

<b>Case Number:</b>	CM15-0083398		
<b>Date Assigned:</b>	05/05/2015	<b>Date of Injury:</b>	12/09/2014
<b>Decision Date:</b>	06/10/2015	<b>UR Denial Date:</b>	04/30/2015
<b>Priority:</b>	Standard	<b>Application Received:</b>	04/30/2015

### HOW THE IMR FINAL DETERMINATION WAS MADE

MAXIMUS Federal Services sent the complete case file to an expert reviewer. He/she has no affiliation with the employer, employee, providers or the claims administrator. He/she has been in active clinical practice for more than five years and is currently working at least 24 hours a week in active practice. The expert reviewer was selected based on his/her clinical experience, education, background, and expertise in the same or similar specialties that evaluate and/or treat the medical condition and disputed items/Service. He/she is familiar with governing laws and regulations, including the strength of evidence hierarchy that applies to Independent Medical Review determinations.

The Expert Reviewer has the following credentials:  
 State(s) of Licensure: California  
 Certification(s)/Specialty: Internal Medicine

### CLINICAL CASE SUMMARY

The expert reviewer developed the following clinical case summary based on a review of the case file, including all medical records:

The injured worker is a 47 year old, male who sustained a work related injury on 12/9/14. The diagnoses have included acute and chronic headaches and status post frontal lobe concussion. The treatments have included speech and language therapy and physical therapy for vertigo. He had a CT scan of brain on 1/11/15, which was essentially negative. MRI of brain done on 1/15/15 was negative. He had an EEG done on 2/25/15 with an impression of "drowsy EEG." In the PR-2 dated 4/7/15, the injured worker has speech difficulties and amnesia. He has memory difficulties. He has intermittent headaches. He has dizziness when standing for 10 to 15 minutes. The treatment plan is is for a CT angiogram of head and PET scan of head.

### IMR ISSUES, DECISIONS AND RATIONALES

The Final Determination was based on decisions for the disputed items/services set forth below:

**CT Angiogram- Head:** Upheld

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) 2014, Head.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Head (trauma, headaches, etc.) MRA (magnetic resonance angiography), MRI (magnetic resonance imaging), CT (computed tomography), Imaging. American College of Radiology <http://www.acr.org/~media/e690cb12905b44788b9e4175d68b5c07.pdf>.

**Decision rationale:** Medical Treatment Utilization Schedule (MTUS) does not address CT angiogram of the head. Official Disability Guidelines (ODG) indicates that due to its high contrast resolution, MRI scans are superior to CT scans for the detection of some intracranial pathology, except for bone injuries such as fractures. MRI may reveal an increased amount of pathology as compared with CT. Specific MRI sequences and techniques are very sensitive for detecting traumatic cerebral injury. MRI scans are useful to assess transient or permanent changes, to determine the etiology of subsequent clinical problems, and to plan treatment. MRI is more sensitive than CT for detecting traumatic cerebral injury. MRI scans are generally recommended as opposed to CT once the initial acute stage has passed. Since the development of CT in the mid-1970s, the need for cerebral angiography for head injury has dramatically declined. Cerebral angiography has a role in demonstrating and managing traumatic vascular injuries such as pseudoaneurysm, dissection, or diagnosis and neurointerventional treatment of uncontrolled hemorrhage. Vascular injuries typically occur with penetrating trauma (i.e., gunshot wound or stabbing), basal skull fracture, or trauma to the neck. MRA is helpful for screening of vascular lesions such as thromboses, pseudoaneurysms, or dissection. Dynamic spiral CT angiography (CTA) and magnetic resonance angiography (MRA) have a role as less invasive screening tools for detection of traumatic vascular lesions. MRA and fat-suppressed T1-weighted MR or CTA may reveal carotid or vertebral dissection, although angiography remains the standard. American College of Radiology (ACR) and American Society of Neuroradiology (ASNR) practice parameter for the performance and interpretation of cervicocerebral computed tomography angiography (CTA) indicates that cervicocerebral computed tomography angiography (CTA) is a procedure for the detection and characterization of vascular diseases and of vascular anatomy relevant to the treatment of extravascular disorders. CTA is a medical imaging technology that exposes patients to ionizing radiation. CTA should be performed only for a valid medical reason and with the minimum exposure, that provides the image quality necessary for adequate diagnostic information. The progress report dated 3/22/15 documented a history of motor vehicle accident and concussion. Head was atraumatic, normocephalic. The patient was oriented times three, intact memory, intact judgment and insight. Date of injury was 12-09-2014. Magnetic resonance imaging MRI of the brain with and without Magnevist contrast dated 01-11-2015 demonstrated a normal brain MRI. Brain volume is normal. Parenchyma and dura - no masses, acute infarcts, or hemorrhage. No areas of diffusion restriction or abnormal enhancement. White matter lesions - no significant areas of abnormal signal intensity. Ventricles and cisterns - normal in size and configuration. Cerebellar tonsils - normal position. Pituitary gland is normal. Bones are normal. Soft tissues are normal. A normal brain MRI was the impression. Computed tomography CT of the brain with and without Omnipaque contrast dated 01-11-2015 demonstrated that the brain parenchyma and ventricles are unremarkable. No enhancing abnormalities are identified. There is no hydrocephalus. There is no acute intracranial hemorrhage, midline shift, or mass effect. No extra-axial fluid collections are identified. Osseous calvarium is intact. Mastoid air cells are unremarkable. No CT evidence of mass, hemorrhage or acute infarction. CT angiogram head was requested on 03/22/15. The

1/11/15 MRI of the brain with and without contrast was reported as normal, with no evidence of vascular disorder. The 1/11/15 CT of the brain with and without contrast was reported as normal, with no evidence of vascular disorder. Both the contrast enhanced CT and contrast enhanced MRI reported a normal brain. There was no objective evidence of vascular disorder. Therefore, the request for a CT angiogram is not supported by clinical practice guidelines. Therefore, the request for CT angiogram is not medically necessary.

**PET Scan- Head:** Upheld

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) , 2014, Head.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Head (trauma, headaches, etc.) PET (positron emission tomography). Work Loss Data Institute - Head (2013) <http://www.guideline.gov/content.aspx?id=47581>.

**Decision rationale:** Medical Treatment Utilization Schedule (MTUS) does not address PET (positron emission tomography). Official Disability Guidelines (ODG) indicates that PET (positron emission tomography) is under study. It is not generally accepted as a diagnostic study and should not be used solely to diagnose the presence of TBI traumatic brain injury. Work Loss Data Institute guidelines (2013) indicates that positron emission tomography (PET) is under study and not recommended. The progress report dated 3/22/15 documented a history of motor vehicle accident and concussion. Head was atraumatic, normocephalic. The patient was oriented times three, intact memory, intact judgment and insight. Date of injury was 12-09-2014. Magnetic resonance imaging MRI of the brain with and without Magnevist contrast dated 01-11-2015 demonstrated a normal brain MRI. Brain volume is normal. Parenchyma and dura - no masses, acute infarcts, or hemorrhage. No areas of diffusion restriction or abnormal enhancement. White matter lesions - no significant areas of abnormal signal intensity. Ventricles and cisterns - normal in size and configuration. Cerebellar tonsils - normal position. Pituitary gland is normal. Bones are normal. Soft tissues are normal. A normal brain MRI was the impression. Computed tomography CT of the brain with and without Omnipaque contrast dated 01-11-2015 demonstrated that the brain parenchyma and ventricles are unremarkable. No enhancing abnormalities are identified. There is no hydrocephalus. There is no acute intracranial hemorrhage, midline shift, or mass effect. No extra-axial fluid collections are identified. Osseous calvarium is intact. Mastoid air cells are unremarkable. No CT evidence of mass, hemorrhage or acute infarction. PET scan head was requested on 03/22/15. The 1/11/15 MRI of the brain with and without contrast was reported as normal, with no evidence of vascular disorder. The 1/11/15 CT of the brain with and without contrast was reported as normal, with no evidence of vascular disorder. Both the contrast enhanced CT and contrast enhanced MRI reported a normal brain. Official Disability Guidelines (ODG) indicates that PET (positron emission tomography) is under study. It is not generally accepted as a diagnostic study and should not be used solely to diagnose the presence of TBI traumatic brain injury. Work Loss Data Institute guidelines (2013) indicates that positron emission tomography (PET) is under

study and not recommended. The request for a PET scan is not supported by clinical practice guidelines. Therefore, the request for PET scan is not medically necessary.