

## Myelomeningocele – Indications for Ventriculoperitoneal Shunting

In an effort to standardize criteria for treating hydrocephalus surgically (shunt or endoscopic procedures) the criteria used in the MoMS trial will be used:

At least two of the following:

- An increase in the greatest occipital-frontal circumference adjusted for gestational age defined as crossing percentiles. Patients who cross centiles and subsequently plateau do not meet this criterion.
- A bulging fontanelle (defined as above the bone assessed when the baby is in an upright position and not crying) or split sutures or sunsetting sign (eyes appear to look downward with the sclera prominent over the iris).
- Increasing hydrocephalus on consecutive imaging studies determined by increase in ratio of biventricular diameter to biparietal diameter according to the method of O'Hayon et al. (1998). Head circumference >95th percentile for gestational age.

**OR**

Presence of marked syringomyelia (syrinx with expansion of spinal cord) with ventriculomegaly (undefined).

**OR**

Ventriculomegaly (undefined) and symptoms of Chiari malformation (stridor, swallowing difficulties, apnea, bradycardia).

**OR**

Persistent cerebrospinal fluid leakage from the myelomeningocele wound or bulging at the repair site.

- Consider shunt versus ETV/CPC.
- Vancomycin and gentamicin prophylaxis started preoperatively and continue for 24hours post-operatively.

O'Hayon BB, Drake JM, Ossip MG, et al. (1998). Frontal and occipital horn ratio: a linear estimate of ventricular size for multiple imaging modalities in pediatric hydrocephalus. *Pediatr Neurosurg*, 29: 245-9.

*These guidelines do not establish a standard of care to be followed in every case. It is recognized that each case is different and those individuals involved in providing health care are expected to use their judgment in determining what is in the best interests of the patient based on the circumstances existing at the time. It is impossible to anticipate all possible situations that may exist and to prepare guidelines for each. Accordingly these guidelines should guide care with the understanding that departures from them may be required at times.*

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