

Date April 2019

Alert No: 40

Clinical Alert: Risk of harm from inappropriate placement of pulse oximeter probes

NHS Improvement warns that attaching an oximeter probe intended for the finger to the ear (or vice versa), or using a probe intended for an adult on a baby or a child (or vice versa) could produce lower (up to 50%) or higher (up to 30%) readings than the actual values.

Such erratic readings could provide a wrong assessment of the patient's condition.

Oxygen saturation readings are a key component of the National Early Warning Score (NEWS2)

The following solutions are suggested for areas where pulse oximeters/oxygen probes are used

- Labelling pulse oximeter probe finger use only if it's for the finger, same as the ear probe
- Finger and ear saturation probes are made readily available for staff use
- Provide teaching on pulse oximeters and NEWS2
- Ensuring that staff are well trained on using the saturation probes and when unable to record Spo2 to document it
- When saturation levels are too low staff needs to know how to take action and not interchange probe

Learning points

- Inadequate knowledge among the staff about the non-interchangeability of ear and finger probes.
- Staff feeling pressured to record Spo2 levels
- Limited accessibility to probes, specifically for the ear.
- Lack of visible prompt to remind the user where to attach the probes.
- Lack of awareness about other factors possibly affecting the accuracy of the reading.
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https://www.blf.org.uk/support-for-you/breathing-tests/pulse-oximetry-test/https://www.who.int/patientsafety/safesurgery/pulse_oximetry/

<https://www.nursingtimes.net/clinical-archive/assessment-skills/the-correct-use-of-pulse-oximetry-in-measuring-oxygen-status/199984.article>