

Hospital Alerted to Lethal Threat

Glenn Joseph
Boca Raton Fire Rescue
Boca Raton, Florida

Mary Russell
ER nurse
Boca Raton Community Hospital
Boca Raton, Florida

The call: Security guard complains of dizziness, headache

On September 7, 2006 at 1350 hours, a security guard from a construction site at a nearby condominium complex presented to the ED at Boca Raton Community Hospital complaining of dizziness and a headache.

Aware and prepared...with a Masimo Rad-57

"Carbon monoxide was already very much on our radar screen," said Mary Russell, an ED nurse at Boca Raton. After hurricanes Frances and Jeanne, the hospital had admitted entire families with CO poisoning caused by generators.

"We had just gotten a Masimo Rad-57, and I thought that this would be a great opportunity to put it to the test and verify my suspicion that CO poisoning was responsible for the symptoms," said Russell. "Before getting the Rad-57, testing CO levels in patients had been a long and painful process, involving drawing blood from an artery and waiting for lab results."

The results of the Rad-57 test confirmed Russell's suspicion of elevated CO levels, and she had the presence of mind to ask the patient whether there were any generators being used on the construction site. After the patient confirmed there were multiple generators in use, the hospital called Boca Raton Fire Rescue, which rushed its HazMed

unit to the site at 2800 S. Ocean Blvd.

CO levels 100 times higher than normal prompt evacuation of 100

"When they arrived at the site, our HazMed unit got a CO reading of 900 ppm in the lobby," said Glenn Joseph of Boca Raton Fire Rescue. "That's 100 times higher than normal. Other areas showed readings of 500 ppm."

The 20-story condo had been undergoing hurricane damage repairs, and the construction crews had generators going in the garage area. "We had them stop all operations," said Joseph. "Rescue crews went floor by floor, telling the 100 or so persons in the building they needed to leave." After field triaging each of the building's occupants with the Rad-57, only one other person was taken to the hospital. That person and the security guard were given oxygen and recovered quickly.

The ability to quickly assess the CO levels of all of the building's occupants meant that the HazMed team was able to speed treatment to those who needed it. And, just as importantly, the team could avoid unnecessarily transporting the 99 unaffected patients to the hospital, freeing up valuable clinician time and bed space at the ED, and avoiding the cost and time associated with a large scale transport operation.

Boca Raton Fire Rescue

The Boca Raton Fire-Rescue Services Department provides fire suppression, fire safety inspections, fire investigations, fire and emergency medical service education, hazardous materials response, and emergency medical services to the community of Boca Raton in southeast Florida. The department is comprised of 207 certified professionals. Over 90 percent of the personnel are licensed paramedics, 10 percent are certified emergency medical technicians. The department serves approximately 83,760 year-round residents.

Boca Raton Community Hospital

Located an hour away from Miami on Florida's southeast coast, Boca Raton Community Hospital is a 394-bed not-for-profit health care organization with more than 750 primary and specialty physicians on staff who provide preventative and acute hospital care. Nearly 2,100 employees and over 1,200 volunteers enable the hospital to provide quality healthcare to its patients.