

Deterioration of the Newborn Framework for Practice: NEWTT2

A statement on colour assessment when using this resource

The working group have considered the [Review of neonatal assessment and practice in Black, Asian, and minority ethnic newborns](#) report published in July 2023 by the NHS Race and Health Observatory and reviewed the terminology within the NEWTT2 and wider framework.

<https://www.nhs.uk/rho/wp-content/uploads/2023/08/RHO-Neonatal-Assessment-Report.pdf>

Jaundice

Table 1 within the main framework document provides guidance on the assessments indicated for every newborn infant including for jaundice. The wording used was developed with the Healthcare Safety Investigation Branch (HSIB) prior to final publication and references the National Institute for Health and Care Excellence (NICE).

Jaundice	Examine* all infants for jaundice at every opportunity especially within the first 72 hours; if jaundiced monitor bilirubin and use gestational age charts to guide treatment (5). At risk groups include gestation <38 weeks, previous sibling requiring treatment, male, low birth weight, multiple birth and Asian ethnicity (1, 5). *skin, sclera, gums	At every contact
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Cyanosis

Colour and oxygen saturation assessment using pulse oximetry are included within the NEWTT2 chart and the guidance notes for completion (appendix 2). The guidance notes should be made available for all users of the NEWTT2 chart.

The NEWTT2 tool contains the words “very pale/blue” and “pink/normal” in line with terminology within the Resuscitation Council UK guidance 2021.

The guidance notes for colour and saturation at the time of publication in January 2023 stated that pulse oximetry is preferred:

Colour and Saturation

Mild cyanosis is unreliably detected by visual inspection of colour and pulse oximetry is preferred. Ideally pulse oximetry should include paired pre (right-hand) and post (either foot) ductal saturation measurements but where only one value is available the post-ductal (either foot) measurement should be used. **When the baby is visibly blue escalation should be immediate.**

Pallor due to anaemia is often associated with normal saturations despite poor oxygen delivery because of poor oxygen carrying capacity (reduced red cells). If the infant is pale **always** escalate regardless of the pulse oximetry saturation readings.

The guidance notes have been amended to include a prompt for where to assess colour should this be required:

Colour and Saturation

[Cyanosis](#) is unreliably detected by visual inspection and pulse oximetry is preferred. Ideally pulse oximetry should include paired pre (right-hand) and post (either foot) ductal saturation measurements but if only one value is available use the post-ductal measurement. ***If there are concerns that the infant is cyanosed (blue lips or tongue, blue fingernails, blue face/body in lighter skinned babies) escalate immediately.*** [Pallor](#) due to anaemia is often associated with normal saturations despite poor oxygen delivery because of reduced oxygen carrying capacity (reduced red cells). ***If the infant is pale, as assessed using face/body colour in lighter skinned babies, and with more difficulty in darker skin tones (observe palms for pallor) always escalate*** regardless of the pulse oximetry saturation readings.

Future plans

The deterioration of the newborn framework for practice, which incorporates the NEWTT2 chart amongst other tools, provides a newborn early warning system allowing a newborn infant to be assessed against current national standards and guidance. The [Review of neonatal assessment and practice in Black, Asian, and minority ethnic newborns](#) report published in July 2023 by the NHS Race and Health Observatory supports changes in terminology when describing colour and alternative assessments that do not rely on colour assessment in the newborn. As the relevant national standards and guidance change in line with these recommendations the BAPM NEWTT2 working group will review and ensure appropriate amendments are made to the framework documents.

Dr Wendy Tyler

**On behalf of the NEWTT2 working group
The British Association of Perinatal Medicine**