

<b>SPINAL DIMPLE – NEONATAL MANAGEMENT</b>				
THE ROYAL HOSPITAL FOR WOMEN - GUIDELINE				
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<b>APPLICABLE TO</b>	Newborn Care Centre Staff – Nursing & Medical			
<b>IMPLICATIONS</b>	15 staff to be randomly audited on the procedure for evidence of knowledge of the procedure.			
<b>DATE POSTED ON NCC WEBSITE</b>	XXXX			
<b>APPROVED BY</b> Newborn Care Centre Quality Committee on 2/03/2015				
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<b>ABBREVIATIONS &amp; DEFINITIONS OF TERMS</b>				
OSD	Occult Spinal Dysraphism			

#### **PURPOSE**

- To differentiate the occult spinal dysraphism (OSD) from simple sacral dimple.
- To appropriately investigate and arrange follow up for infants with OSD

#### **AIM**

These guidelines cover

- The indications for imaging
- Advantages and disadvantages of the 2 main imaging modalities
- Referral to Spina Bifida Clinic at Sydney Children’s hospital

#### **EQUIPMENT**

N/A

#### **CLINICAL PRACTICE**

**Imaging not required for the following:**

- Simple Dimples
  - <5mm deep and <2.5cms from anal verge
- Coccygeal pits (located within gluteal cleft, oriented caudally or straight down)

**Order Spinal Ultrasound for the following:**

- Subcutaneous mass or lipoma (sometimes seen as deviation of gluteal fold)
- Hairy patch
- Dermal sinus ( Sinuses opening onto skin surface, located above gluteal cleft and have a cephalically oriented tract)
- Atypical Dimples:
  - Deep (>5mm)
  - >2.5cms from anal verge
  - Vascular lesion e.g. hemangioma, telangiectasia
  - Skin appendages or polypoid lesions e.g. skin tags, tail like appendages
  - Scar like lesions

## Management of Atypical Dimple and Abnormal Imaging

- Review Spinal Ultrasound result whilst the baby is in Hospital or as an outpatient
- If Ultrasound is abnormal
  - Organise Appointment in Spina Bifida clinic (CNC phone ext; 21595).
  - May inform Neurosurgery Reg and Clinical Nurse Consultant (CNC) Paediatric Neurosurgery (Pager 47165) and Urology Fellow or Registrar about any intervention needed prior to appointment in spina bifida clinic.
  - Arrange for a Urinary Tract Ultrasound at 1 month of age, irrespective of spinal ultrasound finding, if the Dimple is atypical or abnormal cutaneous signs are present, and fax a referral to Spina Bifida Clinic (phone extension 21595) for a review in 4-6 weeks with urinary tract ultrasound report.
  - The decision not to send to Clinic should be at neonatologist's discretion.

## DOCUMENTATION

- Integrated Clinical Notes

## EDUCATIONAL NOTES

### Why look for OSD?

- If untreated OSD can lead to neurological sequelae in the lower limbs, urinary and bowel symptoms
- In tethered Cord syndrome, cord traction can occur as a result of growth which may impair microcirculation to the cord leading to progressive cord ischaemia.
- Surgical intervention for spinal lesions may prevent irreversible neurological damage
- When OSD is the primary finding at least 50% are associated with cutaneous marker.
- It is thought that between 3-8% of patients with significant skin lesions over the spine will have an underlying OSD. A combination of 2 or more cutaneous lesions has been shown to be the highest indicator of OSD.

### Which Imaging to choose?

#### Spinal Ultrasound

- Advantages
  - Best undertaken within 3 months of age, generally earlier the better. After 6 months not possible as Spinal ossification occurs and quality of examination becomes very poor
  - Cheap
  - Portable and don't require anaesthesia
  - First Line investigation
- Disadvantages
  - Can miss small amounts of fat within the filum terminale and small dermal sinus tracts
  - Imaging abnormalities seen
  - Poor Visualisation of bony structures
- Ultrasound anomalies
  - Position of Conus ( Lower in tethered cord syndrome). Conus should not be lower than L2 at any age.
  - A thickened filum or a lipoma
  - Normal mobility of nerve roots in the thecal sac

#### Spinal MRI

- Advantage
  - Better visualisation of bony structures
  - Identify fusion defects and segmentation anomalies such as hemivertebra.
- Disadvantages:
  - Expensive, Not portable, requires Anaesthesia

## RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- None

## References

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