CARE OF THE NEONATE

NEONATAL SCREENING

NEONATAL EXAMINATION

Keywords: Neonatal examination, newborn assessment, cephalocaudal check, head to toe check

AIMS

- 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 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- Standard Precautions
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:
   - warm[2]
   - well lit[2]
   - 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. Refer to page 4 of the guideline Patient Identification
   - 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] to 37.4°C) 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.**

AREA OF ASSESSMENT	ASSESS	ADDITIONAL INFORMATION
Initial general overview	• Crying sounds[3] • 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, pustules[5] Assess for haemangioma, port-wine stains, Mongolian spots[5], or birth marks. Note any skin peeling[1], or abrasions.

AREA OF ASSESSMENT	ASSESS	ADDITIONAL INFORMATION
Head	• Head circumference - measure.	Check for microcephaly, macrocephaly,[5] bruising or abrasions.
	• Shape and symmetry of head	Dysmorphic features may be associated with chromosomal conditions.[2]
	• Palpate suture lines and fontanelles	Note if fontanelles are bulging, depressed, small or enlarged. Assess for moulding, caput, haematoma or signs of increased intracranial pressure[5]
	• Eyes	Note any subconjunctival haemorrhages.[5] View position of eyes.[4] The paediatrician will assess the 'red eye' reflex.
	• Ears	Assess position and note presence of skin tags.[2] All parents at KEHM are offered a hearing test for their neonate.
	• Nose	Note any nasal flaring, breathing difficulties, sniffing, sneezing or discharge.[5] Assess position, symmetry and patency of nares.[2] Patency may be checked by occluding one nostril at a time and observing breathing.[6]
	• Mouth	Perform examination of the palate. Note tongue-tie, signs of infection, abnormal frothy or copious saliva, or presence of teeth.[5] Elicit the sucking reflex.[2]
	• Philtrum – area between the nose and mouth	A flat philtrum may indicate fetal alcohol syndrome.[2]
	• Neck	Check mobility, excess skin or webbing at back of neck.[1]
	• Chin	Observe size and shape.[2]
	• Hair	Document a description of the hair including colour, thickness, and pattern. This provides useful information in response

AREA OF ASSESSMENT	ASSESS	ADDITIONAL INFORMATION
		to a Code Black Alpha situation.
Chest	• Movement	Observe shape of chest, and placement of nipples. Note signs of sternal or rib recession, abnormal nipple size, or discharge.[2]
	• Cardiac function	Assess heart sounds, rate and rhythm. View central and peripheral perfusion.[2] 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.[2] Listen to breath sounds and for any grunting sounds.[5]
	• Breasts	A term baby has a firm nodule of breast tissue 6 – 8 mm felt.[1]
Abdomen	• Shape, colour and size	Distension may indicate obstruction or abdominal mass. A scaphoid or flat abdomen may suggest diaphragmatic hernia.[3] View abdominal tone[3] and note if excessive skin is present.
	• Umbilicus	Observe the number of vessels, presence of hernias, colour of umbilicus and umbilical stump.[3] Check the umbilical clamp is secure.
	• Palpation of abdomen	Gentle palpation of the abdomen may be done to detect masses.[2]
	• Bowel sounds	Auscultate for bowel sounds.[3]

AREA OF ASSESSMENT	ASSESS	ADDITIONAL INFORMATION
Genitalia / Anus	• Genitalia	Male: ➢ examine and palpate for descended testes.[2] ➢ observe shape, size and position of the penis[2] ➢ observe the foreskin is not retracted.[2] ➢ assess for bruising, swelling or haematomas.[1] ➢ check position of urethra[4] ➢ inform the parents a male neonate may pass urates in the urine in the first 48 hours which may look reddish.[2] Female: ➢ part the labia to visualise the opening and to detect any masses, swelling, abnormal discharge or abnormal anatomy.[2] ➢ Advise parents of the possibility of pseudo-menstruation resulting from circulating maternal hormones.
	• Anus	Observe the position. Gentle touching of the anus causes contraction and retraction of the anus muscle proving patency.[3] Document if meconium has been passed.[2] Advise the mother to inform staff when meconium is passed.
	• Urine output	Document if urine has been passed. Advise the mother to inform staff when urine is passed.

AREA OF ASSESSMENT	ASSESS	ADDITIONAL INFORMATION
Muscular skeletal	• Arms and legs	Check for: ➢ Normal shape, posture and length.[1] ➢ Deformities[1] ➢ Limitations of movements[1] ➢ Normal symmetrical movements.[1] ➢ Normal digits ➢ Talipes[1]
	• Hips	Assess for a dislocated or unstable hips.[4] Prior to examination ensure the neonate is relaxed and in the supine position.[2]
	• Spine	Observe for vertebral malformations. Assess for clefts, dimples or sinuses.[2]
	• Clavicle	A fractured clavicle may occur after a difficult delivery and may present as an irregular contour, shortening, and tenderness of the area.[3]
Neurological	• Reflexes	Absent, depressed, or exaggerated reflexes may be signs of neurological disorders.[5] ➢ *Moro Reflex* Should cause abduction of both arms and extension of fingers. Asymmetry may indicate a fractured clavicle, hemiparesis or a brachial plexus injury.[5] ➢ *Grasp reflex*[3] ➢ *Rooting reflex*[3] ➢ *Sucking reflex* Illustrates the ability to coordinate breathing, suck and swallowing which shows neural integrity.[3] ➢ *Stepping or walking reflex*[3] Indicates mature extension and flexion mechanisms.[7] ➢ *Traction response* Reflects development of the flexor tone which occurs at approximately 37 weeks.[7]

AREA OF ASSESSMENT	ASSESS	ADDITIONAL INFORMATION
Neurological (continued)	• Muscle tone[3] • Posture[3] • Level of consciousness[3] • Movements[3]	Assess tone by posture and resistance to passive movement. Cerebral irritation may cause neonatal back arching, scissoring of legs, and thumbs to tightly abduct.[4] Assess alertness, interaction with mother, behaviour. [3] Note any absence or reduced movements, quality of movements, and abnormal movements.[3, 4]
Gestational age	• Resting posture • Breast tissue • Ear cartilage • Genitalia • Reflexes	A normal term neonate has[7]: ➢ 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[3]	• 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.[3]
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.
4. Document all findings[3] on the MR 410 Neonatal History chart.

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REFERENCES / STANDARDS

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6. Sinclair C. **A Midwife's Handbook**. USA: Elsevier; 2004.
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National Standards – 1- Care provided by the clinical workforce is guided by current best practice
Legislation - Nil
Related Policies - WA Health Operational Directive 0486/14 WA Health Patient Identification Policy 2014; Prevention and Management of an Infant Abduction Policy
Other related documents – KEMH Clinical Guidelines:

- Obstetrics & Midwifery: Neonatal Care: Neonatal Observations
- Obstetrics & Midwifery: Neonatal Care: Neonatal Hypothermia: Management if Temperature < 36.5°C
- Obstetrics & Midwifery: Neonatal Care: Neonatal Examination: QRG
- NCCU Section 1: Newborn Resuscitation Algorithm
- WNHS Emergency Preparedness (See Code Black – Infant abduction guidelines & Appendix 4)

RESPONSIBILITY	
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