

<b>Case Number:</b>	CM14-0128144		
<b>Date Assigned:</b>	08/15/2014	<b>Date of Injury:</b>	04/17/2012
<b>Decision Date:</b>	09/26/2014	<b>UR Denial Date:</b>	08/04/2014
<b>Priority:</b>	Standard	<b>Application Received:</b>	08/12/2014

### 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. The expert reviewer is Board Certified in Physical Medicine & Rehabilitation, has a subspecialty in Pain Medicine and is licensed to practice in Texas and Ohio. 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/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 injured worker is a 30-year-old female with a reported date of injury on 04/17/2012. The mechanism of injury was noted to be due to cumulative trauma. Her diagnoses were noted to include lumbar spine myofascial sprain/strain, lumbar spine internal derangement of the discs, lumbar spine stenosis, and lumbar spine radiculopathy. Her previous treatments were noted to include physical therapy, acupuncture, and epidural steroid injection. The progress note dated 07/23/2014 revealed complaints of low back pain. The physical examination of the lumbar spine revealed a lumbar brace and stiffness. There was positive straight leg raise bilaterally, and palpation of the lumbar facet revealed pain on both sides at the L3-S1 region. Palpation of the bilateral sacroiliac joint revealed right and left sided pain. There was a palpable twitch, positive trigger point noted in the lumbar paraspinal muscles. There was pain noted with lumbar extension. The Patrick's (faber) test was positive bilaterally, as well as the Gaenslen's test. The motor strength examination was normal, and the lower extremity sensation was intact, except for the decreased sensation in the L5-S1 distribution. The request is for a genetic metabolism test to evaluate drug metabolism as well as the risk of side effects and a genetics opioid risk test to identify the genetic risk factors of narcotic abuse, tolerance, and dependence, to improve patient outcomes.

### IMR ISSUES, DECISIONS AND RATIONALES

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

**Genetic metabolism test:** Upheld

**Claims Administrator guideline:** Decision based on MTUS Chronic Pain Treatment Guidelines DNA Testing for Pain.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) ), Pain, Genetic Testing for Potential Opioid Abuse.

**Decision rationale:** The request for Genetic metabolism test is not medically necessary. The injured worker has been utilizing opioids. The Official Disability Guidelines state genetic testing for potential opioid abuse is not recommended. The guidelines state while there appears to be a strong genetic component to addictive behavior, current research is experimental in terms of testing for this. Studies are inconsistent and with inadequate statistics and large phenotype range. Different studies use different criteria for definition of controls. More work is needed to verify the role of variance suggested to be associated with addiction and for clearer understanding of their role in different populations. Translating pharmacogenetics to clinical practice has been particularly challenging in the context of pain, due to the complexity of this multifaceted phenotype and the overall subjective nature of pain perception and response to analgesia. Overall, numerous genes involved in the pharmacokinetics and dynamics of opioid response are candidate genes in the context of opioid analgesia. Overall, the level of evidence linking genetic variation to opioid response is strong; however, there has been no randomized clinical trial in the benefits of genetic testing prior to oxycodone therapy. On the other hand, predicting the analgesic response to morphine based on pharmacogenetic testing is more complex, and though there was hope that simple genetic testing would allow tailoring morphine doses to provide optimal analgesia, this is unlikely to occur. A variety of polymorphisms clearly influence pain perception and behavior in response to pain. However, the response to analgesics also differs depending on pain modality and the potential for repeated noxious stimuli, the opioid prescribed, and even its route of administration. The guidelines do not recommend genetic metabolism testing due to the lack of evidence. Therefore, the request is not medically necessary.

**Genetic opioid risk test:** Upheld

**Claims Administrator guideline:** Decision based on MTUS Chronic Pain Treatment Guidelines DNA Testing for Pain.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Pain, Genetic Testing for Potential Opioid Abuse.

**Decision rationale:** The request for Genetic opioid risk test is not medically necessary. The injured worker has been utilizing opioids. The Official Disability Guidelines state genetic testing for potential opioid abuse is not recommended. The guidelines state while there appears to be a strong genetic component to addictive behavior, current research is experimental in terms of testing for this. Studies are inconsistent and with inadequate statistics and large phenotype range. Different studies use different criteria for definition of controls. More work is needed to verify the role of variance suggested to be associated with addiction and for clearer understanding of

their role in different populations. Translating pharmacogenetics to clinical practice has been particularly challenging in the context of pain, due to the complexity of this multifaceted phenotype and the overall subjective nature of pain perception and response to analgesia. Overall, numerous genes involved in the pharmacokinetics and dynamics of opioid response are candidate genes in the context of opioid analgesia. Overall, the level of evidence linking genetic variation to opioid response is strong; however, there has been no randomized clinical trial in the benefits of genetic testing prior to oxycodone therapy. On the other hand, predicting the analgesic response to morphine based on pharmacogenetic testing is more complex, and though there was hope that simple genetic testing would allow tailoring morphine doses to provide optimal analgesia, this is unlikely to occur. A variety of polymorphisms clearly influence pain perception and behavior in response to pain. However, the response to analgesics also differs depending on pain modality and the potential for repeated noxious stimuli, the opioid prescribed, and even its route of administration.