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Notice of Independent Review Decision

DATE OF REVIEW: April 5, 2011

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE
Custom cranial implant for cranial defect

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION
Board Certified Neurosurgeon

REVIEW OUTCOME

Upon independent review the reviewer finds that the previous adverse determination/adverse determinations should be:

☒ Overturned (Disagree)

Medical documentation **supports** the medical necessity of the health care services in dispute.

INFORMATION PROVIDED TO THE IRO FOR REVIEW

Dr.:

- Office visits (05/18/10 – 02/24/11)
- Diagnostic (08/20/10)

- Hospitalization notes (04/12/10 – 04/28/10)
- Office visits (05/18/10 – 02/24/11)
- Diagnostic (08/20/10)

TDI:

- Utilization reviews (02/11/11 – 03/11/11)

ODG has been utilized for the denials.

PATIENT CLINICAL HISTORY [SUMMARY]:

The patient is a male who was working in an and a large piece of metal blew off of a piece of equipment and struck him in the face at a high velocity on xx/xx/xx.

2010: Following the injury the patient was taken to the emergency room (ER) where he was evaluated by M.D.; M.D., and M.D., for facial trauma and open depressed skull fracture. According to the EMS the patient was unattended until they arrived on scene 90 minutes after the insult. The patient was not responding neurologically and was intubated by EMS. He arrived in the trauma bay with a Glasgow Coma Scale (GCS) of 3T having received succinylcholine for RSI and had bandage around his head with combi-tube in place C-collar on and lying on a back board. Examination of the skin revealed positive goose-bumps. Examination of the head revealed a large 15 cm diagonal laceration/avulsion from medial upper lip through the medial canthus of the right eye and extending superolaterally through the right forehead with possible extrusion of the brain matter and possible disruption of the right globe. Computerized tomography (CT) scan of the head revealed multiple facial fractures, frontal skull fracture, frontal contusion and depressed fragmentation of the skull into the frontal area. CT scan of the cervical spine was unremarkable. CT of the facial area demonstrated fractures involving maxilla, zygoma, orbits, frontal bone, maxillary sinus region and ethmoid sinus region, depressed skull fractures on the right, fluid in the maxillary sinuses and all of the ethmoid bones, orbital regions, maxillary regions, zygoma and frontal areas completely disrupted with too numerous to count fracture fragments. The patient was started on prophylactic antibiotics and seizure prophylaxis; recommended neurosurgery, ENT and orthopedic consultation; joint washout with ENG/NSY; admission to ICU for initial therapy and securing airway by tracheostomy and emergent craniotomy for elevation of depressed skull fracture and possible ventriculostomy placement.

On xx/xx/xx, the patient underwent open tracheostomy and facial washout; on April 17, 2010, he underwent right decompressive craniectomy and on April 18, 2010, underwent repair of the bilateral ruptured globes. Postoperatively, the patient attended physical therapy (PT) and speech therapy.

In May, M.D., noted that following the injury the patient was taken to the OR for an irrigation and drainage of opened depressed skull fracture, cranial reconstruction and intracranial pressure (ICP) monitor placement. He suffered from intractable ICP and had to have right decompressive craniectomy and contusionectomy with dural graft. He was unable to see from either eye and was ambulating with assistance and walker and complained of pain from his recent jaw wiring. Dr. opined the patient was neurologically improving and was in stable condition and recommended focused neurological rehab and replacement of his bone flap after full three months after the injury. On follow-up, Dr. noted that the patient done well in rehab and was discharged. He was communicating well and ambulated with the assistance of another person to guide him. Dr. assessed cranial defect status post decompressive craniectomy and opined that due to his initial incision prior to decompression was an open infected wound/laceration, the reconstruction would involve prosthesis. He ordered a thin cut CT scan of the head without contrast for plans to develop prosthesis for that site.

In August, CT scan of the head revealed gliosis and encephalomalacia in the right frontal and right temporal regions in keeping with old traumatic brain injury and traumatic injury to the globes and extensive facial fractures.

2011: Per utilization review dated February 11, 2011, the request for custom cranial implant for cranial defect was denied with the following rationale: *"This is*

male patient s/p injury xx/xx/xx, s/p severe traumatic brain injury with open depressed skull fracture, s/p I&D of opened depressed skull fracture, cranial reconstruction and ICP monitor placement xx/xx/xx, and s/p right craniectomy and contusionectomy with dural graft for intractable ICP on April 17, 2010. No recent medical reports identifying the patient's clinical condition, including subjective/objective findings, have been made available for review. Per July 21, 2010, medical note; at this time the patient is now greater than three months out from his surgery, due to the fact that his initial incision prior to decompression was an open infected wound/laceration, I feel it is prudent that any reconstruction will involve a prosthesis, as such, we will obtain a thin cut CT scan of the head without contrast for plans to develop a prosthesis for this alta. Within the medical information available for review, there is no documentation of a recent medical report identifying the patient's condition, including subjective/objective findings and addressing the medical necessity of a custom cranial implant. In addition, the July 21, 2010, physician's note identifies that a CT scan of the head will be obtained to develop a prosthesis for this site. No imaging studies have been provided. Therefore, the request is not certified."

On February 24, 2011, Dr. assessed cranial defect status post decompressive craniectomy. He recommended proceeding with cranioplasty. He stated that the prosthesis was ready and available. The patient was seen by a neurologist who was interested in obtaining magnetic resonance imaging (MRI) regarding the nature of his brain injury. Dr. ordered this to include with and without contrast.

Per reconsideration review dated March 11, 2011, the appeal for custom cranial implant for cranial defect was denied with the following rationale: *"This is a male patient s/p injury xx/xx/xx , s/p severe traumatic brain injury with open depressed skull fracture, s/p I&D of opened depressed skull fracture, cranial reconstruction and ICP monitor placement xx/xx/xx, and s/p right decompressive craniectomy and contusionectomy with dural graft for intractable ICP April 17, 2010. No recent medical reports identifying the patient's clinical condition, including subjective and objective findings, CT scan findings, and the medical necessity for a custom cranial implant have been made available for review. Per July 21, 2010, medical note; at this time the patient is now greater than three months out from his surgery, due to the fact that his initial incision prior to decompression was an open infected wound/laceration, I feel it is prudent that any reconstruction will involve a prosthesis, as such, we will obtain a thin cut CT scan of the head without contrast for plans to develop a prosthesis for this site. February 11, 2011, determination identified that there was no documentation of a recent medical report identifying the patient's clinical condition, including subjective/objective findings and addressing the medical necessity of a custom cranial implant, additionally a CT scan of the head was to be obtained to develop prosthesis and no imaging findings have been provided. Within the medical information available for review there remains no documentation of a recent medical report including subjective and objective findings, CT scan findings and the medical necessity for a custom cranial implant. Therefore, the request is still not certified."*

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION.

THIS IS A YOUNG MAN WHO ON XX/XX/XX , WAS INVOLVED WITH AN ACCIDENT WHERE HE WAS HIT IN THE HEAD. HE WAS RENDERED UNCONSCIOUS AND SUSTAINED A FACIAL INJURY WITH FRACTURES TO THE ORBIT, SKULL, ETC. HE WAS RENDERED UNCONSCIOUS AND WAS TAKEN TO THE HOSPITAL. HE WAS FOUND TO HAVE AN OPEN DEPRESSED SKULL FRACTURE, ORBITAL FRACTURE, ETC. HE SUBSEQUENTLY DEVELOPED INTERCRANIAL PRESSURE ELEVATION AND WAS TREATED FOR THAT APPROPRIATELY. THE WOUNDS WERE DEBRIDED AND THE FRACTURE WAS ELEVATED.

SUBSEQUENTLY, THE WOUND WAS INFECTED AND HEALED.

HE HAD NEUROLOGICAL DEFICIT AND GRADUALLY AND PROGRESSIVELY IMPROVED AND WAS SUBJECTED TO REHABILITATION.

IT WAS REQUESTED TO REPAIR THE CRANIAL DEFECT WITH A PROSTHESIS. THE PROCEDURE WAS DENIED INITIALLY AND ON APPEAL WAS ALSO DENIED.

AT THIS TIME WHICH IS NOW JUST ABOUT A YEAR POST-INJURY, IT IS REQUESTED FOR THE CRANIAL DEFECT TO BE REPAIRED.

BASED ON THE ODG CRITERIA, THE TIMING, THE OBVIOUS LACK OF INFECTION OF THE WOUND, IT IS APPROPRIATE FOR THE PROSTHESIS TO BE PUT IN THE SKULL OF THIS GENTLEMAN TO CLOSE THE CRANIAL DEFECT.

A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:

☒ **ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES**