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 SpO_2 target for the patient.
Then refer to the chart below to escalate or step down oxygen therapy.

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

→ **Commence treatment with resevoir mask or bag-valve-mask**

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 SpO_2 is 88 – 92 %, or level on alert card whilst waiting for blood gas results

Start 28 % or 24 % O_2 and obtain ABGs (reduce FiO_2 if SpO_2 > 92 % or above range stated on alert card)

pH < 7.35 and pCO_2 > 6.0 kPa (Respiratory acidosis or patient tiring)

→ Seek immediate senior review. Consider NIV or ventilation

→ Treat with lowest FiO_2 to keep SaO_2 88 – 92 % via Venturi mask pending senior medical advice

pH ≥ 7.35 and pCO_2 > 6 kPa (Hypercapnia)

→ Treat with the lowest dose Venturi mask that will keep SpO_2 between 88 – 92 %

→ Repeat ABGs at 30 – 60 minutes Reduce FiO_2 if pO_2 ≥ 8.0

No
Aim for SpO_2 94 – 98 %

SpO_2 ≤ 94 % on air or oxygen, or requiring oxygen to achieve above targets?

Yes
Commence Oxygen, and check ABG

pCO_2 < 6.0 kPa (Normal or low)

→ Treat appropriately aiming to keep SpO_2 94 – 98 %

pCO_2 ≥ 6.0 kPa or respiratory deterioration

→ Seek immediate senior review. Consider invasive ventilation

→ Treat urgently. Aim for SpO_2 94 – 98 % pending senior review.

No

→ Monitor SpO_2. Oxygen not required unless saturation falls below target range

→ Treat appropriately. aiming to keep SpO_2 94 -98 %

Blue — Venturi 24 % — Nasal Cannulae 1 l/min

White — Venturi 28 % — Nasal Cannulae 2 l/min

Yellow — Venturi 35 % — Nasal Cannulae 4 l/min

Red — Venturi 40 % or Simple Face Mask 5 – 6 l/min

Green — Venturi 60 %

Signs of Respiratory Deterioration
- Increased respiratory rate
- Decreased SpO_2
- Increased SEWS score
- Drowsiness
- Headache
- Tremor
- Flushed appearance

Reservoir mask at 15 l/min oxygen flow.
Seek senior medical advice immediately

Patients in a peri-arrest situation, and critically ill patients should be given maximal oxygen therapy via reservoir mask or bag-valve-mask whilst immediate medical help Is arriving (except with known oxygen sensitivity : keep SpO_2 at $_{88}$ – 92 % for these patients.