# Vanguard MedReview, Inc.

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December 7, 2017

IRO CASE #: XXXX

#### DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

Right Hip Arthroscopy with Labral/Acetabular Debridement, Possible Labral repair, with assistant, as outpatient

# A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:

This case was reviewed by a Board Certified Doctor of Orthopedic Surgery with over 18 years of experience.

#### **REVIEW OUTCOME:**

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

⊠ Upheld	(Agree)
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Provide a description of the review outcome that clearly states whether medical necessity exists for <u>each</u> of the health care services in dispute.

### PATIENT CLINICAL HISTORY [SUMMARY]:

XXXX: MRI Hip Right interpreted by XXXX, **Impression:** 1. The right hip joint is abnormal. Femoroacetabular impingement of the right hip joint is seen with a lateral femoral head/neck bump consistent with femoroacetabular impingement. 2. No occult fracture, avascular necrosis or degenerative joint disease of the right hip joint is seen. 3. A tear of the acetabular labrum is seen on coronal images. No paralabral cyst is identified.

XXXX: Office Visit by XXXX, by XXXX, **Subjective:** Right Hip MRI showed femoroacetabular impingement of the right hip joint. A tear of the acetabular labrum. Pain: 9/10 w/o medications. Constant, soreness, throbbing and achy pain. Pain radiates to right calf and is constant all day. Aggravates with ADLs, stairs and motion. **Objective:** Therapeutic exercises/time. **Assessment:** Specific joint derangements of right hip, NEC.

XXXX: Office Visit by XXXX, **Subjective:** Right hip MRI showed femordacetabular impingement of the right hip joint. A tear of the acetabular labrum. Pain: 9/10 without meds. Radiates to right foot, constant all day, aggravates with walking, sitting and standing. **Objective:** Therapeutic exercises/time. **Assessment:** Oth specific joint derangement of right hip, NEC

XXXX: UR performed by XXXX, Rationale for Denial: This case involves a XXXX with a history of an occupational claim from XXX. The mechanism of injury is detailed as XXXX. The current diagnosis is documented as joint derangement of the right hip. The patient underwent a MRI of the right hip on XXXX. The radiological interpretation revealed femerbacetabular impingement of the right hip joint with a lateral femoral head/neck consistent with femoroepetabular impingement and a tear of the acetebular labrum was seen on the coronal images. The clinical note dated XXX documented the patient reported persistent sharp right hip pain. The patient rated XXXX pain at rest as a 5-7/10 and reported more pain with activities. It was documented that the patient underwent treatment with NSAID, right hip therapy, steroid injection, and activity modification. Physical findings revealed an antalgic gait, groin tenderness, and hip joint stiffness. The treatment plan included the request for a right hip arthroscopy with labral/acetabular debridement, possible labral: repair. According to the ODG indications for acetabular labrum surgery should include symptomatic acetabular labral tears, failure of a minimum of 8 weeks conservative treatment, persistent mechanical symptoms, physical findings of hip tenderness, pain on extremes of motion, and positive anterior hip impingement test, MRI shows sizable labral tear, absent or minimal arthritic changes, XXXX, and BMI under 30. In the clinical documentation provided for review, the MRI of the right hip disc reveal femoroacetabular impingement and a tear of the acetabular labrum. Symptoms have persisted despite conservative care. However, there is lack of mechanical symptoms or positive impingement test documented upon physical examination. Additionally, the patient BMI or height/weight was not provide for review. Furthermore, the patient's age XXXX. Therefore, the request for right hip arthroscopy with labral/acetabular debridement, possible labral repair, with assistant as outpatient is not medically necessary.

XXXX: Office Visit by XXXX, MD by XXXX. **HPI:** Patient is a XXXX who sustained a work related injury to XXXX left foot and right hip on XXXX- "fell at work". Patient underwent treatment with NSAID's right hip therapy, steroid injection and activity modifications. Right Hip MRI showed evidence for a labral tear, and impingement. Patient present today in XXXX still c/o sharp right hip pain. Pain at rest is 7/10. More pain with activities.

XXXX: UR performed by XXXX, Rationale for Denial: Not medically necessary

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

The request for right hip arthroscopy with labral/acetabular Debridement, possible labral repair, with assistant, as outpatient, is denied.

The Official Disability Guidelines (ODG) supports hip arthroscopy for patients with symptomatic hip pain who have completed a minimum of 6 weeks of conservative treatment. The pathology should be confirmed on MRI. The ideal candidate for this procedure is xxx and has a body mass index (BMI) less than 30. The hip joint should have no arthritis. Patients who do not respond well to intra-articular cortisone injections generally have a poor outcome following hip arthroscopy.

This XXXX has right hip pain following a work injury in XXXX. The MRI of the hip (XXXX) identified femoracetabular impingement (FAI) with a labral tear. There was no hip arthritis identified in this study. The patient has reported pain radiating to XXXX right calf and right foot. XXXX has completed a course of medication, physical therapy, and steroid injection.

This patient does not meet the ODG criteria for hip arthroscopy. XXXX is over the age of XXXXX years. XXXX has no documented impingement sign on examination. There is no documentation of improvement in XXXX condition following a hip injection. XXXX has radiation of pain into the right calf and foot, which may be associated with a secondary source of pain in the lumbar spine.

Based on the records reviewed, the proposed surgery is not medically for this patient.

#### **Per ODG:**

Arthroscopy

Recommended for specific indications based on diagnosis. Improved arthroscopic techniques have been gradually developed to allow examination and treatment of hip joint lesions that were previously only accessible through open surgery requiring hip dislocation.

#### **Indications for arthroscopy:**

For more specific indications, see <u>for femoroacetabular impingement</u> (FAI); <u>Repair of labral tears</u>.

For all other diagnoses except emergency conditions such as intra-articular fracture or infection:

- \* Symptomatic hip pain and dysfunction refractory to at least 6 weeks of conservative treatment, including rest, anti-inflammatory medications, and physical therapy
- \* MRI and/or X-rays demonstrate clear pathology consistent with an arthroscopically treatable diagnosis (diagnostic arthroscopy is inappropriate for the hip)
- \* Absent or minimal arthritic changes (Tonnis 0 or 1) AND hip joint space >2 mm AND no chondral defects or subchondral cysts
- \* Under age 50
- \* Body mass index (BMI) <30
- \* No prior ipsilateral surgery for FAI, labral tears, chondral lesions, arthritis, infection, or hip dysplasia

### **Risk versus benefit:**

An SR of 81 primary hip arthroscopy studies involving 9,317 patients noted that over 90% met minimal clinically important difference (MCID) standards and that 5.8% went on to revision arthroscopy with another 5.5% to total hip arthroplasty at just under 3 years. (Levy, 2016) A cohort of 931 primary hip arthroscopies showed 77% patient satisfaction, 4.3% overall complications, and 5.6% conversion to arthroplasty at 2 years. (Domb, 2016) An SR of 53 studies/8189 hips reported a 7.9% major and 0.5% minor complication rate following hip arthroscopic procedures at 2 years. The most common major complications were the result of excessive soft tissue fluid extravasation. (Weber, 2015) Another series of 595 hip arthroscopies reported 7.7% requiring revision arthroscopy and 9.1% going on to arthroplasty at 2 years, with increasing age being the most significant risk factor. (Gupta, 2016a) The risks of almost 8% major complications combined with up to 17% short-term failure requiring re-operation demonstrates that risk may exceed benefit for many hip arthroscopy candidates. Since these reported outcomes are significantly worse than for knee or shoulder arthroscopy, patient selection should be very judicious, and shared decision-making is critical.

The two most common applications of hip arthroscopy include acute labral tears and posttraumatic femoroacetabular impingement (FAI). For specific indications regarding these conditions, see <a href="Surgery for femoroacetabular impingement">Surgery for femoroacetabular impingement</a> (FAI); <a href="Repair of labral tears">Repair of labral tears</a>. Other less common applications include osteochondral fractures, loose bodies, capsular laxity/instability, isolated chondral lesions/osteochondritis dissecans, gout/pseudogout, and pigmented villonodular synovitis (PVNS).

Evidence-based literature is sparse regarding these and other rare hip conditions, limited primarily to small case series. Therefore, surgical planning and rationale must be well documented with specifically defined goals on a case-by-case basis. The presence of advancing arthritic changes or significant dysplasia is a contraindication to hip arthroscopy. Also, repeat (revision) arthroscopic surgery has relatively poor supportive evidence and cannot generally be recommended. There continues to be a paucity of mid- to long-term outcome studies following hip arthroscopic procedures, which raises serious questions regarding true efficacy for the prevention or delay of progressive hip arthropathy.

#### Diagnostic intra-articular injection:

The response to 93 pre-operative anesthetic hip injections in patients having subsequent hip arthroscopy failed to correlate or predict surgical results at one year. However, in the same cohort, BMI <25 was associated with much better outcomes. (Ladd, 2016) The poor predictive value of pre-operative intra-articular diagnostic injections was confirmed in another 96 hips with labral tears (adjusted for chondral pathology), suggesting a limited role for such injections. (Krych, 2016) Even so, a systematic review (SR) including 7 studies/337 patients concluded that non-response (no significant pain relief) to injection was a strong negative predictor of surgical outcome. The greatest response to injection was seen with acetabular chondral injury, and the least with cam impingement. (Lynch, 2016) Another SR with 8 studies/281 FAI hips also reported that a negative response to pre-operative injection is predictive of a poor surgical outcome. Only a 15% positive response to corticosteroid injections was seen in this group at 6 weeks. (Khan, 2015) Diagnostic injection appears to be predictive when little if any pain relief results, portending a poor outcome with arthroscopic treatment. Therefore, a positive response supports arthroscopic intervention and should be strongly considered for questionable interventions.

#### Age and Weight:

An analysis of 1577 patients reported a 5.3 % incidence of post hip arthroscopy conversion to total hip arthroplasty within 4 years. Age over 50 and the inclusion of chondroplasty or presence of osteoarthritis were predictive of significantly higher conversion rates. (Bedard, 2016) Aging was noted to be the most significant risk factor for re-operation within 2 years. (Gupta, 2016a) Increasing BMI was associated with significantly worse outcomes following hip arthroscopy in a large SR involving 9,317 patients. (Levy, 2016) BMI <25 showed much better outcomes in a cohort study already discussed above. (Ladd, 2016)

### Dysplasia or Osteoarthritis:

An SR of 15 studies/1,195 hip arthroscopies with signs of osteoarthritis showed that patients with Tonnis grade 1 or higher or a joint space of  $\leq$ 2 mm were less likely to benefit and more likely to require subsequent arthroplasty. (Domb, 2015) A cohort of 154 Tonnis grade 1 compared to 738 Tonnis grade 0 hip arthroscopic patients with minimum 2-year follow-up revealed no major difference in outcomes. (Chandrasekaran, 2016a) However, the same authors separately reported that within the same cohort, 43 additional patients with more advanced Tonnis grade 2 OA had significantly higher rates of conversion to total hip arthroplasty, suggesting limited effectiveness for arthroscopy in this subgroup. (Chandrasekaran, 2016b)

An SR of 18 studies/889 patients undergoing hip arthroscopy with the presence of hip dysplasia reported over 14% revision rates, but there was great variation in the criteria defining dysplasia. (Yeung, 2016) A more narrowed SR of 10 studies/834 hips with definite dysplasia reported improved outcomes for borderline cases but suggested periacetabular osteotomy (PAO) for true

dysplasia. (<u>Lodhia, 2016</u>) Similar success with borderline dysplasia was seen in 102 hips arthroscopically treated for labral repair/FAI. (Fukui, 2015)

## Revision arthroscopy:

One SR of 348 revision hip arthroscopies performed primarily for residual FAI noted clinical improvement with only a 5% reoperation rate at 2 years. (Cvetanovich, 2015) Another cohort of 107 arthroscopic revisions resulted in 11.2% conversion to arthroplasty at 2 years, double the rate of their primary cases. (Domb, 2016) A much less optimistic SR with 448 hips undergoing revision arthroscopy for FAI, labral tears, and chondral lesions noted some success, but outcomes were clearly inferior to primary hip arthroscopic procedures. The reoperation rate was 14.6% within 1-2 years, and all available articles were deemed low-quality evidence. (Sardana, 2015) Even worse, a prospective series of 70 revision hip arthroscopies reported a 25% failure rate at 2 years, with over 21% requiring further surgery. (Gupta, 2016b) Another cohort of 85 relatively young (mean 29.5 years) hips following revision arthroscopy for residual FAI were compared to 237 primary surgeries, with only 63% success vs. 82%, respectively, at 2 years. (Larson, 2014) Because primary arthroscopic FAI surgery still lacks sufficient evidence for broad recommendation and because revision arthroscopy has even less reliable published evidence (with up to 37% failure at 2 years), revision FAI surgery is not recommended. Revision arthroscopic capsular repair may be reasonable for the 3% (33/1100) incidence of symptomatic instability following primary hip arthroscopy, since good results have been reported for this specific complication. (Wylie, 2016)

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

ACOEM- AMERICAN COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE

AHCPR- AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES DWC- DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN INTERQUAL CRITERIA

MEDICAL JUDGEMENT, CLINICAL EXPERIENCE, AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS

MERCY CENTER CONSENSUS CONFERENCE GUIDELINES

MILLIMAN CARE GUIDELINES

ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES

PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR

TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & PRACTICE PARAMETERS

**TEXAS TACADA GUIDELINES** 

TMF SCREENING CRITERIA MANUAL

PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)

OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)