CHOP NEWBORN / INFANT CENTER
CLINICAL GUIDELINES: Postnatal Closure of Myelomeningocele
**These are guidelines only. Care of the infant with MMC must be individualized**
Widmer/Maschhoff/Rintoul January 2018

On Admission

Consult
1. Neurosurgery - Dr. Gregory Heuer & page fellow/resident 10781
2. Urology - page fellow/resident 71828
3. Orthopedics - Dr. Richard Davidson, page fellow/resident 11014
4. PT - Diane Versaw page 11391
5. Spina Bifida Team – Email Jeanne Melchionni (melchionni@email.chop.edu)

Antibiotics
1. Ampicillin/Cefotaxime preoperatively through 2nd day post-op then switch to prophylaxis dosing *start in delivery room*

Repair
Surgery will occur once the baby is determined to be medically stable for the OR. The decision should be discussed between the neonatologist and Dr. Heuer. Please call Dr. Heuer at 215 873-5336

Imaging **Please page Dr. Heuer once MRI is done so that he can give the results to the family**
1. Head Ultrasounds: (US BRAIN FOR) Obtain on admission and weekly & PRN with changes in clinical status
2. MRI of brain and spine, without contrast: When stable prior to discharge
   a. Type “fast MRI, myelo series” in comments so that they can be done together
   b. These studies can be done in the immobilizer
   c. Sedation team consult is needed for approval to use immobilizer

Urology Testing/Procedures * All urology care per Urology Service*
1. Renal and Bladder ultrasound: On DOL 2-3 when able to be supine. The initial US is helpful to evaluate bladder emptying
2. Perform bladder scans on admission every four hours for the first 48 hours and then again post-op for 48 hours
   a. Please correlate bladder scans with CIC x 3 post op if similar low volumes may stop
   b. If the bladder scan is greater than 1.5 x predicted bladder capacity on more than one occasion, start CIC
   c. Bladder capacity in an infant is approximately 7 ml x wt (kg), (so a 4 kg baby has ~ 30 ml bladder capacity)
3. Perform clean intermittent catheterization (CIC) when clinically indicated
   a. In general, CIC should be done q4H
   b. CIC can be stopped after approval by Urology, but usually OK to stop if volume is < 20 ml
   c. CIC is done using sterile technique in the hospital, but not at home
4. Video-urodynamics (VUDS):
   a. CHOP Follow-up: Schedule after 2 months of age with Dr. Zderic/Dr. Weiss/Dr. Long
   b. Place outpatient order for VUDS
   c. Outside Spina Bifida Programs: Should be done around 2 months of age by the Urologist that will be following that infant
5. UTI Prophylaxis: All infants should be placed on antibiotic UTI prophylaxis unless otherwise indicated
   a. Use: Ampicillin 50 mg/kg/dose IV Q day (patients not on full feeds) or
   b. Amoxicillin 15mg/kg/dose PO/NG Q day

Ortho Evaluation
1. Xray and ultrasound evaluation is determined by the orthopedic surgeon at the time of consult
   a.Hip US for breech presentation may not be helpful in this population
2. Casting for Talipes
   a. Can be done as soon as clinically stable
   b. For patients not following up at CHOP please discuss plan for casting
      a. Often casting can wait to be done outpatient
Discharge Planning

1. Review with parents their follow-up plans with the Spina Bifida clinic so that appointments can be made prior to discharge
2. Obtain consent for radiology studies to have on CD
   a. Request 2 copies. One copy for Neurosurgeon and one for Spina Bifida program.
   b. If f/u at CHOP, parents may want 1 copy for their records
3. Make sure PMD appointment is made
4. Neurosurgery appointment made (*must be within 1 month after discharge*)
5. Orthopedic appointment made in 1 week if casting is needed (often weekly cast changes)
6. Follow up appointment with Dr. Heuer at 6mths of age for MRI brain/spine with CSF flow (all babies)
7. Circumcision: Consider AFTER CIC is no longer required. Notify the Surgical Fellow and put on the Circ. board
8. Folder of MMC information given to parents
9. No need for car bed and parents do not need to measure HC at home

At Discharge

1. Make sure ALL follow up appointments are made
2. Give parents CD(s) and copy of discharge summary
3. Email or fax a copy of discharge summary to pediatrician, neurosurgeon, Spina Bifida Team Coordinator (Check with Coordinator to see if individual summaries need to be sent to specialists)
   a. If being followed at CHOP, information is available in EPIC