

## **APPLICATION OF HIP ABDUCTION BRACE GUIDELINES**

### **REFERRAL INSTRUCTIONS**

1. Hip Abduction Braces are commonly used when the Pavlik Harness has been unable to maintain reduction.
2. The decision is made by the caring Orthopaedic Specialist and is based on hip ultra sound results when the percentage coverage of the femoral head shows no improvement or is worsening <sup>1,2,3</sup> ie decreasing.
3. The correct sizing of the Hip Abduction Orthotic is based on the following hip circumference sizes <sup>4</sup>

Size	Hip Circumference
XSmall	14" – 16" (35.6 – 40.6 cm)
Small	16" – 18" (40.6 – 45.7 cm)
Medium	18" – 21" (45.7 – 53.4 cm)
Large	20 – 22" (50.8 – 55.9 cm)

### **INFECTION CONTROL**

Wash hands before and after attending the baby. Each hip abduction brace is for single patient use only.

### **APPLICATION OF HIP ABDUCTION ORTHOSIS**

The Hip Abduction brace is fitted to the baby in the following manner:

- Baby is laid supine with clothing and nappy in place
- Size is based on hip circumference measurements with clothes on
- Brace is applied over clothing and nappy
- No traction force is applied to the lower extremities
- Hip position is preset by the rigid brace
- Check that the brace does not push into the popliteal fossae or the posterior superior iliac crests. The brace may need to be adjusted if this occurs.

### **PARENT EDUCATION**

1. Care instructions are given to the parent including the following aspects
  - Removal and application of the brace.
  - The brace must stay on 24/24 until otherwise instructed by the Orthopaedic Consultant however the brace may be removed briefly for nappy changes and bathing.

- The parents are to observe for areas of rub especially around the popliteal fossae or the posterior superior iliac crests and to contact the orthotist /physiotherapist if there are areas of irritation.
- The physiotherapist provides developmental care input for babies less than 6 months of age including strategies to assist with the prevention of skull deformation and instructions to avoid tummy time, which may increase hip dislocation risk. For babies who are sitting or mobile, developmental input by a physiotherapist is by specific referral only.
- The weaning time can only be adjusted by the treating Orthopaedic Surgeon.

2. Hip Abduction Care pamphlet is given to the parents

### **FOLLOW UP**

- Check that the parents have a follow-up appointment with the Consultant
- Check that the parents have contact details for the orthotist/physiotherapist
- An orthotic/physiotherapy appointment should be arranged two weeks after the initial fitting and then monthly thereafter
- All follow-up appointments are arranged in the dedicated DDH Clinic

### **REFERENCES**

1. Clinical Practice Guideline; Early Detection of Developmental Dysplasia of Hips, American Academy of Pediatrics, Pediatrics Vol. 105, No. 4, April 2000
2. Hedequist, D. Kasser, J, and Emans, J. Use of an Abduction Brace for Developmental Dysplasia of the Hip After Failure of Pavlik Harness Use. Journal of Pediatric Orthopaedics, 2003; 23: 175 – 177.
3. Vitale MG, Skaggs, DL Developmental Dysplasia of the Hip from 6 months to Four Years of Age. Journal of the American Academy of Orthopaedic Surgery 2001; 9: 401 - 411
4. Orthopaedic Appliances Pty, Ltd (OAPL) Catalogue, Orthopaedic and Bracing Catalogue, “Rhino Brace”, page 104 Available at <http://www.oapl.com.au/Orthopaedic&Bracing-Catalogue-Web.pdf>. Accessed 12/05/2010