10 CARE OF THE NEONATE

10.3 NEONATAL SCREENING

10.3.1 EXAMINATION OF THE NEONATE

Keywords: Neonatal examination, newborn assessment

AIM

- To assess growth, health and behaviour of the neonate.
- To confirm neonatal maturity.
- To detect any abnormal effects of birth and recognise an unwell neonate enabling commencement of appropriate management.
- To detect any abnormalities which are present at birth.
- To have a documented record of any distinguishing features with regards to the neonate’s physical appearance as an aid to description and identification in the event of abduction (See Emergency Preparedness Manual, Code Black Alpha response & Policy W138 Prevention and Management of an Infant Abduction).
- To inform parents of any problems that the neonate may have, or reassure them that their baby is healthy.

KEY POINTS

1. Skin to skin contact and breastfeeding are the priority in the first hour of the well neonate. As soon as possible after this, providing the temperature is stable, the examination should be performed.
2. The examination should be delayed if the neonate is cold or unwell.
3. Where a midwife does the initial examination, a Medical Officer must perform a further complete physical examination within 24 hours.
4. Maintain standard precautions in accordance with Infection Control Policy 2 Prevention and Management of Infectious Diseases.
5. Each time the woman is checked and her physical condition assessed, the midwife shall perform a visual check of the neonate to ensure its condition remains within normal limits.

EQUIPMENT

- Overhead warmer
- Stethoscope with a neonatal diaphragm
- Adequate lighting
- Thermometer
- Tape measure
- Infant scales
- Neonatal History Sheet MR 410
PREPARATION

1. Obtain maternal history including medical, pregnancy, previous obstetric history, labour and birth details.1-3
2. Gain parental consent and where possible, perform the examination in the presence of one or both parents.1, 2
3. Prepare the environment by ensuring it is:
   - warm2
   - well lit2
   - free from draughts.

The examination should be performed under a neonatal warmer when possible to ensure maintenance of temperature.2
4. Ensure the neonate has two identification bands in place.
   - Bands should have the mother’s family name and unit medical number recorded on it.
   - Confirm the details on the mother’s and neonate’s identification bands match
   - Instruct the mother to immediately inform nursing staff if an identification band comes off so it may be replaced as soon as possible.
5. Perform assessment of neonatal vital signs including temperature, respirations, heart rate,3 and oxygen saturation. Obtain a current axillary temperature of the neonate. If normal (36.5 0C to 37.4 0C) proceed with the examination.3 If cold, discontinue the examination or place neonate under a radiant heater for the remainder of the examination.3

INITIAL EXAMINATION

- The midwife will perform the initial examination of a normal well term neonate and an additional more detailed examination is done by a paediatrician within 24 hours of birth.
- All abnormal findings should be reported to the paediatrician for review.

<table>
<thead>
<tr>
<th>AREA OF ASSESSMENT</th>
<th>ASSESS</th>
<th>ADDITIONAL INFORMATION</th>
</tr>
</thead>
</table>
| Initial general overview | • Crying sounds3  
• General appearance | A weak, high-pitched, or hoarse cry is considered abnormal.4  
Observe the neonate prior to the beginning of the physical examination for activity, skin colour, and obvious congenital abnormalities.1, 3 |
| Skin | • Colour  
• Rashes  
• Nevi  
• Skin integrity | Observe for jaundice, cyanosis, bruising, vernix, dryness, mottling, pallor, plethora.5  
Note milia, erythema, pustules5  
Assess for haemangioma, port-wine stains, Mongolian spots5, or birth marks.  
Note any skin peeling4, or abrasions. |
<table>
<thead>
<tr>
<th>AREA OF ASSESSMENT</th>
<th>ASSESS</th>
<th>ADDITIONAL IN Neurological FORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head</td>
<td>• Head circumference - measure.&lt;br&gt;• Shape and symmetry of head&lt;br&gt;• Palpate suture lines and fontanelles</td>
<td>Check for microcephaly, macrocephaly, bruising or abrasions.&lt;br&gt;Dysmorphic features may be associated with chromosomal conditions. Note if fontanelles are bulging, depressed, small or enlarged. Assess for moulding, caput, haematoma or signs of increased intracranial pressure. Note any subconjunctival haemorrhages. View position of eyes. The paediatrician will assess the ‘red eye’ reflex. Assess position and note presence of skin tags. All parents at KEHM are offered a hearing test for their neonate. Note any nasal flaring, breathing difficulties, sniffing, sneezing or discharge. Assess position, symmetry and patency of nares. Patency may be checked by occluding one nostril at a time and observing breathing. Perform examination of the palate. Note tongue-tie, signs of infection, abnormal frothy or copious saliva, or presence of teeth. Elicit the sucking reflex. A flat philtrum may indicate fetal alcohol syndrome. Check mobility, excess skin or webbing at back of neck. Document a description of the hair including colour, thickness, and pattern. This provides useful information in response to a Code Black Alpha situation.</td>
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<tr>
<td>Eyes</td>
<td>• Eyes</td>
<td></td>
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<tr>
<td>Ears</td>
<td>• Ears</td>
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<tr>
<td>Nose</td>
<td>• Nose</td>
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</tr>
<tr>
<td>Mouth</td>
<td>• Mouth</td>
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<tr>
<td>Philtrum – area between the nose and mouth</td>
<td>• Philtrum – area between the nose and mouth</td>
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<tr>
<td>Neck</td>
<td>• Neck</td>
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<td>Chin</td>
<td>• Chin</td>
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<tr>
<td>Hair</td>
<td>• Hair</td>
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<tr>
<td>AREA OF ASSESSMENT</td>
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<td>ADDITIONAL INFORMATION</td>
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</table>
| **Chest**          | • Movement  | Observe shape of chest, and placement of nipples. Note signs of sternal or rib recession, abnormal nipple size, or discharge.  
|                    | • Cardiac function | Assess heart sounds, rate and rhythm. View central and peripheral perfusion. If a cardiac murmur is suspected / noted then check the peripheral pulsations and perfusion, central cyanosis and assess for respiratory distress. Document the findings, give an explanation to the parents reassuring them that” this is quite common and usually an innocent finding, however it is important to inform the paediatrician just in case there is anything significant” and inform the paediatrician on call as soon as possible after counselling the parents.  
|                    | • Lungs  | Observe for chest recession, rate, depth, type of breathing pattern. Note the shape and symmetry of chest. Observe the symmetrical expansion of chest. Listen to breath sounds and for any grunting sounds.  
|                    | • Breasts  | A term baby has a firm nodule of breast tissue 6 – 8 mm felt.  
| **Abdomen**        | • Shape, colour and size | Distension may indicate obstruction or abdominal mass. A scaphoid or flat abdomen may suggest diaphragmatic hernia. View abdominal tone and note if excessive skin is present.  
|                    | • Umbilicus | Observe the number of vessels, presence of hernias, colour of umbilicus and umbilical stump. Check the umbilical clamp is secure.  
|                    | • Palpation of abdomen | Gentle palpation of the abdomen may be done to detect masses.  
|                    | • Bowel sounds | Auscultate for bowel sounds.  

10.3.1 Examination of the Neonate
Clinical Guidelines: Section B
King Edward Memorial Hospital
Perth Western Australia
DPMS Ref: 5321 All guidelines should be read in conjunction with the Disclaimer at the beginning of this manual
<table>
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</table>
| Genitalia / Anus   | • Genitalia | Male:  
- examine and palpate for descended testes.  
- observe shape, size and position of the penis  
- observe the foreskin is not retracted.  
- assess for bruising, swelling or haematomas.  
- check position of urethra  
- inform the parents a male neonate may pass urates in the urine in the first 48 hours which may look reddish.  

Female:  
- part the labia to visualise the opening and to detect any masses, swelling, abnormal discharge or abnormal anatomy.  
- Advise parents of the possibility of pseudo-menstruation resulting from circulating maternal hormones.  

Observe the position. Gentle touching of the anus causes contraction and retraction of the anus muscle proving patency.  
Document if meconium has been passed.  
Advise the mother to inform staff when meconium is passed.  

Document if urine has been passed.  Advise the mother to inform staff when urine is passed. |
<p>|        | • Anus | |
|        | • Urine output | |</p>
<table>
<thead>
<tr>
<th>AREA OF ASSESSMENT</th>
<th>ASSESS</th>
<th>ADDITIONAL INFORMATION</th>
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<tbody>
<tr>
<td>Muscular skeletal</td>
<td>• Arms and legs</td>
<td>Check for:</td>
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<tr>
<td></td>
<td></td>
<td>- Normal shape, posture and length.¹</td>
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<td></td>
<td></td>
<td>- Deformities¹</td>
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<tr>
<td></td>
<td></td>
<td>- Limitations of movements¹</td>
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<tr>
<td></td>
<td>• Hips</td>
<td>- Normal symmetrical movements.¹</td>
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<tr>
<td></td>
<td></td>
<td>- Normal digits</td>
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<tr>
<td></td>
<td></td>
<td>- Talipes¹</td>
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<td></td>
<td>• Spine</td>
<td>Assess for a dislocated or unstable hips.¹</td>
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<td></td>
<td></td>
<td>Prior to examination ensure the neonate is relaxed and in the supine position.²</td>
</tr>
<tr>
<td></td>
<td>• Clavicle</td>
<td>Observe for vertebral malformations. Assess for clefts, dimples or sinuses.²</td>
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<tr>
<td></td>
<td></td>
<td>A fractured clavicle may occur after a difficult delivery and may present as an irregular contour, shortening, and tenderness of the area.³</td>
</tr>
<tr>
<td>Neurological</td>
<td>• Reflexes</td>
<td>Absent, depressed, or exaggerated reflexes may be signs of neurological disorders.⁵</td>
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<tr>
<td></td>
<td></td>
<td>- Moro Reflex</td>
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<tr>
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<td>Should cause abduction of both arms and extension of fingers. Asymmetry may indicate a fractured clavicle, hemiparesis or a brachial plexus injury.⁵</td>
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<td>Rooting reflex</td>
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<td>Grasp reflex</td>
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<td></td>
<td>Sucking reflex</td>
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<td></td>
<td>Illustrates the ability to coordinate breathing, suck and swallowing which shows neural integrity.³</td>
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<td>Stepping or walking reflex</td>
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<td>Indicates mature extension and flexion mechanisms.⁷</td>
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<td>Traction response</td>
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<td>Reflects development of the flexor tone which occurs at approximately 37 weeks.⁷</td>
</tr>
<tr>
<td>Neurological (continued)</td>
<td>• Muscle tone³</td>
<td>Assess tone by posture and</td>
</tr>
</tbody>
</table>

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### Posture
- Posture
- Level of consciousness
- Movements

Resistance to passive movement.
Cerebral irritation may cause neonatal back arching, scissoring of legs, and thumbs to tightly abduct.

Assess alertness, interaction with mother, behaviour.

Note any absence or reduced movements, quality of movements, and abnormal movements.

### Gestational age
- Resting posture
- Breast tissue
- Ear cartilage
- Genitalia
- Reflexes

A normal term neonate has:
- Fully flexed extremities
- Creases covering the whole of the foot in the first 12 hours of birth
- 6-7mm of breast tissue
- Completed ear cartilage and curve to the pinna
- Well developed genitalia

### Measurements
- Weight
- Length
- Head circumference

Measure and record on the:
- MR 410 Neonatal History
- MR 425.10 Care of the Neonate (weight only)

### MANAGEMENT AFTER EXAMINATION
1. Discuss the findings with the parents.
2. Notify the paediatrician if the examination findings suggest review is required earlier than routine paediatrician examination.
3. Offer the parents skin-to-skin contact with the neonate after the examination.
REFERENCES (STANDARDS)


National Standards – 1- Care provided by the clinical workforce is guided by current best practice

Legislation - Nil


Other related documents – KEMH Clinical Guidelines, Section:

- B: 10.2.2 Observations
- B: 10.2.7 Management of the Neonate with a Temperature Below 36.5°C
- B: 10.3.2 QRG- Examination of the Neonate
- NCCU Section 1: Newborn Resuscitation Algorithm
- WNHS Emergency Preparedness (See Code Black – Infant abduction guidelines & Appendix 4)

RESPONSIBILITY

<table>
<thead>
<tr>
<th>Policy Sponsor</th>
<th>Nursing &amp; Midwifery Director OGCCU</th>
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<tbody>
<tr>
<td>Initial Endorsement</td>
<td>March 2006</td>
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<tr>
<td>Last Reviewed</td>
<td>September 2014</td>
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<tr>
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