Oxygen

Formulary

Douglas County Kansas EMS System **March 2021**

Approved Provider: EMR, EMT, AEMT, Paramedic

Referenced Protocols: None

Pharmacology and Actions:

- Oxygen is required to enable cells to break down glucose into a usable energy form
- Supplemental oxygen increases alveolar concentrations of oxygen and therefore arterial oxygen tension is increased
- Supplemental oxygen reduces both the magnitude and the extent of ST-segment changes on the EKG in patients with acute MI
- Increased myocardial contractility increased PVR

Indications:

- Suspected hypoxemia of any etiology
- Significant respiratory distress
- Oxygen saturation of < 92% indicates need for supplemental oxygen

Contraindications:

- None

Precautions:

- COPD patients (whose primary breathing stimulus is the hypoxic drive) must be monitored very closely for decreased respiratory drive when oxygen is being administered
- The tank containing oxygen is under great pressure – make sure the tank is secure at all times. Failure to do so may result in fire and explosion
- Avoid hyperoxia (excessive oxygenation) in the post-resuscitation patient

Administration:

- All responsive adult patients breathing > 24 breaths per minute or < 12 breaths per minute or pediatric patient showing respiratory distress should receive high flow oxygen (defined as 10-15 L/min non-rebreather mask)
- If the patient is unresponsive and the breathing is adequate, provide high flow oxygen
- Assist ventilations if the respiratory rate is < 12 or > 24, as indicated by clinical status
- If the pt is apneic, use high flow oxygen via BVM (bag valve mask) administration

Side Effects:

- None for short-term emergency use