

# **APNOEA**

Scope (Staff):	Nursing and Medical Staff
Scope (Area):	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

## Aim

To provide NETS WA staff guidance in the management and identification of infants at risk of apnoea during neonatal transport.

#### Risk

Delayed management increasing the risk of infants having apnoea and hypoxic episodes which can lead to mortality and long-term neurological morbidity.

### **Definitions**

Absence of breathing for ≥ 20 seconds. Apnoea is especially relevant when accompanied by cyanosis / bradycardia

# **Aetiology**

Most cases are due to a combination of central and obstructive apnoea.

- Sepsis (both bacterial and viral always consider HSV infection).
- Central nervous system disorders (e.g. asphyxia, seizures, HIE, congenital malformations).
- Cardiovascular system disorder (PDA, CCF).
- Temperature (hypo/hyperthermia).
- Gastro-oesophageal reflux.

- Inborn errors of Metabolism
- Sign of withdrawals from maternal drugs (e.g. narcotics)/ antenatal opiates.
- Apnoea of prematurity (refer to Neonatology guideline <u>Apnoea of Prematurity</u>)
- Post general anaesthesia.
- Airway obstruction (refer to Difficult Airway on Retrieval).
- Surgical conditions of the upper airway (Tracheoesophageal fistula, Pierre Robin Sequence, Cleft lip + palate etc)
- Medications such as Morphine, Fentanyl, Alprostadil

## **Management**

- Any Apnoea should be considered as secondary apnoea and managed with urgent priority
- Maintain a clear airway and suction secretions if required to ensure that there is no mechanical obstruction of the airway. If airway obstruction is considered as the reason for apnoea, then follow the <u>Difficult Airway on Retrieval</u> guideline.
- If there is a need for escalation of respiratory support (O<sub>2</sub> / HHF/CPAP / Intubation and Ventilation) this should be discussed with the on-call NETS Consultant
- A capillary blood gas sample is useful when escalating the respiratory support.
- Keep bag and mask/intubation kit on standby during transport
- Consider loading dose of Caffeine.
- Maintain normothermia.
- Consider septic screen and antibiotics / antivirals.
- Consider loading dose of Phenobarbitone if there is any suspicion of seizures (refer to NETS WA guideline Seizures).

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## Related CAHS internal policies, procedures and guidelines

- Apnoea of Prematurity (Neonatology Clinical Guideline)
- Seizures: Neonatal (Neonatology Clinical Guideline)
- Intubation and Ventilation NETS WA Guidelines
- Difficult Airway NETS WA Guidelines
- Seizures NETS WA guideline
- <u>Caffeine</u> Neonatology Medication Protocols
- Phenobarbitone Neonatology Medication Protocols

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

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# **Appendix 1: APNOEA ACTION CARD**

# APNOEA (Absence of breathing for ≥ 20 seconds

severe when accompanied by cyanosis / bradycardia)

Alert Team: "Baby is having Apnoea's, can you please help me troubleshoot?"



IMMEDIATE ACTION: TACTILE STIMULATION FOLLOWED BY IPPV IF ↓ SPO2/HR



- 1 PATIENT Airway? resp efforts? Color? Secretions?
- 2) MONITOR Heart rate, RR, SpO<sub>2</sub>, ETCO<sub>2</sub>
- 3 VENTILATOR Alarms? Blockage in circuit? Gases?
- 4 TRACHEAL TUBE Displaced? Blocked?
- **Tactile stimulation**
- **Clear airway and suction secretions**



- **Head neutral position**
- Bag ventilation to Mask/ETT if HR <100/SpO2 <90%
- Consider escalation of respiratory support (02 / HHF/CPAP / Intubation and Ventilation)if ongoing apneic episodes



- Hypothermia: Maintain euthermia
- Sepsis- consider Benzylpenicillin and Gentamicin



- Seizures consider phenobarbitone
- PRS consider prone positioning
- Capillary blood gas sample when stable



Loading dose of Caffeine

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