MAXIMUS Federal Services

| Case Number: | CM15-0141912 | | |
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| Date Assigned: | 07/31/2015 | Date of Injury: | 04/01/2013 |
| Decision Date: | 09/02/2015 | UR Denial Date: | 06/25/2015 |
| Priority: | Standard | Application Received: | 07/21/2015 |

## 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: Montana, Oregon, Idaho
Certification(s)/Specialty: Orthopedic Surgery

## 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(n) 42 year old male, who sustained an industrial injury on 4-1-13. He reported injury to his lower back with radiating pain to his left leg. The injured worker was diagnosed as having lumbosacral strain and history of L4-L5 disc bulge degenerative type. Treatment to date has included an intra-articular/medial branch block at L4-L5 on 5-14-15 with 80% improvement, trigger point injections, chiropractic treatments, acupuncture and physical therapy x 6 months with minimal improvement. As of the PR2 dated 5-28-15, the injured worker reports sharp pain in his lower back with certain positions such as rotation or hyperextension. Objective findings include focal tenderness at the right facet joint and pain with lumbar rotation and right lateral bending. The treating physician requested an iliac crest bone marrow harvest with concentration of mensenchymal fluid potent cells reimplantation into the facet joint under fluoroscopic guidance and 2 hours of hyperbaric chamber treatment within 24 hours following injection.

## IMR ISSUES, DECISIONS AND RATIONALES

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

**Iliac crest bone marrow harvest with concentration of mensenchymal fluid potent cells reimplantation into the facet joint under fluoroscopic guidance:** Upheld

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines.

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

**Decision rationale:** The CA/MTUS is silent on the subject of autologous stem cell transplantation for the treatment of low back pain. According to ODG, low back- thoracic lumbar, stem cell therapy has been used for osteoarthritis, rheumatoid arthritis, spinal injury, degenerative joint disease, autoimmune diseases, systemic lupus erythematosus, cerebral palsy, critical limb ischemia, diabetes type 2, heart failure, multiple sclerosis, and other conditions. Adult stem cells are harvested from many areas of the body, including the bone marrow, fat and peripheral blood, and they are purified and reintroduced back in the patient. According to the theory, stem cells isolated from a patient (i.e. from the bone marrow or fat) have the ability to become different cell types (i.e. nerve cells, liver cells, heart cells and cartilage cells), and they are capable of "homing in" on and repairing damaged tissue. At present, research on intervertebral disc regeneration is at the stage of animal studies, but studies have been conducted on regenerating intervertebral discs. Because there is a lack of evidence to support its use for the treatment of lumbar facet pain, this request for iliac crest bone marrow harvest with autologous stem cell preimplantation into the facet joints is not medically necessary.

**Associated Surgical Service: 2 hours of Hyperbaric Chamber Treatment within 24 hours following injection:** Upheld

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines.

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

**Decision rationale:** The CA/MTUS is silent on the subject of hyperbaric oxygen for the treatment of low back pain. According to ODG, low back- lumbar and thoracic, hyperbaric oxygen treatment is recommended as an option for diabetic skin ulcers. The routine use of hyperbaric oxygen therapy (HBOT) is not justified for any type of wound. Its use is under study for sciatic nerve injury. At this time there are no quality human studies, but promising results in animals. Hyperbaric oxygen (HBO) treatment in research settings has produced promising results when used to treat neuropathic pain, including injury of the sciatic nerve. In this case, the documentation indicates the use of hyperbaric oxygen for the treatment of low back pain, an unindicated diagnosis lacking evidence to support its efficacy in the treatment of lumbar facet pain. The request for hyperbaric chamber treatment is not medically indicated or appropriate.