GUIDELINE

Admission to NICU KEMH and PCH

Scope (Staff):	Nursing and Medical Staff
Scope (Area):	NICU KEHM, NICU PCH, NETS WA

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this disclaimer

Contents

Key Points 2
Public and Private Patients 2
Criteria for Admission / Readmissions to NICU PCH Ward 3B 3
Admission to NICU KEMH 3
Level of Care Indicators 3
Golden Hour (first 60 minutes of life) 4
Key Principles for Admission and Handover during the Golden Hour 4
Clinical Handover 5
Medical Responsibility on Admission to KEMH/PCH NICU or SCN2 5
Admitting Nurse 6
Equipment 6
Procedure 7
When Stabilised 8
Re-admission of Infants to the Neonatal Unit KEMH 8
Criteria for Paediatric Review and/or Re-admission to Postnatal Wards (KEMH) 9
Admission of Infants for Newborn Care 9
Observation 9
Nutrition 10
Appendix 1: Escalation Pathway for infants of concern 12

Key Points

The decision to admit an infant to either of the neonatal units must be arranged through the medical staff that will then be responsible for informing the appropriate consultant on-call for the unit. In the case of infants admitted for level 3 care, the on-call consultant must be informed immediately if the infant is very sick or unstable.

- The consultant will make the decision as to whether that infant needs to be seen immediately, however patients should be seen by a consultant within 30 if requested by the registrar.
- If a registrar requests the attendance of a consultant, then the consultant should be in attendance within 30 minutes of that request.
- A consultant or senior registrar should see all infants requiring level 3 care within 8 hours of admission, if not seen immediately.
- Consultants should be informed about infants that require level 2 care within 24 hours of admission, these infants should be seen by a consultant or senior registrar within 24 hours.
- For admissions with infection prevention and control considerations, refer to CAHS Neonatal Viral Infections guideline.

Public and Private Patients

- The consultant neonatologists/paediatricians of the Neonatal Units at King Edward Memorial and Perth Children's Hospitals are happy to support and care for private patients (infants) within this service. Because of the round the clock nature of intensive and special nursery care it is necessary to manage these areas in clinical teams. One of the neonatal consultants is in charge of each clinical area at all times. When an infant requires referral to another sub specialty the care of the infant is jointly managed by the neonatal consultant currently on service and the paediatric consultant of the sub specialty.
- For intensive and intermediate care patients the existing comprehensive level of medical attendance and cover is appropriate for private patients also. All such infants are admitted under the care of the consultant neonatologist responsible for that area at that time. The consultant carries out one or more daily ward rounds, oversees the care of all infants and will discuss the management of infants with their parents on a regular basis.
- For term and near-term infants admitted to the postnatal wards with their mothers, the neonatologist responsible for the postnatal wards will make themselves known to the parent(s) and will overview their infant's inpatient stay.
- For private patients a single account for services rendered will be raised and no gap payment will be charged for any services billed by this hospital. It is not anticipated that consultants will attend the delivery of private patients, except where this is indicated on clinical grounds as indicated in the Guidelines, or as arranged individually between obstetrician and paediatrician.

Criteria for Admission / Readmissions to NICU PCH Ward 3B

The following patients are eligible for admission:

1. NETS retrievals of newborn infants (who never been home) from the hospital of birth.
2. Any infant < 8 days old from birth.
3. **Non-viral** #*term neonates* 8-28 days of age or **preterm neonates* until 44 weeks post menstrual age AND require:
    - Major Surgery, OR
    - Respiratory support (CPAP or Ventilation) OR
    - Other major organ support (at the discretion of NICU consultant)
4. #*Term Neonate* 8-14 days of age or **pre-term neonate* until 42 weeks gestational age with a **likely or proven viral illness** AND require
    - Respiratory support (CPAP or Ventilation) OR
    - Other major organ support (at the discretion of NICU consultant)

#*Term neonates (≥37 weeks gestational age at birth)*

**Preterm neonates (<37 weeks gestational age at birth)*

All admissions/readmissions to 3B should be discussed with the on service/on call neonatal consultant.

Admission to NICU KEMH

Infants may be admitted the Special Care Nurseries when there is any medical concern. This is only a guide to the level of care and the types of conditions a neonate may present with.

Infants post-delivery, who are slow to transition to extra-uterine life, should be admitted for ongoing observation:

- Infants with poor muscle tone at 10 minutes of age.
- Infants who respond slowly to significant resuscitation or who have required cardiac massage during resuscitation.
- Infants who require support to transition post maternal general anaesthesia
- Infants with signs of respiratory distress/grunting.
- Infants who have significant birth trauma such as subgaleal haemorrhage where there is a potential for sudden deterioration and require close monitoring.
- Also see level of care indicators below.

Level of Care Indicators

The decision to admit an infant to either of the neonatal units must be arranged through the medical staff who will then be responsible for informing the appropriate consultant for the unit. Indicators for level of care to SCN or KEMH/PCH NICU are below:

LEVEL 2 CARE INDICATED FOR	LEVEL 3 CARE INDICATED FOR	PCH CARE INDICATORS FOR
• Transient problems requiring cardiorespiratory monitoring / frequent laboratory investigations in neonates >32 weeks, >1500g, not requiring level 3 care. • Need for peripheral IV fluid therapy. • Convalescing infants recovering from acute problems. • Assessment for poor feeding. • Jaundice infants requiring peripheral IV fluid therapy and closer monitoring. • Assessment of NAS, until stable.	• Sustained assisted ventilation (intermittent positive pressure ventilation or continuous positive airway pressure). • Preterm <32 weeks until stable. • Cardiorespiratory monitoring for recurrent apnoea or seizures. • Exchange transfusion. • Severe systemic illness, e.g. shock • Requirement for central lines. • Oxygen requirement for assessment. • Complex multi-system life support.	• As per L2 & L3 for all out born infants 32 weeks gestation & above. • Infants of all gestations requiring surgical procedures. • Infants of all gestations requiring specialist inpatient care.

Golden Hour (first 60 minutes of life)

- The **Golden Hour** is a crucial period for neonates, particularly for those born preterm or with complications as the newborn undergoes significant physiological changes as they transition from intrauterine to extrauterine life.
- Implementing evidence-based practices during this period can significantly enhance survival rates and improve long-term health outcomes.
- Good preparation and a coordinated team approach is essential to ensure that all necessary interventions are performed promptly and effectively during this vital time
- Management during this ‘Golden Hour’ can prevent immediate risks such as hypothermia, hypoglycaemia, and respiratory distress, and can also reduce the likelihood of long-term complications like intraventricular haemorrhage and bronchopulmonary dysplasia.

Key Principles for Admission and Handover during the Golden Hour

1. **Respiratory Support**: For infants requiring assistance, respiratory support should be continued after admission with appropriate monitoring of vital signs and blood gas analysis.
2. **Thermoregulation:** Maintaining the newborn's body temperature within acceptable limits and avoiding exposure to cold environments is vital.
3. **Nutritional Support**: Initiating parenteral nutrition or IV fluids and a feeding plan within the first hour can help stabilize blood sugar levels and support metabolic needs

4. **Sepsis risk assessment**: and timely commencement of antibiotics if sepsis is considered

Clinical Handover

Medical and midwifery/nursing staff that accompany a baby into the SCN or NICU must handover to the receiving medical and nursing staff. The handover must take place using the iSOBAR format.

Identity	Confirm identity, check name bands against accompanying paperwork
Situation	Describe current clinical scenario
Observations	Of the baby
Background	Maternal history, labour and resuscitation history
Assessment	Of clinical status
Recommendations	Current treatment plan, possible ongoing management and procedures to be completed
Readback	Confirm information handed over

The receiving team must make a management plan for the baby and allocate staff accordingly.

Medical Responsibility on Admission to KEMH/PCH NICU or SCN2

(See here for Registrar QRG for preterm neonates)

- The order and priority of procedures will depend on the condition and initial assessment of the infant on admission to the unit.
- Provide immediate care as necessary to stabilise.
- Ensure completed documentation of the Neonatal History Sheet MR410, including relevant clinical details of the baby's birth, clinical assessment and status.
- Full clinical examination and patient assessment.
- Full documentation in the inpatient progress notes MR420 (in addition to checking complete records of the Neonatal History Sheet MR410) of:
    - Maternal history.
    - Perinatal and birth history.
    - Clinical reason for admission and focused problem list.
    - Clinical examination and assessment.
    - Investigations and management plan.

- Completion of Neonatology problem list MR485.03.
- Documentation of communication with parents, including details provided of clinical diagnosis and management.
- Documentation of discussion with senior medical staff (Senior Registrar/Consultant).

Admitting Nurse

- Admission nurse is responsible for checking the resuscitation equipment/admission set-up prior to admitting an infant. Ascertain if there is a need to isolate the infant.
- When taking clinical handover from the midwife, check for Vitamin K and Hepatitis B vaccine consent form. All medications that require formal written consent must NOT be prescribed/given before consent has been sighted.
- Check whether the infant has voided or passed meconium since birth.
- Check cord clamp in place, no ooze and skin intact.
- Check preferred method of feeding. Obtain written consent for the use of formula milk if applicable.

Equipment

- A warmer, pre-warmed incubator or open cot.
- Ventilator / nasal CPAP if applicable.
- Stethoscope.
- Cardiopulmonary monitoring, Non-invasive blood pressure (Invasive BP/TCM/CVP - if applicable).
- Thermometer.
- Nappy (pre-weighed for NICU babies).
- Hat and appropriate clothing.
- Scales / Measuring tape.
- Admission paperwork / Name bands.
- X1 Infusion pump and syringe pump (L3 need 2-3 syringe pumps + infusion pump).
- Equipment for peripheral access and/or central access.
- Equipment for septic screen.

Procedure

- The order and priority of procedures will depend on the condition and initial assessment of the infant on admission to the unit.
- Admissions to PCH Ward 3B are very varied and individual consideration must take place on the priority of admission procedures.
- Admissions via NETS and or Theatre MUST have a team handover occur prior to moving the infant from the Theatre/NETS cot. Handover should include the Theatre staff/NETS Dr and nurse as well as the receiving unit, Registrar (SR and Consultant if available) and admission nurse.
- Stabilisation and maintenance of airway, admission weight and baseline vital signs are initial priorities.
- Place the infant on a pre-warmed radiant warmer or incubator - see Thermoregulation.
- If oximeter probe is insitu on admission to the NICU it must be released and circulation assessed prior to being reapplied. Assessment is to be documented in comments section of the MR489/491.
- Further procedures and care are then prioritised in conjunction with medical staff and shift coordinator.
- Complete full physical assessment including length and head circumference (may be done later if condition warrants). Document assessment findings on MR410 Neonatal History. If there is excessive moulding or caput, the HC should be repeated daily until this has resolved.
- Skin assessment (NSCS) and pressure area risk assessment (GS) are to be completed and documented within the first 4 hours of admission.
- Document observations hourly for the first 3 hours then reassess the need for continuous monitoring - see Monitoring, Observation and Measurement Frequency.
- If there is a suspicion of sepsis, a septic screen should be performed - see Sepsis: Neonatal.
- Routine bloods - see Blood Tests: Ordering.
- Medications: Administer prescribed medications after obtaining specimens for laboratory investigations. Antibiotic administration is a priority in the unwell neonate.
- Administer Vitamin K and Hepatitis B (if BW >1000 grams and no pyrexia or coagulopathy). All medications that require formal written consent must **NOT** be prescribed/given before consent has been sighted.
- CXR/AXR for ETT/Line placement and further management if applicable.
- Commence fluids or feeds as early as possible. Respiratory compromised infants should only be fed enterally if their condition allows.

- Blood glucose should be tested with the blood gas machine as soon as lines are in situ. Repeat within 2 hours or as ordered. If feeding is by enteral route, do a pre 2nd feed blood glucose - see Hypoglycaemia.
- Initially weigh all nappies to assess urine output. Carry out a ward urinalysis.

When Stabilised

- On arrival to the Neonatal Unit, make sure parents are:
  - Welcomed to the unit.
  - Orientated to the unit including understanding the handwashing policy, visiting policy, and emergency exit procedures and parent facilities.
  - Provided with the appropriate written information including the welcome letter containing visiting information as a “minimum”.
- If there is excessive bodily fluid (Meconium or blood) the neonate can be minimally cleansed with a cloth whilst under the warmer. Do not bath for 24 hours.
- Chlorhexidine wash on day 1 then alternate days - see Chlorhexidine Wash Procedure.
- Determine whether an open cot or incubator is required.
- Use appropriate positioning aids to enhance physiological stability, promote energy conservation and to reduce physiological and behavioural stress.
- Complete necessary documentation plus the Birth Register, Fireboard and Handover file.
- Monitor fluid balance until condition no longer warrants it. Review daily.

Re-admission of Infants to the Neonatal Unit KEMH

In general, infants CANNOT be readmitted to the special care nursery at KEMH.

- Occasionally, babies who present to EC at KEMH with jaundice or poor weight gain within the 1st week of discharge may be admitted to the post-natal wards with their mothers;
  - only in exceptional circumstances can such babies be admitted to the special care nursery.
  - In **ALL** instances, the case **MUST** be discussed with the on-call consultant neonatologist.
- Babies with suspected infection can NO LONGER be readmitted to KEMH and must be transferred to PCH ED, following appropriate stabilisation in EC at KEMH.
- Infants with Rhesus iso-immunisation who need a top-up blood transfusion, can be admitted up to 16 weeks corrected age, provided parents and baby are well.

- Should parents/carer wish for infant to be admitted at another health facility for ongoing care, discuss with NICU consultant. See Transfer by Road and Air of Stable Infants for transfer process to other health facility.
- At any time, there is concern from Hospital Clinical Manager or NICU medical staff regarding neonatal patients in the community, post-natal wards, EC, or NICU/SCN; escalate directly to NICU consultant. Refer to Appendix 1 for escalation pathway for infants of concern.

Criteria for Paediatric Review and/or Re-admission to Postnatal Wards (KEMH)

Infants who are referred from home and who are suspected of being septic should **not** be re-admitted to the postnatal wards. Such babies can be admitted to the neonatal unit at KEMH or PCH, depending on the clinical situation.

The following are the criteria for paediatric review / re-admission to a KEMH postnatal ward:

- Any baby within the first week of discharge from KEMH postnatal ward with:
  - Feeding difficulties.
  - Weight loss of >10% of birth weight.
  - Jaundice.
- Any baby within the first week of discharge that, in the opinion of the Visiting Midwifery Service (VMS), Midwifery Group Practice (MGP) or Community Midwifery Program (CMP) midwife requires a non-urgent paediatric review can be referred to KEMH Emergency Centre (EC). If VMS are concerned the infant is unwell or ill, urgent review should be sort at the nearest paediatric emergency centre.
- Any baby in the first week of life who needs a medical review within 48 hours after discharge can be considered for review in KEMH EC after discussion with the Neonatal Consultant / Senior Registrar.

Admission of Infants for Newborn Care

Physiologically stable infants born at >35 weeks gestation can be admitted if their mother is unable to provide any care due to her own medical hospitalisation (eg. Admission to Adult Special Care Unit or Intensive Care Unit at Sir Charles Gardiner Hospital), or in the event of apprehension or adoption.

The infant will require a Day 1 check by both medical and nursing staff within 24 hours of birth.

Observation

Hourly temperature, heart rate and respirations are to be recorded for the first 3 hours following birth. If the initial observations are within normal limits, then a full set of observations (temperature, heart rate and respirations) should be performed with feeds and cares. Observations are to be recorded on the Level 2 Observation Chart (MR 491) with “Admitted for Newborn Care” clearly documented.

Change the category of care to level 2 if any investigations and/or treatments are necessary (e.g. blood glucose test, insertion of gastric tube).

On arrival to the nursery the nurse must obtain relevant history details, determine the mother's chosen feeding method, and check with the transferring staff member the presence of two correct ID bands, gender and condition of the umbilical cord. Ascertain whether Vitamin K / Hepatitis B has been given. The reason for admission is to be recorded in the Register as "Newborn Care". Nurses caring for the infant must document in the progress notes at least once per shift.

Nutrition

Document an agreed plan of how the infant is to be fed. Do not use dummies / pacifiers / formula milk unless the parent has specifically requested their use or has given consent. Volumes offered and frequency of feeding will be determined on birth weight and gestation. Infants that are offered a feed and are not interested should be reviewed.

Before each feed, contact ASCU staff to determine whether the mother is well enough to attend to the feed. If the mother is able to breastfeed or give the feed (if bottle feeding), transport the infant to ASCU. SCN nurses are responsible for transporting the infant to and from ASCU for feeds. ASCU staff are responsible for assisting ASCU mothers with breast / bottle feeding.

Related CAHS internal policies, procedures and guidelines
Neonatology Guidelines • Blood Tests: Ordering. • Chlorhexidine Wash Procedure • Clinical Handover • Hypoglycaemia. • Monitoring, Observation and Measurement Frequency. • Neonatal Viral Infections • Sepsis: Neonatal. • Skin Care Guideline • Thermoregulation.

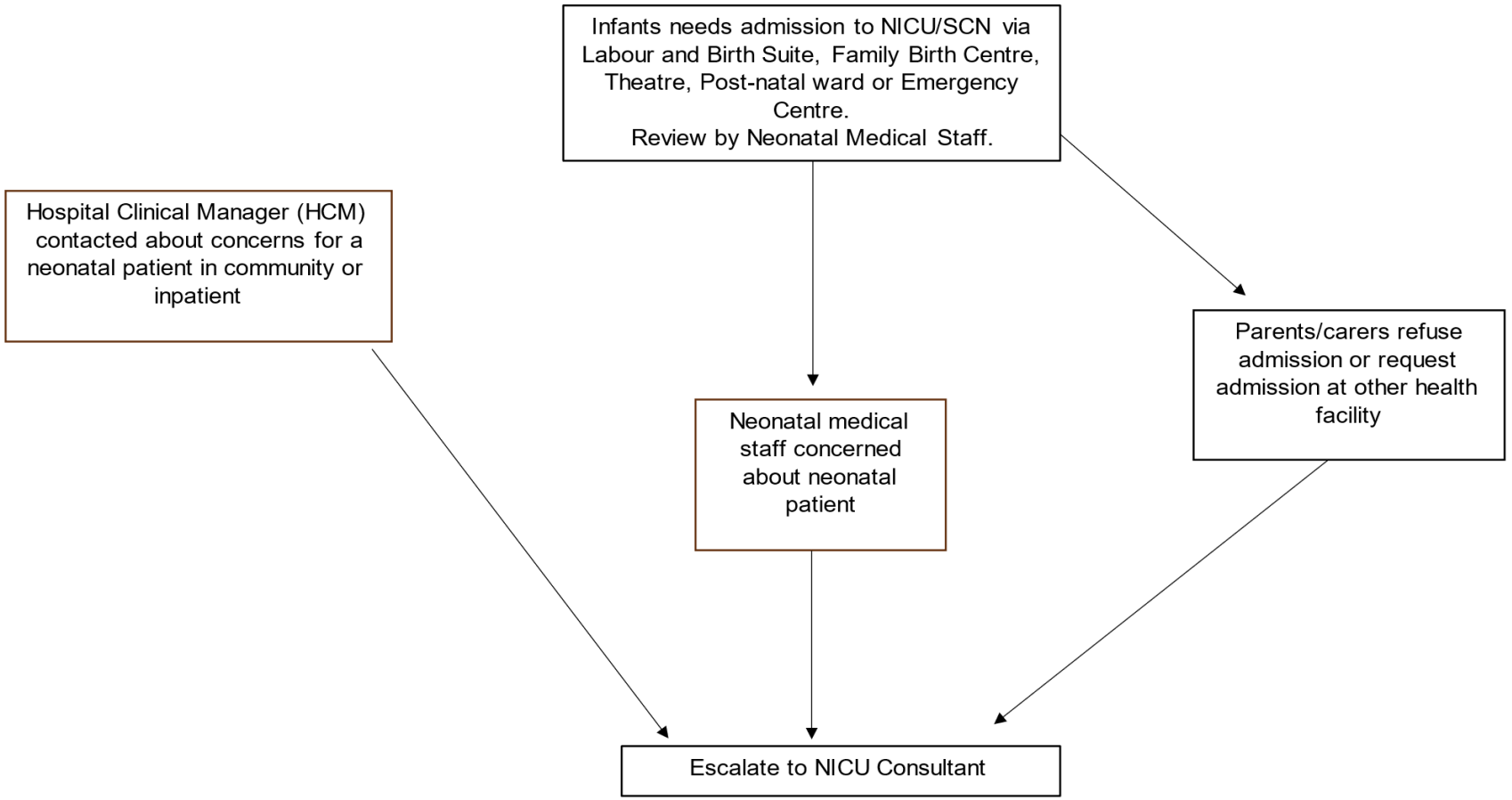
This document can be made available in alternative formats on request.

Document Owner:	Neonatology		
Reviewer / Team:	Neonatology Coordinating Group		
Date First Issued:	June 2006	Last Reviewed:	April 2024
Amendment Dates:	May 2025: SAC 1 recommendations for escalation pathway. October 2025: Addition of Golden hour principles. May 2026 - sight consent before prescribing medications that need formal written consent from parents.	Next Review Date:	April 2027
Approved by:	Neonatology Coordinating Group	Date:	23rd April 2024
Endorsed by:	Neonatology Coordinating Group	Date:	
Standards Applicable:	NSQHS Standards: Child Safe Standards: 1,10		

Printed or personally saved electronic copies of this document are considered uncontrolled

Healthy kids, healthy communities

Compassion | Excellence | Collaboration | Accountability | Equity | Respect

Neonatology | Community Health | Mental Health | Perth Children's Hospital

Appendix 1: Escalation Pathway for infants of concern