

# Quick Reference Guide Newborn Observation Chart (NOC) incorporating the Newborn Early Warning Score (NEWS)

July 2021

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### NEWBORN OBSERVATION CHART NEWBORN EARLY WARNING SCORE (NOC/NEWS)

### **Quick Reference Guide**

### Early recognition and response is crucial to achieve good outcomes

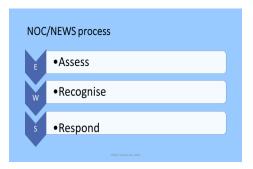
The use of an early warning system incorporated within the chart, provides a tool that can be used to identify earlier any deterioration in the newborn such as development of neonatal encephalopathy and promote timely and appropriate management.

### Benefits:

Using a national Newborn Observation Chart incorporating an Early Warning Score for all babies:

- 1. To provide a standardised, accepted tool with agreed parameters for early recognition of deterioration in the newborn
- 2. A means to respond timely and access higher levels of care earlier, to improve outcomes.
- 3. To improve communication among clinical teams

### How does the Newborn Observation Chart work?



#### **Process**

- 1. Assess- Risk factors- Do Observations
- 2. Recognise- Deviation- Score
- 3. Respond- Escalate- Document
  - 1. Assess Risk Categories Do Observations 6+1 (plus other observations depending on type of risk and frequency required)

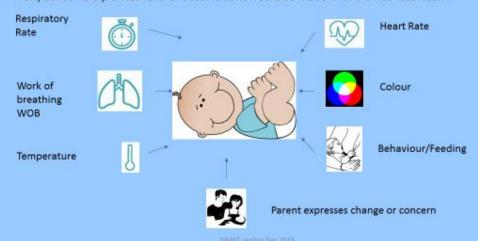
At birth a risk assessment is carried out on all babies at birth. Depending on the risk category the baby fits into, this will determine the type and frequency of observations recorded.

### ✓ Risk Assessment Categories

- -Complete for all babies as soon as possible after birth
  - All babies: minimum set of vital signs (6+1)
  - · Maternal opioid analgesia or general analgesia
  - · Meconium exposure
  - · Severe intrapartum compromise
  - · Less than 37 weeks gestation
  - Below 9<sup>th</sup> centile weight (growth chart or GROW)
  - Above 98<sup>th</sup> or 95<sup>th</sup> centile (growth chart or GROW)
  - · Maternal diabetes
  - · Instrumental birth

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## The NOC/NEWS vital signs 6+1 Minimum set of observations at 0-2 & 24 hours. These 6+1 are the minimum required observations and are added up to make a subtotal score. If any concerns a plan for further observations would be made with the neonatal team.





Frequency and type of all vital signs and other observations will be tailored to suit the individual risk assessment category.

OBS	COMPLETE RISK		
OXYGEN SATS MONITORING	BLOOD GLUCOSE MONITORING	MINIMUM REQUIRED NEWS OBSERVATIONS	ASSESSMENT
To be performed on either foot until stable		(respiratory rate, work of breathing, temperature, heart rate, colour, behaviour, feeding)	BELOW FOR <u>ALL</u> BABIES
Perform if concerned about baby or as per DHB policy	Perform if signs or symptoms hypoglycaemia apparent	At 0-2 and 24 hours post birth     At any time you or parent are concerned about baby	All babies  Mark with a X all boxes ☐ that apply

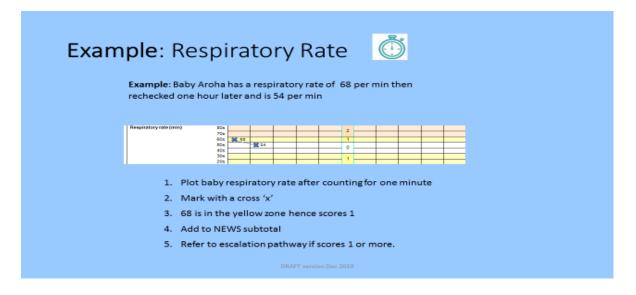
### Example of a risk category: Instrumental birth

Instrumental birth – vacuum and/or forceps, including forceps during caesarean section (risk for Subgaleal Haemorrhage)									
Perform at 4 hours	•	At 1 and 4 hours post birth     Head circumference at birth     and repeat if head swelling     occurs	<ul> <li>Any of the following:</li> <li>Total vacuum extraction time <u>less</u> than 20 minutes</li> <li>Up to 3 pulls</li> <li>No or 1 cup detachment</li> <li>Attemped instrumental birth</li> </ul>						
Perform at 2 and 4 hours or if concerned about baby	_	At 1, 2, 4, 6, 8, 12 hours post birth     Head circumference at birth and repeat if head swelling occurs     For IMMEDIATE     Neonatal/Paed review if:     HR > 160 bpm     Resp > 60 or ↑ WOB	X Any of the following  • Total vacuum extraction time more than 20 minutes  • More than 3 pulls  • 2 or more cup detachments  Apgar < 7 @ 5 mins  At clinician's request  Signature:						

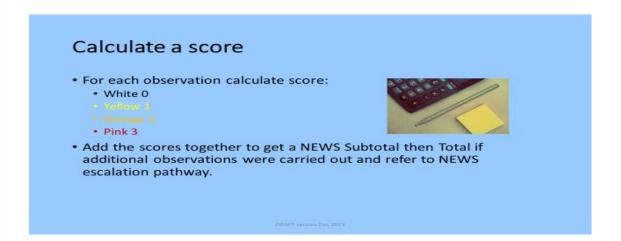
Don't forget to add these additional observation scores to the SUBTOTAL to come up with a TOTAL NEWS Newborn Early Warning Score

ALL BABIE	S NEW	S SUBTOTAL											
O <sub>2</sub> saturation in	air	≥ 95%						0					
빝		90-94%						1					
Ϋ́		≤ 89%						2					
Blood glucose m	nmol/L	≥ 7.0						2					
Record actual result in		2.6-6.9						0					
<ul> <li>appropriate range box</li> <li>▼ Follow hypoglycaemia</li> </ul>		2.0-2.5						2					
guideline	и	≤ 1.9						3					
Blood glucose take	en pre oi	r post feed?											
Repeat lactate (n	nmol/L)	Record ≥ 3.1						2					
actual result in approp								0					
Complete if vacuui	m, force	ps or unsuccessi	ful instrume	ntal birth. In	spect and p	palpate the	scalp.		Head cir	cumferen	ce (HC) at birth: cm		
Newborn No	new bi	ruising/swelling						0					
< scalp	– Incre	easing swelling						2					
check	Fluctua	int boggy mass						3					
<u> </u>	Repea	t HC if required	cm	cm	cm	cm	cm	2	cm	cm	cm	cm	cm
		TOTAL NEWS											
		Staff initials											

Example of an observation recording



### 2. Recognise- Deviation- Score



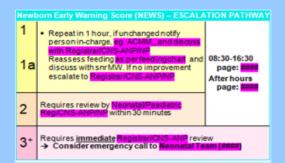
### 3. Respond- Escalate- Document

The Escalation pathway:

- Outlines actions to take when a total or single score indicates a deviation from the normal range.
- Provides a tiered clinical response to increasing abnormal NEW scores
- > Enables appropriate timely response depending on degree of deviation from normal

### **Example of ESCALATION PATHWAY - Tertiary setting**

Pink highlighted areas are locally determined.



- TOTAL NEWS SCORE -1
- A score of 1 would initiate a review in 1 hour in every case
- · If no change:
- Notification to the midwife in charge
- Phone call to a Neonatal Registrar to review/devise a plan.
- Document

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Escalate concerns or changes if any observations, as a total or single parameter create a score. This indicates the baby is deviating from the normal range and requires closer monitoring and possible management. Remember your clinical judgement of concerns may override any score.

### **Document**

Remember to record in the clinical notes:

- ✓ Escalation of care/communication
- ✓ Plan of care
- ✓ Outcomes

### **Modifications**

Example of charting and observations such as colour, to show use of modification tool

Mark with an 'x' and join the crosses for colour to demonstrate trends.

Add this score to total NEWS score

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Colour Jaundice (under 24 hours)					3			
Jaundice above phototherapy line		*	*		2			
Mild jaundice below phototherapy line	*				0			
Pink/well perfused					0			
Mottled/dusky/pale/blue – perform O₂ saturations					2			

### MODIFICATIONS example: Colour



Newborn baby Kim has jaundice that measures above the phototherapy line. Kim is already receiving phototherapy as prescribed by the neonatal team.

This scores **2** on NEWS and would normally trigger a review within 30 minutes.

As Kim is due to have another SBR in 2 hours the Neonatal team will modify the need to escalate and the review time.

MODIFICATIONS										
Vital sign use abbreviation	Accepted values and modified ENS	Date and time	Duration hours	Initial/surname /contact details						
ColoidY Soundice above phototherapy line 1		11/11/19-11am	Until photothorapy discontinued	D Ramoray#8933						
Reason: Baby undergoing phototherapy - having regular SBR checks										

Modifications allow unnecessary repeated escalations to Neonatal Team if they are already aware of the situation and have already instigated some management, plan of action or treatment. E.g. in the case of known jaundice in a newborn that is already receiving phototherapy there is no need to escalate to the neonatal team for a review within 30 mins.

The plan of care has been modified so that jaundice in the colour section does not keep triggering an escalation every time you record a set of observations. This modification will apply until phototherapy has been discontinued.



Please refer to the full user guide for further detail on background and use of the Newborn Observation Chart that incorporates the Newborn Early Warning Score and reference