

Criteria: Every patient should undergo an assessment of oxygenation status and potential need for supplemental oxygen.

Treatment:

- Critically ill patients (respiratory failure, cardiac arrest, etc.) should receive high flow oxygen with the goal of maximizing oxygenation and performing denitrogenation.
- For patients who are not critically ill, administer supplemental oxygen if O₂ saturation is $\leq 93\%$ to reach target oxygen saturation of 94-98%.
- Patients who are not critically ill and who have previously identified chronic lung disease that requires home oxygen (e.g. COPD) should have supplemental oxygen titrated to maintain an oxygen saturation of 89-92% as these patients are at risk of loss of hypoxic respiratory drive.
- Patients with suspected carbon monoxide exposure apply O₂ by non-rebreather at ~15 lpm regardless of pulse oximetry.

NOTES:

- Oxygen is a drug and should be titrated to effect. Patients who are not critically ill or in respiratory distress who are oxygenating adequately ($\geq 94\%$) do not require the application of any supplemental oxygen.
- Patients who are critically ill or in distress should have oxygenation and denitrogenation maximized. Consider flush flow non-rebreather and high flow nasal cannula oxygen supplementation when resources permit in the patient for whom advanced airway (supraglottic or endotracheal intubation) placement is anticipated.
- When available, apneic oxygenation is encouraged during placement of supraglottic airway or initiation of CPR (until two dedicated rescuers are available to provide resuscitation).

Maximal oxygenation and denitrogenation:

- Administer oxygen by non-rebreather (1st) AND simultaneous nasal cannula (2nd) at up to flush flow rates as resources permit.

Apneic oxygenation:

- Administer oxygen by non-rebreather AND/OR nasal cannula at up to flush flow rates as resources permit, despite transient absence of ventilations.

Matthew F. Russell

Matthew F. Russell, M.D.
Skagit EMS Medical Program Director