



## System Medical Advisory December 17, 2020

### Symptoms of CO Poisoning & COVID-19

'Tis the season for cooler temperatures, increased use of heating systems (furnaces, space heaters, etc) and an increase in the incidence of carbon monoxide (CO) poisoning. Nationwide, CO poisonings account for approximately 50,000 ED visits per year resulting in approximately 1,200 deaths. Carbon monoxide has 240 x greater affinity for hemoglobin than oxygen. As carbon monoxide replaces oxygen in the red blood cells, tissues become hypoxic. If not recognized and managed quickly, tissue hypoxia can lead to serious tissue damage and death.

This year, we face a unique challenge in recognizing CO poisoning as many of the symptoms of CO poisoning overlap with the symptoms of COVID 19. Symptoms common to both CO poisoning and COVID-19 may include headache, dizziness, weakness/fatigue, nasal congestion, nausea, vomiting, diarrhea, chest pain, and altered mental status. Keep in mind, your patient may be experiencing CO poisoning and be COVID positive.

Fortunately, we have 2 key tools in our toolbox to help us sort through these patients:

1. **Perform a good focused assessment:** When assessing a patient, if it is possible to obtain a focused history, the source of CO exposure may become apparent. It is important to maintain a high level of suspicion for CO poisoning any time a patient presents with general or non-specific signs and symptoms, altered mental status, or both, as obtaining a detailed history may be difficult.
2. **Use your SpCO monitor.** A history suggestive of CO exposure, the presence of physical findings and an elevated pulse CO-oximetry is highly suggestive of CO poisoning. Once removed from the source, on room air, CO remains bound to hemoglobin for approximately 4 hours. Placing a patient on 100% oxygen by NRB, decreases the time CO is bound to hemoglobin to 1 hour. Treatment and transport decisions should not be made solely on SpCO readings. Regardless of the SpCO reading, any patient with a history and serious physical findings suggestive of CO poisoning should be placed on 100% oxygen as soon as possible.

## Zoll X Series Pulse CO-oximetry refresher:

### 1. Ensure that SpCO is enabled on your monitor.

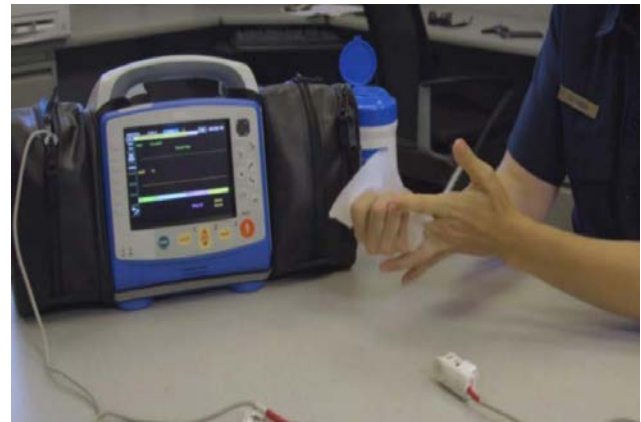


SpO<sub>2</sub> on top

SpCO on bottom

### 2. Obtaining the SpCO reading:

Step 1: Clean the finger (preferred), toe or ear lobe with a hand sanitizer wipe or wet towel



Step 2: Place the probe on the desired monitoring site and cover the probe to shield the sensor from ambient light. Do not use your hand to shield the sensor.



Step 3: Obtain SpCO reading. It can take up to 40 seconds for the CO reading to appear underneath the SpO<sub>2</sub> value.

*As a reminder, continue to wear your appropriate PPE on every call and continue to monitor your own health with daily temperatures.*

Thank you for all you do for our EMS system and communities.



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