Local Guideline

John Hunter Children's Hospital
CHILDREN, YOUNG PEOPLE AND FAMILIES

NSW GOVERNMENT Health
Hunter New England Local Health District

Admission Criteria of Newborn Babies to / from Maternity Ward

Sites where Local Guideline applies	JHH Maternity and Newborn Services
This Local Guideline applies to:	
1. Adults	No
2. Children up to 16 years	No
3. Neonates – less than 29 days	Yes
Target audience	Registered Midwives, Student Midwives, Registered Nurses, Obstetric Medical Officers, Neonatal Services Medical Officers
Description	This local guideline outlines the admission criteria of newborn babies to/from maternity units in JHH
National Standard	Standard 6: Clinical Handover

Go to Guideline

Keywords	Newborn, neonates, admission, maternity ward, nursery, postnatal, special care nursery, SCN, NICU, JHCH
Document registration number	JHCH_NICU_02.08
Replaces existing document?	No

Related Legislation, Australian Standard, NSW Ministry of Health Policy Directive or Guideline, National Safety and Quality Health Service Standard (NSQHSS) and/or other, HNE Health Document, Professional Guideline, Code of Practice or Ethics:

- NSW Health PD2010_022 Maternity - National Midwifery Guidelines for Consultation and Referral
- NSW Health PD2013_049: Recognition and Management of Patients who are Clinically Deteriorating
- JHCH Admission of babies to NICU, HDU and SCN
- JHCH Transfer of care from NICU
- JHH Local Guideline: Maternity – Admission Criteria of Newborn Babies to Maternity Ward

Prerequisites (if required)	N/A
Local Guideline note	This document reflects what is currently regarded as safe and appropriate practice. The guideline section does not replace the need for the application of clinical judgment in respect to each individual patient but the procedure/s **require mandatory compliance**. If staff believe that the procedure/s should not apply in a particular clinical situation they must seek advice from their unit manager/delegate and document the variance in the patients' health record.
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Contact details	
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This document contains advice on therapeutics	No
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PURPOSE AND RISKS

This local clinical procedure has been developed to provide instruction to the health clinician and to ensure that the risks of harm to the infant associated with admissions are prevented, identified and managed.

The risks are:

- *Newborn babies receive the appropriate level of care based on their individual clinical need, enabling the right care in the right place at the right time.*

The risks are minimised by:

- *Newborn babies being supported to be with their mother on the postnatal ward unless their require special or intensive care in the nursey*
- *Clinicians recognisng and responding to clinical deterioration of the newborn*
- *Following the process set out in the local guideline*
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Risk Category*:* *Clinical Care & Patient Safety*

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GLOSSARY

Acronym or Term	Definition
CERS	Clinical Emergency Response System
CPAP	Continuous Positive Airway Pressure
IPPV	Intermittent Positive Pressure Ventilation
LBW	Low Birth Weight
NICU	Neonatal Intensive Care
SCN	Special Care Nursery
SNOC	Standard Newborn Observation Chart

This Guideline does not replace the need for the application of clinical judgment in respect to each individual patient.

Staff Preparation

It is mandatory for staff to follow relevant: “Five moments of hand hygiene”, infection control, moving safely/safe manual handling, documentation practices and to use HAIDET for patient/carer communication: **H**and hygiene **A**cknowledge, **I**ntroduce, **D**uration, **E**xplanation, **T**hank you or closing comment.

Guideline

Purpose

After birth most full term infants and late preterm infants require routine maternity care to support them to transition to extra uterine life. Most women need and want their baby close to them at this time. Supporting infants to remain with their mother is fundamental to newborn transition; it promotes infant maternal bonding/attachment and the early initiation of breastfeeding. Constant close presence of the infant in the same room as their mother from the time of birth and continuously during the postnatal stay should be encouraged and supported.

This guideline recognises that some newborn babies including those born between 35 – 37 weeks or less than 2500g have increased risks of thermal instability, breastfeeding problems, hypoglycaemia, dehydration and jaundice. These babies may require care in a neonatal nursery to promote optimal physiological stability in the early neonatal period; however the decision to admit newborn babies to the neonatal nursery can be disruptive to 'keeping mothers and their babies' together.

This guideline provides direction on appropriate admission criteria for newborn babies to the JHCH Nursery. It has been developed together with JHH Maternity services to optimise outcomes for newborn babies by ensuring that mothers and babies are supported to remain together on the postnatal ward unless the newborn baby requires higher level care in the intensive or special care nursery.

Both JHH Maternity and JHCH Newborn services aim to provide high quality, safe care for women and their newborn babies. Together they recognise that mothers and their babies may have different levels of care requirements and aim where ever possible, to ensure that mothers and their newborn babies are supported to be together , while receiving the appropriate level of care.

There are a number of advantages including long term benefits, described in the literature of a newborn infant remaining with their Mother following birth and these include:

- Facilitates frequent skin-to-skin contact which helps to keep babies warm and settled
- Early maternal understanding of newborn behavior and recognition of cues
- Improved establishment of breastfeeding
- Enhanced mother infant bonding/attachment
- Improved maternal feelings of confidence and competence in her ability to care for her baby

When a baby requires higher level care in the nursery, all maternity and newborn service staff will provide support to the mother to be with her baby in the nursery environment.

The following criteria provide guidance on newborn admission criteria to the Maternity Ward from the Birth Suite and SCN, as well as criteria for transfer of newborn babies from the maternity ward to the SCN.

Exceptions to this guidance must be negotiated on an individualised basis between nursing and midwifery unit managers (or in their absence the team leader), in the SCN and Maternity Ward.

Admission to Maternity Ward from Birth Suite

The following list outlines the admission criteria for Newborn babies who are able to be safely be cared for in the Maternity setting at JHH. All other newborn babies will be admitted to the SCN or NICU:

- Gestation ≥35 weeks and/or birth weight ≥ 2200g
- Able to maintain temperature between 36.5 – 37.5° (with routine measures including skin-to-skin contact, swaddling and maximum of 15 minutes under a radiant warmer)
- Babies who do not have any clinical indications that require referral to specialist neonatal care such as major congenital abnormalities and seizure activity
- Babies who did not receive advanced life support at birth (defined in these terms as: IPPV after 5 minutes of age, any external cardiac massage, resuscitation medications or need for mask CPAP>20 minutes)
- Babies with a cord pH at birth of ≥ 7.0
- Well babies with the following risk factors:
    - risk of hypoglycaemia
    - risk of respiratory distress (includes maternal opiates <4 hours of birth)
    - risk of subgaleal haemorrhage / trauma from instrumental delivery
    - risk of sepsis
    - risk of jaundice

Exceptions

- Well babies for planned Assumption of Care will be cared for in the SCN
- Well babies whose mothers are receiving high dependency or Intensive care will be cared for in the SCN
- Babies receiving palliative care will be assessed on an individualised basis and may be cared for in the JHH Children's resource room, on the maternity ward or at home dependent on circumstances

Admission to the Maternity Ward from SCN

Babies who have been admitted to the SCN at any time, and whose condition no longer requires care by the neonatal team can be discharged to the maternity ward if they meet the following criteria:

- ≥ 35 weeks corrected gestational age and tolerating 2-5 consecutive suck feeds a day without need for top ups
- Babies who are well enough for discharge home, as per neonatal assessment
- Require no more than routine monitoring which includes additional monitoring for identified risk factors (hourly monitoring for 4 hours or 6 hourly for 24 hours as per Clinical Pathway for Well Baby)
- Babies undergoing assessment and treatment for Neonatal abstinence (mandatory 7 day stay)- Please note: midwives will be responsible for performing all routine Neonatal Abstinence scores, administering oral Morphine as prescribed

- Do not require NICU nursing support with the exception of:
    - Babies requiring intravenous antibiotics(to be administered by Neonatal Nursing staff) but are otherwise respiratory & haemodynamically stable
    - Babies > 24 hours old meeting requirement for phototherapy using a Bilibed® (note if the mother is well enough for discharge home, phototherapy using the Bilibed® can be managed at home with JHCH - Hospital in the Home)

Admission to the SCN from the Maternity Ward

Some newborn babies who are admitted to the maternity ward may develop symptoms or conditions that require higher level care. In these situations mothers will be supported to be near their baby in the nursery. Newborn babies on the maternity ward with the following conditions require transfer to the SCN for higher level of care, these include:

- Babies with apnoeas, respiratory distress OR persistent RR > 60/min
- Babies identified with any circulatory or respiratory concerns who require close monitoring
- Any seizures including focal seizures
- Babies requiring treatment for a clinical suspicion or diagnosis of newborn sepsis, as per Newborn Sepsis Pathway
- Babies with hyperbilirubinaemia requiring treatment other than Bilibed®
- Severe hypoglycaemia BGL < 1.7 mmol/L
- Persistent mild to moderate hypoglycaemia, BGL between 1.7 and 2.6 mmol/L on three consecutive occasions despite appropriate treatment as per the Maternity & Newborn: Recognition and Management of the Infants at Risk for Hypoglycaemia
- Persistent hypothermia not responding to routine measures including skin to skin contact, additional swaddling and a maximum of 15 minutes under a radiant warmer
- Late preterm babies (35 – 37 weeks gestation) who are unable to take and tolerate 3 hourly suck feeds

Escalation of Newborn Care

- Newborn babies on the maternity ward have their observations recorded on the Standard Newborn Observation chart (SNOC). Any observations monitored in the Yellow or red zone require an appropriate response as per the local JHH Neonatal Clinical Emergency Response system (CERS). Observations in the yellow zone will be escalated to the midwife in charge/team leader to determine if a clinical review is required.
- If a clinical review is required a NNP/Registrar will be consulted and arrangements made for a clinical review of the baby in the nursery at an agreed time within 30 minutes. A midwife will bring the baby and the baby's clinical notes to the nursery and provide clinical handover.
- The NICU Registrar or NNP must see the baby promptly. If for any unforeseen reason the baby is not able to be seen by the NNP/Registrar at the arranged time the in-charge nurse in NICU will review the baby and make a decision as to whether the baby needs admission or not. The midwife **must** return to the postnatal ward within 30 minutes of leaving it. If the baby is not ready to return to the ward a NICU nurse will return the baby and provide clinical handover to the midwife on the ward.

- A baby in the red zone (apart from BSL < 1.7 mmol/L), will automatically trigger a rapid response call which requires urgent review by a NNP/Registrar within 10 minutes on the postnatal ward.
- A low BSL < 1.7 is considered non-immediately life threatening but will require the baby to be brought urgently to NICU for admission.
- Always refer to the JHH Neonatal CERS to follow appropriate escalation of care for a sick baby.

All clinical Handover will be in line with *HNELHD PCP2009_060:PCP2 Clinical Handover-Shift Handover*

Appendices

Appendix 1 **Neonatal Clinical Emergency Response System (CERS)**

Appendix 2 **Algorithm for Newborns -ABCDEFG**

References

Jaafar S., Ho J., Lee K.(2016): *Rooming-in for new mother and infant versus separate care for increasing the duration of breastfeeding* Cochrane Library

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Brown S, Small R, Argus B, Davis P, Krastev A. Early postnatal discharge from hospital for healthy mothers and term infants. 2002;(3):CD002958.

Bystrova K, Ivanova V, Edhborg M, Matthiesen A-S, Ransjö-Arvidson A-B, Mukhamedrakhimov R, et al. Early Contact versus Separation: Effects on Mother–Infant Interaction One Year Later. 2009;36(2):97-109

Feedback

Any feedback on this document should be sent to the Contact Officer listed on the front page.

Implementation, monitoring compliance and audit

1. This Guideline will be communicated to JHH Maternity and Newborn Service nurse and midwifery managers via email who will distribute to all Maternity and Newborn Service clinicians; Midwives, Nurses and Medical Staff and placed on the NICU HUB
2. This Guideline and Procedure will be tabled at the JHCH CQ&PCC Clinical Quality Committees and when approved uploaded to the PPG.

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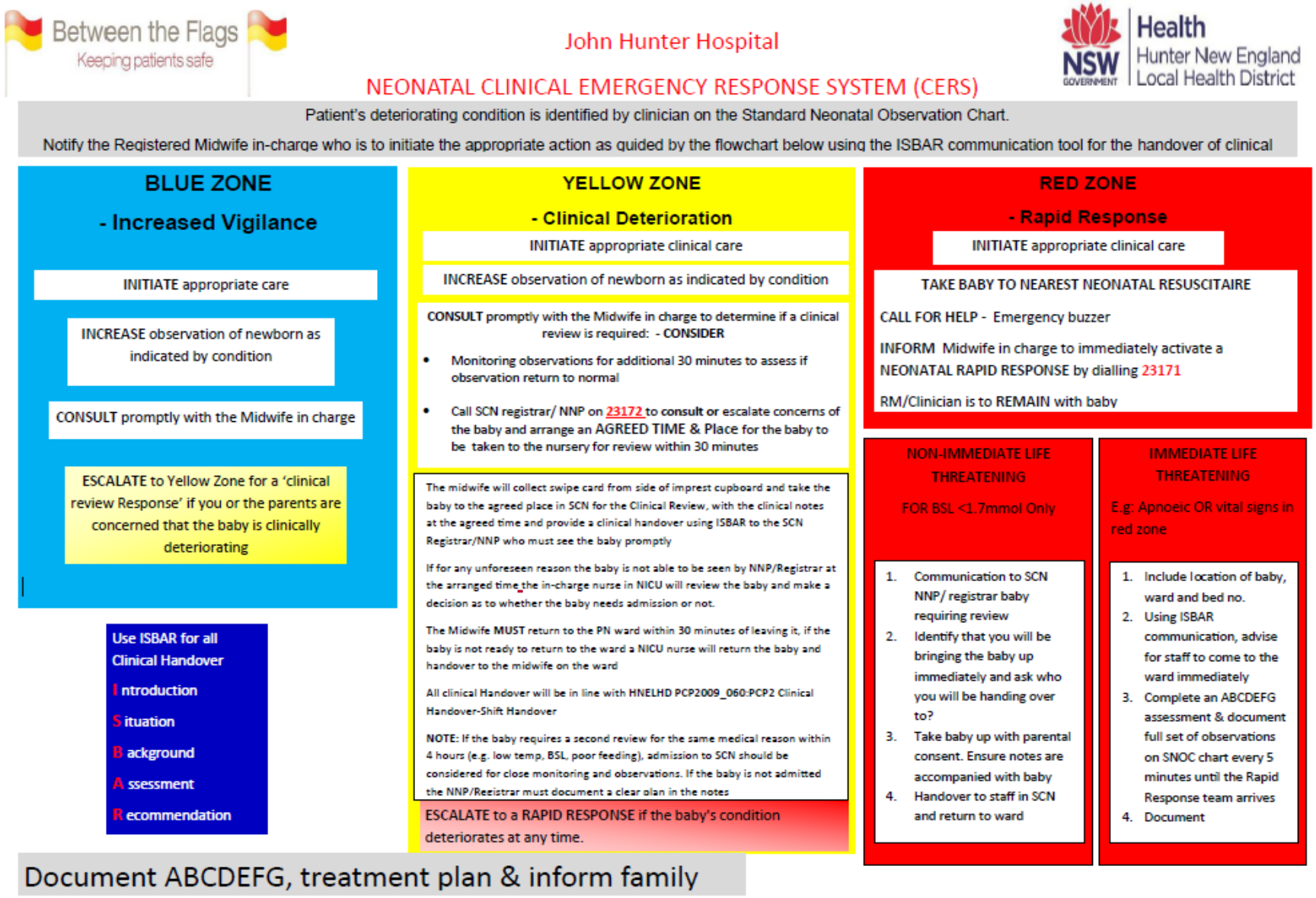
Appendix 1: Neonatal Clinical Emergency Response System (CERS)



See following page for ABCDEFG Algorithm

Appendix 2 Algorithm for Newborns

ABCDEFG Algorithm for Newborns				
		LOOK	**LISTEN**	**FEEL/ASSESS**
A	**Airway**	Head neutral position – sniffing position Signs of airway obstruction – meconium, blood/mucous, milk, secretions	For noisy breathing – 'grunting'	For presence of bilateral chest movement and breaths
B	**Breathing**	• At the chest wall movement, to see if it is normal and symmetrical • Signs of respiratory distress: nasal flaring, tracheal tug, sternal recession (accessory muscles) • Measure/count the respiratory rate	For noisy breathing – 'grunting'	Presence of bilateral chest movement and breaths
C	**Circulation**	• Colour of skin and mucous membranes – pink, cyanosis, pale, jaundice Oxygen saturations	For heart sounds	Femoral pulses Capillary refill Feel for hepatomegaly Kramer's rule Serum Bilirubin level
D	**Disability**	Birth injuries e.g. cephlahaematoma, bruising, fractures For any congenital abnormalities Record of gestation at birth: Pre/post term Birth weight SGA/Macrosomia		Muscle tone Posture Pupils
E	**Exposure**	Maternal opioids in labour Maternal chemical dependence including opioids Birth record – assisted, CS or vaginal breech Did baby require resuscitation at birth Risk factors for sepsis: • Ruptured membranes > 18 hours • Mother febrile in labour • Mother GBS positive Antenatal record – Presence of maternal medical disease and antenatal history History of maternal medications, alcohol and cigarettes		Level of consciousness Spontaneous activity Core skin temperature Complex reflexes (suck, Moro, ATN) Consider cord pH < 7.10

F	**Fluids**	Sucking code Meconium Urine output		Number and type of feeds
G	**Glucose**	Risk factors for hypoglycaemia: Preterm Low birth weight < 10% Maternal diabetes Birthweight > 4500g		Blood sugar level
PINK **Treat newborns with any signs of Respiratory Distress**			Ensure airway is patent, consider need for suction Provide supplemental air/oxygen	
WARM **Ensure newborn is kept warm**			Position skin to skin with mother or under a radiant heater ensuring airway is patent at all times	
SWEET **Treat existing hypoglycaemia**			Supplement feed with 40% glucose gel and additional breast milk/formula feed	
Never leave a deteriorating newborn without a priority management and review plan			**Document and communicate clearly** • all treatment provided, • outcomes of treatment implemented • what care is still required The plan should include expected outcomes and when the newborn will be reviewed again	