

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.

Texas Children's® Pavilion for Women

Baylor College of Medicine

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

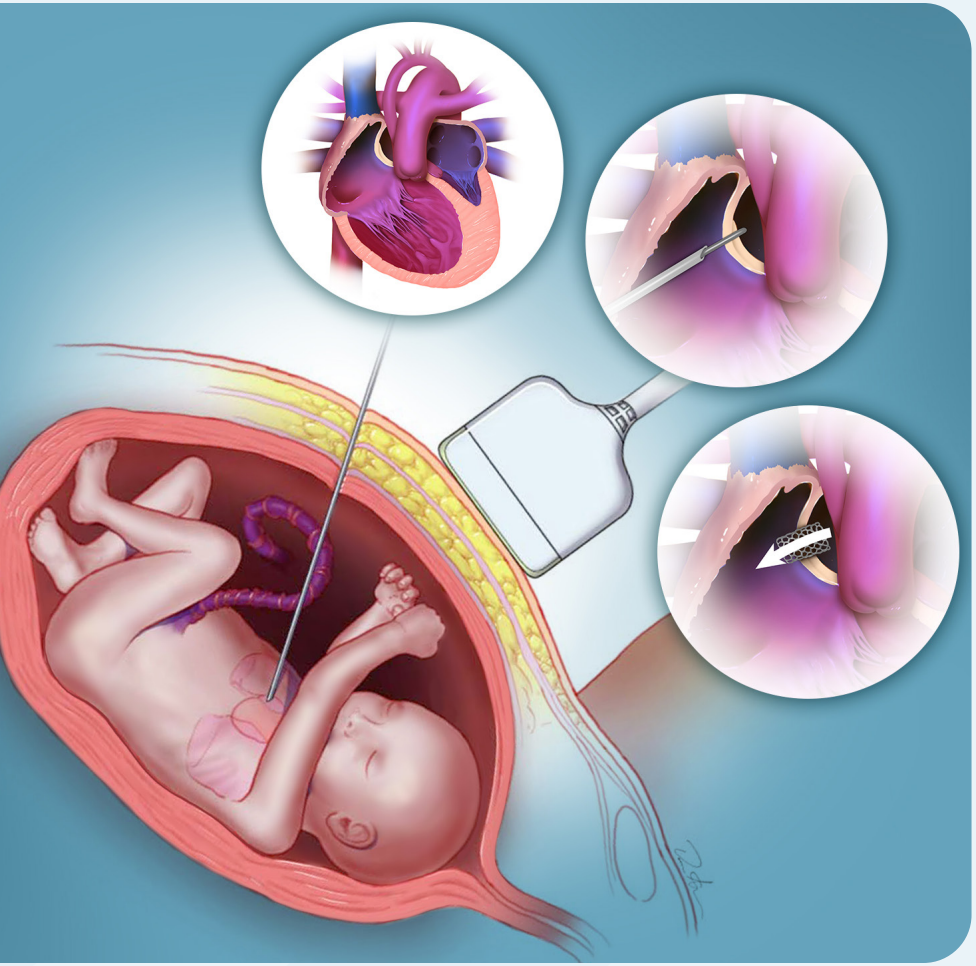
Exclusion criteria

- 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.

© 2025 Texas Children's Hospital. All rights reserved. PFW-32241-25



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

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

Texas Children's®
Pavilion for Women

Baylor
College of
Medicine

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***



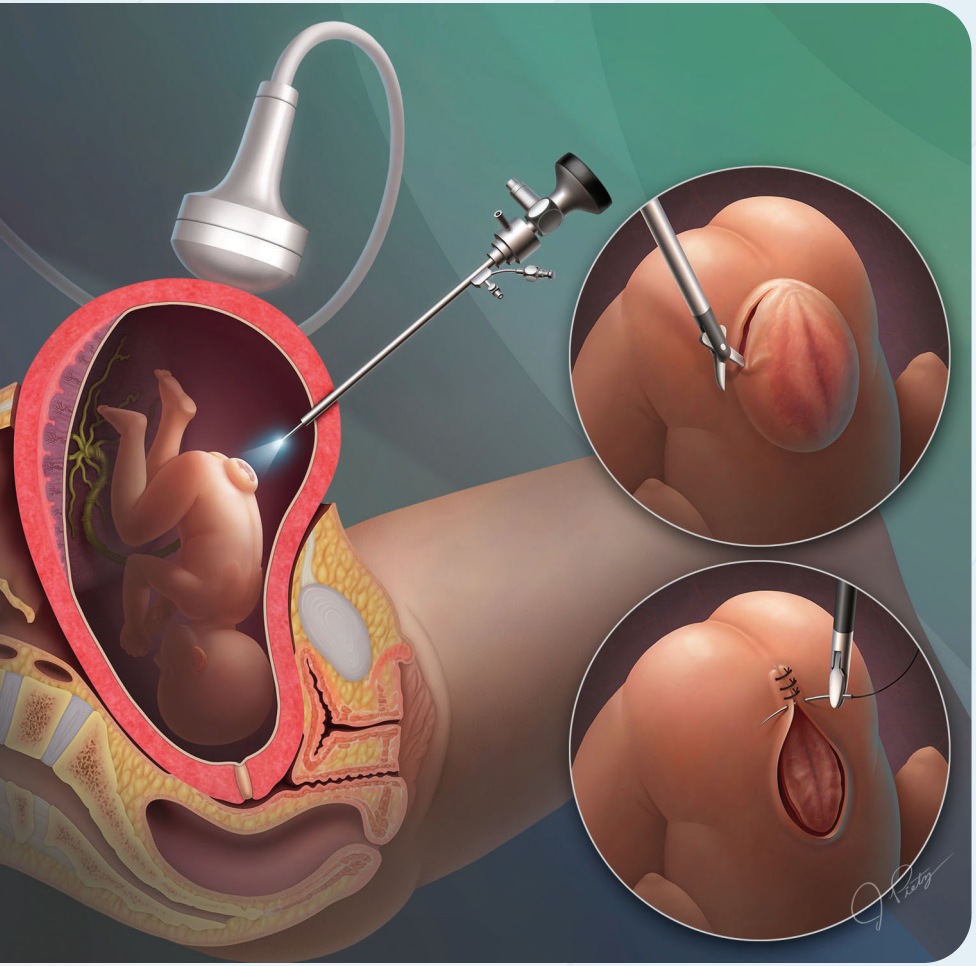
Texas Children's Fetal Center® welcomes all referrals. Candidates are carefully evaluated and accepted for maternal-fetal surgery on a case-by-case basis. Please call **832-822-2229** to discuss the eligibility of your patient(s) or to discuss any questions you may have.

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.

Texas Children's®
Pavilion for Women

Baylor College of Medicine

© 2025 Texas Children's Hospital. All rights reserved. PFW-32241-25



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

Referral Guidelines for In-Utero Neural Tube Defect Repair

Texas Children's®
Pavilion for Women

Baylor College of Medicine

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

Inclusion criteria

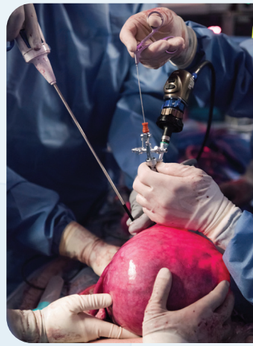
- Singleton pregnancy
- MMC with the upper boundary located between T1 and S1
- Chiari II malformation with hindbrain herniation below the foramen magnum confirmed by ultrasound and/or MRI
- Absence of chromosomal abnormalities and associated anomalies
- Gestational age at the time of the procedure will 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





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.

Texas Children's®
Pavilion for Women

Baylor College of Medicine

© 2025 Texas Children's Hospital. All rights reserved. PFW-32241-25