

## Narrative summary

## Fall injury on January DD, YYYY.

On January 7, YYYY, XXXX who was climbing up on the top of a pyramid for a stunt during her cheer practice was suddenly thrown backwards by her teammates. She fell after being tossed up about 3-4 feet and hit the back of her head. She did not lose her consciousness or experienced an alteration of mental status. She had soreness in her head but got up and continued her practice. Her mother picked her up from practice and no one expressed concern over Ms. XXXX fall. Later that evening, Ms. XXXX developed headache, nausea, and light sensitivity. She became emotionally labile and cried, which continued over the next few days.

On the same day, Ms. XXXX presented to Dr. XXXX for evaluation of sport concussion. She reported that she had been experiencing headache, pressure in head, pain in her back, nausea or vomiting, balance problems, sensitivity to light and noise, feeling slowed down, difficulty concentrating and remembering, sleeping, fatigue, feeling emotional, feeling sad, and being anxious. (*Pdf ref:* 272-275)

On January 10, YYYY, Ms. XXXX attended her cheer practice. She told that she would be watching only, but instead she participated fully which included tumbling and stunting. She began to suffer from severe headaches and was again pulled out of school.

On January 13, YYYY, Ms. XXXX presented to XXXX, M.D., for the complaints of headaches and unclear vision. She reported that she had hit the back of her head on January 7, YYYY. She also reported that she had been unable to go to school since then. She was diagnosed with concussion. She was recommended to consult a neurologist for further evaluation. She was advised to follow-up in three to four days for further management. (*Pdf ref: 324-333*)

On January 14, YYYY, Ms. XXXX presented to Compete Sports Performance and Rehab for the complaints of headaches, sensitivity to light and noise, and cognitive issues. She rated her headaches as 8/10. Her headaches worsened if she watched television for a long time. On examination, she had tenderness over her neck and upper back. On examination, she had tenderness in her thoracic spine. She was diagnosed with post-concussion. She was advised to take rest and to follow up for further care. (*Pdf ref: 368*)



On January 18, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX for further evaluation of her concussion. She reported that she was scheduled a visit with a psychologist in her school. She also reported that she had been taking Motrin for headaches. She stated that she felt better while meeting her friends. On examination, she had tenderness over her temporomandibular joints as well as the back of her head and upper neck. ERB and Spurling's test was positive to her right side. She was also noted to have convergence error, subjection tracking issues, and poor stability with standing balance stress test. The cranial nerve assessment revealed issues with II, VII, and XII nerves. On vestibular/ocular motor screening, she was noted to have smooth pursuits, vertical saccades, and VOR-vertical. Her Sport Concussion Assessment Tool 2 score was 16. She was advised to attend one to two classes per day and not to take a cognitively stressful activity for more than 20 minutes. She was prescribed with Riboflavin and Excedrin. She was recommended to follow up for further care. (*Pdf ref: 310, 317-323*)

On January 28, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX. She reported that she felt better and her condition was overall improved. She was able to work full day at school, make up at work as well as use the computer. The Sport Concussion Assessment Too 2 score was 0. She had been taking Vyvanse and Vicodin. Her concussion symptoms were discussed with Chris Philips. She was advised to do activities with limited exertion. She was advised to take fish oil. She was recommended to follow-up in two to three weeks. (*Pdf ref: 310-316*)

On February 7, YYYY, Ms. XXXX was cleared to travel with her cheer team and not compete. Unfortunately, en route to the competition, another girl struck in the back of Ms. XXXX head with her elbow, which led to an increase in her symptoms.

On February 8, YYYY, Ms. XXXX presented to XXXX, M.D. She reported that her performance in academics worsened after the concussion that occurred due to the injury on January 7, YYYY. She was diagnosed with attention deficit hypertensive disorder. She was advised to continue taking her ongoing medications and consult a concussion specialist for further management. She was advised to follow-up for further care. (*Pdf ref: 7*)

On February 11, YYYY, Ms. XXXX returned to Compete Sports Performance and Rehab for concussion re-assessment. She complained of intermittent headaches and nausea. She rated the pain level as 3-6/10. She reported her headaches at a level of 3/10. Her treatment included therapeutic activities involving her neck and core activation. (*Pdf ref: 369*)



On February 15, YYYY, Ms. XXXX had follow-up visit with Dr. XXXX for the complaints of persisted headaches, concentration issues, dizziness, and sensitivity to light. She reported that her pain symptoms worsened post the head injury that occurred on February 7, YYYY. Her Sports Concussion Assessment Tool score was 31. She was advised to receive massage therapy to her neck, perform stretching exercises, and sleep eight hours a day. Riboflavin and Fish oil were prescribed. She was advised to receive visual and vestibular therapy. School modification note was provided. (*Pdf ref: 299-304*)

On February 18, YYYY, Ms. XXXX had a neurological evaluation with XXXX, M.D. She was diagnosed with concussion without loss of consciousness and inattentive attention deficit hypersensitivity disorder. She was recommended to follow-up in three to four weeks. (*Pdf ref*: 20)

On February 22, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX for the complaints of persistent headaches associated with nausea and vomiting, decreased appetite, and weight loss. She was advised to take increased dosage of Vyvanse. (*Pdf ref:* 293-298)

On February 23, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX. Dr. XXXX recommended acupuncture therapy for the management of her headaches, concussion, and neck pain. (*Pdf ref: 353*)

On March 5, YYYY, Ms. XXXX was admitted in the Emergency Department of Mission Hospital for the complaints of unbearable pain. Norco was given, but failed to improve her symptoms. (*Pdf ref: 1102*)

From February 29, YYYY, until March 7, YYYY, Ms. XXXX received prescriptions for Tylenol with Codeine, Valium, Prednisone, and Depakote from Dr. XXXX. (*Pdf ref: 293, 286, 291*)

From March 8, YYYY, until March 10, YYYY, Ms. XXXX was admitted to the CHOC Department of Mission Hospital. She underwent acupuncture therapy and Depakote was administered intravenously for pain relief. (*Pdf ref: 1102*)



On March 14, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX for the complaints of headaches and stiffness in her neck. Dr. XXXX recommended her to obtain X-ray of her cervical spine for evaluation of her headaches and neck pain. (*Pdf ref: 354*)

On March 16, YYYY, X-rays of Ms. XXXX cervical spine was obtained by Mark Stein, M.D., at West Coast Radiology Centers. The study revealed limited flexion. (*Pdf ref: 351*)

On March 31, YYYY, pursuant to Dr. XXXX recommendation, Ms. XXXX presented to XXXX, D.O., at St. XXXX Healthcare for a neurological evaluation. She complained of pain in the front of her head that radiated to the back. She described her pain as throbbing, sharp, and pounding in nature. She reported that her pain was mild in the morning and increased with time. She reported that she sustained two injuries to her head on January 7, YYYY and February 7, YYYY. She reported that her pain worsened post the injuries. She also reported that her pain failed to improve with opiate medicine. She also stated that she had been receiving acupuncture and vision therapy. On examination, she walked very slowly. She was unsteady with eyes closed and feet together. She was diagnosed with headache, concussion, post-concussive syndrome, and psychomotor deficit. Dr. XXXX stated that Ms. XXXX had impaired coping abilities to the degree of pain. He also added that Ms. XXXX had poor motivation prior to the injury regarding her schoolwork and future. Ms. XXXX mother was counseled on the treatment for the headache. Ms. XXXX was encouraged and re-assured. Dr. XXXX opined that Ms. XXXX was at risk for chronic pain syndrome. She was prescribed Indomethacin and Promethazine. She was recommended to have an MRI of her brain, receive physical therapy, and follow a healthy lifestyle and follow-up in one week. She was advised to undergo SPG Allevio procedure. (*Pdf ref: 498-501*)

On April 4, YYYY, Ms. XXXX mother had a telephone conversation with XXXX from St. XXXX Healthcare. She requested a prescription for antidepressant medication. The information was communicated to Dr. XXXX. Dr. XXXX prescribed Sertraline and advised Ms. XXXX mother to observe her for mood changes and unusual behavior or thoughts. (*Pdf ref: 497*)

On April 7, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX for the complaints of persistent headaches. She reported that she continued to struggle with headaches. She was diagnosed with post concussive syndrome and psychomotor deficit. She received bilateral sphenopalatine ganglion block under the guidance of Allveio device as well as infusion of Lidocaine into each nostril. She was advised



to receive trigger point injection and occipital nerve blocks as well as to follow-up in one week. (*Pdf ref:* 495-496)

On April 15, YYYY, Ms. XXXX returned to Dr. XXXX for the complaints of persistent headache. She rated the intensity of her headaches as 8. She stated that she stopped taking magnetic brain stimulation treatment due to high cost. She reported that her symptoms failed to subside with acupuncture therapy. She also stated that she had started receiving physical therapy. On examination, Dr. XXXX noted that Ms. XXXX appeared depressed and withdrawn. She was diagnosed with post concussive syndrome, headache, and psychomotor deficit. Ms. XXXX received an occipital nerve block as trial. Hydrocodone-Acetaminophen was prescribed along with the previously prescribed medications such as Sertraline and Topiramate or Acetazolamide. She was recommended to undergo lumbar puncture for assessing the CSF (Cerebrospinal Fluid) pressure or empiric diuretic usage. Dr. XXXX stated that Ms. XXXX future treatment plan would include tricyclic antidepressants, anticonvulsant therapy, Botox injections, and another hospitalization, if her symptoms failed to resolve with the ongoing treatment. She was advised to follow-up in one to two weeks. (*Pdf ref: 493-494*)

On the same day (*April 15, YYYY*), an MRI of Ms. XXXX brain was obtained and reviewed. The study revealed normal findings.

On April 20, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX for the complaints of persistent headaches. She also complained of dizziness along with headache while standing. She reported that she had findings related to hypotension during primary care physician evaluation. On examination, her blood pressure was 80/60mmHg on standing for five minutes and showed symptoms related to hypotension. Her blood pressure values improved to 111/60 with laying down. She was noted to have decreased blood pressure values while standing. She was also noted to have tachycardia. She was diagnosed with headache, post-concussive syndrome, orthostatic hypotension, and orthostatic headache. Dr. XXXX stated that Ms. XXXX condition could be post-traumatic POTS (Postural Orthostatic Tachycardia Syndrome). The MRI of her brain was reviewed and the study revealed normal findings. Midodrine and Nodolor were prescribed. Laboratory studies that included Cortisol, Norepinephrine, Epinephrine, Thyroid Stimulating Hormone, Acetylcholine receptor bonding antibody, Acetylcholine receptor blocking antibody, Acetylcholine receptor modulating antibody, and ANA with reflex titer were ordered. Ms. XXXX was advised to follow-up in one to two weeks. (*Pdf ref: 490-492*)



On April 26, YYYY, Ms. XXXX pursuant to Dr. XXXX recommendation, Ms. XXXX had a follow-up visit with Dr. XXXX for the complaints of persistent headaches and dizziness. She rated the severity of her headaches as 7/10. She also complained of mild bright red blood in her stool. She reported her symptoms failed to improve with the physical therapy, acupuncture, and cranial sacral therapy as well as medications. On examination, she continued to have tachycardia. She was diagnosed with headache, post-concussive syndrome, orthostatic hypotension, and orthostatic headache. Amitriptyline HCl, Propanol, and Tramadol were prescribed along with previously prescribed Midodrine. She was referred to Behavioral health/Psychology for further management. (*Pdf ref: 487-489*)

On April 28, YYYY, Ms. XXXX presented to XXXX, M.D., at XXXX Hospital UCLA/ XXXX Health Center for further evaluation of her concussion symptoms. She had headaches, lethargy/sleepiness, vomiting, postural orthostatic tachycardia syndrome, dizziness, attention deficit hypersensitivity disorder. She also complained of extreme sensitivity to light and sound. Various instructions related to her concussion symptoms were provided to her. She was instructed upon the preventive medications, she could take for her concussion symptoms. She was advised to follow up in the pediatric concussion clinic on May 26, YYYY. (*Pdf ref: 373-403*)

On May 5, YYYY, Ms. XXXX presented to Dr. XXXX for evaluation of sport concussion. She reported that she had been experiencing persistent headaches. She had difficulty concentrating and was unable to watch TV/laptop for a long time, Dr. XXXX suspected that she had POTS. She was advised to continue taking Elavil and Vyvanse and to receive acupuncture treatment. She was recommended to take water rich food. (*Pdf ref: 271*)

On May 27, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX. She was diagnosed with headache and inattentive attention deficit hypersensitivity disorder. (*Pdf ref*: 21)

From April 19, YYYY, until June 1, YYYY, Ms. XXXX had multiple follow-up visits with Dr. XXXX for the complaints of persistent headaches and light sensitivity, and difficulty during car rides. As of June 1, YYYY, she described her headaches as sharp and pounding in nature. She reported that her headaches worsened after riding in bike. On examination, her heart rate was increased. She was advised to take rest, drink more water, and follow-up on an as needed basis. (*Pdf ref:* 280-283, 271, 276-279)



On June 8, YYYY, Ms. XXXX returned to Compete Sports Performance and Rehab for concussion re-assessment. She complained of worsening headaches and increased heart rate. She rated the severity of her headache as 8/10. On examination, her heart rate was at the range of 151-165 when she was evaluated riding a bike L3 at 60 rpm. (*Pdf ref: 370*)

On June 29, YYYY, and July 28, YYYY, Ms. XXXX had follow-up visits with Dr. XXXX for the complaints of persistent headaches. As of July 28, YYYY, the dosage of Elavil was increased. She was recommended to consider blended schooling, continue receiving acupuncture, and continue taking her ongoing medications. (*Pdf ref: 258-261, 266-270*)

On July 29, YYYY, Ms. XXXX presented to XXXX, M.D., at XXXX Child Neurology for further evaluation of persistent headaches in the setting of concussion. She complained of headache, fatigue, photophobia, phonophobia, and nausea. She also complained of increased inattention and distractibility. On examination, she was noted to have dizziness as well as slowed saccades and finger-to-nose movements. The MRI of her brain was reviewed. Dr. XXXX stated that Ms. XXXX history was consistent with mild traumatic brain injury/concussion and resultant post-concussive headaches. She was advised to continue taking Elavil titrating it to 100 mg. She was recommended to receive vestibular rehabilitation at Concussion Rehabilitation Center and undergo an ophthalmologic evaluation with neuro optometrist. Dr. XXXX recommended a "Graduated Return to Play Protocol" in which a player gradually increases exercise over the course of a week prior to returning to full participation. She was advised to follow-up in one month. (*Pdf ref*: 1101-1103)

On August 3, YYYY, Ms. XXXX mother had an email conversation with Dr. XXXX regarding the dosage of Elavil. She reported that Ms. XXXX pain failed to improve with Elavil. (*Pdf ref: 1104*)

On August 8, YYYY, Ms. XXXX mother had an email conversation with Dr. XXXX. She reported that Ms. XXXX pain failed to improve with Elavil. Ms. XXXX continued to apply ice over her head, wear sunglasses as well as had blinds closed and lights off all the time. (*Pdf ref: 1104*)

On August 17, YYYY, Ms. XXXX had a neurology consultation with XXXX, M.D., at XXXX Hospital of XXXX Children's Concussion Clinic for further evaluation of her concussion. On examination, she had tachycardia. Her Impact score was 34. She was diagnosed with concussion syndrome, convergence insufficiency, and orthostatic hypotension. The results from the Impact test



indicated low scores across the visual memory, verbal memory, visual motor speed, and reaction time composites of Impact. Ms. XXXX was recommended to undergo cognitive behavioral therapy and biofeedback. She was also advised to increase Topomax and wean down Elavil. Routine lab investigations were ordered. Ms. XXXX was also advised to have physical activity, avoid contact sports, follow headache hygiene, perform eye exercises, increase the use of prism glasses, and continue receiving acupuncture. She was advised to follow-up for assessing the progression of her condition. (*Pdf ref: 102-107*)

Dr. XXXX drafted a correspondence to XXXX regarding the adjustments to be taken during Ms. XXXX ACT examination. He stated that Ms. XXXX continued to experience persistent migraine headaches and photosensitivity. He also stated that her difficulty in eye tracking and her lower reading endurance will result in visual fatigue followed by worsening headaches. Dr. XXXX recommended the following to decrease Ms. XXXX post-concussion symptom exacerbation: A reader for Ms. XXXX during the ACT; ACT to be broken down into several days. (*Pdf ref: 346*)

On August 26, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX for the complaints of persistent headaches in the setting of concussion and attention deficit hypersensitivity disorder. She reported her symptoms failed to resolve with medications. She had been receiving acupuncture, vision therapy, and vestibular therapy. Her mother reported that they had decided to hold off school until September. Vyvanse, Elavil, and Depakote were prescribed. She was recommended to continue receiving vestibular rehabilitation at Concussion Rehabilitation Center and visual therapy with Dr. XXXX. She was advised to follow-up in one month. (*Pdf ref: 1104-1106*)

On September 7, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX. She reported that she continued to experience bi-frontal headache and nausea. Her symptoms worsened on taking Depakote as well as her ability to tolerate physical activity decreased due to increased dosage of Elavil. Her Impact score was 48. On examination, she had increased heart rate. Her pupils appeared to very dilated with minimal exposure to light. Topical Lidocaine and Megace were prescribed. She was recommended to wean off the dosage of Elavil and discontinue taking Promethazine. She was also recommended to receive psychotherapy and speech therapy as well as enroll for online schooling. She was advised to reduce the concussion related physical therapy and acupuncture appointments, continue weekly ramp-up of activities, and follow her home exercise program. She was advised to follow-up in one month. (*Pdf ref:* 108-113, 334-339)



On September 30, YYYY, Ms. XXXX had her initial speech therapy evaluation with XXXX, M.A., C.C.C-S.L.P., at XXXX Hospital of XXXX County to improve her cognitive function. On examination, she demonstrated poor reading comprehension and auditory comprehension skills as well as limited memory recall, decreased attention and concentration, limited paragraph retention, and increased progressing time for generation of her thoughts and speech production. Instructions related to school modifications were provided. She was recommended to receive speech therapy one time a week for three weeks. She was also recommended to consult a psychologist and also follow-up with Dr. XXXXX for further management. (*Pdf ref: 177-179, 214-219*)

On October 19, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX. She complained of persistent headache and sleep difficulties. She reported that her pain specialist recommended TCA class medication. She was advised to avoid activities that exacerbate her symptoms, get a white noise maker, remove TV from the bedroom, and avoid using gadgets one hour prior to bedtime. She was advised to continue meeting Dr. XXXX to assist with her pain and other symptoms. She was recommended to continue taking Megace and Topamax, continue receiving psychotherapy and speech therapy as well as continue her weekly ramp-up of activities. (*Pdf ref: 114-118*)

On October 21, YYYY, Ms. XXXX had her initial chiropractic evaluation with XXXX, D.C., at Precision Chiropractic for the complaints of headache as well as pain in her neck, upper back, and shoulder. She also complained of dizziness, visual disturbance, sleep disruption, sleepiness, nausea/vomiting, concentration issues, fatigue, decreased confidence, altered taste or smell, impatience, frustration, and memory issues. She was taking Topamax, Melatonin and anti-nausea medications. On examination, she had tenderness and restricted motion in her neck, shoulders, and entire back. She was also noted to have abnormal posture, improper biomechanical compensation, pelvic distortion, body imbalance, and compensatory adaptation to a subluxation. Cervical syndrome and Prill tests were positive. X-rays of her cervical spine as well as occipital condyle study/skull were obtained and reviewed. She was diagnosed with post-concussion syndrome, segmental somatic dysfunction of cervical, thoracic, and lumbar region, spinal enthesopathy of thoracic region, and abnormal posture. An X-ray of her pelvis was obtained which revealed a distortion of 4.6 degrees high on her left pelvis associated with myofascial hypertonicity in her left gluteus medius and right iliotibial band. She demonstrated abnormal posture and improper biomechanical compensation. She received chiropractic treatment that included chiropractic adjustments and mechanical traction. Her treatment plan was comprised of cervical adjustments,



chiropractic manipulative treatment, extremity manipulation, trigger point/manual muscle therapy, laser therapy, massage therapy, in-office neuro-muscular re-education, therapeutic exercises, posture rehabilitation, application of ice, cervical traction and nutritional and life style counseling. She was also given home-care instructions. She was recommended to receive chiropractic treatment one to three times a week for four weeks. (*Pdf ref: 439-443, 445-447*)

On December 7, YYYY, Ms. XXXX returned to Dr. XXXX for the complaints of chronic pain and persistent noise and light sensitivity. She reported that she was seen by Dr. XXXX at USC Migraine Center, where she had received intravenous Magnesium treatments, Botox injections, and nerve block. She reported that she had mild improvement with Botox injections and no improvement with Magnesium treatment. She continued receiving acupuncture treatment, vision therapy, speech therapy and psychotherapy. She was taking Vyvanse and Topamax and she further requested for an increase in dosage of Vyvanse. She started following paleo diet from the previous week. She was recommended to consult a nutritionist as well as undergo full neuropsychology testing. She was also recommended to continue taking Megace and increased dosage of Vyvanse. She was advised to avoid activities that exacerbate her pain, continue receiving psychotherapy and speech therapy, continue weekly ramp-off activities as well as try physical therapy tape with Chris Philips. (*Pdf ref: 119-124*)

From October 25, YYYY, until December 8, YYYY, Ms. XXXX received chiropractic treatment from Dr. XXXX at Precision Chiropractic for the management of her persistent headaches, pain in her neck, upper back, and shoulder, as well as cognitive issues. Her treatment was comprised of chiropractic adjustment, joint mobilization, neuromuscular massage, myofascial release, mechanical traction, and manual therapy. (*Pdf ref:* 443-444, 449-460))

On December 19, YYYY, Dr. XXXX drafted a correspondence regarding Ms. XXXX neurology evaluation dated December 19, YYYY. (*Pdf ref: 1107*)

On February 1, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX. She was recommended to undergo a neuro ophthalmology evaluation for evaluation of her light sensitivity as well as undergo intensive rehabilitation program. She was advised to wean-off the dosage of Vyvanse, avoid activities that exacerbate her pain, and continue receiving speech therapy. (*Pdf ref: 125-129*)



On February 16, YYYY, Ms. XXXX presented to XXXX, M.D., at UCI XXXX Medical Center for the complaints of persistent frontal headaches, light sensitivity, and nausea. She had been using sunglasses for light sensitivity. On examination, she was noted to have diffuse constriction of both eyes, bilateral eye constriction, and dilated pupils. She was diagnosed with post-concussion syndrome, headache, and sensitivity to light. Amitriptyline, artificial tears, and Alphagan were prescribed. She was advised to discontinue wearing sunglasses to increase the light level slowly. She was advised to follow-up in four to six weeks for re-evaluation. (*Pdf ref: 37-47*)

From October 7, YYYY, until March 1, YYYY, Ms. XXXX received speech therapy from Ms. XXXX at XXXX Hospital of XXXX County for the management of her cognitive issues. As of March 1, YYYY, she demonstrated increased nausea and headaches when increased attention to task and demands as well as increased sound, movement, and lights. She was recommended to continue receiving speech therapy one time a month for three months. (*Pdf ref: 180-188,220-236*)

On March 7, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX. On examination, she had tenderness over the back of her head, neck, and temporomandibular joints. Her sport concussion assessment tool - symptom severity score was 66. (*Pdf ref.* 287-292)

On March 8, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX. She reported that her psychological symptoms worsened with physical activity. On examination, she had dilated pupils and impaired convergence. Wellbutrin and Zofran were prescribed. She was recommended to discontinue taking Vyvanse, undergo intensive rehabilitation program in May, and follow-up in two weeks. (*Pdf ref:* 130-134)

On May 11, YYYY, Ms. XXXX presented to XXXX, M.D., at XXXX Hospital for the complaints of persistent headaches. She described her pain as sharp and tight in nature and rated its severity as 8-10/10. She also reported that any light/sound, bending over and hiccups worsened her headaches. She also complained of nausea, racing heart rate, memory difficulties, and sleep disturbance. On examination, she had decreased and painful range of motion of her back. She diagnosed with post-concussion syndrome, refractory to multiple medications, physical therapy, and multiple nerve blocks/infusions. Clonazepam was prescribed. She was recommended to undergo PREP program as well as receive physical therapy and acupuncture. (*Pdf ref:* 524-528)



On the same day (May 11, YYYY), Ms. XXXX had her initial physical therapy evaluation with XXXX, P.T., D.P.T., at XXXX Hospital for the complaints of functional impactful headache since the concussion that occurred on January 7, YYYY. She described her pain as sharp and tight in nature. She rated her pain level as 8-10/10. She also complained of nausea, phonophobia, photophobia, soreness in her neck and shoulders, sleeping disturbances. She had been experiencing shortness of breath with mild physical activity. She reported that her symptoms aggravated with light, sound, bending down, and hiccups. On examination, she had tenderness over the back of her head, neck, and shoulders. She was also noted to have decreased strength in her shoulder and bilateral upper extremities, impaired balance, and increased left shoulder elevation. She was recommended to receive physical therapy. Her therapy plan was comprised of conditioning, balance training, and manual therapy. (Pdf ref: 520-523)

On the same day (May 11, YYYY), Ms. XXXX presented to XXXX, Ph.D., at XXXX Health for initial health and behavior assessment. (Pdf ref: 1011)

On May 26, YYYY, Ms. XXXX was evaluated by XXXX, P.T., D.PT., at XXXX Physical Therapy - Garden Grove for the complaints of persistent headaches, anxiety, vision changes, and dizziness. She reported that her symptoms aggravated with sitting, walking, and standing. She rated her pain level as 8/10. On examination, she had improper posture, decreased range of motion of her neck as well as mild weakness in her bilateral upper extremities. She was diagnosed with non-intractable chronic post-traumatic headache. She received physical therapy that included manual therapy and self-management training. She was recommended to continue receiving physical therapy one to two times a week. (*Pdf ref: 516-518*)

On June 7, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX. She was seen at Stanford for chronic pain rehabilitation and she was receiving acupuncture treatment. She continued taking online classes. She was advised to continue taking her ongoing medications, increase the intake of salt and fluids, and notify Dr. XXXX regarding Stanford Program. She was also advised to recheck orthostatics in one month and follow-up on an as needed basis. (*Pdf ref: 135-139*)

On June 19, YYYY, Ms. XXXX received physical therapy from Mr. XXXX at XXXX Physical Therapy - Garden Grove for the management of non-tractable chronic post-traumatic headache. Her therapy was comprised of hot/cold packs, manual therapy, and self-management training. (*Pdf ref: 519*)



On July 20, YYYY, Ms. XXXX had her initial psychiatric diagnostic evaluation with XXXX, M.D. at XXXX Health. (*Pdf ref: 1012*)

On July 24, YYYY, Ms. XXXX presented to XXXX, N.P., at XXXX Children Health for a Pediatric Pain Rehabilitation Program. She complained of photophobia, double vision, phonophobia, occasional heart racing, nausea, diarrhea, constipation, headache, light headedness/dizziness, and anxiety. She reported that she had increased her physical activities. She was taking Effexor prescribed by Dr. XXXX. She was also receiving acupuncture treatment, which was very helpful in resolving her nausea and headaches. She rated her pain level at a range of 3-10/10. On examination, she had poor posture, slouched shoulders, decreased range of motion of neck and back, tenderness over her neck, mild scoliosis as well as right sided rib hump. She was assessed to have chronic daily headaches consistent with post-concussive syndrome. She was recommended to receive two to three hours/day of physical therapy and occupational therapy, one hour/day of psychotherapy, one hour/week of family based therapy and psychiatry as well as two hours/day of academic tutoring and socialization for four to eight weeks. She was also recommended to continue taking her ongoing medications, follow home exercise program, and maintain sleep hygiene. (*Pdf ref: 529-534*)

On the same day, Ms. XXXX was evaluated by Ms. XXXX for the complaints of headaches. She was diagnosed with post-concussion syndrome. She rated her pain level at a range of 3-9/10. Her neck disability index score was 46% (moderate disability). She was assessed with decreased cervical range of motion, decreased muscles strength in her hips, poor endurance, poor posture, poor-fair standing balance with vestibular involvement, vestibular/ocular motor impairments, visual motion sensitivity and chronic daily headaches. She was recommended to receive physical therapy one time a day for six to ten weeks in Pediatric Pain Rehabilitation Program. (*Pdf ref: 535-541*)

On the same day, Ms. XXXX had her initial occupation therapy evaluation with XXXX, O.T.R/L., at XXXX Health for the complaints of frontal headaches. She rated her pain level as 9/10. She reported that her pain aggravated with light, noise, and concentration. She was examined and diagnosed with post-concussive syndrome. Her problems included decreased coping strategies, decreased participation in physical activities, decreased performance of the activities of her daily living, decreased socialization due to pain, limited function due to pain and inability to walk community distances. Ms. XXXX recommended her to receive combined physical therapy, occupational therapy, and psychotherapy daily. She also recommended Ms. XXXX to receive aquatic therapy four times a week and family therapy



one time a week. It was estimated that a full functional recovery would be restored in six to eight weeks. (*Pdf ref:* 542-546)

On July 28, YYYY, Ms. XXXX had a follow-up visit with Ms. XXXX for the complaints of photophobia, double vision, phonophobia, occasional heart racing, nausea, diarrhea, constipation, headache, light headedness/dizziness, anxiety, and sleeping difficulty. She also reported that her first week at PReP was pretty good. She had been wearing an Actigraph watch to measure her activity levels and sleep. Ms. XXXX stated that Ms. XXXX had made great progress that week and participated fully in all activities. Ms. XXXX was prescribed Melatonin. She was recommended to continue her ongoing medications, continue receiving acupuncture two to three times a week, begin to gradually wean off wearing sunglasses, maintain sleep hygiene, as well as perform home exercises. She was also recommended to continue undergoing the Pediatric Pain Rehabilitation Program. Her discharge was estimated to be in three to five weeks. (*Pdf ref: 570-574*)

On the same day (*July 28, YYYY*), XXXX, M.D., stated that he had attended a care conference for Ms. XXXX. Dr. XXXX prescribed Melatonin for headaches and sleep. He also recommended weaning off her sunglasses. (*Pdf ref: 585*)

On the same day (*July 28, YYYY*), Ms. XXXX presented to XXXX, N.P., at XXXX Health for receiving serial acupuncture treatments while in Pediatric Pain Rehabilitation Program. She reported that she benefited from home acupuncture therapy and cupping treatments from her mother. On examination, she had poor posture, slouched shoulders as well as tenderness over her neck, shoulder, and upper back. She received acupuncture treatment. She was recommended to receive acupuncture treatment two to three times a week while in Pediatric Pain Rehabilitation Program. Her discharge was estimated to be in four to eight weeks. (*Pdf ref: 578-581*)

On August 4, YYYY, Ms. XXXX returned to Ms. XXXX for further evaluation of her baseline symptoms. She reported that the second week at XXXX was hard due to increased headache discomfort and nausea. She also reported that the weaning of sunglasses had been little too fast for her liking. She stated that her sleep issues did not improve with Melatonin. Her Actigraph results were discussed. She was recommended to continue taking her ongoing medications, continue receiving acupuncture two to three times a week, continue weaning off sunglasses, maintain sleep hygiene, as well as perform home



exercises. She was also recommended to continue undergoing the Pediatric Pain Rehabilitation Program. Her discharge was estimated to be in three to six weeks. (*Pdf ref: 631-634*)

On the same day (August 4, YYYY), a care conference was attended by Ms. XXXX, her mother, and her treating professionals. Ms. XXXX reported that the second week XXXX had been challenging for her. She complained of increased headaches and nausea. She felt that she was being pushed in terms of weaning off her sunglasses. (Pdf ref: 638-639)

On August 11, YYYY, Ms. XXXX had a follow-up visit with Ms. XXXX for the complaints of headaches at the back of her head and pain behind both her eyes. She reported that these symptoms were new and different from her usual bifrontal headache. She stated that she continued experience sensitivity to light and noise. She continued to wear Actigraph watch for monitoring her activity levels and sleep. Ms. XXXX noted that Ms. XXXX had made good progress that week and fully participated in all activities. She was able to tolerate consistent physical activity and decrease the use of sunglasses. Her Actigraph results were reviewed. She was recommended to take Melatonin two times a day as per Dr. XXXX. She was recommended to continue her ongoing medications, continue receiving acupuncture two to three times a week, continue weaning off sunglasses, maintain sleep hygiene, as well as perform home exercises. She was also recommended to continue undergoing the Pediatric Pain Rehabilitation Program. Her discharge was estimated to be in four weeks. (*Pdf ref: 676-680*)

On the same day (*August 11, YYYY*), a care conference was attended by Ms. XXXX, her mother, and her treating professionals. She reported that she continued to experience sensitivity to noise and light. She had been gradually weaning off her sunglasses both outdoors and indoors. Dr. XXXX prescribed 5-10mg Melatonin two times a day. The team stated that Ms. XXXX would require additional four weeks to improve her visual tolerance, vestibular processing, and endurance. (*Pdf ref:* 684-685)

On August 18, YYYY, Ms. XXXX had a follow-up visit with Ms. XXXX for the complaints of increased nausea. She reported that the previous week was hard. She stated that she had difficulty in completing more than one assignment during a school session. She also stated that her sleep improved with Melatonin. She reported that she would receive acupuncture treatment from a local provider in the following weekend. She continued to wear Actigraph watch for monitoring her activity levels and sleep. Ms. XXXX and her mother requested for a letter for the airline for allowing them pre-board as well as to carry Ms. XXXX weighted blanket. Ms. XXXX noted that Ms. XXXX had made good progress that week



and fully participated in all activities. She further noted Ms. XXXX continued to experience dizziness with vestibular training, particularly in horizontal direction. Ms. XXXX was prescribed Zofran. She was recommended to continue her ongoing medications, continue receiving acupuncture two to three times a week, continue weaning off sunglasses, maintain sleep hygiene, as well as perform home exercises. She was referred to Hospital Educational Advocacy Liaisons for neuropsychological testing. She was also recommended to continue undergoing the Pediatric Pain Rehabilitation Program. Her discharge was estimated to be in three weeks. (*Pdf ref: 715-719*)

On August 25, YYYY, Ms. XXXX returned to Ms. XXXX for the complaints of nausea and headaches at the back of her head in addition to frontal headaches with exposure to light. She reported that the previous week was difficult. She continued to wear Actigraph watch for monitoring her activity levels and sleep. Ms. XXXX noted that Ms. XXXX continued to experience increased dizziness with quick movements. She further noted that Ms. XXXX had made good progress that week and fully participated in all activities. Her Actigraph results were reviewed. Ms. XXXX was advised to take Zofran in the morning before school. She was recommended to continue her ongoing medications, continue receiving acupuncture two to three times a week, continue weaning off sunglasses, maintain sleep hygiene, as well as perform home exercises. She was referred to Hospital Educational Advocacy Liaisons for neuropsychological testing. She was also recommended to continue undergoing the Pediatric Pain Rehabilitation Program. Her discharge was estimated to be in three weeks. (*Pdf ref: 774-778*)

On the same day (August 25, YYYY), a care conference was attended by Ms. XXXX, her mother, and her treating professionals. She reported that the fifth week at PReP had been challenging. She was recommended to wear brown tinted sunglasses instead of her usual dark tinted sunglasses. (Pdf ref: 783-784)

On September 1, YYYY, Ms. XXXX presented to XXXX, M.D., and Ms. XXXX at XXXX Health for the complaints of worsening headaches. She rated her pain level as 9/10. She also complained of nausea and dizziness, particularly with prolonged standing. She reported that she had been bruising easily at that time. She requested a refill of Zofran. Propanolol was prescribed. She was advised to take MigreLief nutritional supplement. She received trigger point injections to her head. She was also recommended to continue her ongoing medications, continue receiving acupuncture two times a week, receive soft tissue massage during physical therapy, buy sea-bands acupressure wristbands for nausea relief, purchase a book called acupressure's potent points, gradually wean off sunglasses, maintain sleep



hygiene, as well as perform home exercises. She was also recommended to continue undergoing the Pediatric Pain Rehabilitation Program. She was referred to Hospital Educational Advocacy Liaisons for neuropsychological testing. Her discharge was estimated to be in two weeks. She was advised to follow-up with Dr. XXXX for further evaluation and treatment. (*Pdf ref:* 829-834, 841-848)

On September 8, YYYY, Ms. XXXX had a follow-up visit with Ms. XXXX for further evaluation of her post-concussive syndrome and attention deficit disorder. Topical Lidocaine was prescribed and Synera patches were provided. She was recommended to continue her ongoing medications, repeat trigger point injections on September 14, YYYY, continue receiving acupuncture two times a week, receive soft tissue massage during physical therapy, buy sea-bands acupressure wristbands for nausea relief, purchase a book called acupressure's potent points, gradually wean off sunglasses, maintain sleep hygiene, as well as perform home exercises. She was also recommended to continue undergoing the Pediatric Pain Rehabilitation Program. The team recommended continued therapy through the Concussion Program at XXXX of XXXX County, to continue working on balance, and returning to Dr. XXXX for vision therapy. She was referred to Hospital Educational Advocacy Liaisons for neuropsychological testing. Her discharge was estimated to be in one week. (*Pdf ref: 876-882, 889-891*)

From July 28, YYYY, until September 11, YYYY, Ms. XXXX received acupuncture treatment from Mr. Lewis, Dr. XXXX, and Dr. XXXX for the complaints of persistent chronic headaches. (*Pdf ref:* 578-581, 590-593, 763-766, 852-855, 901-904)

On September 14, YYYY, Ms. XXXX presented to XXXX, M.D., for ongoing assessment and medication management. She requested for repeat trigger point injections as her headaches had improved with trigger point injections. On examination, she had poor posture, slouched shoulder as well as tenderness over her neck, shoulders, and upper back. She was diagnosed with chronic daily headaches and nausea consistent with post-concussion syndrome. She received trigger point injections to her forehead and the back of her head. She was recommended to continue taking her ongoing medications, receive soft tissue massage during physical therapy, buy sea-bands acupressure wristbands for nausea relief, purchase a book called acupressure's potent points, gradually wean off sunglasses, maintain sleep hygiene, as well as perform home exercises. She was also recommended to continue undergoing the Pediatric Pain Rehabilitation Program. She was referred to Hospital Educational Advocacy Liaisons for neuropsychological testing. Her discharge was estimated to be in two weeks. (*Pdf ref:* 925-930)



From July 27, YYYY, until September 15, YYYY, Ms. XXXX received psychotherapy from XXXX, M.D., and XXXX, M.D. (*Pdf ref: 1066-1067, 1082*)

From July 25, YYYY, until September 15, YYYY, Ms. XXXX received physical therapy from Ms. XXXX in the Pediatric Pain Rehabilitation Program at XXXX Health for the management of her post-concussion syndrome. Her therapy was comprised of home management training, manual therapy, and therapeutic exercises. (*Pdf ref:* 549-554, 557-561, 564-565, 945-949, 952-956)

On September 19, YYYY, Ms. XXXX returned to Dr. XXXX for the complaints of persistent headaches. She rated the intensity of her headaches as 9/10. She reported that her symptoms improved with trigger point injections. She was advised to continue her ongoing medications as well as follow-up in six months at Mission Neurology Clinic. (*Pdf ref:* 140-145)

On September 26, YYYY, Ms. XXXX had her physical therapy evaluation with XXXX, P.T., at XXXX Hospital of XXXX County for the complaints of post-concussion syndrome. On examination, she had balance deficits, decreased coordinated eye function, frequent headache, and poor resting posture. Visual testing revealed impaired saccades, symptoms reproduction with passive VOR, and limited convergence. She was also noted to have neck tightness, forward head posture, slouched body position, excessive thoracic kyphosis, and posteriorly tilted pelvis. She was recommended to receive physical therapy two times a week for three months. Her therapy plan was comprised of aerobic exercise, balance/coordination, endurance training, home exercise program, manual therapy, neuromuscular reeducation, strengthening, and therapeutic exercises. (*Pdf ref: 166-168*)

From July 25, YYYY, until September 28, YYYY, Ms. XXXX received occupational therapy from Ms. XXXX in the Pediatric Pain Rehabilitation Program at XXXX Health for the management of her post-concussion syndrome. Her therapy was comprised of therapeutic procedures, therapeutic activities, and self-care/home management training. (*Pdf ref:* 547-548, 555-556, 562-563, 865)

From July 24, YYYY, until September 28, YYYY, Ms. XXXX received health and behavioral therapy from XXXX, Ph.D., for management of her post-concussion syndrome. (*Pdf ref: 1021, 1023-1024, 1026-1027*)



On September 28, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX for the complaints of persistent chronic daily headaches. She received PREP treatment from July 24, YYYY, until September 15, YYYY, with great strides of improvement in function. She received trigger point injections to her head and upper back. She was recommended to continue taking her ongoing medications, soft tissue massage during physical therapy, sea-bands acupressure wristbands for nausea relief, purchase a book called acupressure's potent points, gradually wean off sunglasses, follow home exercise program and home medical acupressure at home, continue receiving trigger point injections at home, maintain sleep hygiene and take breaks as needed. She was advised to follow-up in two weeks and was discharged from the facility. (*Pdf ref:* 959-964)

On November 26, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX. She reported that she had made an excellent progress following the Pediatric Pain Rehabilitation Program. She stopped wearing her sunglasses indoors. She showed improvements in her strength, cervical range, endurance, posture, balance and visual motion sensitivity. She was advised to perform short bursts of activity, increased salt intake in her diet, and to participate in restorative Yoga. She was recommended to continue receiving outpatient occupational therapy every two weeks for six weeks, continue to follow-up with her vision therapist, and perform home exercises. She was advised to continue receiving trigger point injections as well as follow-up with Dr. XXXX on an as needed basis. (*Pdf ref: 950-951*)

On March 14, YYYY, XXXX, Ph.D., at The Neurobehavioral Clinic and Counseling Center drafted a correspondence regarding Ms. XXXX neuropsychological examination that occurred on February 17, YYYY, March 6, YYYY, March 7, YYYY, and March 14, YYYY. Dr. XXXX stated that the examination required several dates due to Ms. XXXX decreased level of cognitive and physical endurance. Ms. XXXX complained of persistent chronic migraines, nausea, hypersensitivity to visual stimuli, occasional diplopia, vestibular and depth perception issues, fatigue, anxiety, and memory-based difficulties. She continued to experience increased heart rate and decreased blood pressure levels with standing. She reported that her dreams revolve around the fall incident and her cheer coach. She had been upset about the incident and had negative feelings about her cheer coach. On examination, her mood was stable to dysphoric. She had profoundly impaired pure motor speed bilaterally, borderline gross upper extremity strength for the right side, borderline manipulative dexterity and fine motor skills for both hands, moderately impaired simple auditory-verbal attention, severe to profoundly impaired complex attention-based skills with marked decrement in speed and increased error rate, borderline impaired long/delayed recall for word list, story, or narrative as well as daily living. She was noted to have



dysphoria, depression, multiple fears, anxiety as well as anxiety-based difficulties that included nightmares and intrusive ideation. She had decreased levels of cognitive and physical endurances. She had nausea in reaction to her headache and her headache worsened with cognitive exertion. She was recommended to continue receiving psychotherapy, undergo a psychiatric evaluation for prescribing psychotropic medications, and family therapy. (*Pdf ref:* 405-432)

From October 19, YYYY, until March 22, YYYY, Ms. XXXX received physical therapy from XXXX, P.T., at XXXX Hospital of XXXX County for the management of her post-concussion syndrome and postural orthostatic tachycardia syndrome. Her therapy was comprised of manual therapy, neuromuscular re-education, and therapeutic exercise. (*Pdf ref: 169-176, 189-213*)

On March 23, YYYY, Ms. XXXX had a follow-up visit with Dr. XXXX for the complaints of persistent migraines headaches, vestibular issues, tachycardia associated with POTS, and nausea. She was recommended to continue receiving physical therapy for neck tightness and consult a gastroenterologist. She was advised to follow-up with neurology. (*Pdf ref: 146-150*)

On March 5, 2020, Ms. XXXX had an independent neurological examination with XXXX, M.D., A.P.C., for the complaints of persistent headaches, nausea, visual disturbances, postural orthostatic tachycardia syndrome, and concentration/attention issues. She rated the intensity of her headaches as 7-10/10. She reported that her headaches worsened with exercises or riding in a car. She also complained of light sensitivity, noise sensitivity, vision processing difficulties, and dizziness. She reported that her ability to concentrate had been interfered by headaches, nausea, and dizziness post the injury that occurred on January 7, YYYY. She had difficulty with driving as well as uses a grab bar while bathing. On examination, she had tightness in her neck. She appeared to be tearful at times. On a phone conference with Nancy Markel, Ph.D., noted that she had slow processing speed and attention, moderate depression, and mild anxiety. Dr. XXXX also stated that Ms. XXXX MMPI was suggestive of somatic emotional dysfunction. She was diagnosed with concussion without loss of consciousness, chronic post-traumatic headaches, chronic post concussive syndrome, attention deficit hyperactivity disorder, adjustment reaction with depression/anxiety. Dr. XXXX opined that Ms. XXXX post-concussive syndrome and adjustment reaction with depression/anxiety were consistent with the head injuries that occurred on January 7, YYYY, and February YYYY. He also opined that Ms. XXXX ongoing symptoms were unrelated to the mock practice that occurred on January 10, YYYY. Ms. XXXX was recommended to follow-up with her neurologist, psychologist, psychiatrist, and cardiologist for further management. She



was also recommended to continue taking Vyvanse, Effexor, Propanolol, Florinef, Emigality, and Zofran. She was also advised to receive Botox injections for pain relief. (*Pdf ref: 461-471*)

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