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Charting a Lifesaving Course-of-Action

The Call: Family of four with Nausea, Headaches, and Vomiting

In March 2008, medics from the Jefferson Township Fire Department were dispatched with fire companies on a possible CO poisoning. When firefighters arrived on the scene they were told that the family was awakened by their 3 year old daughter that was coughing, crying, and vomiting. The rest of the family, including the pregnant mother, father, and grandmother – had nausea, vomiting, and headaches (all symptoms of CO poisoning). The firefighters using their air gas meter, got a reading of 400 parts per million. With CO levels this high, firefighters called in Jefferson Township paramedic units for additional support. When we arrived on the scene, the firefighters had moved the family outside, for fresh air, and had located the source of the CO exposure – a faulty gas furnace. After shutting down the furnace and ventilating the home, firefighters expected that everyone would be OK.

Rad-57 Confirms Severe CO Poisoning

To be on the safe side, I decided to use the Rad-57 Pulse CO-Oximeter to check the level of carbon monoxide in each family member. The SpCO levels ranged from 15% to 27% - indicating significant CO levels in each patient.

Rad-57 Measures Dictates Course of Action

The Rad-57 not only confirmed our suspicion of CO poisoning, but changed the transport destination for the patients. The Ohio State University Medical Center in Columbus has a hyperbaric chamber for the treatment of severe CO poisoning and based on the family's SpCO levels, would provide the most effective course of treatment. At about 2:30 a.m. the family was transported to the medical center for the treatment, where they were all successfully treated for their CO Poisoning. By taking the patients directly to the facility with hyperbaric treatment chambers, we were able to save the family the delay and extra cost associated with having to be transferred from a hospital not able to provide definitive care for their condition.



The Jefferson Township Fire Department is a career department which provides fire, rescue, and ALS emergency medical services to over 10,000 residents in a 14 square mile area. The response area for Jefferson Township includes Blacklick, and portions of Columbus, Gahanna, and Reynoldsburg, Ohio. This department also participates in Automatic Mutual Aid contracts with surrounding fire departments.