

MEDICATION REFERENCE LIST

OXYGEN

1. **Classification:** gas
2. **Physiologic Effects:** increases arterial oxygen tension and hemoglobin saturation to improve tissue oxygenation
3. **Major Indications:**
 - 3.1. hypoxia
 - 3.2. cardiopulmonary or respiratory arrest
 - 3.3. shock
 - 3.4. CNS injuries
 - 3.5. decreased level of consciousness
 - 3.6. acute chest pain which may be due to cardiac ischemia
4. **Primary Contraindications:** none
5. **Relative Contraindications:**
 - 5.1. chronic obstructive pulmonary disease
 - 5.2. hyperventilation syndrome
6. **Administration and Dosage:**
 - 6.1. adult and pediatric patients without COPD 24% - 100% based on patient's condition
 - 6.2. COPD patients: 2-6 lpm via nasal cannula to SPO₂ level of 92-93%
7. **Side Effects:**
 - 7.1. respiratory arrest in patients with hypoxic drive
 - 7.2. drying of respiratory mucosa
 - 7.3. possible bronchospasm if the gas is extremely cold and dry
8. **Additional Information:** use unhumidified oxygen unless:
 - 8.1. administration time > 20 min
 - 8.2. patient is on humidified oxygen at home
 - 8.3. medical control orders humidified oxygen
9. **Device Information:**

Device	Concentration	Flow Rate in liters per minute
nasal cannula	24-44%	1-6 or 15 lpm in pre-oxygenation procedure
simple face mask	40-60%	6-10
non-rebreather mask	90-100%	10-15
BVM (no reservoir)	40-60%	12-15
BVM (with reservoir)	90-100%	12-15

O2 Saturation Reading	Range	Recommended O2 Flows
95-100%	Normal	O2 PRN for Comfort
91-94%	Mild Hypoxia	O2 to improve to Normal
86-90%	Moderate Hypoxia	100% FiO ₂ , Evaluate respiratory rate and consider assist BVM/ intubation if outside normal range
<85%	Severe Hypoxia	100% FiO ₂ Assist Ventilation and Intubate if improvement is not rapid or LOC is decreased