

Appendix 1. Myelomeningocele Consortium Survey

- Do you routinely include MRI as part of your pre-operative evaluation when considering patients as a candidate for open fetal surgery for MMC repair:
☐ Yes ☐ No
- Do you use to determine the upper level of NTD lesion?
☐ Level of bony dysraphism ☐ Level of skin disruption
- Do you offer NTD surgery if the bony lesion is outside of the T1 – S1 window?
☐ Yes ☐ No
- Do you routinely ask for a microarray to be undertaken at the time of pre-operative amniocentesis?
☐ Yes ☐ No
- Do you require an amniotic fluid alpha-fetoprotein to be performed?
☐ Yes ☐ No
- Do you require an acetylcholinesterase?
☐ Yes ☐ No
- Is there a degree of cerebral ventricular dilation that would prevent you from offering fetal MMC repair?
☐ Yes ☐ No What would be your threshold value? _____mm
- Which of the following time points do you use at your center for assessing the patient's BMI to see if she qualifies for fetal surgery?
☐ BMI at first prenatal visit ☐ BMI at time of referral ☐ BMI at the time of initial assessment
- Do you still use a BMI of < 35 as a maternal criteria for candidacy for fetal surgery for NTD?
☐ Yes ☐ No ☐
- If you use a BMI > 35, do you offer this under an IRB approval?
☐ Yes ☐ No

Moise KJ, Moldenhauer JS, Bennett KA, Goodnight W, Luks FI, Emery SP, et al. Current selection criteria and perioperative therapy used for fetal myelomeningocele surgery. *Obstet Gynecol* 2016;127.

The authors provided this information as a supplement to their article.

- Which of the following type of laparotomy incisions do you routinely employ for your MMC repairs:
☐ High transverse ☐ vertical ☐ we use both depending on the patient's habitus
- Do you routinely use intraoperative fetal echocardiography by cardiology during the MMC repair?
☐ Yes ☐ No
- Which of the following post-operative tocolytic agents do you routinely employ after MMC repair at your center?
 - Indomethacin for 48 hours: ☐ Yes ☐ No
 - Magnesium sulfate infusion for 18 – 24 hours: ☐ Yes ☐ No
 - Oral nifedipine until delivery: : ☐ Yes ☐ No
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- Do you administer betamethasone pre-operatively to accelerate fetal lung maturity when a viable gestational age has been reached prior to fetal NTD repair?
☐ Yes ☐ No

Assume all MOMS criteria for the pregnant patient are present in the following case scenarios:

- Fetus is found to have a unilateral cleft lip with an L3 level (bone) myelomeningocele. Amniocentesis reveals a normal male karyotype, normal CMA, elevated AFP of 3.0 MOM and a positive acetylcholinesterase.
☐ Would offer surgery ☐ Would not offer surgery
- Fetus is noted to have normal karyotype; L1 level (bone) myelomeningocele; grade 3 Chiari on MRI and cerebral ventricles that measure 18 mm bilaterally.
☐ Would offer surgery ☐ Would not offer surgery
- Your neuroradiologist reports there are multiple areas of “heterotopia” seen on MRI. The fetus is noted to have evidence of a bony dysraphism at the level of S1.
☐ Would offer surgery ☐ Would not offer surgery
- The fetus is noted to have an L4 level (bone) myelomeningocele. There is some question on both MRI and ultrasound that the lesion may be skin covered. Amniocentesis reveals a normal female karyotype, AFP of 3.2 MOM and negative acetylcholinesterase.
☐ Would offer surgery ☐ Would not offer surgery
- The fetus is noted to have an L1 level (bone) myelomeningocele. The left leg remains extended throughout the ultrasound examination (no movement at the knee). There is evidence of calcaneovalgus talipes in the left ankle. There is a similar degree of fixed deformity in the right ankle however there is normal movement in the other joints of the right leg.

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☐ Would offer surgery ☐ Would not offer surgery

- The fetus is noted to have an L5 lesion (bone) MMC. MRI shows a grade 1 hemorrhage in the right choroid plexus.

☐ Would offer surgery ☐ Would not offer surgery

Assume all MOMS criteria for the fetus are present in the following case scenarios:

- The patient has a history of insulin-dependent diabetes for 10 years. Her pre-pregnancy hemoglobin A1C was 5.4%. She uses an insulin pump with carbohydrate counting at each meal with excellent control.

☐ Would offer surgery ☐ Would not offer surgery

- The patient has a six year history of HIV infection. She has been compliant with anti-viral therapy and her most recent viral load is negative.

☐ Would offer surgery ☐ Would not offer surgery

- The patient has a history of hepatitis C. She has been treated with anti-viral therapy and her most recent viral load is negative.

☐ Would offer surgery ☐ Would not offer surgery

- The patient has a vaginal probe ultrasound performed as part of her pre-operative assessment for MMC repair. The cervical length is 22 mm without funneling. There are no dynamic changes with fundal pressure. In her last pregnancy she reports that her cervical length was 18 mm at 20 weeks gestation but that she carried that gestation to 38 weeks.

☐ Would offer surgery ☐ Would not offer surgery

- The patient has a history of previous delivery at 35 2/7 weeks gestation. Dating in the previous pregnancy was based on an ultrasound performed at 22 weeks gestation. Her referring perinatologist has placed the patient on weekly 17-hydroxyprogesterone injections.

☐ Would offer surgery ☐ Would not offer surgery

- Does a history of a prior Cesarean section weigh into your decision to offer MMC repair?

☐ Yes ☐ No

If so, which of the following criteria impact your decision?

☐ Interval since last Cesarean section was performed *Answer: 7*

☐ Number of prior Csections *Answer: 7*

☐ Type of previous uterine incision *Answer: 8*

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- Are there other MOMS criteria that you have decided to waive for a patient based on an interpretation that it did not present a significant risk to the pregnancy (Example: anti-M alloimmunization for the red cell alloimmunization criteria)
☐ Yes ☐ No ☐ Describe: _____
- **OPTIONAL:** How many NTD repairs has your center performed since the MOMS trial was published: _____

Thank you for your time and input.

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