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| <b>Case Number:</b>   | CM13-0043798 |                              |            |
| <b>Date Assigned:</b> | 12/27/2013   | <b>Date of Injury:</b>       | 11/03/2005 |
| <b>Decision Date:</b> | 02/28/2014   | <b>UR Denial Date:</b>       | 10/17/2013 |
| <b>Priority:</b>      | Standard     | <b>Application Received:</b> | 10/31/2013 |

### HOW THE IMR FINAL DETERMINATION WAS MADE

MAXIMUS Federal Services sent the complete case file to a physician reviewer. He/she has no affiliation with the employer, employee, providers or the claims administrator. The physician reviewer is Board Certified in Physical Medicine & Rehabilitation and is licensed to practice in Illinois. 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 physician 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/services. He/she is familiar with governing laws and regulations, including the strength of evidence hierarchy that applies to Independent Medical Review determinations.

### 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 physician reviewer developed the following clinical case summary based on a review of the case file, including all medical records: The patient is a 52-year-old male who reported an injury on 11/03/2005. The mechanism of injury was not provided for review. The patient's low back injury ultimately resulted in posterior lumbar interbody fusion from the L4-S1 levels. A retrospective request was made for intraoperative neurophysiological testing for the surgical date of 06/28/2013.

### IMR ISSUES, DECISIONS AND RATIONALES

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

#### **Five intra-operative neurophysiology testing per hour on 6-28-2013: Overturned**

**Claims Administrator guideline:** The Claims Administrator did not cite any medical evidence for its decision.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG).

**Decision rationale:** The requested 5 intraoperative neurophysiology testing per hour on 06/28/2013 is medically necessary and appropriate. The Official Disability Guidelines recommend this type of intraoperative monitoring as an option for spinal procedures that have a significant risk of complications that can be prevented through the use of neurophysiological

monitoring. The clinical documentation submitted for review does provide evidence that the patient had a multilevel fusion, which did put the patient at risk for developing complications that could be monitored for prevention intraoperatively. The Official Disability Guidelines state, "The following types of intraoperative monitoring may be necessary: somatosensory evoked potentials, brainstem auditory evoked potentials, EMG of cranial or spinal nerves, EEG and electrocorticography (ECOG)." It was also stated, "However, in the majority of routine orthopedic spine procedures, mostly laminectomy, discectomy or spinal fusion surgeries, procedures that do not actually involved the spinal cord itself but are very close to the spinal cord; the use of monitoring should be at the discretion of the surgeon." As the clinical documentation submitted for review does indicate that the patient underwent a multilevel spinal surgery, and the insertion of pedicle screws could result in spinal cord injury; the requested intraoperative neurophysiological monitoring (during surgery) is medically necessary and appropriate.

**One short-latency somatosensory evoked potential study stimulation of any/all peripheral nerves or skin sites, recording from central nervous system, upper limbs on 6-28-2013**  
<<Insert Treatment 2>>: Upheld

**Claims Administrator guideline:** The Claims Administrator did not cite any medical evidence for its decision.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG).

**Decision rationale:** The decision for 1 short latency somatosensory evoked potential study stimulation of any and all peripheral nerves or skin sites recording from the central nervous system, upper limbs on 06/28/2013 was not medically necessary or appropriate. The Official Disability Guidelines do not recommend intraoperative EMG and nerve conduction velocity monitoring on peripheral nerves during surgery. Additionally, intraoperative monitoring is not recommended for intraoperative visual evoked potentials and motor evoked potentials. Additionally, the clinical documentation submitted for review does not provide any evidence that the patient's cervical spine is involved in the surgery, and the requested surgery would affect the upper extremities. Therefore, the need for intraoperative monitoring of the peripheral nerves of the upper extremities would not be medically necessary or appropriate.

**One short-latency somatosensory evoked potential study stimulation of any/all peripheral nerves or skin sites, recording from central nervous system, lower limbs on 6-28-2013:**  
Overturned

**Claims Administrator guideline:** The Claims Administrator did not cite any medical evidence for its decision.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG).

**Decision rationale:** The requested 1 short latency somatosensory evoked potential study stimulation of any and all peripheral nerves or skin sites recording from the central nervous system, lower limbs on 06/28/2013 is medically necessary and appropriate. The Official Disability Guidelines recommend this type of intraoperative monitoring as an option for spinal procedures that have a significant risk of complications that can be prevented through the use of neurophysiological monitoring. The clinical documentation submitted for review does provide evidence that the patient had a multilevel fusion, which did put the patient at risk for developing complications that could be monitored for prevention intraoperatively. The Official Disability Guidelines state, "The following types of intraoperative monitoring may be necessary: somatosensory evoked potentials, brainstem auditory evoked potentials, EMG of cranial or spinal nerves, EEG and electrocorticography (ECOG)." It was also stated, "However, in the majority of routine orthopedic spine procedures, mostly laminectomy, discectomy or spinal fusion surgeries, procedures that do not actually involved the spinal cord itself but are very close to the spinal cord; the use of monitoring should be at the discretion of the surgeon." As the clinical documentation submitted for review does indicate that the patient underwent a multilevel spinal surgery, and the insertion of pedicle screws could result in spinal cord injury; the requested 1 short latency somatosensory evoked potential study stimulation of any and all peripheral nerves or skin sites recording from the central nervous system, lower limbs on 06/28/2013 is medically necessary and appropriate.

**Two needle electromyography; limited study of muscles in one extremity or non-limb (axial) muscles (unilateral or bilateral), other than thoracic paraspinal, cranial nerve supplied muscles, or sphincters on 6-28-2013: Upheld**

**Claims Administrator guideline:** The Claims Administrator did not cite any medical evidence for its decision.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG).

**Decision rationale:** The decision for 2 needle electromyography limited study of muscles in 1 extremity or non-limb (axial) muscles (unilateral or bilateral), other than thoracic paraspinal, cranial nerve supplied muscles or sphincters on 06/28/2013 was not medically necessary or appropriate. The Official Disability Guidelines do not recommend intraoperative EMG and nerve conduction velocity monitoring on peripheral nerves during surgery. Additionally, intraoperative monitoring is not recommended for intraoperative visual evoked potentials and motor evoked potentials. Additionally, the clinical documentation submitted for review does not provide any evidence that the patient's cervical spine is involved in the surgery, and the requested surgery would affect the upper extremities. Therefore, the need for 2 needle electromyography limited study of muscles in 1 extremity or non-limb (axial) muscles (unilateral or bilateral), other than thoracic paraspinal, cranial nerve supplied muscles or sphincters on 06/28/2013 would not be medically necessary or appropriate.