

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

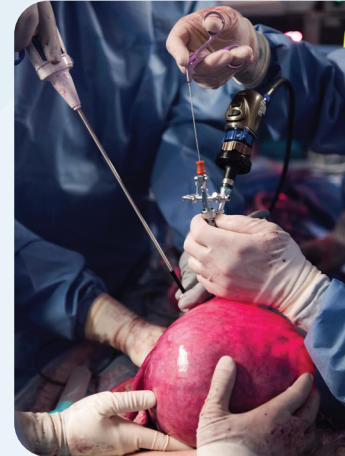
- Singleton pregnancy.
- MMC with the upper boundary located between T1 and S1.
- Chiari II malformation with hindbrain herniation below the foramen magnum confirmed by ultrasound and/or MRI.
- Absence of chromosomal abnormalities and associated anomalies.
- Gestational age at the time of the procedure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

