OSCE checklist for pulse oximetry

An OSCE checklist for pulse oximetry covers choosing a suitable finger, getting a good signal, reading oxygen saturation and pulse, and knowing what to report, including when a reading may be wrong.

OSCE checklist for pulse oximetry: steps to practise

1. Clean your hands, introduce yourself, confirm the patient's name and date of birth against the wristband, and gain consent.
2. Explain that the probe is painless and the light will shine through the finger.
3. Check that the hand is warm, the finger is clean, and nail varnish or false nails are removed if they block the signal.
4. Place the probe on the finger so the sensor sits on the nail bed, and rest the hand still at heart level.
5. Wait for a steady waveform or pulse reading that matches the pulse you can feel.
6. Read the saturation and the pulse rate once the signal is stable.
7. Note whether the patient is on air or oxygen, and record the oxygen device and flow if on oxygen.
8. Check the target range: use the range on the chart or oxygen prescription. Some patients with long-term lung disease have a lower target set by a clinician.
9. Look at the patient too: colour, breathing rate, effort and alertness matter more than the number alone.
10. Know the limits: cold hands, poor circulation, movement, nail varnish and bright light can give a wrong reading. Readings may overestimate oxygen levels in people with darker skin, and can look normal in carbon monoxide poisoning.
11. Record the value, and report a reading below target, a falling reading or a new need for oxygen to the nurse in charge straight away, using NEWS2 and your local escalation policy.
12. If the probe stays on, move it to another finger regularly to protect the skin. Clean the probe and clean your hands.

What candidates commonly forget

- Trusting the number without looking at the patient
- Not noting whether the patient was on oxygen
- Reading while the finger is moving or cold
- Leaving nail varnish on
- Forgetting to match the oximeter pulse with the real pulse
- Not checking the patient's own target range before reporting

Local policy comes first

This is our own practice checklist. Your college, hospital or country may do some steps differently. Where local policy and this list disagree, follow local policy.

Practise the hands-on steps with a classmate or in a skills lab, because an AI patient cannot watch your technique. You can practise the talking part with an AI patient, and try one station free with no sign-up. Next, try Observations during a home respiratory visit. Back to the nursing foundation OSCE page: nursing foundation OSCE, or see the full OSCE checklist list.

Common questions

What is the OSCE checklist for pulse oximetry?

Confirm identity and consent, prepare a warm clean finger, place the probe, wait for a steady signal, read saturation and pulse, note oxygen use and the target range, look at the patient, record and escalate low or falling readings.

What can make a pulse oximeter wrong?

Cold fingers, poor circulation, movement, nail varnish and strong light can all affect it. It may overestimate oxygen levels in people with darker skin, and can read normal in carbon monoxide poisoning. Say so and assess the patient.

What is a normal saturation?

Use the target on your own chart or oxygen prescription. Some patients with long-term lung disease have a lower target set by a clinician, and NEWS2 has a separate scale for them.

Sources

- Royal College of Physicians: National Early Warning Score (NEWS2)
- NMC: standards of proficiency for registered nurses

Checked 2026-11-13. Fees and rules change, so confirm them with the regulator before you book.