Pediatric Smoke Inhalation Injury

For patients with smoke inhalation

History
- Number and severity of other victims
- Industrial or residential fire
- Duration of inhalation
- Social history - smoking
- Past medical history
- Other trauma
- Odor

Signs and Symptoms
- Facial burns, pain, and/or swelling
- Cherry red skin
- Loss of consciousness
- Hypotension/shock
- Airway compromise/distress could be indicated by hoarseness/wheezing
- Seizure/AMS after industrial or closed space fire consider cyanide poisoning

Differential
- Foreign Body Aspiration
- Asthma exacerbation
- Cyanide poisoning
- Carbon monoxide poisoning
- Thermal injury
- Heart failure
- Acute respiratory distress syndrome

Scene safety. Quantify and triage patients. Load and go with assessment and treatment enroute to hospital

Assess Airway

Moderate Airway Involvement
Suspected inhalation injury with only one of the following: Wheezing, change in voice, increased work of breathing/tachypnea.

No or Mild Airway Involvement
Airway patent, no signs of edema, no stridor or change in voice, nasal hairs intact, low likelihood of airway involvement

If oxygen saturation ≥ 92%
Routine Medical Care

E
 Monitor and reassess
 Apply Oxygen to maintain goal SpO2 ≥ 92%
 Cardiac monitor
 Consider, IV

P
 Consider, Albuterol
 Use Broselow Tape; refer to dosing guide

Notify receiving facility. Consider Base Hospital for medical direction

Severe Airway Involvement
Accessory muscle use or altered breath sounds
OR
Any combination of the following: Airway edema, stridor, change in voice, increased work of breathing/tachypnea.

Closest receiving facility for definitive airway. Consider Base Hospital for medical direction

Approved Burn Receiving Centers
St. Francis – San Francisco
Valley Med. Center – San Jose
UC Davis – Sacramento

Head Trauma
Pain
Burns
Carbon Monoxide/Cyanide
Hazmat
Hypotension
Eye Injury

Cardiac monitor
Consider, 12-Lead ECG
Consider, IV/IO
Albuterol
Use Broselow Tape; refer to dosing guide
Epinephrine 1:1,000 nebulized for stridor
Use Broselow Tape; refer to dosing guide
CPAP

TREATMENT PROTOCOL PR07
Effective April 2022
San Mateo County Emergency Medical Services

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Pearls

• Ensure patient is properly decontaminated before placing in ambulance and transport to hospital.
• Contact Hazmat or Poison Control Center with questions about chemical or guidance on immediate treatment.
• If able, obtain the name of chemical(s) patient was exposed to pass information along to receiving hospital staff.
• If able, remove patient’s clothing before placing in ambulance and transport to hospital.