

Doctors Med-Legal Consulting LLC

214-807-1178

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September 13, 2022

Tom Smith, J.D.
Law Office of Tom Smith, P.C.
123 Main Street
Dallas, TX 75246

Re: PP

Dear Mr. Smith,

I have reviewed the medical records you provided concerning your client PP. This report will clarify Ms. PP's injuries because of the August 6, 2021, auto crash. I will also comment on her future medical care & costs. PP is 21 years old.

Records Reviewed:

Traffic Accident Report-Parker Police Department-8-06-21

Augustine Hospital-Emergency Department-8-06-21

Romulus Hospital-Emergency Department-8-07-21

Romulus Hospital-Emergency Department-1-12-21

Westside Orthopedic Center PC-8-09-21 to 8-10-21

Neurorehabilitation Services, PC-11-11-21 to 4-15-22

S. M. W., DDS-10-4-21 to 6-2-22

Neuropsychological Partners, PC-11-1-21 to 5-15-22

E. M., O.D.-12-5-21 to 5-1-22

Southwestern State University-Resources for Disabled Students 12-6-21

Rafael Hospital Anesthesia Center 8-11-21

Rafael Hospital Surgery Center 8-11-21

Brief History of Events

As you know, on August 6, 2021, PP was a properly restrained front passenger of her vehicle, a 2016 Subaru Outback. PP's car was proceeding forward with a green light. The offending vehicle, a 2015 Cadillac Escalade, made a left turn against a red light and PP's car crashed into the front driver's side of the offending vehicle. It should be noted her airbag did deploy. The right side of PP's face and head struck the air bag. PP reports a brief loss of consciousness and post-traumatic amnesia. It is estimated that that PP's car crashed going approximately 45 mph. The car in which PP traveled was totaled. Immediately after gaining consciousness PP reported being "dazed and confused" documented by first responders.

PP also immediately complained of right wrist pain. PP reports she vaguely remembers having stuck out her right arm to break her momentum and clearly remembers experiencing sharp right wrist pain as her hand and arm hit the dashboard. The impact caused PP's wrist to be "shattered." PP was subsequently diagnosed with a severe comminuted (a fracture in which a bone is broken, splintered, or crushed into several pieces) fracture of the right distal radius with fracture line extension into the radiocarpal joint (wrist joint).

PP was transported by ambulance to Augustine Hospital and seen in the Emergency Department. Initially, PP complained of dizziness. PP was diagnosed with "closed head injury" and "neck strain." In addition, as noted above she was also diagnosed with a right wrist fracture.

The following day, August 7, 2021, PP returned to Augustine Hospital Emergency Department complaining of bi-temporal headache, dizziness, intermittent neck pain, nausea and vomiting. She also complained of ongoing right wrist and hand pain. PP left with a diagnosis of "closed head injury" and was to also follow up with Westside Orthopedic Center regarding her fractured right wrist.

Ongoing Medical Problems

It is my opinion to a reasonable degree of medical probability as a direct consequence of the August 6, 2021, auto crash PP has been left with several ongoing medical problems which are outlined below

Traumatic Brain Injury

1. Cognitive Deficits

PP now complains of several ongoing cognitive deficits. She complains of immediate & recent memory loss, concentration & attention difficulty and rapid mental fatigue in which she "spaces out." She also has difficulty with word finding, difficulty learning new material, difficulty retaining new material, decreased coordination, difficulty processing written & verbal information, decreased ability in reading and spelling, easy distractibility, inability to multi-task, inability to organize thoughts & activities and a significant loss of math skills. PP feels that her loss of short-term memory affects her in most of her everyday activities and has disrupted just about every activity that she "used to take for granted."

PP also reports the onset of difficulty falling and staying asleep since the auto crash. Her sleep disturbance has persisted.

PP was forced to change her major in college and drop her plans to major in finance. In fact, she was deemed disabled by her school, Colorado Southwestern State University.

PP has experienced the deficits outlined above for just over one year now since the accident. She reports no improvement in these cognitive problems over time. She is involved in Neuro-Psychological Rehabilitation to learn compensatory strategies to improve overall cognitive functioning. This kind of rehabilitation does not “cure” cognitive deficits, it does help teach the cognitively impaired person to compensate with strategies known to reduce the effects of the brain injury.

It is my opinion to a reasonable degree of medical probability PP suffered a Mild Traumatic Brain Injury and subsequent Post-Concussion Syndrome as a direct result of the August 6, 2021, auto crash.

Given over one year has passed since the crash, it is my opinion to a reasonable degree of medical probability that PP’s cognitive problems from her Traumatic Brain Injury secondary to the auto crash are permanent.

Mechanism of Injury

The mechanism of action of injury is that when a person has a whiplash event or directly hits their head, there is a coup/contacoup event in which the brain moves back and forward inside of the skull with enough force to cause shearing of the brain’s nerve cells and causing a contusion (bruising) of brain tissue. This type of shearing of nerve cells is felt to be tearing of the axonal part of the nerve which disrupts normal electrical brain activity. Clinically this circumstance is noted as a concussion. The area of the brain that is damaged causes biochemical and structural brain changes that can be permanent which is the case for PP. In the August 6, 2021, accident PP sustained a Traumatic Brain Injury resulting in Post-Concussion Syndrome with several sequelae.

PP denies any of these cognitive problems before the auto crash. As noted in the medical record PP did have a previous concussion in March 2010, however she made a full and complete recovery from that concussion in a relatively short period of time.

It is well documented in the medical literature that cognitive loss is a common symptom of Post-Concussion Syndrome. As noted above, PP has multiple cognitive problems.

Statement of Causation

In 2007 Freeman et al. in *Whiplash and Causation* demonstrate a practical method for individual clinicians to determine causation following traumatic injury. According to a 2009 follow-up journal article by Freeman et al. titled *A Systematic Approach to Clinical Determinations of Causation in Symptomatic Spinal Disc Injury following Motor Vehicle Crash Trauma* PP meets traumatic injury symptom causation requirements for her cognitive loss.

Freeman et al. report that there are three criteria that must be met. First, there must be a biologically plausible or possible link between the exposure and the outcome. In the auto crash PP was thrown forward and back resulting in whiplash (exposure). The medical literature makes it clear whether PP lost consciousness is inconsequential to making a diagnosis of TBI, although PP does report a brief loss of consciousness. Lovell et al. in a 2016 article in *Clinical Journal of Sport Medicine* titled *Does Loss of Consciousness Predict Neuropsychological Decrements After Concussion* report “there were no significant differences found between LOC, no LOC or uncertain LOC groups” referring to the severity of TBI symptoms.

Clearly, the auto crash of August 6, 2021 (exposure) creates the link between the accident and the onset of PP’s TBI symptoms (outcome). PP complained of cognitive difficulties that did not present before the accident.

Second, there must be a temporal relationship between the exposure and the outcome. Starting immediately after the accident (exposure) PP complained of experiencing the cognitive symptoms outlined above (outcome). She has continued to consistently report these symptoms to her treating physicians. In fact, PP reports her cognitive symptoms worsened over time.

It is well described in the literature that there are at least two explanations for the “worsening” of cognitive symptoms over time. It is not uncommon for an individual to under report cognitive loss in the days, weeks or even months after a Traumatic Brain Injury as well as present with the late onset of certain cognitive loss symptoms. In addition, cognitive symptoms are often masked by more immediate patient & physician concerns such as pain and other symptoms that are immediately of more concern and difficulty. In this case PP’s wrist fracture and resulting pain were most prominent in her mind and in her treatment by her physicians.

The symptoms of cognitive loss can be confusing to the patient and misinterpreted by the patient and doctors alike. LM Ryan and DL Warden in a 2016 article in *International Review of Psychiatry* **15** (4): 310-316 titled *Post Concussion Syndrome* report “symptoms such as noise

sensitivity, problems with concentration and memory, irritability, depression, anxiety, fatigue and poor judgment may be called ‘late symptoms’ because they generally do not occur immediately after the injury, but rather days or weeks after the accident.”

In a 2017 paper by P. Karzmark; K. Hall; and J. Englander titled *Late-Onset Post-Concussion Symptoms after Mild Brain Injury: The Role of Premorbid, Injury-Related, Environmental, and Personality Factors* the authors discuss the factors that contribute to late onset symptoms.

The third criterion states there must not be a more likely or probable alternative explanation for the symptoms. It is my opinion there is not a more likely or probable explanation for PP’s cognitive loss. She has not been diagnosed with any medical condition that could better explain her symptoms, nor has she had any other accidents or physically traumatic events that could precipitate her symptoms. There is nothing in PP’s pre-accident life to account for these symptoms.

Verbatim Notes from her providers substantiate these conclusions:

M E, M.D.

8-06-21

Discharge diagnosis: Closed head injury.

D R, M.D.

8-07-21

She returns now stating that she has developed a bi-temporal headache associated with dizziness...also complaining of intermittent neck and abdominal pain.

Discharge diagnosis: Closed head injury

J W, M.D.

10-23-21

KK noted head and neck pain. Since the accident she has had short-term memory problems. It is hard for her to concentrate. She has trouble with simple math problems. She forgets names and conversations.

Diagnosis: Grade 3 concussion

D H, Ph. D.

3-20-22

Below average attention, concentration and fine discrimination. Below average motor speed, impairment of verbal learning, below average retention of newly learned information, mild to moderate impairment of learning complex nonverbal information, moderate to severe impairment of language comprehension.

2. Mood Disorder

PP reports ongoing chronic anxiety made worse by traveling in a car. She also has ongoing irritability and emotional lability. She also complains of post-accident intermittent depressed mood. PP reports "I get worked up a lot easier." She goes on to state "My emotions take control of me." Initially PP noticed she felt depressed, however, her ongoing mood problems are anxiety, irritability and emotional lability. She denies any of these mood problems prior to the accident.

Given that over one year has passed since the crash, it is my opinion to a reasonable degree of medical probability that PP's Mood Disorder is permanent. She may get some symptomatic relief from medications; however, her Mood Disorder is permanent.

Depression is one of the most common problems of TBI. Jorge et al. in Archives of General Psychiatry Vol. 61, No. 1, Jan. 2016 state “Major depressive disorder was observed in 30 (33%) of 91 patients during the first year after sustaining a TBI. Major depressive disorder was significantly more frequent among patients with TBI than among the controls...Major depression is a frequent complication of TBI that hinders a patient's recovery. It is associated with executive dysfunction, negative affect, and prominent anxiety symptoms. The neuropathological changes produced by TBI may lead to deactivation of lateral and dorsal prefrontal cortices and increased activation of ventral limbic and paralimbic structures including the amygdala.”

3. Generalized Fatigue

Since the accident PP reports generalized fatigue in addition to experiencing rapid mental fatigue. She states, “I always feel tired in the morning no matter how much sleep I get.” The fatigue occurs daily and PP reports never having chronic fatigue before the auto crash.

It is my opinion to a reasonable degree of medical probability that PP’s chronic fatigue is post-traumatic, related to her brain injury and permanent. In fact, chronic physical and/or mental fatigue is a hallmark problem of Traumatic Brain Injury. I have included two articles from the medical literature supporting chronic fatigue as a common symptom of Traumatic Brain Injury.

4. Post-Traumatic Headaches

PP reports the onset of headaches immediately after the accident. Initially the headaches were constant, now PP reports she gets 5-6 “bad headaches” per month. The headaches are characterized by intense bilateral temporal pain radiating posteriorly, with pain worse on the right side. She describes the pain as “sharp and crushing, like being punched in the head.” PP reports the severe headaches rate 7/10 on a pain rating scale.

It is my opinion to a reasonable degree of medical probability that PP’s headaches are post-traumatic, related to her brain injury and permanent. Headaches are an unfortunate yet common problem for victims of head injury. In fact, post-traumatic headaches are the most common residual problem with Traumatic Brain Injury. There is ample evidence in the medical literature to support this opinion. I have included three medical journal articles to support my opinion. It is my further opinion PP would benefit from ongoing neurologic evaluation and treatment for her headaches. I expect she should get some symptomatic headache relief from medications and perhaps other treatments recommend by her neurologist such as biofeedback.

Verbatim Notes from her providers substantiate this conclusion:

J W, M.D.

10-23-21

She gets headaches. They may be too severe, but constant. She has the less intense ones daily, but the shooting pain types several times per week.

Diagnosis: Post traumatic cervical whiplash, headaches, right jaw involvement.

1-23-21

Headaches: Several per week. No clear precipitants.

J W, M.D.

10-23-21

Post-traumatic adjustment disorder with depression, anxiety.

D H, Ph. D.

3-20-22

Persistent problems with fatigue, irritability and emotional lability.

Temporal Mandibular Joint Disorder (TMJ)

PP reports the onset of bilateral jaw pain since the accident. She continues to experience pain with chewing, more so on the right side. She states, “my jaw gets tired too quickly.” She reports eating is more a task than a pleasure. PP states “it’s always pretty uncomfortable.”

PP reports it is particularly difficult to eat foods with a consistency that can be described as hard rather than soft and she reports significant pain with eating such things as hard cheeses, meats, crackers, etc.

Normal talking and conversation will create pain PP reports as 3/10. When using her jaws more consistently, for example eating a full meal or when meeting with friends in social situations, her pain can be as high as 7/10.

It is my opinion to a reasonable degree of medical probability that PP’s TMJ Disorder is post-traumatic and related to the auto crash. At this time, it is too soon to know if this condition will be permanent or respond to treatment.

Verbatim Notes from her providers substantiate this conclusion:

M B, DDS, MPS

3-21-21

Assessment: Diagnosis is trauma to the TM joints, cervical and masticatory myalgia, synovitis of the temporomandibular joints and temporal tendonitis, all of traumatic etiology.

Comminuted Fracture of the Right Distal Radius with Ongoing Pain & Sensory Loss in the Right Upper Extremity

PP reports in addition to chronic arm pain she also continues to experience paresthesias, specifically numbness and loss of sensation, in the right upper extremity. PP reports the sensation loss and numbness start in the right-hand palm and radiate into the right wrist itself. She has EMG documented nerve damage in the right upper extremity. Due to problems related to right hand and wrist pain, PP has been forced to give up many activities. PP was an avid piano and guitar player and can no longer play either instrument.

PP also has to be very careful in picking up objects as she does not have the sensory feedback to always hold on to objects in her right hand. In fact, PP reports, for example, often having to watch to make sure she is holding a cup, glass or plate properly, so she does not inadvertently drop it.

Verbatim Notes from her providers substantiate this conclusion:

Westside Orthopedic –Dr. H.H.
8-9-21

Fracture right distal radius. Maintain R arm splint until follow-up.
RT wrist to mid forearm. No priors.

Severely comminuted, mildly impacted fracture of the distal radius with fracture line extension into the radiocarpal joint.

Romulus Hospital Surgery Center
8-11-21

Planned procedure: ORIF R distal radius fracture.

Open reduction and internal fixation, right distal radius fracture.

21-year-old woman in MVA. This was a fracture that it was determined needed be fixed in surgery. After adequate manipulation and reduction maneuver, a Synthes volar distal radius plate was placed on the distal radius itself, and position was confirmed under both AP and

lateral fluoroscopic imaging. The plate was affixed to the shaft of the radius with 1 cortical screw. Condition stable.

1-11-22

Procedure: Revision, open reduction and internal fixation of right distal radius fracture. During follow, it was found to have a shift, especially of her radial styloid fragment to a unacceptable position. It was determined that a repeat open reduction internal fixation was necessary. Disposition: The patient was extubated and taken to recovery room in stable condition.

Medical Costs to Date

Augustine Hospital	\$ 4,797.26
Westside Orthopedic Center	\$ 615.00
Fire Protection District	\$ 807.00
E M, M.D.	\$ 1,875.00
Neuropsychology	\$ 7075.00
S W, DDS	\$ 1,385.00
Replacement Glasses	\$ 281.43
J W, M.D.	\$ 955.00
Neurorehabilitation	\$ 2,300.00
H.H., M.D Orthopedics (out-pt & surgery)	\$ 16, 843.00
Romulus Anesthesia	\$ 3,870.00
Romulus Surgery Center	\$ 21,802.97
Total	\$ 62,606.66

It is my opinion all medical costs to date are reasonable, necessary and related to the auto crash on August 6, 2021.

Future Medical Care & Costs

It is my opinion to a reasonable degree of medical probability that based on the above injuries, here is a breakdown of PP's future medical costs. These costs are based on a life expectancy of 57.3 years at age 21. This value is calculated using the Insurance Claims Resource table.

In summary, PP will require comprehensive Psycho-Neurological Care. She already has had initial Neuro-Psychological testing and will need this testing repeated one or two years from the date of this report. She is currently engaged in Neuro-Psychological Rehabilitation. The rehabilitation provides the patient with compensatory strategies to overcome lost cognitive functioning. In addition, comprehensive rehabilitation of this kind also usually includes psychotherapy and psychiatric medication treatment. After an initial course of comprehensive treatment occasional brief follow up treatment will be needed based on the severity of her Traumatic Brain Injury. A psychiatrist is best suited to prescribe her psychotropic medication. In fact, PP needs one doctor "quarterbacking" all of her care and in this case, I believe either

her psychiatrist or neurologist would be in the best position to serve that function. That is, PP needs one physician making sure she gets the proper treatment, referrals, recommendations, tests and information about her condition & overall care.

PP's headaches should be followed by a neurologist specializing in the treatment of headaches. There are several medication approaches to this problem that are helpful and that have not yet been explored in PP's case. Other non-medication treatments may also help.

If PP's sleep disorder does not remit soon, I would suggest a workup at a sleep laboratory. Based on the results of the work up, PP's psychiatrist can oversee medication treatment for her sleep disorder.

PP also needs follow up care for her Temporomandibular Joint Disorder. She will most likely need additional orthotics as part of her TMJ treatment. PP needs to be followed by a dentist who specializes in TMJ Disorder.

PP will also need follow up for her right upper extremity injury including orthopedic follow up and neurologic follow up as well as physical therapy. If her symptoms do not improve a revision surgery may be required but not included in this assessment.

Finally, the treating physicians will all prescribe various medications, testing and imaging for PP's conditions resulting from the accident.

Estimated Costs of Future Lifetime Medical Expenses:

Neuro-Psychological Care including Cognitive Testing, Rehabilitation and Counseling and Follow Up	\$ 17,000
Psychiatrist	\$ 12,000
Neurologist	\$ 13,000
Orthopedics	\$ 13,000
Physical Therapy	\$ 10,000
TMJ Dentist & Orthotics	\$ 15,000
Sleep Lab	\$ 5,000
X-Rays and Scans	\$ 10,000
Medications	\$ 24,000
Total	\$ 119,000

Summary

It is clear PP sustained several ongoing medical problems from the August 6, 2021, auto crash and will need ongoing medical treatment and follow-up care as outlined.

If you have further questions, please contact me. My CV is enclosed.

Sincerely,

Brian Wiley, M.D.
Doctors Med-Legal Consulting LLC

