



# Oxygen delivery and humidification in Critical Care

**Aim:** To provide guidance on nursing care for the delivery of oxygen and humidification in Critical Care patients.

**Scope:** All adult patients in Critical Care

## Indications

The rationale for oxygen therapy is prevention of cellular hypoxia, caused by hypoxaemia (low PaO<sub>2</sub>), and thus prevention of potentially irreversible damage to vital organs. Indications may include :

- **Acute Hypoxaemia** (pneumonia, shock, asthma, heart failure, pulmonary emboli)
- **Ischaemia**
- **Abnormalities in quality or type of haemoglobin**
- **Pneumothorax**
- **Post-operative state**
- **Breathlessness is NOT an indication for oxygen therapy.**

**In emergencies, oxygen therapy at 100% can be delivered without a prescription pending medical review but must be documented in patient notes.**

## STANDARD of CARE

1	Oxygen must be prescribed (except in emergency situations) and reviewed as per local guidelines
2	Each patient should have a documented target saturation range.
3	Adequate patient monitoring is essential to avoid hypoxia and oxygen toxicity
4	Assess and consider humidification on all patients receiving oxygen
5	Oral Hygiene should be performed regularly (2 -4 hourly in ventilated patients) to maintain clean, moist and infection free mouth.

### Consider Humidification

- Oxygen therapy dries the airway, mouth and throat.
- Oxygen therapy delivered via a tracheostomy should always be humidified
- Heated humidification or HME must be used if ETT insitu.

### Oxygen Toxicity

- Unnecessary oxygen can cause harm and psychological dependence.
- Oxygen toxicity can lead to seizures, pain, cellular injury, ARDS, Atelectasis, diminished lung volumes

**Please see your units full guidelines for more information**