MATERNITY & NEONATAL UNIT

SCOPE: **All midwives and nurses working in Maternity, community and NNU**

GUIDELINE: Pulse Oximetry Screening in the Newborn.

AUTHOR: NNU Quality Coordinator and Head of Department Paediatrics.

PURPOSE: To detect hypoxemic infants and improve early diagnosis of congenital heart disease.

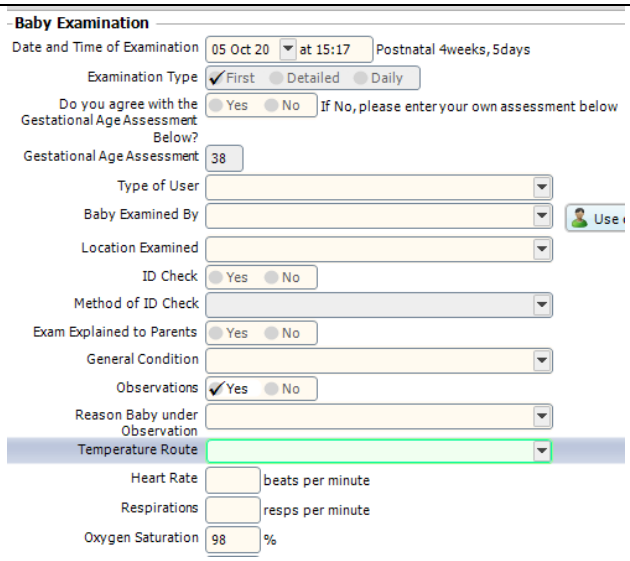
GUIDELINE:

See Starship Clinical Guidelines Pulse Oximetry screening of the newborn
https://www.starship.org.nz/guidelines/pulse-oximetry-screening-in-the-newborn
This guideline has comprehensive information for the practitioner and parent/caregiver.
Screening should be performed 2-24 hours after birth on all well newborn infants with a gestational age of 35+0 weeks and above.
If babies are less than 35+6 weeks' gestation at birth they are usually admitted to NNU and monitored as part of their standard care. They will be assessed to ensure that saturation targets are reached and documented prior to discharge.
If screening does not take place in the first 24 hours in an otherwise healthy infant, the test should be performed at the earliest opportunity.

Verbal informed consent should be obtained from parents/caregivers to perform the screening test.

The screening will be completed in accordance with the **Pulse Oximetry Screening Algorithm**.
https://media.starship.org.nz/pulse-oximetry-screening-algorithm/algorithm.pdf
There is a copy of this flowchart in Appendix 1.

- Pulse oximeters are available in maternity and NNU.
- The screening can be done by LMC, Core Midwife or RN who has received training in using a pulse oximeter.
- The pulse oximetry recording will be entered in the Maternity Clinical Information System (MCIS) as part of the baby examination: first, detailed or subsequent daily examination depending on the timing of it; once the appropriate baby examination type has been selected, click on yes for observations required and a field for oxygen saturation becomes available, enter here the numerical value as shown in the figure below.
- Add in the clinical notes that oximetry screening has been completed and passed, or if target saturations not reached, document what action has been taken.



If the test requires repeating the core staff must be notified so they can repeat screening as per the algorithm and clearly documented using the algorithm and documentation in Appendix 1.
Pass screening is clearly documented in the MCIS as described above and in the Well Child Book.

If the baby does not reach target saturations, please discuss with the on-call paediatrician.
If the baby is unwell or there are clinical concerns refer the baby immediately.

<u>Babies who are born outside hospital.</u>
Pulse oximetry should be performed prior to the midwife's departure following the birth or be deferred until the return visit within the 24 hours following the birth.
Pulse oximeters will be available on maternity unit which will be available for loan for the purpose of screening. These will be securely stored in maternity and will be signed for when borrowed and returned. They will be maintained by Hauora Tairāwhiti.

All staff that screen infants will need to be competent in using a pulse oximeter with a reusable sensor for cost effective screening. The reusable sensor can be cleaned with Clinel wipes in between use. The sensor is held in place with a single patient use foam wrap which can be used if the baby requires a repeat screen.
The test will not detect all forms of congenital heart disease so it is important to remain vigilant for other indicators such as reduced or absent femoral pulses, or abnormal signs and symptoms even if pulse oximetry is normal.

EVALUATION METHOD:

2 yearly audit of completion using the audit tool in appendix 2

REFERENCES

Starship Clinical Guideline Pulse oximetry screening, 2018.
https://www.starship.org.nz/guidelines/pulse-oximetry-screening-in-the-newborn/

AUTHORISED BY:

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Head of Dept. Paediatrics

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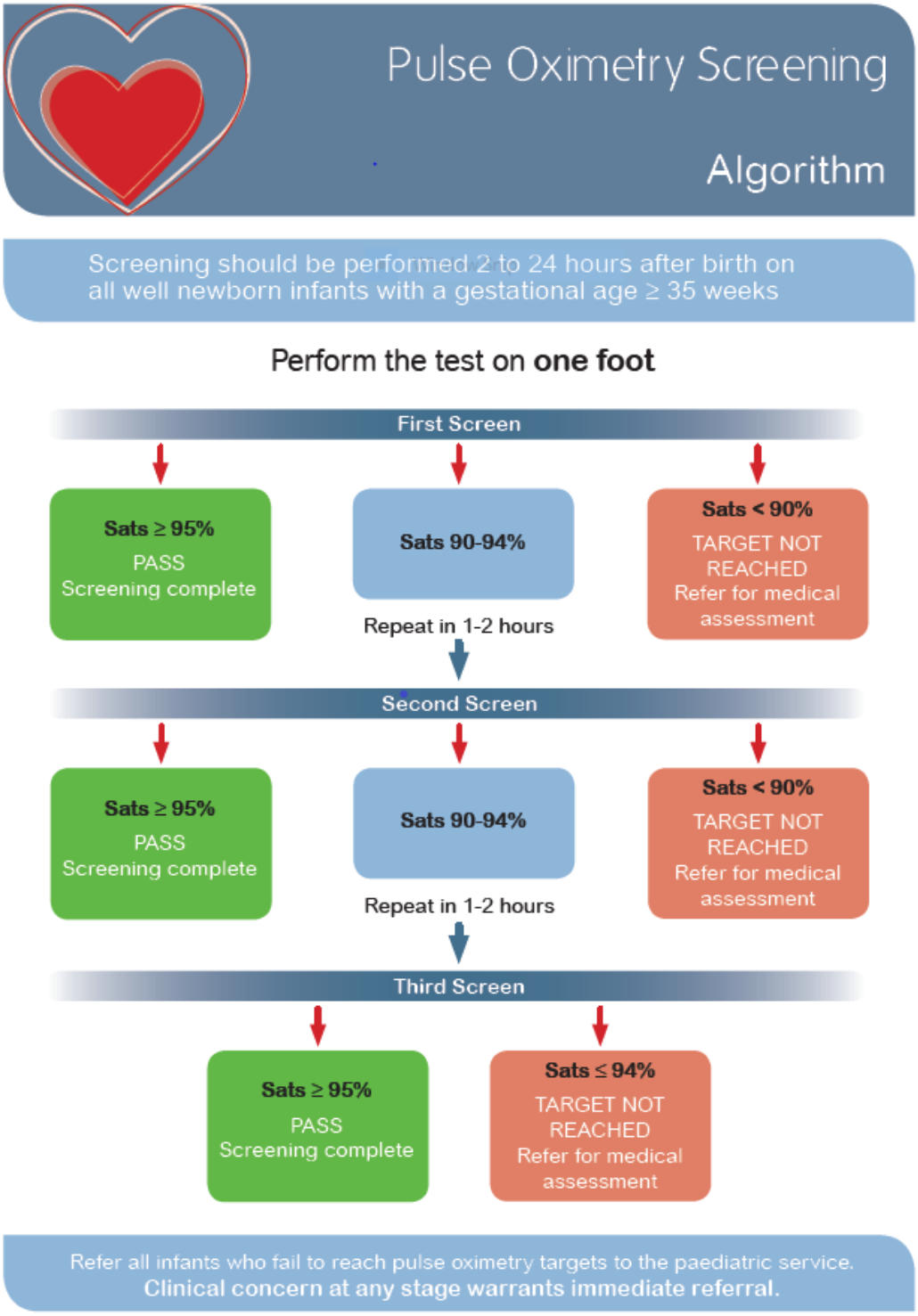
Director of Midwifery

Date of Approval: October 2020

Next Review Date: **October 2023**

Appendix 1 - Pulse oximetry algorithm

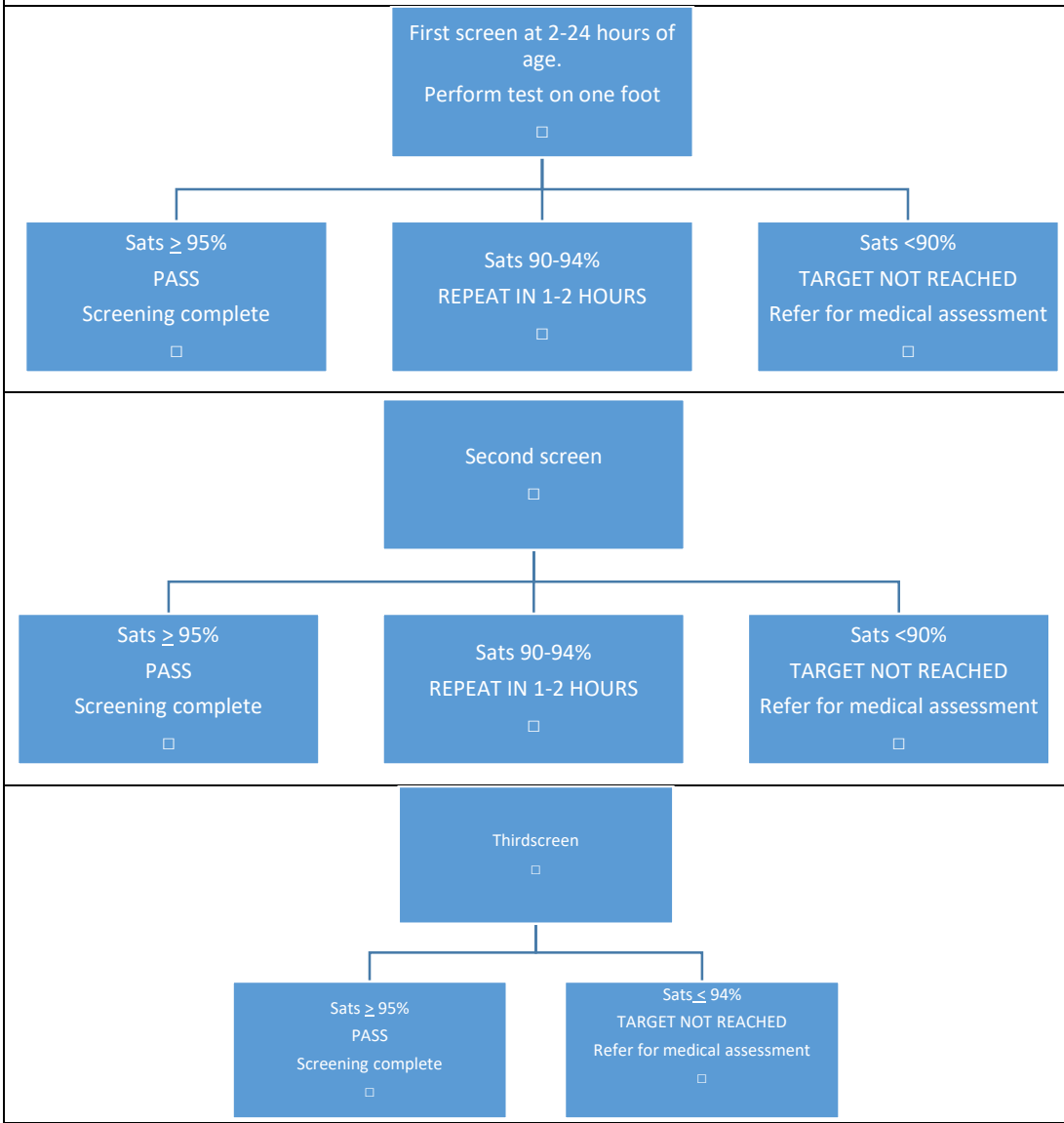


Appendix 2 Pulse Oximetry Audit tool

Baby Label

Screening should be performed 2-24 hours after birth on all well newborn infants ≥35+0 weeks, tick box and write date and time for each completed action. Once passed or referred place completed tool in audit box

Date and time of birth:



Refer all infants who fail to reach pulse oximetry targets to the neonatal service for same day review. Clinical concern at any stage warrants immediate referral.