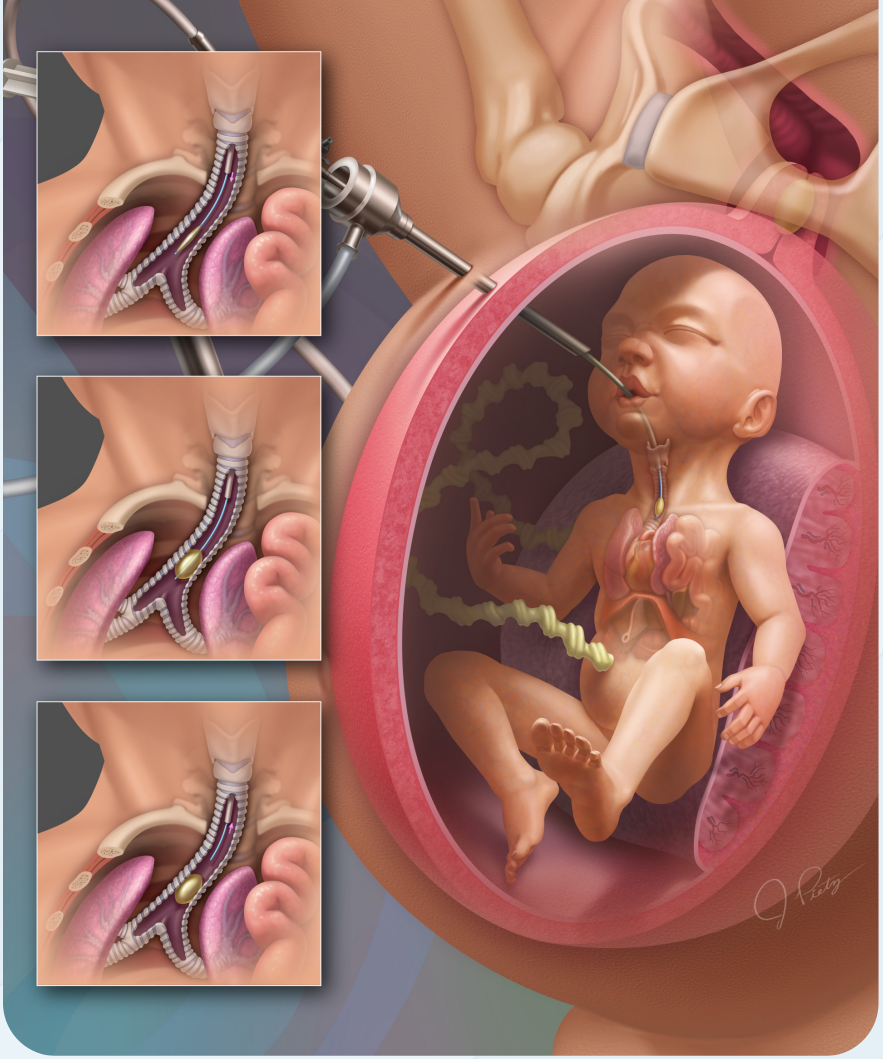

Baylor College of Medicine and Texas Children's Fetal Center®

Referral Guidelines for Fetal Endotracheal Occlusion (FETO) for Congenital Diaphragmatic Hernia (CDH)

Baylor College of Medicine and Texas Children's Fetal Center® are conducting an ongoing trial aimed to evaluate the role of FETO in patients with severe CDH. Our primary outcome is the resolution of pulmonary hypertension by 12 months of age.

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Below is a list of inclusion and exclusion criteria for the current study:

Inclusion criteria

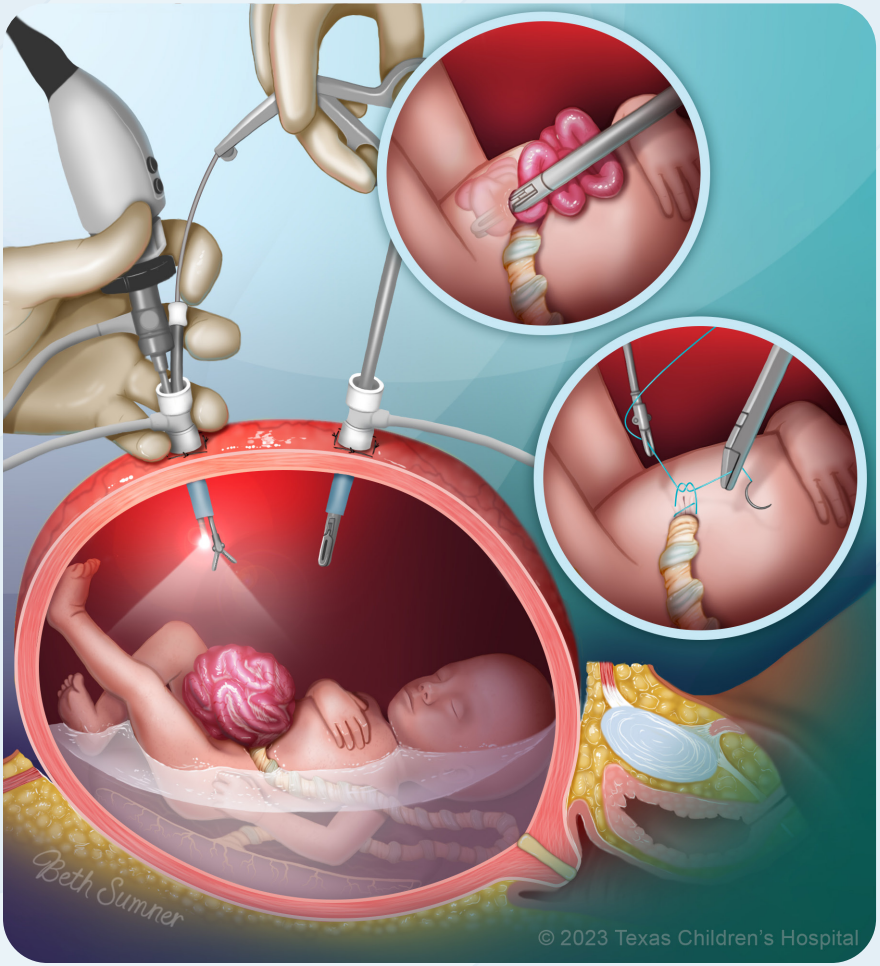
- Patient is a pregnant woman between 18 and 45 years of age with a singleton pregnancy
- Observed/expected total lung volume equal to or less than 0.32 with more than 21% of liver herniated into the hemithorax as determined by MRI metrics
- Normal fetal echocardiogram or echocardiogram with a minor anomaly (such as a small VSD) that in the opinion of the pediatric cardiologist will not affect postnatal outcomes
- Normal fetal karyotype or microarray
- Patient is healthy enough to have surgery
- Patient and father of the baby provide signed informed consent
- Patient willing to remain in Houston for the duration following the balloon placement until delivery with support person (i.e. spouse, partner or parent)
- Balloon placement would be between 28 0/7 weeks and 31 6/7 weeks gestation as determined by a full evaluation at our center

Exclusion criteria

- Contraindication to abdominal surgery, fetoscopic surgery or general anesthesia
- Allergy to latex
- Allergy or previous adverse reaction to a study medication specified in this protocol
- Preterm labor, preeclampsia, or uterine anomaly (e.g. large fibroid tumor) in the index pregnancy
- Fetal aneuploidy, known genomic variants, other major fetal anomalies that may impact the fetal/neonatal survival or known syndromic mutation
- Suspicion of major recognized syndrome (e.g. Fryns syndrome) on ultrasound or MRI
- Maternal BMI >40
- High risk for fetal hemophilia

Please call **832-822-2229** to discuss the eligibility of your patient(s) for participation in the trial or to discuss any questions you may have.

To refer a patient, please scan the QR code or visit **texaschildrens.org/fetalrefer** and fill out our online referral form. Patient historical information and medical records may be uploaded online in the form as well. Please be sure to fill out every field in the form, if possible.



Baylor College of Medicine and Texas Children's Fetal Center®

Referral Guidelines for Fetal Repair of Complex Gastroschisis

Baylor College of Medicine and Texas Children's Fetal Center are conducting a clinical trial to investigate the safety and feasibility of fetal repair of complex gastroschisis via a fetoscopic approach that will assess maternal, fetal, neonatal, and infant outcomes. The hypothesis is that in-utero repair of gastroschisis will reduce postnatal morbidity and mortality in complex gastroschisis infants with minimal maternal and fetal risk.

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Inclusion criteria

- Pregnant women - maternal age 18 years or older and capable of consenting for her own participation in this study
- Singleton pregnancy
- Sonographic evidence of gastroschisis (exteriorization of bowel content outside the fetal abdominal cavity into the amniotic cavity)
- Intraabdominal bowel dilation ≥ 10 mm at 20-24 weeks GA reviewed by prenatal ultrasound
- Absence of significant associated anomalies* diagnosed on prenatal ultrasound or MRI
- Gestational age at the time of the procedure will be between 20 0/7 weeks and 25 6/7 weeks
- Absence of chromosomal and clinically significant abnormalities, i.e., normal karyotype and/or normal chromosomal microarray (CMA) by invasive testing (amniocentesis or Chorionic Villus Sampling (CVS)). If there is a balanced translocation with normal CMA with no other anomalies the candidate can be included. Patients declining invasive testing will be excluded
- The family has considered and declined the option of termination of the pregnancy at less than 24 weeks and of standard postnatal treatment
- The family meets psychosocial criteria (sufficient social support, ability to understand the requirements of the study)
- Parental/guardian permission (informed consent) for follow up of the child after birth

**Significant associated anomalies are defined as such anomalies that would, in and of themselves, be life limiting or life threatening. A minor anomaly (such as a small VSD or ASD not deemed to be life limiting or threatening, or a cleft lip or other such anomaly, unless part of a genetic syndrome, will not disqualify the patient).*

Exclusion criteria

- Significant fetal anomaly unrelated to gastroschisis
- Evidence of bowel perforation (presence of intraabdominal bowel calcification on ultrasonography)
- Increased risk for preterm labor including short cervical length (≤ 2.0 cm), history of incompetent cervix with or without cerclage, and previous preterm birth in a singleton pregnancy (other than a patient delivered for a non-repeating medical or surgical indication).
- Placental abnormalities (previa, abruption, accreta) known at time of enrollment
- Pre-pregnancy body-mass index (BMI) ≥40
- Contraindications to surgery including previous hysterotomy (whether from a previous classical cesarean, uterine anomaly such as an arcuate or bicornuate uterus, major myomectomy resection, or previous fetal surgery) in active uterine segment
- Technical limitations precluding fetoscopic surgery, such as extensive uterine fibroids, fetal membrane separation, or uterine anomalies
- Maternal-fetal Rh alloimmunization, Kell sensitization, or neonatal alloimmune thrombocytopenia affecting the current pregnancy.
- Maternal medical condition that is a contraindication to surgery or anesthesia
- Maternal HIV, Hepatitis-B, Hepatitis-C status positive because of the increased risk of transmission to the fetus during maternal-fetal surgery. If the patient's HIV or Hepatitis status is unknown, the patient must be tested and found to have negative results before enrollment
- Low amniotic fluid volume (Amniotic Fluid Index less than 6 cm) if deemed to be due to fetal anomaly, poor placental perfusion or function, or membrane rupture. Low amniotic fluid volume that responds to maternal hydration is not an exclusion criterion.
- Patient does not have a support person (i.e., spouse, partner, family member, or close friend) available to support her for the duration of the pregnancy
- Inability to comply with the travel and follow-up requirements of the trial
- Patients that are enrolled or have been enrolled in any another intervention study that affects the mother or fetus
- Maternal hypersensitivity to any of the entities associated with AlloDerm. The use of AlloDerm Regenerative Tissue Matrix distributed by Allergan Aesthetics is contraindicated in patients sensitive to any of the antibiotics listed on the AlloDerm package, i.e., Gentamycin, Cefoxitin, Lincomycin, Polymyxin B and Vancomycin or Polysorbate 20

Texas Children's Fetal Center welcomes all referrals. Candidates are carefully evaluated and accepted for maternal-fetal surgery on a case-by-case basis. Please call **832-822-2229** to discuss the eligibility of your patient(s) or to discuss any questions you may have.

To refer a patient, please scan the QR code below or visit **texaschildrens.org/fetalrefer** and fill out our online referral form. Patient historical information and medical records may be uploaded online in the form as well. Please be sure to fill out every field in the form, if possible.

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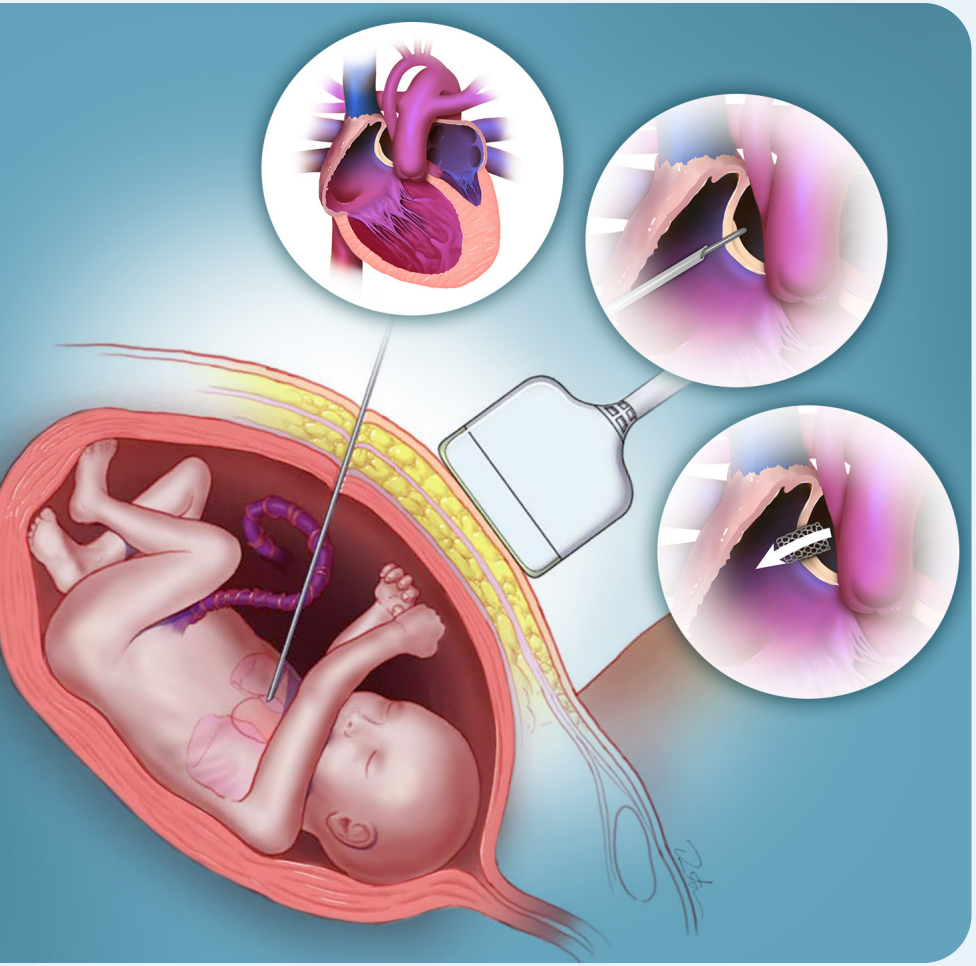

Baylor College of Medicine and
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Referral Guidelines for In-Utero Catheter-based Atrial Septal Intervention for HLHS with Severely Restrictive or Intact Atrial Septum (R/IAS)

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Inclusion criteria

- Singleton Pregnancy
- Fetal hypoplastic left heart syndrome (HLHS) or evolving HLHS, or HLHS variant (double outlet right ventricle with mitral stenosis/ atresia and aortic stenosis) with restrictive and/or intact atrial septum with pulmonary vein forward to reverse flow VTI ratio <3
- Gestational age at the time of the procedure will be between 28 0/7 and 31 6/7 weeks, referral appreciated as soon as restricted or intact septum noted
- Absence of chromosomal abnormalities and major associated anomalies
- The family meets psychosocial criteria (sufficient social support, ability to understand the requirements of the surgery)

Exclusion criteria

- Severely hypoplastic left atrium and/or complex left atrial anatomy (complex cor triatriatum)
- Increased risk for preterm labor including short cervical length (<1.5 cm), history of incompetent cervix with or without cerclage
- Placental abnormalities (previa, abruption, accreta) known at time of evaluation
- Maternal-fetal Rh alloimmunization, Kell sensitization or neonatal alloimmune thrombocytopenia affecting the current pregnancy
- Maternal medical condition that is a contraindication to surgery or anesthesia
- Maternal HIV, hepatitis-B, hepatitis-C status positive because of the increased risk of transmission to the fetus during maternal-fetal surgery. If the patient's HIV or hepatitis status is unknown, the patient must be tested and found to have negative results during evaluation
- Low amniotic fluid volume (amniotic fluid index <6 cm) if deemed to be due to fetal anomaly, poor placental perfusion or function, or membrane rupture
- Patient does not have a support person (i.e. spouse, partner, family member or close friend) available to support the patient for the duration of the pregnancy
- Inability to comply with the travel and follow-up requirements

*** Although lymphangiectasia may indicate disease severity, presence of it is NOT an exclusion criterion for fetal cardiac intervention (FCI) at Texas Children's***

Texas Children's Fetal Center® welcomes all referrals. Candidates are carefully evaluated and accepted for maternal-fetal surgery on a case-by-case basis. Please call **832-822-2229** to discuss the eligibility of your patient(s) or to discuss any questions you may have.

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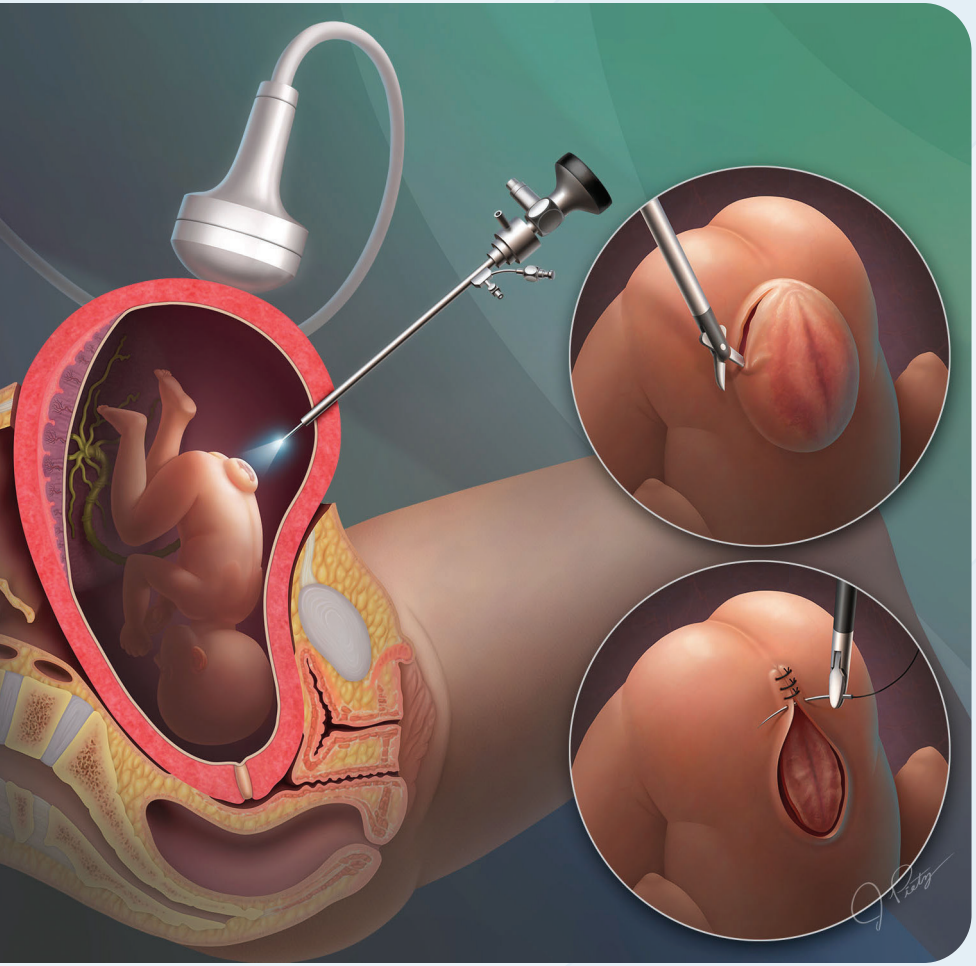

Baylor College of Medicine and
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Referral Guidelines for In-Utero Neural Tube Defect Repair

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Guidelines for both fetoscopic and open procedures for spina bifida are based on the criteria set forth by the MOMS trial.†

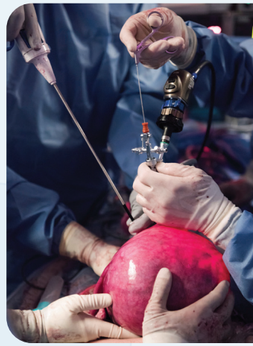
Inclusion criteria

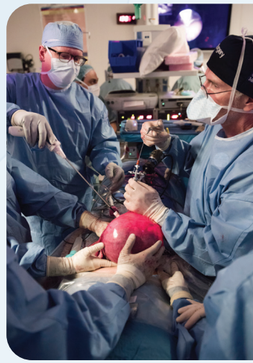
- Singleton pregnancy
- MMC with the upper boundary located between T1 and S1
- Chiari II malformation with hindbrain herniation below the foramen magnum confirmed by ultrasound and/or MRI
- Absence of chromosomal abnormalities and associated anomalies
- Gestational age at the time of the procedure will be between 19 0/7 weeks and 25 6/7 weeks
- The family has considered and declined the option of termination of the pregnancy at less than 24 weeks
- Normal karyotype and/or normal chromosomal microarray (CMA) by invasive testing (amniocentesis or chorionic villus sampling (CVS)). If there is a balanced translocation with normal CMA with no other anomalies the candidate can be included. Patients declining invasive testing will not be offered prenatal repair. Results by flouorescence in situ hybridization (FISH) will be acceptable if the patient is at 24 weeks or more
- The family meets psychosocial criteria (sufficient social support, ability to understand the requirements of the surgery)
- Parental/guardian permission for follow up of the child after birth (for outcomes follow up)

†Adzick, S., Thom, E., Spong, C., Brock, J., Burrows, P., Johnson, M., Farmer, D. (2011). A randomized trial of prenatal versus postnatal repair of myelomeningocele. New England Journal of Medicine, 364, 993-1004.

Exclusion criteria

- Fetal anomaly unrelated to MMC
- Severe kyphosis
- Increased risk for preterm labor including short cervical length (<1.5 cm), history of incompetent cervix with or without cerclage, and previous preterm birth.
- Placental abnormalities (previa, abruption, accreta) known at time of evaluation
- A pre-pregnancy body-mass index ≥40
- Contraindications to surgery including previous hysterotomy (whether from a previous classical cesarean, uterine anomaly such as an arcuate or bicornuate uterus, major myomectomy resection, or previous fetal surgery) in active uterine segment
- Technical limitations precluding fetoscopic surgery, such as uterine fibroids, fetal membrane separation, or uterine anomalies
- Maternal-fetal Rh alloimmunization, Kell sensitization or neonatal alloimmune thrombocytopenia affecting the current pregnancy
- Maternal medical condition that is a contraindication to surgery or anesthesia
- Maternal HIV, hepatitis-B, hepatitis-C status positive because of the increased risk of transmission to the fetus during maternal-fetal surgery. If the patients HIV or hepatitis status is unknown, the patient must be tested and found to have negative results during evaluation
- Low amniotic fluid volume (amniotic fluid index <6 cm) if deemed to be due to fetal anomaly, poor placental perfusion or function, or membrane rupture. Low amniotic fluid volume that responds to maternal hydration is not an exclusion criterion
- Patient does not have a support person (i.e. spouse, partner, family member or close friend) available to support the patient for the duration of the pregnancy
- Inability to comply with the travel and follow-up requirements
- Patient scores as severely depressed on the Edinburgh Postnatal Depression Scale
- Maternal hypersensitivity to collagen
- Umbilical cord hypercoiling or velamentous cord insertion





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