Cohere Medical Policy - Magnetic Resonance Imaging (MRI), Fetal/Placental

Clinical Policy for Medical Necessity Review

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Policy Information:

Specialty Area: Diagnostic Imaging
Policy Name: Cohere Medical Policy - Magnetic Resonance Imaging (MRI), Fetal/Placental
Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

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Medical Necessity Criteria

Service: Magnetic Resonance Imaging (MRI), Fetal/Placental

Cohere Health takes an evidence-based approach to reviewing imaging and procedure requests, meaning that sufficient clinical information must be provided at the time of submission to determine medical necessity. Documentation must include a recent and detailed history, physical examination related to the onset or change in symptoms, relevant lab results, prior imaging, and details of previous treatments. Advanced imaging or procedures should be requested after a clinical evaluation by the treating provider, which may include a referral to a specialist.

- When a specific clinical indication is not explicitly addressed in the Cohere Health medical policy, medical necessity will be determined based on established clinical best practices, as supported by evidence-based literature, peer-reviewed sources, professional society guidelines, and state or national recommendations, unless otherwise directed by the health plan.
- Requests submitted without clinical documentation, or those that do not align with the provided clinical information—such as mismatched laterality, body part, or CPT code—may be denied for lack of medical necessity due to insufficient or inconsistent clinical information.
- Repeat diagnostic testing due to technical issues—such as patient motion, incomplete exams, or incorrect imaging sequences—may not be considered medically necessary, as it is the responsibility of the imaging center to deliver appropriate, high-quality studies as originally authorized. Similarly, repeat imaging requested at a different facility based solely on provider preference may not be approved for medical necessity.
- When there are multiple diagnostic or therapeutic procedures requested simultaneously or within the past three months, each will be reviewed independently. Clinical documentation must clearly justify all of the following:
    - The medical necessity of each individual request

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    - Why prior imaging or procedures were inconclusive or why additional/follow-up studies are needed
    - How the results will impact patient management or treatment decisions
- Requests involving adjacent or contiguous body parts may be considered not medically necessary if the documentation demonstrates that the patient's primary symptoms can be adequately assessed with a single study or procedure.
- Cohere Health evaluates imaging exams based on medical necessity, regardless of contrast use. If an initial non-contrast study is completed and the radiologist later determines that contrast is needed to clarify a finding, the original authorization number may be used—provided the contrast-enhanced exam is performed at the same imaging center and within the original request's validity period, unless otherwise directed by the health plan.

Description

Magnetic resonance imaging (MRI) of a fetus/placenta is a diagnostic tool used to provide a detailed view of suspected or known fetal anomalies, congenital in origin, while the fetus is still in utero.[1] Anomalies of interest include neural tube defects (such as spina bifida), cardiovascular abnormalities, pulmonary differences, and certain complications associated with high-risk multiple-gestation pregnancies, including twin-to-twin transfusion syndrome. Fetal MRI is of additional use in the advance planning of technically difficult deliveries, such as fetuses with compromised airways who may require complex, assisted delivery methods, to maintain oxygen and blood flow. Fetal MRI also provides a view of the placenta, which is critical for diagnosing and planning the treatment of placenta accreta spectrum disorders (PAS).

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Medical Necessity Criteria

Indications

Fetal/placental MRI is considered appropriate if **ALL** of the following are **TRUE**[1-27]:

- Ultrasonography has been performed and is indeterminate, technically inadequate, nondiagnostic, or provides an incomplete clinical evaluation; **AND**
- **ANY** of the following is **TRUE**:
  - Evaluation of known or suspected fetal anomaly, including **ANY** of the following[2]:
    - Anatomical anomaly (e.g., brain, spine, facial, neck, oropharyngeal, thoracoabdominal, cardiac, vascular, pulmonary, gastrointestinal, genitourinary, musculoskeletal); **OR**
    - Diaphragmatic hernia; **OR**
    - Other tumor or mass; **OR**
    - Other anatomical obstruction; **OR**
  - Assessment of the fetal airway; **OR**
  - Evaluation of known or suspected fetal infection[2]; **OR**
  - Evaluation of fetus in the setting of abnormal amniotic fluid, including **ANY** of the following[3,4]:
    - Polyhydramnios; **OR**
    - Oligohydramnios; **OR**
    - Anhydramnios; **OR**
  - Planning or evaluation of candidacy for fetal surgery or other in-utero intervention; **OR**
  - Planning or evaluation of candidacy for complex, assisted delivery (e.g., ex utero intrapartum treatment [EXIT] procedure); **OR**
  - Planning or evaluation of candidacy for postdelivery neonatal surgery; **OR**
  - Complications related to a multiple-gestation pregnancy; **OR**
  - Assessment of fetal morbidity of remaining fetus following in-utero death of a co-twin or co-multiple; **OR**
  - Maternal placental complication as indicated by **ANY** of the following[5,6]:
    - For planning of cesarean section delivery or peripartum hysterectomy among patients with **ANY** of the following:
      - Known or suspected placenta accreta spectrum disorder (PAS) (e.g., placenta increta, placenta percreta, placenta accreta); **OR**

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            - High risk of PAS, including **ANY** of the following:
                - History of cesarean section; **OR**
                - Prior uterine surgery; **OR**
                - Prior or current placenta previa; **OR**
                - Prior placenta accreta spectrum disorder; **OR**
                - Known adenomyosis; **OR**
                - Pregnancy was conceived with assisted reproductive technology (in vitro fertilization [IVF], frozen embryo transfer, intracytoplasmic sperm injection [ICSI]); **OR**
                - Advanced maternal age (greater than or equal to 35 years); **OR**
                - Asherman's syndrome; **OR**
                - Prior curettage; **OR**
                - Multiparity; **OR**
        - Known or suspected posterior placenta previa; **OR**
        - Known or suspected placental abruption[7]; **OR**
        - Known or suspected gestational trophoblastic disease; **OR**
        - Known or suspected adnexal lesions; **OR**
    - Evaluation, during pregnancy, of known maternal leiomyoma at high risk of degeneration or rupture, including **ANY** of the following:
        - Submucosal leiomyoma; **OR**
        - Retroplacental leiomyoma; **OR**
        - Leiomyoma which enlarges in the first trimester; **OR**
    - Screening if **ANY** of the following are **TRUE**:
        - Family risk for inheritable brain abnormalities (e.g., tuberous sclerosis, corpus callosal dysgenesis, lissencephaly); **OR**
        - Volumetric assessment of fetal lung parenchyma among fetuses at risk for pulmonary hypoplasia; **OR**
    - Repeat imaging with fetal/placental MRI is indicated if **ANY** of the following is **TRUE**:
        - In-utero fetal surgery or in-utero intervention has been performed and necessitates follow-up imaging; **OR**
        - Serial antepartum imaging is necessary for ongoing planning, management, or evaluation of the fetal or placental condition; **OR**
        - The initial study was limited, incomplete, or of poor quality due to **ANY** of the following:
            - Insufficient gestational age; **OR**
            - Small fetal size; **OR**

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- Atypical fetal position; **OR**
- Fetal movement that degraded the image of the region of interest.

Non-Indications

Fetal/Placental MRI is not considered appropriate if **ANY** of the following is **TRUE**[1-27]:

- When complete diagnostic information can be obtained by ultrasonography; **OR**
- When used solely to evaluate preterm premature rupture of membranes (PPROM) in the absence of any other indication.

*NOTE: Gadolinium-based contrast is considered to hold unknown risk and potential harm to a fetus and is not recommended for routine administration with fetal/placental MRIs. The decision to use gadolinium in a pregnant patient should be made on an individual basis in consultation with the patient's obstetric provider.[1,12]
**NOTE: MRI in patients with claustrophobia should be requested at the discretion of the ordering provider.

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
74712	Magnetic resonance (e.g., proton) imaging, fetal, including placental and maternal pelvic imaging when performed; single or first gestation
74713	Magnetic resonance (e.g., proton) imaging, fetal, including placental and maternal pelvic imaging when performed; each additional gestation (List separately in addition to code for primary procedure)

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Medical Evidence

Bank et al. (2023) reviewed 58 cases of patients with polyhydramnios who underwent fetal MRI. The authors compared prenatal diagnoses made by ultrasound and fetal MRI to postnatal diagnoses. Of the 58 cases reviewed, 26.6% had new diagnoses detected on fetal MRI that were not detected on ultrasound. Of these new diagnoses, 25% were neurological and another 25% were genitourinary in nature. Fetal MRI confirmed 76.2% of the ultrasound diagnoses. The authors concluded that fetal MRI should be considered when evaluating pregnancies complicated by polyhydramnios to help improve diagnosis and management.[4]

Recio Rodríguez et al. (2020) conducted a retrospective study to determine the diagnostic accuracy of fetal MRI for the prenatal diagnosis of both central nervous system (CNS) pathology and non-CNS pathology. 623 pregnant patients referred to radiology for fetal MRI due to detection of anomaly on ultrasound, high-risk pregnancy, or inconclusive fetal ultrasound were included in the study. The diagnostic accuracy of fetal MRI was 97%, compared to 90.4% for ultrasound. The concordance between fetal ultrasound and fetal MRI was 92.1%. In 45 cases (7.2%), fetal MRI alone provided accurate diagnostic information. The authors concluded that fetal MRI offers superior diagnostic accuracy, especially for CNS pathology.[14]

Griffiths et al. (2017) conducted a cohort study to evaluate the diagnostic accuracy of in-utero MRI (iuMRI) for the prenatal diagnosis of fetal brain abnormalities. 570 pregnant patients carrying a fetus 18 weeks of age or older with a suspected brain anomaly on ultrasound had a follow-up iuMRI within 14 days of the ultrasound. The authors then evaluated any changes in diagnosis, prognosis, or clinical management as a result of the iuMRI. Overall, diagnostic accuracy was 68% for ultrasound and 93% for iuMRI. IuMRI resulted in expanded diagnostic detail, adjusted prognosis, and changes in clinical management in 49%, 20%, and 35% of cases, respectively. The authors conclude that iuMRI provides an opportunity to obtain additional clarity regarding fetal neuropathology to guide clinical decision-making.[19]

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Policy Revision History/Information

<table>
<tr><td colspan="3">Original Date: November 21, 2024</td></tr>
<tr><td colspan="3">Review History</td></tr>
<tr><td>Version 2</td><td>12/11/2025</td><td>Annual review

Updated content layout to align with revised template. No major changes to criteria.

Enhanced reference citations to improve clarity</td></tr>
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