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

Clinical Policy for Medical Necessity Review

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Important Notices

Notices & Disclaimers:

GUIDELINES ARE SOLELY FOR COHERE'S USE IN PERFORMING MEDICAL NECESSITY REVIEWS AND ARE NOT INTENDED TO INFORM OR ALTER CLINICAL DECISION-MAKING OF END USERS.

Cohere Health, Inc. ("**Cohere**") has published these clinical guidelines to determine the medical necessity of services (the "**Guidelines**") for informational purposes only, and solely for use by Cohere's authorized "**End Users**". These Guidelines (and any attachments or linked third-party content) are not intended to be a substitute for medical advice, diagnosis, or treatment directed by an appropriately licensed healthcare professional. These Guidelines are not in any way intended to support clinical decision-making of any kind; their sole purpose and intended use is to summarize certain criteria Cohere may use when reviewing the medical necessity of any service requests submitted to Cohere by End Users. Always seek the advice of a qualified healthcare professional regarding any medical questions, treatment decisions, or other clinical guidance. The Guidelines, including any attachments or linked content, are subject to change at any time without notice. This policy may be superseded by existing and applicable Centers for Medicare & Medicaid Services (CMS) statutes.

Other Notices:

Policy Information:

Specialty Area: Diagnostic Imaging
Policy Name: Cohere Medicare Advantage 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

Related CMS Documents

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

- National Coverage Determination (NCD). Magnetic resonance imaging (MRI)(220.2)

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. 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 advanced 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, critical for diagnosing and planning the treatment of placenta accreta spectrum disorders (PAS).[1-4]

Medical Necessity Criteria

Indications

Fetal/placental MRI is considered appropriate if **ALL** of the following are **TRUE**[2-28]:

- Ultrasonography has been performed and is indeterminate, technically inadequate, nondiagnostic, or provides an incomplete clinical evaluation; **AND**
- **ANY** of the following:
  - Evaluation of known or suspected fetal anomaly, including but not limited to **ANY** of the following[3]:
    - Anatomical anomaly (e.g., brain, spine, facial, neck, oropharyngeal, thoracoabdominal, cardiac, vascular, pulmonary, gastrointestinal, genitourinary, musculoskeletal); **OR**
    - Diaphragmatic hernia; **OR**
    - Tumor or mass; **OR**
    - Anatomical obstruction (e.g., gastrointestinal, genitourinary); **OR**
  - Assessment of the fetal airway[2]; **OR**
  - Evaluation of known or suspected fetal infection[3]; **OR**
  - Evaluation of fetus in the setting of abnormal amniotic fluid, including **ANY** of the following[4,5]:
    - Polyhydramnios; **OR**
    - Oligohydramnios; **OR**
    - Anhydramnios; **OR**
  - Planning or evaluation of candidacy for fetal surgery or other in-utero intervention[2]; **OR**
  - Planning or evaluation of candidacy for complex assisted delivery (e.g., ex utero intrapartum treatment [EXIT] procedure)[2,29]; **OR**
  - Planning or evaluation of candidacy for post-delivery neonatal surgery[2]; **OR**
  - Complications related to a multiple-gestation pregnancy[2]; **OR**
  - Assessment of fetal morbidity of remaining fetus following in-utero death of a co-twin or co-multiple[2]; **OR**
  - Maternal placental complication as indicated by **ANY** of the following[6,7]:
    - 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**
- High risk of PAS, including **ANY** of the following:
  - History of cesarean section; **OR**
  - Prior uterine surgery or curettage; **OR**
  - Prior or current placenta previa; **OR**
  - Prior placenta accreta spectrum disorder; **OR**
  - Known adenomyosis; **OR**
  - Pregnancy was conceived with assisted reproductive technology (e.g., in vitro fertilization [IVF], frozen embryo transfer, Intracytoplasmic sperm injection [ICSI]); **OR**
  - Advanced maternal age (greater than or equal to 35 years of age); **OR**
  - Asherman's syndrome; **OR**
  - Prior curettage; **OR**
  - Multiparity; **OR**

- Known or suspected placental abruption[7]; **OR**
- Known or suspected gestational trophoblastic disease; **OR**
- Evaluation, during pregnancy, of known maternal leiomyoma at high-risk of degeneration or rupture, including **ANY** of the following[14]:
  - Submucosal leiomyoma; **OR**
  - Retroplacental leiomyoma; **OR**
  - Leiomyoma that enlarges in the first trimester; **OR**

- Screening with **ANY** of the following[2]:
  - 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 with **ANY** of the following[2]:
  - 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**

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

Non-Indications

Fetal/placental MRI is not considered appropriate if **ANY** of the following is **TRUE**[2-28]:

- 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.[2,13]
**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)

Disclaimer: S Codes are non-covered per CMS guidelines due to their experimental or investigational nature.

Evaluation of Clinical Harms and Benefits

Clinical determinations for Medicare Advantage beneficiaries are made in accordance with 42 CFR 422.101 guidance outlining CMS's required approach to decision hierarchy in the setting of NCDs/LCDs identified as being "not fully established". When clinical coverage criteria are "not fully established" Medicare Advantage organizations are instructed to create publicly accessible clinical coverage criteria based on widely-accepted clinical guidelines and/or scientific studies backed by a robust clinical evidence base. Clinical coverage criteria provided by Cohere Health in this manner include coverage rationale and risk/benefit analysis.

The potential clinical harms of using these criteria for fetal/placental MRI may include:

- A risk of malfunction of implanted medical devices (e.g., implanted pacemakers, cochlear implants).
- A potential 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.[30-32]
- The use of gadolinium-based contrast is not recommended during pregnancy or in patients with acute or chronic kidney injury or disease.[30-32]
- If sedation is used for the study (for anxiety or claustrophobia), there is a risk of oversedation. The patient will be monitored during the procedure to reduce this risk.
- There is uncertain risk for magnetic resonance imaging (MRI) 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.[33]
- There is a risk of increased healthcare costs and complications from the inappropriate use of additional interventions.[34]

The clinical benefits of using these criteria for fetal/placental MRI include:

- MRI demonstrates superior visibility and detail of conditions not sufficiently imaged on other conventional imaging, such as congenital anomalies.

- Because MRI does not use ionizing radiation, it is a safer peripartum alternative to computed tomography (CT) when ultrasonography, the traditional first-line imaging modality of pregnancy, is not adequate.
- MRI, as an adjunct to ultrasonography, can help to counsel patients, guide physicians in selecting the appropriate course of management, and plan for delivery.
- MRI is a noninvasive method of diagnosing a fetus with congenital anomalies or placental abnormality, which may impact the course of - and management of - a pregnancy.
- Enhanced overall patient satisfaction and healthcare experience.

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.[5]

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 a 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.[15]

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 resulting from 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.[20]

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Policy Revision History/Information

Original Date: November 21, 2024		
Review History		
Version 2	11/13/2025	Annual review Updated description and medical evidence sections Minor language updates Removed the following indication: “Per the treating physician, the benefits are felt to outweigh the theoretical risks “ Removed relative contraindications (contrast allergy, metallic clips, incompatible implantable devices, metallic foreign body) Reordered references to reflect order of first appearance in policy