

Is the patient critically ill or in a peri-arrest condition?

Yes - Commence treatment with reservoir mask or bag-valve-mask

No

Is the patient at risk of hypercapnic respiratory failure (Type 2 respiratory failure)?

The main risk factor is severe or moderate COPD (particularly with previous respiratory failure or on long term oxygen therapy). Other patients at risk include people with severe chest wall or spinal disease (eg kyphoscoliosis), neuromuscular disease, severe obesity, cystic fibrosis, bronchiectasis, or previously unrecognised COPD. Narcotic/Sedative overdose is not covered by this algorithm.

Yes

Target SpO₂ is 88 – 92 %, or level on alert card whilst waiting for blood gas results

No

Aim for SpO₂ 94 – 98 %

Start 28 % or 24 % O₂ and obtain ABGs (reduce FiO₂ if SpO₂ > 92 % or above range stated on alert card)

SpO₂ ≤ 94 % on air or oxygen, or requiring oxygen to achieve above targets?

pH < 7.35 and pCO₂ > 6.0 kPa (Respiratory acidosis or patient tiring)

pH ≥ 7.35 and pCO₂ > 6 kPa (Hypercapnia)

pCO₂ < 6.0 kPa (Normal or low)

pCO₂ ≥ 6.0 kPa or respiratory deterioration

Monitor SpO₂. Oxygen not required unless saturation falls below target range

Seek immediate senior review. Consider NIV or ventilation

Treat with the lowest dose Venturi mask that will keep SpO₂ between 88 – 92 %

Commence Oxygen, and check ABG

Seek immediate senior review. Consider invasive ventilation

Monitor SpO₂. Oxygen not required unless saturation falls below target range

Treat with lowest FiO₂ to keep SaO₂ 88 – 92 % via Venturi mask pending senior medical advice

Repeat ABGs at 30 – 60 minutes. Reduce FiO₂ if pO₂ ≥ 8.0

Treat appropriately aiming to keep SpO₂ 94 – 98 %

Treat urgently. Aim for SpO₂ 94 – 98 % pending senior review.

Treat appropriately. aiming to keep SpO₂ 94 -98 %

TAYSIDE OXYGEN PRESCRIPTION GUIDE

When deciding whether a patient requires oxygen therapy, please refer to the flow chart to the left to determine the appropriate SpO₂ target for the patient. Then refer to the chart below to escalate or step down oxygen therapy.

