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<p>USE OF NEWBORN EARLY WARNING TRIGGER AND TRACK (NEWTT2)</p> <p>STANDARD OPERATING PROCEDURE</p>	
<p>Introduction and Aim</p> <p>The purpose of this Standard Operating Procedure (SOP) is to outline the steps for the implementation and use of the National Early Warning Trigger and Track (NEWTT2) tool. NEWTT2 is a vital signs observation chart and escalation protocol designed to aid in the early recognition of the deterioration in newborns. This SOP aims to ensure the consistent and effective monitoring, assessment, and intervention for infants in accordance with the British Association of Perinatal Medicine (BAPM, 2015) guidelines.</p> <p>While the majority of newborn infants only require short-term observation, there are a group at risk of developing complications particularly in the perinatal period. Identifying this subgroup of infants using a risk factor based approach is essential for an early diagnosis and prompt initiation of treatment in newborn infants. These risk factors may be as a result of maternal illness during pregnancy, gestational age, birth weight, intrapartum events or predisposition to sepsis.</p>	
<p>Objectives</p> <p>The use of the NEWTT2 observation chart for infants with additional risk factors will aid in the detection of deterioration and facilitate earlier interventions in care. Prompt management of deterioration will reduce the severity of illness and subsequent admission to the Neonatal unit. Based on the BAPM guidelines, the NEWTT2 tool incorporates a colour-coded chart to monitor vital signs but also encompasses parental concern in newborn infants.</p>	
<p>Scope</p> <p>This SOP applies to all healthcare professionals who are responsible for the care and monitoring of newborn infants who are identified as at risk.</p>	
Clinical Board Director	Abigail Holmes
Equality Health Impact Assessment	An Equality Health Impact Assessment (EHIA) has/has not been completed. (please delete as necessary) Where it has not been completed indicate why e.g. 'This is because a procedure has been written to support the implementation the Policy. The Equality Impact Assessment completed for the policy found here to be a negative/positive/no impact.

GUIDELINE FOR USE

The BAPM Framework outlines which infants require additional observations using the NEWTT2 observation chart. The NEWTT2 framework should be used as an aid to clinical assessment as is not intended to replace clinical judgement. Cardiff and Vale health board risk assessment to be continued to use until national risk assessment ratification.

1. RESPONSIBILITIES

Practitioners (Midwives/ Nurses/ Nursery Nurses):

- Ensure that vital signs are measured and recorded accurately at regular intervals as outlined in the newborn's care plan.
- Recognise and interpret the calculated score from the NEWTT2 chart and respond appropriately as per the escalation protocol.
- Initiate interventions
- Communicate concerns appropriately, ensuring detailed handover including what the concern is and what you have done to mitigate risk so far.
- Communication with parents, ensuring continuous update.

Medical Staff:

- Review and evaluate the newborn's clinical condition.
- Determine and initiate appropriate interventions.
- Communicate plan with practitioners caring for the newborn infant.
- Ensure clear documentation.

Ward Managers:

- Ensure availability of NEWTT2 charts
- Ensure staff are adequately trained in the use of NEWTT2 including the escalation protocol.

Clinical Educators:

- Provide ongoing education and training to staff on the use of NEWTT2.

2. SPECIFIC PROCEDURE

1. **Monitoring:** Newborn vital signs should be monitored according to the frequency outlined in the newborn's care plan. (This may vary based on the infants condition/ setting).
2. **Recording:** Record vital signs on the NEWTT2 observation chart. Ensure each parameter is documented accurately.

3. **Interpretation:** Utilise the color-coded chart to assess whether the newborns vital signs fall within the normal range or whether escalation is required.
4. **Escalation:** If vital signs fall outside of the normal range on the NEWTT2 chart, follow the escalation protocol to notify the appropriate person (ie, medical team) within the time frame provided. Ensure that clear SBAR is given to highlight concerns.
5. **Intervention:** Upon review by medical team provide appropriate interventions and continue to assess. It is crucial to remember that even once escalated the ongoing care and monitoring of the patient remains the practitioner's responsibility.
6. **Documentation:** All observations must be documented clearly on the NEWTT2 observations chart, any concerns, actions taken, and outcomes must be clearly documented in the infants medical notes.

3. GUIDANCE FOR COMMUNITY USE

The NEWTT2 framework is designed primarily for use in postnatal care settings, including the delivery suite, postnatal ward, and transitional care unit.

In the rare event that a newborn baby shows signs of deterioration or is at risk of deterioration in a community setting, the NEWTT2 chart may be used to support ongoing monitoring of the infant's condition while urgent transfer to a consultant-led unit is arranged.

Community midwives should adhere to the following guidance:

- **Immediate Escalation:**
 - If any NEWTT2 observation falls outside the acceptable normal range (amber or red zone), the midwife must contact the paediatric assessment unit for review and a transfer to CAU must be initiated.
 - The NEWTT2 working group advises that *all* infants with observations outside the normal range should be reviewed in a consultant unit.
- **Use During Transfer:**
 - The NEWTT2 chart may be used to document ongoing observations during the transfer process to support communication with receiving hospital staff.
 - The chart should accompany the infant on arrival at the consultant unit.
- **Appropriate Settings:**
 - NEWTT2 is not designed for use in the ongoing care of infants on a paediatric ward. It is specifically intended for use within the neonatal and postnatal care pathway, including hospital and community maternity settings.
- **Communication with Parents:**
 - Parents should be informed immediately of any concerns and reassured that transfer is being arranged for expert review and management.
 - Clear explanation should be provided regarding the reason for escalation and the importance of timely transfer.

4. EQUIPMENT

- Coloured copy of observations chart
- Stethoscope
- +/- Pulse Oximeter (SpO₂ monitor) - not routinely used in community settings, BAPM recognise that pulse oximetry is the gold standard when assessing newborns for potential cyanosis, this however is not always possible therefore

continues to allow visual inspection of colour to be documented when SpO2 monitoring is not possible. Extra vigilance when assessing for cyanosis in darker skin tones

[\(Statement on colour assessment when using NEWTT2 3 July 2024.pdf\)](#)

(To access – highlight text – CTRL button – click)

- Thermometer

5. FORMS/TEMPLATES TO BE USED (SEE APPENDIX)

- NEWTT2 Chart
- Escalation Record Stickers
- Review Record Stickers

6. INTERNAL AND EXTERNAL REFERENCES

- British Association of Perinatal Medicine (BAPM) – Framework for Practice: Early Warning Trigger and Track System in Newborns, 2022
- National Institute for Health and Care Excellence (NICE) – Guidance on Neonatal Care

Appendix

Newborn Early Warning Track and Trigger (NEWTT2)



NEWTT2 score 0 1 2

A score for each vital sign is required at each entry

Name: _____
 Date of Birth: _____
 Time of Birth: _____
 Hospital Number: _____
 NHS Number: _____

ANY critical (PURPLE) observation = immediate escalation. Consider 2222											
Reason for observations					Signed					Print name & GMC/NMC number	
Frequency & duration											
Date											
Time											
Temperature °C	39.0					2					39.0
						2					
	38.0					2					38.0
						1					
	37.0					0					37.0
					0						
					1						
36.0					2					36.0	
					2						
Temperature alert: Implement thermal control measures and re-check temperature within 1 hour.											
Respirations Breaths/min	80					2					80
						1					
	70					1					70
						1					
	60					0					60
						0					
	50					0					50
						0					
	40					0					40
						0					
					1						
					2						
					2						
Grunting present?											
						1					
Heart rate Beats/min	180					2					180
						2					
	170					1					170
						1					
	160					1					160
						0					
	150					0					150
						0					
	140					0					140
						0					
	130					0					130
						0					
	120					0					120
						0					
	110					0					110
					0						
100					0					100	
					1						
90					1					90	
					1						
80					1					80	
					2						
					2						
60					2					60	
					2						
Colour	SpO2 <90% (or very pale / Blue)										
	SpO2 90-94%					1					
	SpO2 ≥95% (or Pink / Normal)					0					
Neuro	Unrrousable / Floppy / ? Seizure										
	Lethargy / Irritable / Poor tone					1					
	Responsive / Good tone					0					
Feeds	Not feeding					2					
	Feeding reluctantly					1					
	Feeding well					0					
Care	High parental concern					2					
	Some parental concern					1					
	No parental concern					0					
Glucose	< 1.0 mmol/L										
	1.0 - 1.9 mmol/L					2					
	2.0 - 2.5 mmol/L					1					
	≥ 2.6 mmol/L					0					
Glucose when measured – Should be considered in any baby feeding reluctantly/poorly, or other observations suggest unwell											
NEWTT2 TOTAL											TOTAL
Monitoring frequency											Monitoring
Escalation of care YES/NO											Escalation
Initials											Initials
Refer to back page for thresholds and triggers											

Newborn Early Warning Track and Trigger (NEWTT2)

How to use the NEWTT2 track and trigger tool to determine the level and timelines of escalation
Calculate and document the total NEWTT2 score for a set of observations by adding together the individual scores (0-2) for every individual observation entered in a single column of the chart
Check the total against the NEWTT2 escalation tool and follow instructions in the escalation chart for that set of observations
Healthcare professional concern can initiate a neonatal review at any time regardless of the zone colour of an observation or total score
For a score of zero continue routine care

Thresholds and Triggers					
<ul style="list-style-type: none"> The grade of team member indicated as the primary contact for each level of clinical concern is a guide and may need to be adapted depending on the local skill mix within that care setting or organisation 					
	Score 1	Score 2-3	Score 4-5	Score ≥6	Any critical observation
Inform shift leader - Consider SpO ₂ +/- blood glucose if not done already					
Primary escalation and response (use SBAR framework)	Repeat observations in <1 hour	Refer to paediatric/neonatal Tier 1 doctor/ANNP	Refer to paediatric/neonatal Tier 1 doctor/ANNP	Refer to paediatric/neonatal Tier 1 doctor/ANNP. The Tier 2 doctor/ANNP should be informed	Refer to paediatric/neonatal Tier 1 doctor/ANNP AND Tier 2 doctor/ANNP
Review timings	Escalate as for score 2-3 if the repeat score remains 1	Request a review within 1 hour	Request a review within 15 minutes	Request immediate review	Immediate review and consider neonatal emergency call (2222)
Take steps to manage/address any obvious concerns/problems					
Secondary contact	If no review within expected time frame, escalate to Tier 2 doctor/ANNP and inform shift leader			If no review within expected time frame, escalate to consultant and inform shift leader	
	If still no response within required time frame, escalate to consultant				
<ul style="list-style-type: none"> When the primary team member(s) contacted is unable to attend or fails to attend within the expected time for the level of clinical concern, escalation to the secondary contact is required The secondary contact would be expected to attend within the initial review timing, calculated from the documented time of primary escalation. 					

SBAR Handover	
S	Situation
B	Background
A	Assessment
R	Recommendation
Document all actions and discussions in patient record	

NEWTT2 Escalation Record

Date: ___/___/___ Time: ___:___ NEWTT2 score _____

Score 1-3 (Request **Tier 1** review within **1 hour**)

Score 4-5 (request **Tier 1** review within **15 minutes**)

Score ≥ 6 (request **Tier 1** review **immediately and inform Tier 2**)

Shift Leader Informed SBAR referral to Paediatric/Neonatal team

S:

B:

A:

R: I have already done _____

Agreed action _____ & review within _____

Referral Accepted by: Tier 1 Doctor/ANNP Tier 2 Doctor/ANNP

Referrer Name: _____ Signature: _____

Grade : _____ NMC: _____

Consider a **2222** call if there are any **critical observations for Tier 1 AND Tier 2 review**

NEWTT2 Review Record

Date: ___/___/___ Time: ___:___

Risk factors: _____ Parental concerns? Yes / No

Are any of the following indicated?

Pre- and post-ductal SpO ₂ <input type="checkbox"/>	Chest X-ray <input type="checkbox"/>
Blood glucose <input type="checkbox"/>	Septic screen <input type="checkbox"/>
Blood gas / lactate <input type="checkbox"/>	Blood pressure <input type="checkbox"/>

Plan:

Is baby unwell Yes / No If yes, inform senior

Parents updated Admit to NNU

Time of next review: _____ Frequency of obs: _____

Full plan documented and handed over to _____ (name of staff)

Name: _____ Signature: _____

Grade : _____ NMC/GMC: _____