

Document Name: **ESCALATION OF CARE OF THE
DETERIORATING NEWBORN**

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Restrictions: **W'BOOL ONLY FOR TRIAL** Review No: 2 Risk rating: E

Policy statement

Any deterioration in the healthcare status of the newborn is responded to as per the following responses.

The observation regime outlined in this document applies to all newborns regardless of whether they are being cared for in the Special care nursery or mothers room.

Objective:

- To facilitate prompt recognition of gradual or sudden deterioration in the newborn infant.
- To address National Standard 9: Recognition and Response of the deteriorating (newborn) patient.

Equipment

ViCTOR (Victorian Children's Tool for Observation and Response) observation charts.

- Birth Suite/Postnatal
- Neonate (for use in Special Care Nursery only).

Responders

The following table lists the response team for the deteriorating newborn;

Responder	Availability	Response Time
RN/RM caring for the infant	24 hours/ 7 days a week	Respond 24/7
RM/AUM in charge of maternity ward	24 hours/ 7 days a week	Respond 24/7
Paediatric Registrar	Monday – Friday 0800-1700 + rostered weekends + on-call	In hours first medical responder + on-call
Paediatric Consultant	Monday – Friday 0800-1700 + rostered weekends + on-call	In hours first/second medical responder + on-call

- **The daily on-call list located at the main nursing station will have paediatric and emergency department responders listed. It is important that you check this list daily as it will change.**
- The AUM can be contacted via pager or by the staff assist/emergency call button.

Charts

The ViCTOR charts are designed to **'track'** patient observations and **'trigger'** a response if a predetermined threshold is reached. The charts consist of three distinct zones - white, orange and purple.

- **WHITE ZONE** (Stay vigilant/may deteriorate)
- **ORANGE ZONE** (Medical Review Recommended)
- **PURPLE ZONE** (Mandatory Emergency Call)

WHITE ZONE:

Stay Vigilant/May Deteriorate

Vital signs in the white zone are considered normal. However if the newborn is unstable, looks unwell or has two consecutive observations indicating a 'trend' towards a coloured zone escalation of care may be considered.

Response time frame

The time frame for a response in this zone is 1 hour.

Staff Response	Action
	Response
	1 Inform AUM or in-charge RM
	2 Increase frequency of observations to 15 minutely
	3 Consider escalation to Orange Zone if significant change in condition
	1 Review treatment plan
	2 Document concerns and plan of care
	3 Continue to document observations 15 minutely until AUM or medical review if required
Staff Responsibilities	<ul style="list-style-type: none"> • Repeat observations 15 minutely until infant reviewed (SaO₂, HR, RR, Temp, colour, tone, + general appearance) • Consider BGL (Blood Glucose Level) if clinically appropriate • Review medications, IV fluids and fluid balance as indicated • Ensure clinical record and documentation up to date • Handover to AUM/registrar using ISBAR.
AUM Responsibilities	<ul style="list-style-type: none"> • Contact in hours paediatric registrar or paediatrician consultant on-call if required • Support RN/RM caring for infant to perform further assessment and treatment as required • Ensure other patients attended to.
Paediatric Registrar/ Paediatrician Responsibilities	<ul style="list-style-type: none"> • Perform systematic assessment of infant • Provide treatment as indicated • Document plan of care • Hand over information to on-call consultant Paediatrician.

**ORANGE
ZONE:**

Medical Review Recommended

If any observation in the orange zone, the infant needs to be seen by the AUM to decide if medical review required. If required in hours call the paediatric registrar or after hours call the consultant paediatrician.

**Response
time frame**

A review should occur within 30 minutes. If a staff or family member is worried about the newborn's clinical state or bile stained vomit present, escalation to the purple zone is indicated.

Staff Response	Action								
	<table border="1"> <tr> <td data-bbox="392 667 491 815">1</td><td data-bbox="496 667 1422 815">A Review by AUM, decide if medical review required. <ul style="list-style-type: none"> No Medical review: document plan of care Medical review required: Arrange for review within 30 minutes </td></tr> <tr> <td data-bbox="392 815 491 853">2</td><td data-bbox="496 815 1422 853">Continue 15 minutely observations or start continuous monitoring</td></tr> <tr> <td data-bbox="392 853 491 891">3</td><td data-bbox="496 853 1422 891">Consider escalation to Purple Zone</td></tr> </table>	1	A Review by AUM, decide if medical review required. <ul style="list-style-type: none"> No Medical review: document plan of care Medical review required: Arrange for review within 30 minutes 	2	Continue 15 minutely observations or start continuous monitoring	3	Consider escalation to Purple Zone		
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3	Continue observations 15 minutely +/- continuous monitoring								
4	If no medical review within 30 minutes escalate to Purple Zone								
Staff Responsibilities <ul style="list-style-type: none"> Repeat observations 15 minutely until review (SaO₂, HR, RR, Temp, colour, tone, + general appearance) +/- continuous monitor Consider BGL Consider BLS (CPAP/IPPV) as necessary Review medications, IV fluids and fluid balance Ensure clinical record and documentation up to date Handover to AUM/ paediatrician using ISBAR. 									
AUM Responsibilities <ul style="list-style-type: none"> Contact paediatric registrar or consultant paediatrician on-call Support RN/RM caring for infant to perform further assessment/treatment Ensure other patients are attended to Escalate care to Purple Zone if no response in 30 minutes 									
Paediatric Registrar/ Paediatrician Responsibilities <ul style="list-style-type: none"> Perform systematic assessment of infant Consider ECG if indicated Provide treatment as indicated – consult other paediatric team members if required Document plan of care Hand-over information to on-call Paediatrician 									

PURPLE ZONE:

Mandatory Emergency Call

- If a staff or family member is very worried about the newborn's clinical state.
- If presence of cyanosis, cardiac/respiratory arrest, airway threat, prolonged convulsion or sudden decrease in conscious state.
- If three or more simultaneous Orange Zone criteria met.
- If any observation is in the purple zone a rapid review by the paediatric registrar or on-call consultant paediatrician is required.

Response time frame

Response time is **5 minutes**.

Staff Response	Action	
	1	Press emergency bell for assistance
	2	Phone paedatric registrar or on-call consultant paedatrician for immediate assessment
	3	Initiate appropriate clinical care
	4	Continuous monitoring
	Response	
	1	Paedatric registrar or on-call consultant paedatrician to respond to emergency within 5 minutes.
	2	Stablise patient and document management plan
	4	Consider calling PIPER (if indicated) on 1300 137 650 for support and retrieval advice – this action will be initiated by the paedatrician.
Staff responsibilities	<ul style="list-style-type: none">• Continuous monitoring and document observations 5 minutely (SaO2, HR, RR, Temp, colour, tone, + general appearance) until paedatrician review• BGL check• Inform AUM• ALS (Advanced Life Support) if indicated• Review medications, IV fluids and fluid balance• Set up for ventilator support (Bubble CPAP/Ventilator)• Ensure clinical record and documentation up to date• Handover to AUM/paedatrician using ISBAR.	
AUM responsibilities	<ul style="list-style-type: none">• Contact paediatric registrar or on-call peadiatric consultant• Support RN/RM caring for infant to perform further assessment and treatment as required• Ensure other patients attended to.	
Paediatric registrar/ Paedatrician responsibilities	<ul style="list-style-type: none">• Perform ALS if necessary/ Consider ECG• Systematic assessment of infant• Order appropriate pathology and radiology investigations• Provide treatment as indicated – consult with other paediatric team members for support if required• Document plan of care• Hand-over information to on-call paedatrician for on-going care• Consult with PIPER for support and retrieval if indicated• Debrief family on events and plan of care.	

FREQUENCY OF OBSERVATIONS

BIRTHSUITE/ POSTNATAL CHART A full set of observations and newborn risk assessment are to be completed in the birth environment. **A full set of observations include a heart rate, respiratory rate, temperature, colour and level of activity.**

Please note: An 'oxygen saturation' reading is to be recorded for the first four hours only. This can be recorded in the additional observation section. **Further oxygen saturation readings are only required if < 95% or infant unwell.**

Well Infant A full set of observations are taken in the **1st hour of life and then hourly for a further three hours.** Following this time a full set of observations are to be done **8 hourly (once per shift)** for a well infant until discharge.

At Risk Infant If any newborn risks identified then a full set of observations in 1st hour of life, hourly for three hours and then **4 hourly for 48 hours** is required.
A Blood Glucose Level (BGL) and newborn scalp check are only required with a full set of observations if risk identified. Please refer **DETECTION and MANAGEMENT OF HYPOGLYCAEMIA IN THE AT RISK NEONATE**.
On discharge a post ductal SaO2 must be recorded on the birth suite/postnatal chart for all infants.

NEONATE CHART

- Any infant admitted to the SCN will require a full set of observations in the **1st hour of life and then hourly for further three hours.** A full set of observations should then be documented **3 to 4 hourly** if on an apnoea or continuous monitor.
- For well infants admitted to the SCN who no longer require continuous monitoring or apnoea monitor **a full set of observations must be done 8 hourly or once per shift** for the duration of the admission.
- A full set of observations for infants in the SCN include **heart rate, respiratory rate, respiratory effort, oxygen saturation, temperature, colour, level of activity and muscle tone.**
- A guide for respiratory assessment** is located on the back of the 'Neonate Chart' – please refer to this when performing your assessment of respiratory effort.
- A BGL is performed if infant meets at risk criteria (refer to local policy) or if requested by the paediatric registrar or paediatric consultant. Any infant on intravenous dextrose requires a BGL once per shift.
- A blood pressure (BP) check is performed as request by the paediatric registrar or paediatric consultant.
- SBR and pain score can be documented in the 'Additional Observation' section located at the bottom of the chart if indicated.

Respiratory Support	Any infant on respiratory support requires a full set of observations every 30 minutes to 1 hour . In addition to the mode, device, O2 %, Pressure/Flow, and Humidifier temperature must be recorded. <u>A respiratory support guide is located on the back of the Neonate Chart – please refer to this when completing your documentation.</u>
Modifications	<p>Modifications can be made on the '<u>Neonate Chart</u>' only. The modification boxes can be located on the left hand side of chart for O2 saturation, respiratory rate, heart rate and temperature.</p> <p><u>Only the paediatric registrar or paediatrician can make a modification to Neonate observation parameters. More than one modification can be made at one time i.e. Heart rate and respiratory rate.</u></p> <p><u>Modifications are only valid for 24 hours.</u> It is vital that modifications are reviewed by the paediatric team after this time. If the infant is to remain on modified observations then a <u>new order</u> must be documented by the registrar or paediatrician in the appropriate box.</p> <p>It is recommended that the registrar or paediatrician review the infant in person for any modification to ensure clear communication regarding observation parameters with nursing and midwifery staff.</p> <p>If this cannot occur modifications may be done by phone. It is recommended that <u>two nursing/midwifery staff</u> listen to the phone modification to ensure the correct order is given.</p>
ViCTOR Escalation Response Flow chart	A condensed copy of the escalation response will be available in the newborn bedside folder. This flow chart is designed as a quick reference for staff. Staff may also refer to the table on the back of each observation chart for guidance in general escalation of care.
EARLY DISCHARGE	
Well Infant	If all observations in white zone, no recorded events and no concerns following medical review the infant can be discharged early after 6 hours. Please avoid early discharge after 5 pm or before 8 am as medical staff will not be available for the infant discharge examination.
At Risk Infants	Early discharge is not recommended for at risk infants.
DISCHARGE EDUCATION	Please discuss 'signs of unwell infant' (refer to Green Child Health Record) on discharge with parents for all infants. This applies to both early and routine discharge.
Outcome Statement	Facilitate improved communication about a newborn's clinical state.

References ViCTOR Procedure Development & Implementation Guide. www.victor.org.au
Escalation Mapping Tool: Template. Australian Commission on Safety and Quality in Health Care. www.safetyandquality.gov.au

VICTOR ESCALATION RESPONSE FLOW CHART

