



## **Boston Marathon Bombing: Lessons From A Radiology Department**



A year on from the Boston Marathon bombing, Kelly Bergeron, Manager of MRI Services at Boston Medical Centre has written about the lessons learned, in Radiology Management's March/April 2014 issue.

Those who work in the ancillary departments of large hospitals are well aware of the roles they play in the patient care experience, although the work of radiologists, phlebotomists or hospital housekeepers seldom makes news headlines. Lab technicians quietly processing their orders or food service workers preparing lunch for patients and their families cannot compete for screen time with scenes of natural and manmade disasters, such as earthquakes, train crashes or bombings.

On 15 April 2013, a set of home-made bombs exploded near the finish line of the Boston Marathon, killing three, injuring hundreds and capturing the attention of millions of people around the world. Thanks to disaster preparedness plans which were in place at hospitals across the city, a chaotic scene was managed professionally and efficiently. Even so, lessons learned in the aftermath of those events are informing practices for the utmost wellbeing of patients and hospital staff alike.

### **Preparation Pays Off**

When runners cross the Boston Marathon finish line, medical tents manned by resident physicians from area hospitals are ready to treat anyone suffering from dehydration, exhaustion or blisters. In 2013, the needs of runners and spectators along Boylston Street were far more urgent. In a matter of minutes, hundreds of people needed immediate medical attention. Less than a half-hour after the initial bomb blast, the victims with the most severe injuries had already arrived at emergency rooms, thanks to marathon organisers' well-established medical plan.

At Boston Medical Center (BMC), a shift change was taking place when the first patient arrived, both legs blown off by one of the bomb blasts. This meant that there were twice as many staff available to assist with the work: tending to the disaster's victims was an obvious priority, but dozens of people went to work in supporting roles. Fortunately for the Level 1 trauma centre, employees had very recently participated in a drill to prepare for an event with mass casualties. Official job titles do not dictate performance during such times, and everyone contributed however they could by gathering stretchers and wheelchairs, transporting patients, spiking saline bags, and even mopping blood from the floors.

### **The Role of Radiology - And Teamwork**

The purpose of emergency drills is to ensure that staff are prepared to handle potentially chaotic events in a calm and organised way. For the radiology staff at BMC, processes which were amended following the recent drill were readily recalled by employees who were working on the day of the bombing. They were able to quickly

provide high quality images for physicians, with diagnostic technologists processing and completing orders for the emergency department and operating rooms. Runners were assigned to expedite processing and keep physicians informed. Importantly, the manager of diagnostic imaging ensured that staff members contacted their own concerned families when possible, so that they could resume work with one less distraction.

The importance of teamwork is not lost on the CT and MRI manager who was there that day. A supervisor checked in with the ED to determine the types of injuries which would need imaging, and rooms and staff were prepared in advance, accordingly. MR techs who were trained in CT assisted when and where they could. Outpatient exams were cancelled and regularly scheduled inpatients were not called for, leaving the two CT tables available for the bombing victims. When radiology employees met later to talk about that day, everyone expressed pride in the team atmosphere that facilitated their work for the benefit of the doctors and patients.

### **Lessons Learned**

Of course, no disaster ends when the earth stops shaking or the bombs stop exploding. The day after the attack, many employees in BMC's radiology department proceeded as if on autopilot, emotionally if not physically exhausted and unable to fully process the extent of the previous day's events. A debriefing session was offered at the hospital, but it was geared primarily toward doctors and nurses, and not specifically to radiology staff. That did not come until a few days later, when counsellors became available to speak with department members about what had happened. In the future, they decided, counsellors should be provided as immediately as possible after such a traumatic event. Teams, after all, are made of individuals, and are only as strong as each team member.

Mass casualty incidents like the Boston Marathon bombing are infrequent, fortunately, but disasters are notoriously unpredictable. For that reason, it is best to have a plan in place for how every staff member should predictably respond. Another lesson from the events as they unfolded for radiology staff at BMC is to have clear direction as to whose lead to follow. A designated disaster liaison, easily identifiable by a bright vest, should be in charge of delegating tasks to everyone in the department. Jobs should be assigned so that efforts are not duplicated and everyone participates efficiently. Finally, communications with a central command centre must be reliable but flexible enough to succeed without computers and cell phones in the event that they do not work or are not easily accessible. Communication is vital before, during and after any crisis.

Image source: Wikimedia Commons

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