



### Oxygen Saturation



#### 1 Preparing for the procedure

- a. Perform hand hygiene.
- b. Introduce self to patient and obtain verbal consent.
- c. Position patient so sensor probe may be easily applied.
- d. Allow device to perform self-test prior to patient application.
- e. Ensure sensor probe is connected to pulse oximeter.
- f. Ensure sufficient battery charge prior to patient use. Alternatively, ensure oximeter is plugged into wall outlet if unit is not portable. If continuous monitoring of oxygen saturation is required, ensure appropriate alarm limits are set.



#### 2 Performing the procedure

- a. Apply sensor probe to selected site (usually a fingertip).
- b. Ensure both sensor probes are aligned directly opposite each other.
- c. Ensure accurate reading by noting pulse signal strength (waveform or bar graph). This ensures the machine has detected a pulse signal.
- d. Read oxygen saturation level on digital monitor.



#### 3 Documentation

- a. Document all relevant information.
- b. Report abnormal findings.



#### 4 Additional information

- a. Avoid placing spO2 clip on thumb or oedematous site.
- b. Avoid extremity with non-invasive automatic blood pressure cuff.
- c. Some nail varnish may affect accuracy – remove if required.
- d. If the digit is cold, gentle rubbing of the digit may restore signal.



#### Background

Approximately 70-80% adverse events are preceded by derangements in vital signs for up to 12 hours with minimal or no intervention from clinicians. This emphasises the need for health professionals to ensure patient safety by careful patient assessment. Recognition and managing the deteriorating patient is one of the Australian National and Quality Health Service Standards developed by the Australian Commission on Quality and Safety in Health care in 2011.

#### Equipment required

- Hand sanitiser
- Pulse oximeter
- Sensor probe



#### References

Tollefson J. Clinical Psychomotor Skills: Assessment Tools for Nursing Students. 5<sup>th</sup> ed. Melbourne: Cengage Learning Australia; 2012.  
 World Health Organization. The WHO Pulse Oximetry Training Manual [Internet]. 2011 [cited 2014 May 20]. Available from: [http://www.who.int/patientsafety/safesurgery/pulse\\_oximetry/who\\_ps\\_pulse\\_oximetry\\_training\\_manual\\_en.pdf](http://www.who.int/patientsafety/safesurgery/pulse_oximetry/who_ps_pulse_oximetry_training_manual_en.pdf).

Support for this project has been provided by the Australian Government Office for Learning and Teaching.

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