Cohere Medicare Advantage Policy - Magnetic Resonance Imaging (MRI), Temporomandibular Joint (TMJ)

Clinical Guidelines for Medical Necessity Review

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Important Notices

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Guideline Information:

Specialty Area: Diagnostic Imaging
Guideline Name: Cohere Medicare Advantage Policy - Magnetic Resonance Imaging (MRI), Temporomandibular Joint (TMJ)

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Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17yo)

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Medical Necessity Criteria

Service: Magnetic Resonance Imaging (MRI), Temporomandibular Joint (TMJ)

Benefit Category

Diagnostic Services in Outpatient Hospital
Diagnostic Tests (other)

Please Note: This may not be an exhaustive list of all applicable Medicare benefit categories for this item or service.

Related CMS Documents

Please refer to CMS Medicare Coverage Database for the most current applicable CMS National Coverage.[1-3]

- National Coverage Determination (NCD) 220.12. Magnetic resonance imaging (MRI)
- Local Coverage Determination (LCD) L37373. MRI and CT Scans of the Head and Neck
- Local Coverage Determination (LCD) L35175. MRI and CT Scans of the Head and Neck
- Billing and Coding: MRI and CT Scans of the Head and Neck (A57204)
- Billing and Coding: MRI and CT Scans of the Head and Neck (A57215)

Recommended Clinical Approach

Magnetic resonance imaging (MRI) of the temporomandibular joint (TMJ) is a non-invasive diagnostic tool that provides detailed images of the soft tissues and hard structures within the joint. It is highly effective in diagnosing internal derangements, such as disc displacement, inflammation, and degenerative changes. MRI can assess the position and condition of the articular disc, joint effusion, bone marrow edema, and other soft tissue abnormalities. Its superior contrast resolution makes it the gold standard for evaluating TMJ disorders,

guiding treatment decisions, and monitoring the efficacy of interventions, particularly in complex cases requiring precise anatomical details.

Evaluation of Clinical Harms and Benefits

Cohere Health uses the criteria below to ensure consistency in reviewing the conditions to be met for coverage of Magnetic Resonance Imaging (MRI), Temporomandibular Joint (TMJ). This process helps to prevent both incorrect denials and inappropriate approvals of medically necessary services. Specifically, limiting incorrect approvals reduces the risks associated with unnecessary procedures, such as complications from surgery, infections, and prolonged recovery times.

The potential clinical harms of using these criteria may include:

- There is a risk of malfunction of implanted medical devices (e.g., implanted pacemakers, cochlear implants).
- A potential exists for allergic reactions to contrast material, if used in the study. The MRI department staff will monitor the patient for an allergic reaction and treat as recommended by a physician.[4-6]
- Use of gadolinium-based contrast is not recommended during pregnancy or in patients with acute or chronic kidney injury or disease.[4-6]
- If sedation is used for the study (for anxiety or claustrophobia), there is a risk of over-sedation. The patient will be monitored during the procedure to reduce this risk.
- There is uncertain risk for MR imaging in pregnant patients. The decision to image in a pregnant patient should be made on an individual basis in consultation with the patient's obstetric provider.[7]
- Compared to other imaging modalities, MR imaging can be more resource intensive.[8]
- There is a risk of increased healthcare costs and complications from the inappropriate use of additional interventions.[9]

The clinical benefits of using these criteria include:

- Magnetic resonance imaging (MRI) is commonly considered the best modality for evaluating articular disc morphology and diagnosing temporomandibular disorders, due to the excellent soft tissue contrast and high spatial resolution the imaging technique provides.[10,11]
- MRI is a non-invasive imaging modality that employs a short radio-frequency pulse rather than the ionizing radiation used in other imaging procedures. As an alternative to imaging techniques that employ radiation, MRI represents a lower risk to individuals sensitive to radiation, including children and pregnant women.[10,11,12]
- As MRI is the gold standard for imaging and evaluating the temporomandibular joint (TMJ), if clinical symptoms do not match radiographic findings, a false-positive or false-negative imaging diagnosis is suspected.[12]
- Enhanced overall patient satisfaction and healthcare experience.[9]

This policy includes provisions for expedited reviews and flexibility in urgent cases to mitigate risks of delayed access. Evidence-based criteria are employed to prevent inappropriate denials, ensuring that patients receive medically necessary care. The criteria aim to balance the need for effective treatment with the minimization of potential harms, providing numerous clinical benefits in helping avoid unnecessary complications from inappropriate care.

In addition, the use of these criteria is likely to decrease inappropriate denials by creating a consistent set of review criteria, thereby supporting optimal patient outcomes and efficient healthcare utilization.

Medical Necessity Criteria

Indications

➔ **Magnetic resonance imaging (MRI), temporomandibular joint (TMJ)** is considered appropriate if **ANY** of the following is **TRUE**[9,11]:
- ◆ Suspected TMJ disorder and **ALL** of the following is **TRUE**:
  - Failure of conservative management (e.g., rest, analgesics, soft diet, oral appliances) must be documented for a period of greater than 6 weeks; **AND**
  - The patient has **ANY** of the following from the clinical presentation and typical physical exam findings lists[13]:

        - Clicking sounds in the jaw joint when opening or closing the mouth; **OR**
        - Difficulty chewing; **OR**
        - Ear pain in front of or below the ear without any signs of infection; **OR**
        - Headaches exacerbated by jaw movement; **OR**
        - Irregular jaw movement with difficulty opening or closing the mouth; **OR**
        - Jaw pain or toothache when waking up after sleep; **OR**
        - Pain localized to the ear when speaking, chewing, or opening the mouth widely; **OR**
        - Pain in the jaw, tooth, neck, and shoulders when speaking, chewing, or opening the mouth widely; **OR**
        - Sensation of teeth not aligning properly; **OR**
- Assessment of known TMJ disorder after treatment; **OR**
- Assessment of known TMJ disorder with new, worsening, or persistent symptoms; **OR**
- Imaging needed before TMJ surgery; **OR**
- Inflammatory arthropathy and **ALL** of the following is **TRUE**[11]:
    - Failure of conservative management (e.g., rest, analgesics, soft diet, oral appliances) must be documented for a period of greater than 6 weeks; **AND**
    - **ANY** of the following:
        - Ankylosing spondylitis; **OR**
        - Psoriatic arthritis; **OR**
        - Rheumatoid arthritis[14]; **OR**
- Repeat imaging (defined as repeat request following recent imaging of the same anatomic region with the same modality), in the absence of established guidelines, will be considered reasonable and necessary if **ANY** of the following is **TRUE**:
    - New or worsening symptoms, such that repeat imaging would influence treatment; **OR**
    - One-time clarifying follow-up of a prior indeterminate finding; **OR**

- In the absence of change in symptoms, there is an established need for monitoring which would influence management.

Non-Indications

➔ **Magnetic resonance imaging (MRI), temporomandibular joint (TMJ)** is not considered appropriate if **ANY** of the following is **TRUE**:

- If contrast is used, history of anaphylactic allergic reaction to gadolinium contrast media with detailed guidelines for use in patients with renal insufficiency; **OR**
- The patient has metallic clips on vascular aneurysms; **OR**
- Incompatible implantable devices (e.g., pacemakers, defibrillators, cardiac valves); **OR**
- Metallic foreign body in orbits/other critical area(s) or within the field of view and obscuring area of concern.

*NOTE: MRI in patients with claustrophobia should be requested at the discretion of the ordering provider.
**NOTE: MRI in pregnant patients should be requested at the discretion of the ordering provider and obstetric care provider.

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
70336	Magnetic resonance imaging (MRI) (e.g., proton); temporomandibular joint (TMJ)

Disclaimer: G, S, I, and N Codes are non-covered per CMS guidelines due to their experimental or investigational nature.

Medical Evidence

Kopp et al. (2024) conducted a prospective study to compare the image quality between 0.55 Tesla magnetic resonance imaging (MRI) and the standard 1.5 Tesla MRI for the assessment of temporomandibular disorders (TMDs). The disorders are often associated with enduring functional impairments and discomfort. The study included 17 patients (34 temporomandibular joints [TMJs]) with suspected intra-articular TMDs. Patients underwent 0.55 Tesla and 1.5 Tesla MRI scans on the same day. MRI is the standard imaging modality for assessing TMDs and provides detailed visualization of disc pathologies and structural changes within the joint. While advancements in MRI technology have focused on enhancing magnetic field strength to achieve higher spatial resolution, these high-field MRI systems necessitate extensive cooling systems, consume substantial energy, and incur significant maintenance expenses, limiting their accessibility in rural areas worldwide. Modern low-field MRI systems are a promising alternative due to their reduced energy requirements and lower maintenance costs. Additional research is needed concerning the suitability of contemporary low-field MRI for TMD evaluation.[10]

Gharavi et al. (2022) reviewed imaging techniques of the TMJ. Chronic TMJ pain affects 5-31% of individuals, with approximately 4% experiencing new onset pain annually. Disorders of the TMJ encompass a range of conditions affecting the TMJ and surrounding structures, ranking as the second most prevalent musculoskeletal ailment, following back pain. While internal derangement stands as the most prevalent TMJ pathology, other less common conditions include conditions such as inflammatory arthritis, infections, trauma, and neoplasms. MRI is the primary modality to assess intra-articular conditions due to the exceptional contrast resolution in soft tissues. Contrast-enhanced MRI and CT scans are used in the assessment of arthritis that affects the TMJ as it offers comprehensive visualization of both acute inflammatory changes and subsequent degenerative arthritis.[11]

Hegab et al. (2021) performed a prospective clinical study on a new classification system for TMJ internal derangement based on MRI and clinical findings to aid nonsurgical treatment. The study involved 435 patients and

747 joints and measured outcomes like maximum mouth opening, pain (via visual analog scale), and joint sound. Results showed significant improvements in mouth opening, pain reduction, and reduced joint sounds over 12 months. The new classification system is comprehensive, and the nonsurgical treatment protocol is practical and tailored to joint pathology.[12]

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Clinical Guideline Revision History/Information

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