

## Narrow Escape from CO Poisoning Death... for a Second Time

Masimo Rad-57™ Alerts Paramedics Following Missed Diagnosis One Day Earlier

**Location** Sacramento Fire Department

**Clinician Reporting** Kevin E. Mackey, MD, FACEP (Medical Director, Sacramento Regional Fire Services)

**Patient Event** Second Missed Diagnosis Avoided with the Rad-57

### > The Situation

Firefighters responded to a call at an apartment building in downtown Sacramento where one person was reported unconscious. When fire crews arrived at the apartment building they found the unconscious individual and several other people complaining of headache and nausea.

### > The Problem

The number of people with similar symptoms made firefighters immediately suspect carbon (CO) poisoning – prompting the fire captain to grab the station's Masimo® Rad-57 Pulse CO-Oximeter™ for noninvasive carbon monoxide screenings. As firefighters began measuring the victims, they were alarmed by the results. The unconscious patient had an SpCO® of 43% and another patient had an SpCO of 33%.

Firefighters determined that the apartment building had a faulty gas appliance and evacuated the entire building. A total of four patients required transport to the hospital and the SpCO measurements taken on the scene using the Rad-57 were all verified by the hospital blood tests. All four patients were diagnosed and treated for CO poisoning at the hospital and three were released later that same day while the fourth remained hospitalized in critical condition.

### > The Masimo Difference

The fire captain's quick thinking to bring the Rad-57 along and test the victims likely saved dozens from the deadly consequences of CO poisoning. In fact, firefighters were at the same apartment building the previous night for a person "feeling ill" with flu-like symptoms. Although they transported that person to the hospital, he was sent home without a carboxyhemoglobin blood test. Using the Rad-57 the previous night might have alerted medical authorities to the CO problem earlier.

In this case, the Rad-57 was on-hand as part of a scientific study to evaluate CO levels in firefighters for rehab purposes. And, as part of their study protocol, firefighters responding to the call were also checked using the Rad-57. Their SpCO levels ranged from 7-10, well above the norm of 0-2, and none had any signs or symptoms of CO poisoning.

***"Without the Masimo Rad-57, we may have never known it was CO poisoning. We should consider the use of this device on patients in the field."***

— Kevin E. Mackey, MD



Dr. Kevin Mackey believes the Masimo Rad-57 can make a difference in California.