

# OXYGEN THERAPY

## AIM

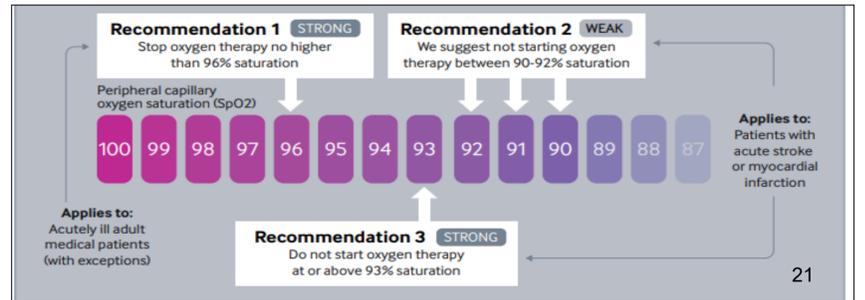
To explore the use of oxygen therapy use within the Intensive Care setting

## BACKGROUND

- Oxygen therapy should be recognised by those prescribing and administering it as a drug <sup>19</sup>
- Nurses should have self awareness of possible harm in relation to their practice <sup>16</sup>
- Oxygen therapy carries significant risk and has been shown to have both positive and detrimental side effect's on an individual. <sup>13</sup>
- On occasions this risk has been under recognised; and along with human factors has lead to inadequate management of oxygen therapy. <sup>12</sup>
- Despite implementation of oxygen guidelines from the British Thoracic Society in 2008 still serious incidents occur <sup>5 17</sup>
- Therefore highlighting the need for further awareness and education .

## NURSING PRACTICE IMPACT

- Oxygen guidelines do exist. <sup>17</sup>
- Ensure oxygen administered is prescribed <sup>17 11</sup>
- Establish oxygen target saturations daily on ward rounds <sup>3 17 25</sup>

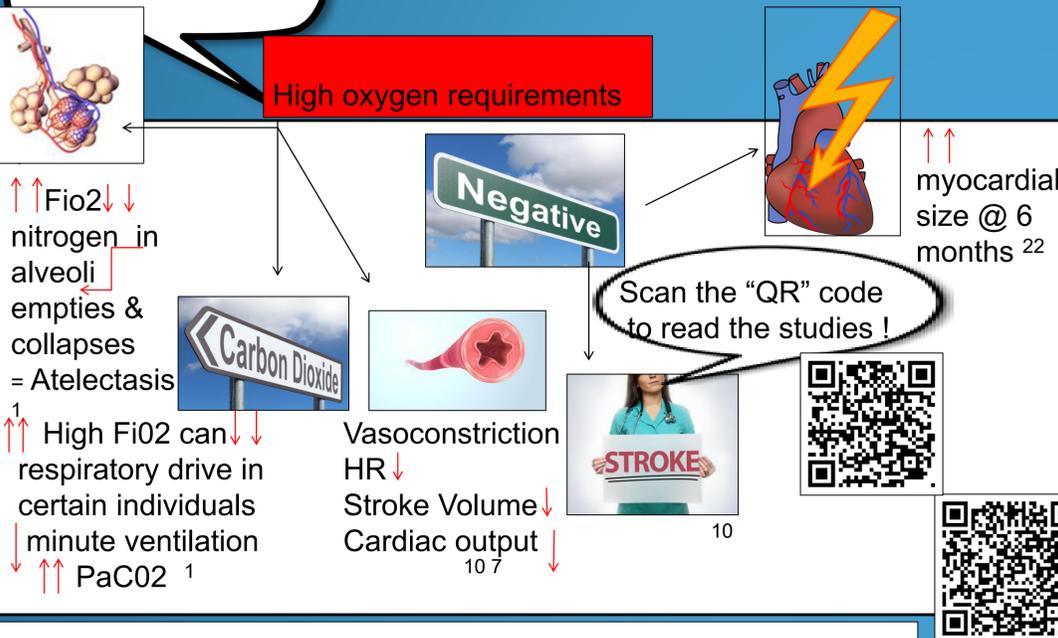


## LITERATURE physiological effects

"All substances are poisons; it is the dose that makes the poison" <sup>6</sup>



High oxygen requirements



- Titrate oxygen to target Saturation goals <sup>11 17 25</sup>
- Collaborate with MDT team for the most appropriate ways

88-92%

is target for Individuals at risk of Hypercapnic respiratory failure (see risk factors)

- COPD
- Bronchiectasis
- Cystic Fibrosis
- Exacerbation
- Morbid Obesity
- Neuromuscular disease / chest wall deformity <sup>17</sup>

- Effectively manage the unpleasant side effects as this may impact on compliance.
- Variables within studies consequently make it difficult to generalise conclusions for clinical practice .
- Adopting a O2 stewardship approach to oxygen therapy. Ensure 's oxygen therapy is used in conscientious way Important repercussion for the patient and also to ensure sustainability in healthcare <sup>1</sup>

## Potential other consequences

Decrease's ability to eat and drink – Potential need for nasogastric tube Intravenous fluids

Costs associated with oxygen itself and the delivery devices used

Risk of Pressure damage

Decreased mobility <sup>21</sup>

## Conservative Oxygen approach Future Sustainability ??

Study	Findings
HOT ICU TRAIL	Targeting lower oxygen target did not impact mortality at 90 days <sup>20</sup>
IOTA	SpO2 above 94- 96% may be damaging. <sup>4</sup>
ICU ROX	Conservative approach did not relatively effect number of days ventilated <sup>14</sup>

## RECOMMENDATIONS

- Oxygen therapy should be individualised
- Importance of reassessment on a continual basis potentially offers opportunities to intervene in clinical practice.
- Educating junior nurses and imparting knowledge
- The results of the ongoing UK- ROX clinical trial may ascertain many of the unresolved questions of targeting a conservative oxygen approach in critical care patients.
- Future opportunities to audit compliance in line with British Thoracic Society within local critical care .
- Potential opportunities to become more sustainable.

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