

SAN FRANCISCO EMERGENCY MEDICAL SERVICES AGENCY

Effective: 01/07/13
Supersedes: 02/01/05

Protocol: P-004.5

PULSE OXIMETRY

SUBJECTIVE FINDINGS

- Shortness of breath
- Chest pain
- Blunt or penetrating thoraco-abdominal trauma
- Weakness or fatigue

OBJECTIVE FINDINGS

- Shock
- Cardiac dysrhythmias
- Altered mental status
- Pallor or cyanosis
- Smoke inhalation or fire/burn victims

BLS Treatments	ALS Treatments
<ul style="list-style-type: none">• Routine Medical Care.• (Ambulance company medical director must approve EMT use of pulse oximeter) Add supplemental oxygen as required by specific protocol OR if oxygen saturation is < 93%.• BLS airway and ventilation treatments if oxygen saturation does not respond adequately to supplemental oxygen AND patient presents with respiratory compromise.	<ul style="list-style-type: none">• ALS airway treatments if oxygen saturation is < 93% and there is no patient improvement with BLS airway and ventilation treatments.• Cardiac monitoring.

DOCUMENTATION

Oxygen saturation noted in patients with the above history or objective findings.

PRECAUTIONS AND COMMENTS

- Pulse oximeters are subject to the following functional limitations:
 - Unit failure and / or battery failure.
 - Hypothermic or poorly perfusing patients.
- Consider carbon monoxide (CO) poisoning if patient is found unconscious, or has altered mental status, or has non-specific complaints (fatigue, malaise, nausea/vomiting, headache, "dizziness") or other non-specific complaints without clear etiology AND patient situation includes:
 - Found down in a closed space with an exposure to a potential source for CO (running motor vehicle, use of charcoal or gas grill indoors, use of generator indoors, heater malfunction, etc)

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- Multiple persons sharing the vicinity have similar symptoms.
 - Environmental CO detectors are alarming.
- **Some inhalational poisonings, such as carbon monoxide and hydrogen sulfide, may result in patients with normal oxygen saturation readings, but cellular hypoxia due to displacement of the oxygen molecule from the hemoglobin in red blood cells.** In all of the above cases, maximal oxygen therapy should be delivered to the patient regardless of pulse oximeter reading if the patient has signs of respiratory compromise.