

Work Instruction

Non-Invasive Respiratory Support (Short Term) for Babies Born ≥ 35 Weeks

Document Control

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1. Introduction

1.1 Purpose

To outline standardised clinical processes for babies born ≥ 35 weeks' gestation admitted to the NICU requiring short-term non-invasive respiratory support due to:

- Respiratory distress syndrome (RDS) / hyaline membrane disease (HMD)
- Delayed transition
- Retained fetal lung fluid / transient tachypnoea of the newborn (TTN)

1.2 Scope and Context

This work instruction applies to medical and nursing staff working within the NICU

1.4 Triggering Event

Babies ≥ 35 weeks requiring admission to NICU for non-invasive respiratory support, commonly via CPAP.

1.5 Expected Outcomes

- Standardised care for this patient cohort
 - Initiation of enteral nutrition within 1 hour of admission
 - Nurse-led weaning from CPAP
 - Maintenance of normothermia and BGL > 2.6 mmol/L
 - Early discharge to mother to support bonding and feeding
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2. Specific Instructions

2.1 Admission to NICU for CPAP

1. **Initial Support**
 - a. Administer CPAP via Neopuff™ mask with PEEP 8 cm H₂O
 - b. Transfer baby on open care system
 2. **NICU Admission**
 - Attach cardio-respiratory monitoring
 - Set CPAP: PEEP 8 cm H₂O, flow 5–8 L/min
 3. **Weaning Criteria**
 - a. Maintain CPAP until:
 - FiO₂ = 21% (no supplemental oxygen)
 - Resolution of respiratory distress (see Section 3)
 - b. Trial off CPAP
 - c. Nurse-led decision to wean is permitted
 4. **Respiratory Deterioration**
 - a. If signs of distress or oxygen need return → reinstate CPAP at 8 cm H₂O
 - b. Escalate to medical or NNP if deterioration continues
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2.2 Commencing Enteral Nutrition

1. **Within First Hour**
 - a. Prioritise expressed breast milk (EBM) if available
 - b. Encourage early postnatal expression
 2. **Feeding Method**
 - a. With parental consent: oral EBM via syringe + pacifier
 - b. Without consent: administer via orogastric tube (OGT)
 3. **If No EBM**
 - Obtain consent for formula via OGT
 - Feed at 30 mL/kg/day, every 3 hours
 4. **IV Therapy**
 - Not required if enteral feeds are established
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2.3 Intravenous Antibiotics

5. If indicated (refer to *Neonatal Early Onset Sepsis* procedure):
 - Insert PIVC
 - Collect blood culture, FBC, gas (inc. BGL)
 6. If not indicated → No PIVC required
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2.4 BGL Monitoring

7. Refer to *Hypoglycaemia Management for Newborns*
 8. First BGL: within 2–3 hours of age
 9. Second BGL: before 3rd feed and ≤6 hours of age
 10. If normal BGLs (>2.6 mmol/L): continue 6-hourly until 24 hours of age
 11. Continue monitoring on postnatal floor if discharged before 24 hrs
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2.5 Developmental Considerations

12. Skin-to-skin encouraged at any time, maintaining normothermia
 13. Observe cues and support self-regulation:
 - a. Avoid waking baby
 - b. Non-pharmacological soothing methods
 - c. Refer to *Developmentally-centred and Family Supportive Care in NICU* document
 14. Nesting in side-lying or prone positions is recommended
 - Prone reduces work of breathing and energy consumption
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2.6 Ceasing CPAP and Discharge from NCCU

15. Once stable → cease CPAP, observe for 1 hour
 16. Following review → transfer to postnatal ward
 - Notify midwife/team leader
 - No requirement for suck feed prior to discharge
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3. Definitions

	Definition
CPAP	Bubble CPAP prevents alveolar de-recruitment, increases functional residual capacity, and decreases work of breathing
Hypoglycaemia	BGL < 2.6 mmol/L (0–48 hrs); < 3.3 mmol/L (>48 hrs)
Normothermia	Maintenance of normal core body temperature
Signs of Respiratory Distress	Intercostal recession, expiratory grunt, head bobbing, nasal flaring, RR >75

RDS / HMD

Definition

Caused by surfactant deficiency/lung immaturity, mostly in preterm infants; not a generic term for respiratory distress

5. Appendix One: Management Flowchart

