regarding appropriate muscular response to increased activity. **07/15/YYYY:** Patient reports he continues to get better every day. Patient tolerates standing dynamic balance progression to foam pad with appropriate muscular recruitment and fatigue period. **07/18/YYYY:** Patient states quote I'm a little sore from the exercises but I feel good. But I feel good. Patient tolerates session well utilizing appropriate muscular recruitment and fatigue. **07/22/YYYY:** Patient states he continues to feel better. Though is more cautious and does not move as quote fast as he normally does. Patient tolerates introduction of supine core stabilization exercises with appropriate muscular recruitment and fatigue. Patient will continue to benefit from skilled physical therapy to address strength deficits in trunk, lower extremities full return to prior level of function. **Comment: The interim physical therapy visits are combined elaborating the initial and final evaluation to know the progress of the patient and to avoid repetition.*	
08/01/YYYY	Hospital/Provider	**Physical therapy discharge summary:** **Subjective:** Patient answered the door and agrees to PT session. Patient states that he has been doing HEP daily and feels that he is getting stronger. **Objective:** HEP: Seated hip abduction 5# 2x10; LAQ 5# 2x10; seated hip flx 5# 2x10; bilateral shoulder extension with t-band while in narrow staggered stance; supine trunk bracing with manual resistance from PT; reviewed LE stretching for proper technique; progressed HEP to include neutral spine training; LE marching from supine position while maintaining neutral spine; heel slides with one leg elevated and maintaining neutral spine.	291-292

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		Assessment: Patient continues to have decreased trunk strength and had difficulty finding neutral spine and required tactile cuing, decreased LE flexibility occasional left knee pain and muscle fatigue. Patient will require further skilled physical therapy to work on balance, safety, gait training, LE/trunk strengthening and stability which cannot be met with HEP alone. PT extension 2w6 for continued trunk and LE strengthening for improved stability and decreased risk of injury.	
08/06/YYYY	Hospital/Provider	**Physical therapy discharge summary:** **Subjective:** Patient answered the door and agrees to PT session. Patient states that he has been sore in his low back since starting the new exercises. **Objective:** HEP: Seated hip abduction 5# 2x10; LAQ 5# 2x10; reviewed LE stretching for proper technique; reviewed HEP neutral spine training; LE marching from supine position while maintaining neutral spine; heel slides with one leg elevated and maintaining neutral spine; added quadruped position maintaining neutral spine and performing hip extension; added "dead bug" from supine hook lying position with opposite arm and leg reaching while maintaining neutral spine. **Assessment:** Patient continues to have decreased trunk strength; requires postural cuing in standing; continues to have some difficulty finding neutral spine and required tactile cueing, improving LE flexibility, occasional left knee pain and muscle fatigue. Patient will require further skilled physical therapy to work on balance, safety, gait training, LE/trunk strengthening and stability which cannot be met with HEP alone.	293-294
08/08/YYYY	Hospital/Provider	**Physical therapy discharge summary:** **Subjective:** Patient answered the door and agrees to PT session. Patient states that he continues to have soreness in his low back since starting the new exercises. Patient states that he ordered ice pack as suggested at last session for low back. Patient reports 6/10 right knee pain today. **Objective:** HEP: Seated hip abduction 5# 2x10; LAQ 5# 2x10; manual LE stretching for improved flexibility; reviewed HEP neutral spine training; LE marching from supine position while maintaining neutral spine; heel slides with one leg elevated and maintaining neutral spine; quadruped position maintaining neutral spine and performing hip extension; "dead bug" from supine hook lying position with opposite arm and leg reaching while maintaining neutral spine; added: Horizontal shoulder flx with t-band resistance; wall angels while spine is maintaining contact on wall. Reviewed use of ice pack for pain control. **Assessment:** Patient continues to have trunk fatigue during HEP due to decreased strength; requires postural cuing in standing. Patient will require further skilled physical therapy to work on balance, safety, gait training, LE/trunk strengthening and stability which cannot be met with HEP alone.	295-296
08/13/YYYY	Hospital/Provider	**Physical therapy discharge summary:** **Subjective:** Patient answered the door and agrees to PT session. Patient reports low back soreness, but that he has been using the ice pack daily and continues to do	297-298

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		HEP. **Objective:** HEP: Seated hip abduction 5# 2x10; LAQ 5# 2x10; manual LE stretching for improved flexibility; reviewed HEP neutral spine training; bilateral shoulder extension with t-band while in narrow staggered stance; LE marching from supine position while maintaining neutral spine; heel slides with one leg elevated and maintaining neutral spine; quadruped position maintaining neutral spine and performing hip extension; "dead bug" from supine hook lying position with opposite arm and leg reaching while maintaining neutral spine; wall angels 1x10 while maintaining contact with wall. Added: Hip abduction from quadruped position 1x10. **Assessment:** Patient continues to have decreased trunk and hip strength low back pain and decreased LE flexibility. Patient will require further skilled physical therapy to work on balance, safety, gait training, LE/trunk strengthening and stability which cannot be met with HEP alone.	
08/15/YYYY	Hospital/Provider	**Physical therapy discharge summary:** **Subjective:** Patient answered the door and agrees to PT session. Patient reports that he continues to have low back soreness and has been using the ice pack daily. **Objective:** HEP: Seated hip abduction 5# 2x10; LAQ 5# 2x10; reviewed HEP neutral spine training; bilateral shoulder extension with t-band while in narrow staggered stance; quadruped position maintaining neutral spine and performing hip extension; "dead bug" from supine hook lying position with opposite arm and leg reaching while maintaining neutral spine; wall angels 1x10 while maintaining contact with wall; hip abduction from quadruped position 1x10. **Assessment:** Patient continues to have low back discomfort with increased activity, decreased trunk and hip strength and decreased LE flexibility. Patient will require further skilled physical therapy to work on balance, safety, gait training, LE/trunk strengthening and stability which cannot be met with HEP alone.	299-300
08/20/YYYY	Hospital/Provider	**Physical therapy:** **Subjective:** Patient answered the door and agrees to PT session. Patient reports increased soreness at low back. **Objective:** HEP: Seated hip abduction 5# 2x10; LAQ 5# 2x10; Held HEP during today's session due to increased LBP and advised patient to hold HEP until seen by PT on Thursday and to only perform daily walks and stretching. Manual treatment: LE stretching for improved flexibility and pain control. **Assessment:** Patient's HEP was adjusted and will be held until next PT visit. Patient continues to have LE tightness and LBP discomfort. Patient will require further skilled physical therapy to work on balance, safety, gait training, LE/trunk strengthening and stability which cannot be met with HEP alone.	301-302
08/23/YYYY	Hospital/Provider	**X-ray of lumbar spine:**	303-304

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		History: Patient with low back pain. Surgery 02/YYYY. Follow-up. **Comparison:** None available. **Findings:** **Alignment:** 1.6 cm anterolisthesis of L5 on SI. **Vertebral bodies:** Bilateral pedicle screws and rods as well as interbody spacers at IA-5 and L5-S1. The vertebral bodies are normal in height. There is no evidence of vertebral fracture. **Disc spaces:** Disc spaces are well maintained. **Pars:** No pars defects are identified. **Sacroiliac joints:** The sacroiliac joints appear unremarkable. **Soft tissues:** No soft tissue abnormality is appreciated. **Impression:** 1. Postoperative changes from L5 through S1. 2. Stable 1.6 cm anterolisthesis of L5 on SI.	
07/01/YYYY-09/03/YYYY	Hospital/Provider	**Interim occupational therapy visits:** **Treatment dates**: 07/01/YYYY, 07/02/YYYY, 07/08/YYYY, 07/09/YYYY, 07/15/YYYY, 07/16/YYYY, 07/30/YYYY, 08/05/YYYY, 08/06/YYYY, 08/12/YYYY, 08/18/YYYY, 08/19/YYYY, 08/20/YYYY, 09/02/YYYY, 09/03/YYYY **Admitting complaint:** Joint pain **Procedures**: Home exercise Body mechanics Safety techniques **07/01/YYYY:** *Illegible record* Patient agreeable for treatment. Patient demonstrates understanding of techniques taught/discussed. **07/02/YYYY:** *Illegible record* Patient agreeable for treatment. Motivated for treatment. Demonstrates understanding of techniques taught. **07/08/YYYY:** *Illegible record* Patient agreeable for treatment. Motivated to improve functions. Decreasing back pain with ___ task 20% this visit. **07/09/YYYY:** *Illegible record* Patient states he feels good energy today, agreeable for treatment. Demonstrates good understanding of techniques taught. ___ follow through of safety and back precautions.	305-320

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		07/15/YYYY: *Illegible record* Patient agreeable for treatment. States he feels good energy. Demonstrates improved follow through of back precautions for tasks ___ activity to improve balance. **07/16/YYYY:** *Illegible record* Patient agreeable for treatment. Making progress with OT goals. Improving 25% ADL/IADL performances. **07/30/YYYY:** Patient reporting stiffness and weakness resulting in impaired ADLs. Patient modified Barthel index score of 75 indicates minimal physical assist in self-care management and functional mobility continues to be required. **08/05/YYYY:** *Illegible record* Patient agreeable for treatment. Slightly sore in low back, no pain reported. Patient demonstrates good understanding of techniques taught. **08/06/YYYY:** *Illegible record* Patient agreeable for treatment. Good understanding of techniques taught. **08/12/YYYY:** *Illegible record* Patient agreeable for treatment. Good progress with ADL/IADL performance done with precautions. **08/18/YYYY:** *Illegible record* Patient agreeable for treatment. Demonstrates improved abilities for ___ tasks with safety and follow through ___ back precautions. **08/19/YYYY:** *Illegible record* Patient agreeable for treatment. Demonstrates understanding of techniques taught. Progress is made with safe performance of ADL/IADL tasks with precautions. **08/20/YYYY:** *Illegible record* Patient agreeable for treatment. States he's sore but feels great. Patient demonstrates improvement with standing/balance tolerance for a task. Pain level ___ was 0/10. **09/02/YYYY:** *Illegible record* Patient states he feels sore, agreeable for treatment. Patient demonstrates states good understanding of techniques taught. Progress made with goals. **09/03/YYYY:** *Illegible record* Patient agreeable for treatment. States he feels great. Good understanding/progress with OT goals, follow through with ADL/IADL tasks following back precautions. **Comment: The interim occupational therapy visits are combined elaborating the initial and final evaluation to know the progress of the patient and to avoid*	

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		repetition.	
08/22/YYYY-09/04/YYYY	Hospital/Provider	**Interim physical therapy visits:** **Treatment dates**: 08/22/YYYY, 08/26/YYYY, 08/30/YYYY, 09/04/YYYY **Admitting complaint:** Low back pain **Procedures**: HEP Manual treatment **08/22/YYYY:** Patient answered the door and agrees to PT session. Patient states that he held HEP, but continues to have soreness. Patient's HEP was adjusted in that he will only perform 3 exercises per day from the written program and one day of rest in between. Patient continues to have LE tightness and LBP discomfort. Patient will require further skilled physical therapy to work on balance, safety, gait training, LE/trunk strengthening and stability which cannot be met with HEP alone. **08/26/YYYY:** Patient states he continues to feel sore but has been modifying HEP as symptoms arise. Patient was educated regarding appropriate muscular response to increased activities. Patient was instructed regarding appropriate progressions to exercises in order to maximize strength, balance, endurance gains while avoiding exacerbation of soreness. Patient verbalizes understanding and demonstrates good carryover. **08/30/YYYY:** Patient states he has been feeling less sore since splitting HEP by day. Patient self-stretching regimen was reviewed for proper technique and progressions. Patient is able to perform safely and within limits. patient tolerates addition of supine theraband pull downs with no aggravation of symptoms. Also demonstrates appropriate muscular recruitment and fatigue. **09/04/YYYY:** Patient answered the door and agrees to PT session. Patient reports that he still has tightness/soreness at low back and only doing HEP every other day per PT request. Patient tolerated session with some difficulty maintaining neutral spine and hips elevated during LE marching while in a bridge. Patient continues to have LE tightness and LBP discomfort. Patient will require further skilled physical therapy to work on balance, safety, gait training, LE/trunk strengthening and stability which cannot be met with HEP alone. **Comment: The interim physical therapy visits are combined elaborating the initial and final evaluation to know the progress of the patient and to avoid repetition.*	321-328
09/06/YYYY	Hospital/Provider	**Physical therapy record:**	329-330

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		Subjective: Patient answered the door and agrees to PT session. Patient report that his discomfort has decreased but continues to have soreness and tightness. **Objective:** HEP: Seated hip abduction 5# 2x10; LAQ 5# 2x10; seated HS curls with t-band; added side lying hip abduction 1x10; reviewed fire hydrants from quadruped 1x10; LE marching from supine with hips and knees at 90 deg and maintaining neutral spine; wall angels 2x10. Manual treatment: LE stretching for improved flexibility and pain control; standing HS stretch with foot on step. Reviewed proper technique. **Assessment:** Patient has difficulty with maintaining contact with the wall and upright posture during wall angels. Patient continues to have LE tightness and LBP discomfort. Patient will require further skilled physical therapy to work on balance, safety, gait training, LE/trunk strengthening and stability which cannot be met with HEP alone.	
09/10/YYYY	Hospital/Provider	**Occupational therapy evaluation:** **Subjective:** Patient reporting stiffness and weakness resulting in impaired ADLs. **Objective:** Patient with continued complaints of pain and weakness resulting in self-care management deficits. Patient reports some improvement in ability to care for self safely with adaptations as needed. **Assessment:** Patient modified Barthel index score of 75 indicates minimal physical assist in self-care management and functional mobility continues to be required. **Home exercise plan:** Per plan as provided supplementally **Effective strategies used:** Verbal, visual and tactile cueing as needed **Plan for the next session:** Follow up RE ADL and HEP.	331-332
09/11/YYYY	Hospital/Provider	**Follow-up neurological spine consultation:** **Interim history:** The patient presents for follow-up for re-evaluation. The patient is status post lumbar fusion. **Current symptoms**: The patient doing physical therapy. The patient able to do some exercises around the house. Currently, he does not take any pain medications. **Physical examination:** A well-healed incision in the lower lumbar spine. There is mild discomfort to palpation in paraspinous muscles. *Otherwise unremarkable* *Diagnostics studies were reviewed* **Diagnosis:** 1. Postop lumbar fusion with improvement of radiculopathy. 2. The patient has residual back pain.	333

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		Discussion/plan: The patient will continue with physical therapy and increase activities as tolerated. The patient will be reevaluated in 3-4 months. We will discuss additional treatment options if indicated.	
07/05/YYYY-11/07/YYYY	Hospital/Provider	**Interim case management visits:** **Treatment dates**: 07/05/YYYY, 07/05/YYYY, 07/11/YYYY, 07/15/YYYY, 07/15/YYYY, 07/22/YYYY, 08/01/YYYY, 08/05/YYYY, 08/15/YYYY, 08/22/YYYY, 08/30/YYYY, 09/05/YYYY, 09/10/YYYY, 09/27/YYYY, 10/01/YYYY, 10/15/YYYY, 10/22/YYYY, 10/29/YYYY, 11/07/YYYY **Admitting complaint:** Low back pain Tightness in lower extremities (LE) Discomfort in lower back (LBP) **Procedures**: Standing three-way hip exercises Hamstring curls Upper body resistance band exercises Lateral walks with resistance band Standing and functional mobility activities Core strengthening exercises **07/05/YYYY:** Although patient has made significant progress towards his long-term goals, such as an improved Tinetti score and better balance during dynamic movements, he still faces some challenges. His lower trunk strength remains a concern, along with ongoing left knee pain and muscle fatigue. These issues affect his overall functional abilities, indicating the need for continued skilled physical therapy. The focus will be on enhancing his balance, ensuring safety, improving gait, and further strengthening his lower body and trunk. **07/05/YYYY:** Although patient has made significant progress towards his long-term goals, such as an improved Tinetti score and better balance during dynamic movements, he still faces some challenges. His lower trunk strength remains a concern, along with ongoing left knee pain and muscle fatigue. These issues affect his overall functional abilities, indicating the need for continued skilled physical therapy. The focus will be on enhancing his balance, ensuring safety, improving gait, and further strengthening his lower body and trunk. **07/11/YYYY:** Patient tolerates his therapy sessions well and has been educated on how his muscles should respond to increased activity. He has made some progress toward his long-term goals, including improvements in standing balance and stair navigation. However, he continues to require further skilled physical and occupational therapy to enhance his balance, safety, gait training, and overall strength, particularly in the lower extremities and trunk. Continued case	334-353

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		management is crucial to coordinate his therapy sessions and ensure that all aspects of his care are aligned with his overall rehabilitation plan. It is also important to monitor his progress closely and help him adjust his routine as needed to ensure continued improvement and reduce the risk of falls. The family should work closely with the case manager to coordinate patient's physical and occupational therapy sessions and address any additional needs that arise to ensure comprehensive care. **07/15/YYYY:** Patient has made notable progress, achieving 25% improvement in both ADL and instrumental activities of daily living (IADL) performance. He is 80% towards achieving independence with his home exercise program and has shown improvements in flexibility (30% progress) and lower extremity strength (25% progress). However, core stability and balance remain areas that require further attention, with only 20% and 25% of these goals met, respectively. Continued skilled physical therapy is necessary to address these ongoing challenges. **07/15/YYYY:** Patient has made notable progress, achieving 25% improvement in both ADL and instrumental activities of daily living (IADL) performance. He is 80% towards achieving independence with his home exercise program and has shown improvements in flexibility (30% progress) and lower extremity strength (25% progress). However, core stability and balance remain areas that require further attention, with only 20% and 25% of these goals met, respectively. Continued skilled physical therapy is necessary to address these ongoing challenges. **07/22/YYYY:** Patient is progressing but still requires skilled therapy for further work on balance, safety, and strengthening. He is currently limited by muscle fatigue but is expected to continue benefiting from ongoing therapy. Case management is actively coordinating patient's therapy schedule to ensure that treatment aligns with his current needs, adjusting as necessary to address symptom management and ensure optimal progress in his rehabilitation. **08/01/YYYY:** Patient's Barthel Index score of 75 indicates that he needs assistance with self-care. His therapy will focus on further improving his balance, safety, and strength. The case manager praises patient for his progress and maintains clear communication with him to coordinate appointments, ensuring that interventions are aligned with his current needs and goals. **08/05/YYYY:** Patient is diligently following a comprehensive home exercise program that targets both lower and upper body strength, flexibility, and core stability. While he is making progress, he still requires skilled physical therapy to further improve his balance, safety, gait training, and overall strength, as these goals cannot be fully achieved with the home exercises alone. His therapy also includes exercises aimed at reducing pain and improving his posture and mobility. However, he continues to need direct guidance and support from his therapy team to achieve these objectives.	

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		08/15/YYYY: Patient has made progress in completing daily tasks with improved safety and attention to back precautions. He follows instructions well and shows understanding of how to manage his symptoms during activities. While he is improving, he still requires skilled physical therapy to further address his balance, strength, and overall mobility. His therapy will continue to focus on strengthening his body, refining his posture, and ensuring he can perform daily tasks more safely and independently. **08/22/YYYY:** Physically, patient engaged in exercises that included leg stretches and hip-strengthening movements, which helped reduce pain and improve flexibility. Balance training has been a key focus, helping him safely navigate stairs. Cognitively, verbal instructions were provided to ensure Patient understood and used proper body movements during exercises. His exercise program was adjusted to reduce the number of exercises per day and allow more rest between sessions, preventing overexertion. These interventions are helping to increase his strength, balance, and independence while addressing his pain and mobility challenges. **08/30/YYYY:** Patient's progress has been steady. He is working hard on his exercises to improve his strength and balance, which is making daily movements, like walking and going up and down stairs, easier and safer for him. He has been guided on how to perform the exercises correctly and has been able to maintain the routine, even as his exercises become more challenging. This progress reflects his growing confidence and strength, both of which are helping him regain control over his mobility and independence. **09/05/YYYY:** This week, interventions focused on improving safety and balance during standing activities. Patient's home exercise program (HEP) included seated hip abduction, leg extensions, seated hamstring curls with theraband, side-lying hip abduction, and fire hydrants to enhance strength. Manual lower extremity (LE) stretching was also provided to improve flexibility and reduce pain. Additional exercises like standing hamstring stretches with the foot elevated and LE marching aimed to improve posture and core stability. Verbal instructions and demonstration cues ensured proper technique and safety. The case manager coordinated with all clinicians to schedule services around patient's availability, and the weekly schedule was provided to him. The plan of care will continue focusing on these areas in the next session. **09/10/YYYY:** This week, the focus was on improving safety and balance during standing activities. Patient's home exercise program (HEP) included exercises like seated hip abduction, leg extensions, seated hamstring curls with a resistance band, side-lying hip abduction, and fire hydrants to build strength. Manual stretching for his lower body was done to improve flexibility and reduce pain. He also practiced standing hamstring stretches with his foot elevated and LE marching to help with posture and core stability. Verbal instructions and demonstrations were given to	

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		ensure he used the right technique and stayed safe. The case manager worked with all clinicians to schedule services based on patient's availability, and the weekly schedule was sent to him. The plan of care will continue to focus on these areas in the next session. **09/27/YYYY:** Part of his rehabilitation includes balance training, which is crucial for preventing falls and maintaining stability while performing standing tasks or moving around. Improving balance is directly linked to enhancing his overall safety and independence. Patient demonstrates a strong commitment to his rehabilitation program. **10/01/YYYY:** Patient demonstrated a good understanding of the techniques being taught and showed progress in managing his daily tasks while adhering to necessary back precautions. He has been diligently attending his prescribed therapy sessions, displaying a strong determination to improve. Additionally, he is actively utilizing his home exercise program (HEP)and has expressed a keen interest in preventing further injuries through consistent use of these exercises. **10/15/YYYY:** Patient, has shown significant progress in his rehabilitation goals over the past six weeks. He has improved his balance, core strength, and mobility through dedicated exercises. Notably, he has successfully enhanced his ability to navigate stairs with improved balance and control, fully meeting his safety and stability objectives. To further his progress, patient is encouraged to participate in Neuropraxis' RebuildU program. This program will offer him the opportunity to learn more about brain injury and engage in cognitive exercises designed to improve mental functions. It also includes practical communication activities that can help him in everyday interactions. Participation in this program is expected to complement his current physical therapy by enhancing cognitive and communication skills. **10/22/YYYY:** Patient has reported feeling stronger and remains optimistic about his rehabilitation progress. He is diligently working on enhancing trunk stability, maintaining a neutral spine during home exercises, and improving his flexibility and standing tolerance, aimed at addressing lower back pain through physical therapy. His efforts are geared towards achieving better flexibility and decreased limb/trunk strength, with some objectives 80% accomplished and others making steady progress. Additionally, patient is striving for modified independence in activities of daily living (ADLs), aiming to reduce joint pain by 50% to enhance functional task performance. He is committed to improving his standing balance to good levels, utilizing ADL/IADL training, balance/safety training, and upper extremity strengthening. **10/29/YYYY:** Patient continues his daily walking regimen but still experiences soreness in his lower back. He is committed to his Home Exercise Program (HEP), aiming to	

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		improve trunk stability and maintain a neutral spine to enhance his flexibility, standing/walking tolerance, and dynamic balance. He understands that pacing himself and ensuring secure practice of exercises will promote recovery, and he agrees with the Plan of Care (POC) established to meet these goals, with a team goal focused on addressing his back pain, poor flexibility, and decreased limb/trunk strength through physical therapy. **11/07/YYYY:** Patient is actively participating in his home exercise program (HEP) and physical therapy (PT) to improve trunk stability and maintain neutral spine alignment, which has led to significant progress in his flexibility, standing/walking tolerance, and dynamic standing balance. He has been working towards reducing joint pain, enhancing safety and functional performance in activities of daily living (ADLs), and improving standing balance; discharge planning will be considered as he continues to meet his rehabilitation goals. **Comment: The interim case management visits are combined elaborating the initial and final evaluation to know the progress of the patient and to avoid repetition.*	
11/14/YYYY	Hospital/Provider	**Case management clinical interaction note:** **30-day goal:** Patient aims to achieve enhanced core stability and increased upper body strength, which will enable him to perform daily activities with greater ease and less discomfort. **Team goal:** The team will collaborate to provide comprehensive support for patient's rehabilitation, focusing on pain management, increased flexibility, and strengthening of both lower and upper extremities. **Rehabilitation progress:** Patient has successfully met all of his physical therapy goals. He has learned to independently follow his home exercise program and has significantly improved his flexibility, allowing for better movement and pain management. His strength in his legs has reached optimal levels, which helps him move more easily and without increased back pain. Patient can now walk for 30 minutes straight, and his core strength has greatly improved, contributing to better overall stability. Additionally, he has expanded his range of motion in his hips and can now use stairs more safely, minimizing his risk of falls. After reviewing his exercise program and safety measures, it is recommended that patient continues with his exercises on his own to maintain his physical improvements and ensure ongoing safety.	354
10/21/YYYY-11/15/YYYY	Hospital/Provider	**Neuropraxis team progress report:** **Diagnosis:** Mild traumatic brain injury **Date of injury**: 02/15/YYYY **Introduction**: Patient participated in the treatment of a comprehensive in-home and	355-359

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		community program with NeuroPraxis beginning on 06/26/YYYY. He received comprehensive and individualized treatment to improve his overall independence, higher independent living skills, functional mobility, safety in the home and community settings, and set-up of meaningful avocational activities. **Treatment summary and recommendations:** Patient has made substantial progress in physical therapy, successfully meeting several of his set goals. His ability to manage joint pain and enhance physical strength and endurance is evident in his improved capacity to perform daily tasks. Patient has achieved 80% of his goal for improving lower extremity strength, which has enhanced his ability to perform transfers and ambulate effectively. His hamstring flexibility has also increased to 80 degrees, contributing to better mobility and pain control during functional tasks. These improvements have significantly bolstered his independence and safety in daily activities. His progress reflects a focused and well-executed therapy regimen, which continues to address his physical impairments and build towards full functional independence. The continuation of a comprehensive in-home and community program can ensure improvement of overall safety, mobility, executive functioning, overall health and well-being, overall strength, endurance, and follow through of the use of strategies and therapeutic programs to maximize overall independence in basic activities of daily living, higher independent living skills, and home/community engagement. Therefore, taking into consideration the positive patient's progress with all his therapy services at NeuroPraxis, as well as his needs, the continuation of services for patient is recommended. **Expected discharge time frame of rehabilitation services:** We request continued rehabilitation services for an additional month of a Comprehensive in- home and Community Program with NeuroPraxis due to the severity of patient's physical and occupational deficits. The focus of treatment will be on improving physical health and memory and follow-through skills to establish and reinforce a daily/ weekly/monthly structure, improve community integration, remediation of deficits, translation of skills across functional tasks, set- up of adaptive techniques, emergency response, and improving the overall quality of life. The recommended discharge date of rehabilitation services is 06/26/YYYY. **Projected outcome and length of stay:** It is projected that upon completion of the Neuropraxis Community and Home program, patient will demonstrate decreased need for supervision to intermittent supervision level during functional independent living skills at home and supervision to safely access the community. This includes all basic activities of daily living, higher living skills and improving activity engagement for 4 to 6 hours a day at home and in the community. There is moderate evidence that specialized rehabilitation reduces the need for long-term support and increases long-term savings (Slaid, 2002). There is strong evidence that community-based rehabilitation, which includes Home and Community, improves productivity, reduces long-term supervision requirements, and decreases institutionalization (Klonoff, 2001; Malec, 2001; Sarajuuri, 2005). Further, community rehabilitation services compared to traditional outpatient	

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		services have shown favorable outcomes in terms of met needs and family functioning (Smith et al. 2006). Home-based interventions are effective and may alleviate any extra stress that accompanies attending support programs. Finally, it is imperative that caregivers be educated and made aware of available services prior to their loved one being discharged; this has been shown to help caregivers feel more prepared for the future (Bowen et al. 2001). Hopman et al. (2012) found that the type of rehabilitation program resulted in different improvements with in-home treatment showing greater productivity scores than transitional- living treatments. **Rehabilitation services received:** Patient is currently receiving the following services: Occupation Therapy, Physical Therapy and Case Management 3 days per week. It is recommended that he continue the comprehensive home and community program he participated in beginning on 06/26/YYYY. The goals identified during home and community rehabilitation with Neuropraxis include but were not limited to: improving overall independence and safety in higher living skills in home and community, physical wellness program, develop the skills necessary for self-direction, self- management, and self-advocacy: to develop a community support system for long-term social integration; to develop avocational and leisure activities; to identify avocational and leisure pursuits: prevention of complications and prevention of medical complications and reduction of future medical care: family/caregiver training: and to improve overall self-esteem through improved independence in daily home, community and functional tasks and to improve overall quality of life. **Therapeutic team updates:** **Physical:** Patient has been actively engaged in physical therapy to address his lower back pain, poor flexibility, and reduced trunk strength, which have notably impaired his daily functionality and mobility. Over the recent period, he has made substantial progress towards the set goals. Specifically, patient has demonstrated an 80% achievement in enhancing his lower extremity strength, crucial for better transfers and ambulation. Additionally, his hamstring flexibility has improved significantly, achieving up to 80 degrees of flexibility, which helps in mobility and alleviating pain during functional tasks. His balance has also improved to a good level, significantly enhancing his safety and independence in performing daily activities. The therapeutic interventions have been meticulously planned to target the impairments presented by patient. These include progressive resistance exercises aimed at strengthening both the upper and lower extremities, which are vital for his core stability and overall physical resilience. Activities such as passive stretching of bilateral lower extremities and supine heel tap in tabletop position have been employed to improve flexibility and control. This regimen is further supported by balance training exercises and enhanced Home Exercise Programs (HEP) tailored to his needs, focusing on ensuring safe and effective progression in physical capabilities. The objective is to continuously adapt these exercises to match	

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		patient's evolving capacity, ensuring optimal recovery and progression towards full physical independence. **Integrated living skills:** Patient has made encouraging strides in integrated living skills, emphasizing his growing independence and enhanced safety in daily functions. Over the past month, his therapy has successfully reduced his joint pain by 50%, greatly increasing his strength and endurance. This improvement has facilitated greater autonomy in Activities of Daily Living (ADLs), where patient has progressed towards demonstrating modified independence. His standing balance has also reached a good level, markedly boosting his safety and independence across various functional tasks, crucial for his overall quality of life. The therapeutic interventions for patient have been meticulously designed to reinforce his physical and functional capabilities, directly impacting his ability to perform integrated living skills. These interventions include targeted upper extremity exercises using 5 lb weights, therabands, and hand weights, all aimed at strengthening key muscle groups to support daily activities. Additionally, the therapy regimen incorporates ADL and Instrumental Activities of Daily Living (IADL)training, focusing on enhancing his safe execution of daily tasks through improved body mechanics and pain management. These strategies are vital in promoting patient's independence and ensuring a safer, more active participation in his home and community environments. The continuation of these focused efforts is planned to further improve his abilities and encourage sustainable progress in living a more integrated and independent life. I have reviewed and agreed to the treatment plan.	
12/11/YYYY	Hospital/Provider	**Clinical intake form**: *Illegible notes* **Chief complaint**: ___ **History**: ___ **Prescription**: Ac: ___	360

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		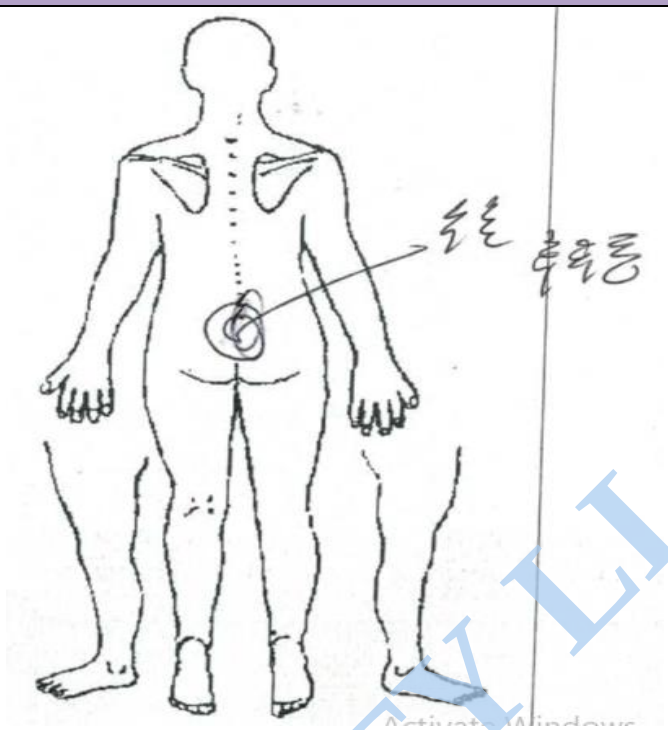	
02/13/YYYY	Hospital/Provider	**Pain medicine initial telemedicine consultation:** **History of present illness:** Patient presents for initial telemedicine pain medicine evaluation and consultation. He was a driver injured in an automobile accident on February 15, YYYY. **Accident**: Seatbelt: Yes Airbags: Did not deploy Impact: Front driver's side impact Accident location: Surface street Lost consciousness: Yes Notes: High impact accident in which his vehicle was totaled. Police and ambulance came to the scene of the accident. He went to the hospital immediately after the accident. Immediate pain after accident: Head, neck, low back, right lower extremity **Pain complaints:** **Pain complaint: Low back (aching, sharp pain, soreness)** Side: Midline Average pain score: 9/10 Frequency: Constant Radiating pain: Leg, thigh (aching, sharp pain, soreness) Radiating side: Left Improves with: Chiropractic and physiotherapy, physical therapy, stretching Worsens with: Flexion, extension	361-364

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		Pain complaint: Neck (aching, soreness) Side: Midline Average pain score: 8/10 (can get up to 10/10) Frequency: Constant Radiating pain: Shoulder, upper back (aching, soreness) Radiating side: Left greater than right Improves with: Chiropractic and physiotherapy, physical therapy, stretching Worsens with: Sitting and flexion, extension Headache frequency: Daily Headache duration: Typically lasting 2 hours Potential concussion/TBI symptoms: Dizziness, forgetfulness, difficulty concentrating, difficulty remembering **Pain complaint: Knee (sharp pain, shooting)** Side: Right Average pain score: 8/10 Frequency: Constant Improves with: Chiropractic and physiotherapy, physical therapy Worsens with: Walking, activity, and cold temperature **Pain complaint: Foot (aching, soreness)** Side: Right Average pain score: 8/10 Frequency: Constant Improves with: Chiropractic and physiotherapy, physical therapy Worsens with: Standing, movement, activity **Functional limitations:** Sleep: Difficulty both falling asleep and staying asleep due to pain Sitting: Feels the need to frequently change positions when sitting due to pain Standing: Can only stand for about 15 minutes before needing to change positions due to pain Walking: Can only walk for 15 minutes before pain becomes unbearable Lifting: Restricted by pain from lifting anything over 5 pounds Driving: Difficulty sitting in the car due to pain **Post-accident treatment history:** Anti-inflammatory medications: Acetaminophen Physicians consulted: Spine Surgeon Surgeries: Lumbar Spine Surgery Procedures: Cervical injections, lumbar injections Chiropractic and physiotherapy: 40 to 50 sessions Physical therapy: Greater than 50 sessions *Diagnostics studies were reviewed* **Diagnostic impression:** Cervical sprain & strain injury	

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		Cervicalgia Cervical disc disorder Lumbar sprain & strain injury Lumbago Lumbar post-laminectomy syndrome **Discussion:** I discussed the above with patient in detail. I recommend that he have an updated MR1 imaging of the lumbar spine after which we can follow-up for in person evaluation physical examination in order to discuss potential treatment options. Imaging orders: MRI - Lumbar spine (Non-Contrast, 1.5 Tesla) - MARS protocol (Metal Artifact Reduction Sequence) **Follow up:** He can continue with conservative care recommendations that we discussed during this visit and follow up after imaging for reevaluation.	
02/28/YYYY	Hospital/Provider	**MRI of lumbar spine without contrast:** **History:** Low back pain, prior surgery. Right lower extremity radiculopathy. **Comparison:** None available. **Findings:** Patient is post remote posterior spinal fusion and interbody fusion L4-Sl as well as laminectomies. Mild active osseous stress reactions along the L5-Sl endplates may signify pseudoarthrosis. CT imaging would offer further characterization. No evidence of lumbar spine fracture and vertebral body heights are normal. Intervertebral disc spaces are normal in signal and height. Endplates are intact. Thoracolumbar junction is intact. Lumbar lordosis is slightly exaggerated with a lumbar levocurvature. Anterior and middle columns are intact as well as the anterior and posterior longitudinal ligaments. No focal ligamentous disruption nor epidural fluid collection. Conus medullaris is at T12-Ll and visualized spinal cord and cauda equina nerve roots are normal. No evidence of an intradural or extradural mass. **L1-L2:** No focal disc herniation or spinal canal stenosis. Patent foramen. Mild facet arthropathy **L2-L3:** No focal disc herniation or spinal canal stenosis. Patent foramen. Mild facet arthropathy **L3-L4:** No focal disc herniation or spinal canal stenosis. Facet arthropathy encroaches upon the foramen resulting in mild bilateral foraminal narrowing. **L4-L5:** No spinal canal stenosis. Facet arthropathy encroaches upon the foramen resulting in mild to moderate right foraminal narrowing. **L5-S1:** No spinal canal stenosis. Residual facet arthropathy contributes to mild to moderate bilateral foraminal narrowing. Paraspinal muscle fatty atrophy postsurgical changes. Visualized soft tissues of the abdomen and pelvis are unremarkable. **Impression:** l. Prior posterior spinal fusion and interbody fusion L5-S1 with mild active osseous	365-366

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		stress reactions along the L5-S1 endplates which may signify pseudoarthrosis. CT imaging may offer further characterization. 2. No spinal canal stenosis at any level. 3. Facet arthropathy contributes to mild to moderate bilateral foraminal narrowing at L5-Sl and mild to moderate right foraminal narrowing at L4-L5.	
03/11/YYYY	Hospital/Provider	**Pain medicine follow-up consultation:** I evaluated patient in my office in Oakland, California on March 11, YYYY. 1 obtained the history, performed a physical examination, and reviewed pertinent/available imaging studies. The following are my findings and clinical recommendations. **History of present illness:** Patient presents for follow-up pain medicine evaluation and consultation. His last consultation was via telemedicine on February 13, YYYY. **Pain complaints:** **Pain complaint: Low back (aching, sharp pain, soreness)** Side: Midline Average pain score: 8/10 (can get up to 9/10) Frequency: Constant Radiating pain: Thigh (aching, sharp pain, soreness) Radiating side: right **Pain complaint: Neck (aching, soreness)** Side: Midline Average pain score: 8/10 (can get up to 10/10) Frequency: Constant Radiating pain: Shoulder, upper back (aching, soreness) Radiating side: Left greater than right Headache frequency: Several times per week Headache duration: Typically lasting 2 hours Potential concussion/TBI symptoms: Dizziness, forgetfulness, difficulty concentrating, difficulty remembering **Pain complaint: Knee (sharp pain, shooting, stiffness)** Side: Right Average pain score: 8/10 Frequency: Constant **Pain complaint: Foot (aching, soreness)** Side: Right Average pain score: 8/10 Frequency: More constant than intermittent *Diagnostic studies were reviewed.* **Physical exam:** **Cervical spine:**	367-370

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		Cervical range of motion: Decreased in rotation, left more than right, and in cervical extension secondary to pain. There is pain with cervical side bending left greater than right. **Palpation**: There is tenderness to palpation along the left more than right cervical paraspinal regions over the mid- cervical facets. There is increased tension of the cervical paraspinal muscles. **Lumbar spine:** **Range of motion:** Decreased in extension greater than flexion secondary to pain. **Palpation**: There is tenderness to palpation along the bilateral lumbar paravertebral regions over the lumbar facets. There is increased tension of bilateral quadratus lumborum muscle groups with straightening of the lumbar lordosis. *Otherwise unremarkable* *Diagnostics studies were reviewed* **Diagnostic impression:** Lumbar sprain & strain injury Lumbago Lumbar post-laminectomy syndrome Cervical sprain & strain injury Cervicalgia Cervical disc disorder Pain in right knee Pain in right ankle/foot Headache attributed to head and neck trauma **Discussion:** I discussed the above with patient in detail. He complains of midline low back pain with radiating features into the right thigh, and describes it as constant. The MRI of the Lumbar Spine is notable for postsurgical changes with interbody fusion at L4/S1, mild active osseous stress reactions along the L5/S1 endplates concerning for pseudoarthrosis, and L4/5 and L5/S1 facet arthropathy with associated neuroforaminal narrowing. The reading radiologist, Dr. Benjamin LeSar, did note that (IT imaging may be warranted to better visualize the osseus stress reactions and I agree that this imaging would be valuable to evaluate for potential pseudoarthrosis. The low back pain is likely multifactorial in nature, with components of facet-mediated pain, pain from intraspinal elements, and lumbar post-laminectomy syndrome, among others. **Imaging orders:** CT Scan - lumbar spine **Follow up:** He can continue with conservative care recommendations that we discussed during this visit and follow up after imaging for reevaluation.	
03/14/YYYY	Hospital/Provider	**CT of lumbar spine without contrast:** **History:** Post-laminectomy syndrome. **Comparison:** MRI dated 02/28/YYYY.	371-372

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		Findings: There is no evidence of acute fracture. The vertebral body heights are well-maintained. There are surgical changes with fusion extending from L4 into S1. Hardware is intact and in an appropriate position. No hardware fracture or middle ear is noted. Interbody fusion material is noted to be in place at L4-L5 and L5-S1. There is an anterolisthesis of L5 on Sl. This measures approximately 10 mm. The alignment is otherwise appropriate. The visible soft tissue structures are unremarkable. **L5-S1:** Surgical changes noted at this level. Dorsal thecal space is compressed by laminectomy. No significant central canal stenosis. There is mild bilateral neural foraminal stenosis. **L4-L5:** Surgical changes are noted this level. There is osseous spurring off the endplates facet arthropathy without significant central canal or neural foraminal stenosis. **L3-L4:** The disc, central canal, and neural foramina are unremarkable. Facet joints are unremarkable. **L2-L3:** The disc, central canal, and neural foramina are unremarkable. Facet joints are unremarkable. **L1-L2:** The disc, central canal, and neural foramina are unremarkable. Facet joints are unremarkable. **T12-L1:** The disc, central canal, and neural foramina are unremarkable. Facet joints are unremarkable. **Impression:** Postoperative changes lumbar spine as discussed in detail above. Hardware is grossly appropriate position and intact without fracture, loosening or definitive infection.	
03/18/YYYY	Hospital/Provider	**Pain medicine follow-up telemedicine consultation:** I evaluated patient on March 18, YYYY. I obtained the history and reviewed pertinent/available imaging studies. The following are my findings and clinical recommendations. **History of present illness:** Patient presents for follow-up telemedicine pain medicine evaluation and consultation. His last consultation was on March 11, YYYY. **Pain complaints:** **Pain complaint: Low back (aching, sharp pain, soreness)** Side: Midline Average pain score: 6/10Frequency: constant Radiating pain: Thigh (aching, sharp pain, soreness) Radiating side: Right **Pain complaint: Neck (aching, soreness)** Side: Midline Average pain score: 6/10 Frequency: Constant Radiating pain: Shoulder, upper back (aching, soreness) Radiating side: Left greater than right	373-376

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		Pain complaint: Knee (sharp pain, shooting, stiffness) Side: Right Average pain score: 8/10 Frequency: Constant **Pain complaint: Foot (aching, soreness)** Side: Right Average pain score: 8/10 Frequency: More constant than intermittent *Diagnostics studies were reviewed* **Diagnostic impression:** Lumbar sprain & strain injury Lumbago Lumbar post-laminectomy syndrome Cervical sprain & strain injury Cervicalgia Cervical disc disorder Pain in right knee Pain in right ankle/foot Headache attributed to head and neck trauma **Discussion:** I discussed the above with patient in detail. The CT Scan of the lumbar spine was notable for postoperative changes, and no evidence of malposition, fractures, or loosening of the hardware, and was reassuring for no pseudoarthrosis. I discussed with him treatment options including physical therapy, medication management, cognitive behavioral therapy, trial of neuromodulation therapy, peripheral nerve stimulation (PNS), other pain interventions, and repeat. **Procedure recommendation:** Given the symptoms patient is experiencing, the amount of time that has elapsed since onset, and the lack of improvement thus far with conservative management and other interventional treatments, considered in conjunction with the prior physical exam, available imaging, and history, I am recommending a trial of high frequency spinal cord stimulation. The Nevro High-Frequency spinal cord stimulator is indicated for the management of chronic intractable pain of the trunk and/or limbs, including pain associated with post-laminectomy syndrome, and chronic intractable pain of the low back and/or lower extremities. During the trial period, Patient will be implanted with 2 temporary spinal cord stimulator leads for typically 4 to 7 days, after which the lead will be removed in the office. Patient will require certain laboratory and medical tests prior to this procedure, as well as psychological clearance. If he experiences greater than 50% pain and symptom relief during the trial period, then he would be a candidate for a permanent implantation of the spinal cord stimulator system. This procedure would involve two surgical incisions, one midline over the spine where the lead anchored, and a second flank incision site where the device is inserted into a surgical pocket and the lead tunneled and attached. I believe that this course of	

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		treatment is likely to significantly alleviate Patient's symptoms. I discussed with him the risks, benefits, alternatives and possible complications of this procedure in great detail, as well as how this device works and why I believe he is likely to benefit from high-frequency spinal cord stimulation, and he elected to proceed. We will schedule him for this after he completes the necessary clearances. **Prescriptions**: Keflex (500 mg), two tablets every 12 hours for 10 days (#40) I discussed with him the risks and potential benefits of this medication therapy, including medication side effect profile, and he elected to proceed. **Referrals**: Physical therapy: Twice per week (4 weeks) I am prescribing physical therapy evaluation and treatments twice per week for 4 weeks for spinal reconditioning, which should include spinal stabilization, range of motion active and active-assisted exercises, neuromuscular reeducation, kinetic activities, and therapeutic exercises, and instruction of these exercises to be performed at home, and, as appropriate, other typical modalities used in physical therapy (manual therapy, ultrasound, TENS, etc). **Psychological evaluation:** I am referring Patient for psychological evaluation regarding his candidacy for a spinal cord stimulator for neuromodulation therapy. **Primary care physician:** I am referring Patient to a primary care physician for pre-operative evaluation and clearance, including bloodwork and EKG. **Follow up:** He can continue with conservative care recommendations that we discussed during this visit and follow up after stimulator trial for reevaluation and lead removal.	
04/09/YYYY	Hospital/Provider	**Psychological screening for spinal stimulator trial and implantation:** Patient was evaluated on 04/09/YYYY via telemedicine as a psychological screening for a spinal stimulator for chronic pain due to an automobile accident on 02/15/YYYY. The following is from his self-report during the interview. On 02/15/YYYY patient was going to his grandmother's to return tupperware. He was going through an intersection on a green light, a woman turned in front of him and stopped, cut him off, he T-boned her. His car was totaled. Unfortunately, his car had just been" fixed to a T", a special model Mercedes. He reported "the accident changed my life." "I didn't know what to think." He hit his head somewhere during the impact. His knee, his foot was hit, his body twisted. He felt dizzy and "out of it" for a few minutes. Then his leg started to hurt as well as his right knee and his right foot. A few days later his back pain in the low and mid regions increased as well as headache. Patient does not like to take medications. He did chiropractic, physical therapy, injections. Relief was only temporary. He had low back surgery, "they put in a lot of hardware." Since the surgery he has no actual pain, but still discomfort and stiffness. He is still improving but very slowly. Discomfort is variable. He can't sit	377-378

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		or stand for long, he has to change his position often. He takes a walk daily. Does other exercise. He takes no medications. Patient used to exercise, work out, lift weights. Now he does not do much. His main profession was fixing up cars, buying and selling. He can't do this anymore; it is too physical due to his pain. He wants to get back to a normal health. His main concern is his health and his back. During the interview patient's appearance was neat and casual, his speech was normal, eye contact was normal, motor activity was somewhat restless perhaps due to the pain. Affect was full. His mood appeared euthymic. He had no impairment in orientation, his memory was intact. Attention was normal. There were no hallucinations nor other perceptive problems in evidence. He had no evidence of suicidality, homicidality, nor delusions. His behavior was cooperative and friendly. Insight and judgment appeared good. Based on the information gathered during his evaluation there is no evidence indicating patient should not undergo the spinal stimulator trial and implantation. He is approved for both procedures.	
04/16/YYYY	Hospital/Provider	**EKG**: Sinus rhythm Nonspecific T-wave abnormality Borderline ECG	379-380
04/17/YYYY	Hospital/Provider	**Rubidium PET myocardial perfusion study:** **History:** Borderline resting EKG, HTN, smoker, FHx DM/HTN c/o heartburn. For preop CAD evaluation. **Procedure:** A resting myocardial PET study was performed following the intravenous injection of approx. 40 mCi of Rubidium-82. For the stress portion of the study, the patient was given an intravenous pharmacologic stress agent, and the patient's heart rate, blood pressure, and EKG were continuously monitored, and will be reported separately. At peak stress, the patient was given an injection of approx. 40 mCi of Rubidium-82. Post- stress PET images were acquired using a GE 64-slice PET-CT system. Both rest and post-stress images were compared for the qualitative and quantitative evaluation of left ventricular perfusion and thickness, ejection fraction, and wall motion. **Findings:** Left ventricle appears normal for size. There is no evidence for inducible chamber dilation with stress. PET stress/rest comparison images demonstrate relatively uniform and homogeneous perfusion. Minor apical thinning, thought to be physiologic. No definite myocardial perfusion defects identified in the left ventricular myocardium. Gated PET imaging demonstrates good left ventricular contractility and wall motion. Calculated left ventricular ejection fraction of 58%.	381

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		Impression: 1. No convincing reversible or fixed perfusion defects to suggest underlying stress-induced Ischemia or prior myocardial wall infarction. 2. Normal left ventricular size with good overall left ventricular contractility and wall motion. Normal estimated left ventricular ejection fraction of 58%.	
04/17/YYYY	Hospital/Provider	**Echocardiography:** **Indication:** Hypertension. **Impression:** 1. There is no chamber enlargement. 2. There is no hypertrophy of the left ventricle. No dilatation of the left ventricle is seen. 3. The global ejection fraction is 50-55% +4%. This is borderline low systolic function of the left ventricle. 4. No significant valvular stenosis is noted. 5. Normal sized right ventricle with normal function is seen. 6. No pericardial effusion is identified. **Disclaimer:** The findings and conclusions presented in this report are interpreted upon the images and the normal ranges provided by the imaging facility in the tech sheet.	382-384
04/19/YYYY	Hospital/Provider	**Office visit for preoperative medical clearance:** **History of present illness:** Patient is being seen for a preoperative medical clearance. The patient will be undergoing a spinal cord stimulator trial and implantation. Currently, the patient denies any chest pain, shortness of breath, chest palpitations, or syncope. The patient is able to ambulate one to two miles or climb to two flights of steps without any chest pain, syncope, shortness of breath, dizziness, or chest pain. The patient endorses having chronic pain. He also has chronic headaches since the motor vehicle accident. **Review of systems:** **Neuro**: Chronic headaches. **Musculoskeletal**: Chronic pain. *Otherwise unremarkable* **Physical exam:** *Remains unremarkable* *Diagnostics studies were reviewed* **Assessment:** Patient who is scheduled for a spinal cord stimulator trial and implantation. The patient presents to our clinic for a preoperative medical clearance. The patient has excellent functional capacity, has no cardiopulmonary complaints. His physical examination shows no acute concerns or findings. EKG shows sinus	385-392

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		rhythm with nonspecific T-wave abnormality, and his QRS are slightly elevated. Smoking cessation educated and advised to the patient. He just started smoking about a year ago. Stress test shows no reversible or fixed defects, normal EF. Echo shows EF of 50-55% borderline low systolic function of the left ventricle, no other concerns. Results d/w patient, we will email results to him to follow up with his PCP in 3 to 4 weeks. We will email his results to show to his PCP. Labs show protenuria. He has been educated to get repeat UA in 3 to 4 weeks with PCP. Labs show patient has prediabetes. Lifestyle change, weight reduction, diet change, educated a patient. He is educated to follow PCP in 3 to 4 weeks. He understands the recommendations and has no questions. **Plan**: At the moment, patient is medically stable for surgery. Patient's Labs , EKG, Echo, Stress test reviewed, no acute concerns.	
04/22/YYYY	Hospital/Provider	**Operative report for insertion of two HFX high-frequency spinal cord stimulator trial leads:** **Pre-procedure and post procedure diagnosis:** Lumbar post-laminectomy syndrome **Procedure:** 1. Insertion of two HFX high-frequency spinal cord stimulator trial leads 2. Fluoroscopic needle guidance 3. Neurostimulator programming and analysis **Anesthesiologist**: Jay Roby, M.D. **Anesthesia**: MAC **Technique**: After discussion of the risks, benefits, and alternatives, patient elected to proceed. He was brought to the operating room and placed in prone position under MAC anesthesia. The patient was propped and draped in the usual sterile fashion and received prophylactic IV antibiotics. Routine vital sign monitors were applied. The T12/L1 interlaminar space was determined using fluoroscopy. Local anesthetic was given by raising a skin wheal and going down to the hub of a 27-gauge 1.25-inch needle. A 23-gauge 3.5-inch needle was used to anesthetize down to just short of the ligamentum flavum to be entered. A 14-gauge Tuohy needle was then advanced to contact the left 1.1 lamina. It was walked off in a superior medial direction until it entered the epidural space using loss of resistance to saline technique. A Nevro spinal cord stimulator trial lead was advanced through the Tuohy needle and directed to rest the tip at the top of the T8 vertebral body. The same procedure was repeated for the right side to insert a second lead within	393-394

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		the epidural space to reside adjacent to the first lead, with the tip at the top of the T9 vertebral body. The needles were withdrawn intact, the patient's back was cleansed, leaving the leads in place, which were then secured to the patient's skin using mastisol, StayFix, sterile gauze and Medipore Tape. Patient tolerated the procedure well and the procedure was completed without complications. He was taken to the PACU and recovered. Stimulation programming and testing of the device was performed in the PACL by the device representative under my supervision. Patient was given post-procedure and discharge instructions to follow at home, including specific instructions about antibiotics to be taken during the duration of the trial. He was discharged in stable condition. A follow-up appointment was made. **Estimated blood loss:** Less than 10 mL **Complications**: None	
04/28/YYYY	Hospital/Provider	**Pain medicine follow-up consultation:** I evaluated patient in my office in Oakland, California on April 28, YYYY. I obtained the history, performed a physical examination, and reviewed pertinent/available imaging studies. The following are my findings and clinical recommendations. **History of present illness:** Patient presents for follow-up pain medicine evaluation and consultation. He underwent trial implantation of a Nevro High-Frequency Spinal Cord Stimulator with Dr. XXXX on April 22, YYYY, and now presents for scheduled removal of the trial leads. Overall, he did not notice a significant difference from the stimulator. **Improvement of pain symptoms dining stimulator trial:** 0% **Pain complaints:** **Pain complaint: Low back (aching, sharp pain, soreness)** Side: Midline Average pain score: 7/10 Frequency: Constant **Pain complaint: Knee (sharp pain, shooting, stiffness)** Side: Right Average pain score: 8/10 Frequency: Constant **Pain complaint: Foot (aching, soreness)**	395-397

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		Side: Right Average pain score: 8/10 Frequency: More constant than intermittent **Pain complaint: Neck (aching, soreness)** Side: Midline Average pain score: 5/10 Frequency: Constant Radiating pain: Shoulder, upper back (aching, soreness) Radiating side: Left greater than right *Diagnostics studies were reviewed* **Physical exam:** The spinal cord stimulator leads were removed with tips intact. The skin was cleansed with ChloraPrep. The lead puncture sites were covered with bacitracin and sterile dressing. There was no discharge, edema, erythema, or any other signs of infectious processes. *Otherwise unremarkable* **Diagnostic impression:** Lumbar sprain & strain injury Lumbago Lumbar post-laminectomy syndrome Cervical sprain & strain injury Cervicalgia Cervical disc disorder Pain in right knee Pain in right ankle/foot **Discussion:** I discussed the above with patient in detail. He did not experience meaningful improvement in pain or function with trial of neuromodulation. I recommend he follow up with Dr. XXXX to further discuss treatment options. A Nevro clinical representative was present during this visit to assist with stimulator interrogation, under my supervision. **Follow up:** He can follow up with Dr. XXXX for reevaluation.	
05/08/YYYY	Hospital/Provider	**Pain medicine follow-up telemedicine consultation:** I evaluated patient on May 8, YYYY. I obtained the history and reviewed pertinent/available imaging studies. The following are my findings and clinical recommendations. **History of present illness:** Patient presents for follow-up telemedicine pain medicine evaluation and consultation. His last consultation was on April 28, YYYY **Pain complaints:** **Pain complaint: Low back (aching, sharp pain, soreness)** Side: Midline	398-400

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		Average pain score: 9/10 Frequency: Constant Radiating pain: Leg (aching, sharp pain, soreness) Radiating side: Right **Pain complaint: Neck (aching, soreness)** Side: Midline Average pain score: 3/10 (can get up to 4/10) Frequency: More constant than intermittent Radiating pain: Shoulder, upper back (aching, soreness) Radiating side: Left greater than right **Pain complaint: Knee (sharp pain, shooting, stiffness)** Side: Right Average pain score: 9/10 Frequency: Constant **Pain complaint: Foot (aching, soreness)** Side: Right Average pain score: 5/10 (can get up to 8/10) Frequency: More constant than intermittent **Diagnostic impression:** Lumbar sprain & strain injury Lumbago Lumbar post-laminectomy syndrome Cervical sprain & strain injury Cervicalgia Cervical disc disorder Pain in right knee Pain in right ankle/foot **Discussion:** I discussed the above with patient in detail. He did not experience meaningful improvement of the low back pain with neuromodulation therapy. I have again reviewed the lumbar spine MRI. The lack of improvement with neuromodulation therapy increases the likelihood that a significant component of the low back pain is vertebrogenic in nature. For patients with suspected vertebrogenic pain, the Intracept Procedure (basivertebral nerve ablation) is typically recommended as an effective, minimally-invasive treatment option; however, given the fact that he underwent posterior interbody fusion at bilateral L4/5 and L5/S1, he is unfortunately not a suitable candidate for this procedure. I discussed other options with him, including physical therapy and medication management. He would like some time to consider his options regarding the low back pain. The right knee pain remains significant, and it continues to interfere with his activity patterns. I recommend MRI imaging of the right knee for further	

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		evaluation. **Imaging orders**: MRI - Right Knee (Non-Contrast, 1.5 Tesla) **Follow up:** He can continue with conservative care recommendations that we discussed during this visit and follow up after imaging for reevaluation.	
05/10/YYYY	Hospital/Provider	**Acupuncture record:** **Diagnosis:** Low back pain **Subject:** Medical narrative and finding Below is a report for professional services rendered to patient at my clinic in Sacramento for the period of 12/20/YYYY to 12/20/YYYY. **Chief complaint:** Lower back pain. **Physical exam:** Examination revealed the patient has lower back pain. The patient had spinal fusion surgery on his lower back because of the accident. He has discomfort and a feeling of heaviness in his lower back. *Otherwise unremarkable* **Treatment:** Insertion and manipulation of acupuncture needles in the areas with pain, stiffness and affected meridians to help cure the patient. Applied electro-acupuncture or acupuncture to point locations at BL23, 25, 26, 27, 40, 60, 67 ST36, LI1, B7, SI2, 3, GB34, on both sides of the body, yao tong xue and various other general points. Suction cups, infrared therapy was applied to needed areas to help the patient. **Discussion:** After the initial examination, the patient was advised to participate in a treatment program aimed at relieving pain and stiffness in his lower back, along with his feelings of discomfort and heaviness. The patient was also advised to avoid strenuous physical activity that could cause more pain due to the injury, and to use hot packs along with the treatment to relieve pain after each session. Regular attendance was emphasized to maximize the benefits of the treatment. Attached are the current itemized statement of the treatment program. Should there be further questions regarding his current medical report, contact us. Thank you for your cooperation.	401-402
05/27/YYYY	Hospital/Provider	**MRI of right knee without contrast:** **History:** Knee pain, clicking **Comparison:** None available. **Findings:** **Menisci:** There is irregular surface fraying of the medial meniscus with extension to the inner margin consistent with a nondisplaced tear, otherwise the medial meniscus is normal in signal and morphology. The lateral meniscus is normal in	403-405

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		signal and morphology. **Joint spaces/cartilage:** The joint spaces are preserved and the articular cartilage is maintained. No evidence of chondral or osteochondral lesions. **Ligaments:** The anterior cruciate ligament is of unremarkable signal and morphology The posterior cruciate ligament is of unremarkable signal and morphology. The medial collateral ligamentous complex is intact. The iliotibial band, biceps femoris tendon, fibular collateral ligament and popliteus muscle and tendon are intact. **Patella-and patellofemoral joint:** The quadriceps and patellar tendons are intact and unremarkable in morphology. The patellar cartilage is preserved, no evidence of chondral or osteochondral defects. The patellar retinacula are normal in appearance. No evidence of suprapatellar effusion. **Osseous structures:** The bone marrow signal is unremarkable. No evidence of frank fracture. **Joint fluid/bursa:** There is no joint effusion. **Periarticular soft tissues:** Visualized soft tissues, musculature, and vasculature appear normal in signal intensity. There is no popliteal cyst. **Other:** None. **Impression:** Undersurface tear of the medial meniscus, otherwise unremarkable MRI of the knee.	
06/04/YYYY	Hospital/Provider	**Pain medicine follow up telemedicine consultation:** I evaluated patient on June 4, YYYY. I obtained history and reviewed pertinent/available imaging studies. The following are my findings and clinical recommendations. **History of present illness:** Patient presents for follow-up telemedicine pain medicine evaluation and consultation. His last consultation was via telemedicine on May 8, YYYY. **Pain complaints:** **Pain complaint:** Knee (sharp pain, shooting, stiffness) **Side:** Right **Average pain score:** 9/10 **Frequency:** More constant than intermittent **Pain complaint:** Low back (aching, sharp pain, soreness) **Side:** Midline **Average pain score:** 8/10 **Frequency:** Constant **Radiating pain:** Leg (aching, sharp pain, soreness) **Radiating side:** Right **Pain complaint:** foot (aching, soreness) **Side:** Right **Average pain score:** 5/10 (can get up to 8/10) **Frequency:** More constant than intermittent **Pain complaint:** Neck (soreness) **Side:** Midline **Average pain score:** 3/10 (can get up to 9/10) **Frequency:** More constant than intermittent	406-408

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		Radiating pain: Shoulder, upper back (soreness) **Radiating side:** Left greater than right *Diagnostic studies were reviewed.* **Diagnostic impression:** Cervical sprain and strain injury Cervicalgia Cervical disc disorder Lumbar sprain and strain injury Lumbago Lumbar post-laminectomy syndrome Pain in right knee Pain in right ankle/foot **Discussion:** I discussed the above with patient in detail. He continues to describe significant right knee pain, which causes him difficulty with walking, standing, and more. The right knee MRI is notable for undersurface tear of the medial meniscus. At this time, I recommend orthopedic surgical consultation for further evaluation of the right knee pain. **Referrals:** **Orthopedic surgery:** I am referring patient for orthopedic surgical evaluation of the right knee symptomatology. **Follow up:** He can continue with conservative care recommendations that we discussed during this visit and follow up after completing the recommended consultations.	
07/01/YYYY	Hospital/Provider	**Orthopedic consultation report:** **Chief complaint:** Right knee pain. **History of present illness:** Patient who was involved in a motor vehicle collision on 02/15/YYYY. The patient was the belted driver at the time of the collision. He has since had right knee pain and discomfort since. The patient has had chiropractic treatment, physical therapy, and pain management treatment with subsequent surgery of his spine in Fresno, California by Dr. XXXX. The patient, since recovering from spine surgery, is still having some right knee pain and discomfort, which previous to his injuries, did not have any problems with. The patient is here today due to the fact he has an MRI that shows a medial meniscus tear from 05/27/YYYY. **Physical exam:** **Examination of the right knee:** Right knee shows tenderness in the medial joint line. Positive McMurray's sign. There is a trace effusion present in his right knee. He walks with an antalgic gait present. *Otherwise unremarkable* **Assessment:** Right knee medial meniscus tear.	409-410

DATE	FACILITY/ PROVIDER	MEDICAL EVENTS	PDF REF
		Treatment plan: It is my belief that the patient would benefit from a right knee arthroscopy with partial meniscectomy with surgery as needed, including possible chondroplasty and synovectomy with a diagnostic arthroscopy. It is hope that resolving the patient's knee symptoms may also help his spine pain as he is walking with an antalgic and imbalanced gait. We will plan to proceed with this. We also discussed the possibility of proceeding postoperatively with a bone marrow aspirate concentrate injection in the future four to six weeks after surgery to help improve the patient's cartilage healing. This was discussed in detail, and the patient was given some literature about this.	

Other records:

Anesthesia Record, Assessment, Blank Pages, Correspondence, Cover Pages, Fax Sheets, Labs, Medical Bills, Orders, Patient Information, Referral Report, Telephone Conversation

Multiple providers

PDF REF: 417-496

**Comment: All the significant details are included in the chronology. These records have been reviewed and do not contain any significant information. Hence not elaborated.*

**Reviewer's comment: Further records are not available for review.*