Cohere Medical Policy -
Magnetic Resonance Imaging (MRI), Pelvis

Clinical Guidelines for Medical Necessity Review

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Important Notices

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Other Notices:

Guideline Information:

Specialty Area: Diagnostic Imaging
Guideline Name: Cohere Medical Policy - Magnetic Resonance Imaging (MRI), Pelvis

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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), Pelvis

Recommended Clinical Approach

The use of contrast and the type of magnetic resonance (MR) contrast (e.g., extracellular or hepatobiliary-specific) should be at the request of the ordering provider with guidance from the radiologist. The MR field of view should be limited to the area of interest and, in some cases, may not be the preferred imaging study.

Medical Necessity Criteria

Indications

- ➔ **Magnetic resonance imaging (MRI), pelvis** is considered appropriate if **ANY** of the following are **TRUE**[1-2]:
    - ◆ For evaluation of the prostate with **ANY** of the following:
        - Prostatitis when symptoms worsen despite treatment[3-5]; **OR**
        - For detection and surveillance of prostate cancer and **ANY** of the following:
            - Initial imaging including **ANY** of the following:
                - ◆ Biopsy is planned, and digital rectal examination (DRE) has been performed; **OR**
                - ◆ Suspicious nodule on DRE, with or without prior biopsy; **OR**
                - ◆ The patient meets intermediate or high-risk criteria, including **ANY** of the following:
                    - Clinical stage T2b or higher–T2c; **OR**
                    - PSA greater than 10 ng/mL; **OR**
                    - Gleason score greater than or equal to 7 on prior biopsy; **OR**

- Indeterminate, intermediate-risk lesion(s) (PIRADS-3) characterized on prior MRI with prostate cancer, surveillance (up to annual)[6]; **OR**

- Indeterminate, low-risk lesion(s) (PIRADS-1 or PIRADS-2)
- Known prostate cancer, low-risk, annual active surveillance as defined by **ANY** of the following:
  - PSA less than 10 ng/dLl **OR**
  - Low clinical tumor grade (cT1-cT2a); **OR**
  - Grade Group 1 (Gleason score less than or equal to 6)[7]; **OR**
- Prostate cancer, post-treatment follow-up for **ANY** of the following indications:
  - Detectable and rising PSA; **OR**
  - Prior prostatectomy with detectable PSA; **OR**
- Prostate cancer, metastatic with concern for progression; **OR**

- For the evaluation of the uterus, ovaries, or cervix, including **ALL** of the following:
  - Ultrasound has been performed; **AND**
  - **ANY** of the following:
    - Intrauterine pregnancy with the presence of **ANY** of the following on pelvic ultrasound:
      - Fetal anomalies[8]; **OR**
      - Placental attachment disorders (e.g., placenta accreta, placenta increta)[9]; **OR**
    - Follow-up to initial imaging study for further evaluation to characterize a uterine abnormality or lesion if pelvic ultrasound results are inconclusive[2,10]; **OR**

        - Further evaluation of dysfunctional uterine bleeding when ultrasound was indeterminate; **OR**
        - Known or suspected malignancies, including **ANY** of the following:
            - Uterine, ovarian, or cervical cancer, including borderline tumors such as Brenner tumor and moles (gestational trophoblastic tumors); **OR**
            - Endometrial cancer, biopsy-proven, staging, and follow-up; **OR**
- Pelvic abnormalities as indicated by **ALL** of the following[4,11]:
    - **ANY** of the following is **TRUE**:
        - Ultrasound has been performed and is indeterminate; **OR**
        - Ultrasound has been performed, and the patient requires further evaluation or surgical planning; **AND**
    - **ANY** of the following:
        - Abscess of the pelvis[12,13]; **OR**
        - Endometriosis with involvement beyond the ovary[10]; **OR**
        - Pelvic organ prolapse[14]; **OR**
        - Uterine leiomyoma (fibroid) when an intervention is planned[15]; **OR**
        - Urethral stricture or mass; **OR**
        - Pelvic neoplasms; **OR**
        - Uterine or cervical abnormalities; **OR**
- Musculoskeletal imaging of the pelvis when plain radiograph is inconclusive, including **ANY** of the following:
    - Sacroiliac joint, including inflammatory arthropathies such as psoriatic arthritis or ankylosing spondylitis[16]; **OR**
    - Lumbosacral plexopathy[17]; **OR**
    - Potential bony infection (osteomyelitis)[18]; **OR**

- Septic arthritis[18]; **OR**
- Characterization, staging, or follow-up of a bony lesion for suspected or known malignancy or metastatic disease[19]; **OR**
- Ulcer or wound with clinical concern for soft tissue infection or osteomyelitis[18]; **OR**
- Persistent athletic pubalgia or osteitis pubis after 3 months of conservative treatment[19]; **OR**
- Trauma-related conditions including suspected traumatic or stress fracture with indeterminate CT[20-22]; **OR**
- Avascular necrosis (AVN); **OR**

◆ Other evaluation of the pelvis when ultrasound is not appropriate or non-diagnostic, computed tomography (CT) is contraindicated or inconclusive, and **ANY** of the following is **TRUE**:

- Extension of an indicated abdominal MRI for complete evaluation of organs and structures such as ureters or bowel (e.g., MR enterography, MR urography) or for neoplastic staging; **OR**
- Pouchitis[3]; **OR**
- Fistula; **OR**
- Lymphadenopathy; **OR**
- Neoplastic conditions (including masses or mass-like conditions) not otherwise mentioned, including **ANY** of the following:
    - Single follow-up to initial indeterminate imaging study for further evaluation to characterize a mass; **OR**
    - Concern for bladder neoplasm based on prior imaging or clinical abnormalities (e.g., persistent hematuria) or laboratory findings[4,11]; **OR**

- Follow-up to initial imaging study for further evaluation to characterize an abnormality/lesion related to an infection; **OR**
- For evaluation of **ANY** of the following miscellaneous pathologies when prior testing has failed:
    - Further work-up or characterization of initial abnormal findings on physical or clinical exam including **ANY** of the following:
        - Lumbosacral plexopathy[17]; **OR**
        - Potential bony infection (osteomyelitis)[18]; **OR**
        - Septic arthritis[18]; **OR**
        - Ulcer or wound with clinical concern for infection[18]; **OR**
    - Peri-anal fissures; **OR**
    - Post-treatment follow-up/surveillance, including re-staging; **OR**
    - Pre-treatment for treatment planning, including staging (e.g. interventional radiology procedures, before biopsy, radiation, surgery); **OR**
- Follow-up to initial imaging study for further evaluation to characterize an abnormality/lesion related to congenital anomalies; **OR**

◆ Repeat imaging of a specific area or structure using the same imaging modality (in the absence of an existing follow-up guideline) is considered appropriate when **ALL** of the following is **TRUE**:

- There is documented clinical necessity; **AND**
- Prior imaging results of the specific area or structure, obtained using the same imaging modality, must be documented and available for comparison; **AND**
- **ANY** of the following is **TRUE**:

- A change in clinical status, such as worsening symptoms or the emergence of new symptoms, that may influence the treatment approach; **OR**
- The requirement for interval reassessment, which may alter the treatment plan; **OR**
- One-time follow-up of a prior indeterminate finding to assess for interval change; **OR**
- The need for re-imaging either before or after performing an invasive procedure.

Non-Indications

➔ **Magnetic resonance imaging (MRI), pelvis** may not be considered appropriate if **ANY** of the following is **TRUE**:

- The patient has undergone advanced imaging of the same body part and for the same indication within 3 months, without being on treatment; **OR**
- 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
72195	Magnetic resonance imaging (MRI) (e.g., proton), pelvis; without contrast material(s)
72196	Magnetic resonance imaging (MRI) (e.g., proton), pelvis; with contrast material(s)
72197	Magnetic resonance imaging (MRI) (e.g., proton), pelvis; without contrast material(s) followed by contrast material(s) and further sections

Medical Evidence

Almansouri et al. (2024) performed a systematic review to analyze the role of magnetic resonance imaging (MRI) and computed tomography (CT) for pelvic fractures. Twelve studies were analyzed involving 1,798 patients (52% female). Two of the studies were prospective, and the remaining ten were retrospective. Diagnosing and managing pelvic fractures necessitates a personalized approach considering patient characteristics, injury mechanisms, and hemodynamic status. The authors note that MRI demonstrates superior sensitivity and diagnostic accuracy in identifying acute pelvic fractures, mainly concealed sacral fractures. MRI is also effective in detecting occult pelvic fractures and soft tissue anomalies. However, despite its diagnostic benefits, MRI is unlikely to replace CT as the initial gold standard due to factors such as shorter emergency department time and contraindications for MRI, especially in elderly patients. CT scanning remains preferred for initial diagnosis, aiding in the determination of emergent angiographic embolization needs and facilitating surgical planning in cases of pelvic fractures.[23]

Manti et al. (2022) conducted a prospective study that included 72 patients with symptoms indicative of endometriosis who underwent evaluation to plan surgical treatment. The mean age of the patients was 35.5 years (range: 20-46 years). Pelvic endometriosis was pathologically confirmed in 56 (77.7%) of the 72 patients. Among them, 22 patients (39.3%) underwent video laparoscopy (VLS), and 16 (72.2%) of those underwent surgery. MRI demonstrated high sensitivity and specificity for detecting various types of pelvic endometriosis. MRI allows the localization of lesions with highly fibrotic components that may not be recognizable with other imaging methods or visible during video laparoscopy.[24]

Hernando et al. (2022) reviewed quantitative diffusion MRI of the abdomen and pelvis, which involves employing multiple diffusion encodings and mapping diffusion parameters. Diffusion MRI allows the ability to gauge tissue microstructure sensitivity. In contrast to qualitative diffusion-weighted MRI,

the quantitative approach enhances the standardization of tissue characterization, which is crucial for disease detection, staging, and treatment monitoring. Challenges include acquisition artifacts, limitations in signal modeling, and biological variability. Technical performance concerns include addressing physiologic motion (respiratory, peristaltic, and pulsatile), handling image distortions, and managing a low signal-to-noise ratio. Currently, multi-center studies focus on validation through systematic assessments to assess reproducibility.[25]

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