Massachusetts Chapter of the American College of Surgeons
November 19, 2013

At 2:50 pm on April 15th 2013, the City of Boston suffered a terrorist attack involving two improvised explosive devices (IED) loaded with nails and brass "BB's." The resulting explosions created a Mass Casualty Incident (MCI) on a scale not seen in Boston since the Coconut Grove fire. However, unlike the Coconut Grove, where in-hospital mortality ranged from 17 to 24%[1], none of the patients who arrived at a Trauma Center alive subsequently died, not even the two patients who arrived in the hospital without a heartbeat. This success is due to the excellent work done by healthcare workers and others at the scenes of the attack,[2] and to aggressive disaster preparation over the past decade by Boston Emergency Medical Services and local hospitals.[3-5]

The care of the injured is a 24 hour a day job that relies on well-trained professionals in the field and in our hospitals. In Massachusetts, approximately 28,000 people are injured severely enough to require emergency care each year. Approximately 1,200 of these people die. Injury occurs to people in all walks of life and at all ages (Figure 1). Limiting loss of life and limb during a disaster like the Marathon bombing requires an organized, systematic response. The same is true for people injured in less visible tragedies. A systematic response, dictated by a well-planned and well-managed system, is what all injured patients in our state deserve.

Residents of Massachusetts are fortunate when it comes to resources for trauma care. Two award-winning aero-medical programs and numerous high quality pre-hospital ground-based ambulance programs are within minutes of any patient in need. We have 15 well-equipped trauma centers of varying levels. These facilities are staffed by dedicated professionals who have national and international reputations for excellence in the care of the injured. Massachusetts maintains a sophisticated registry of all patients injured in the state, regardless of severity or location. Yet, when we seek to determine how well this system works and how it might be improved, we find the data to be elusive. The experts, both in the governmental agencies overseeing trauma care and those of us who are care givers, are unable to measure outcomes, plan for changes to the system, or identify areas that need improvement.

The Statewide Trauma Committee of the Department of Public Health is a multidisciplinary body, established by legislation in the year 2000. It is one of several bodies responsible for trauma system development and improvement in Massachusetts. This committee, whose meetings are attended by standing room only stake holders, has been frustrated by its inability to measure trauma outcomes across the state and to influence decision-making on trauma-related issues. In response to this frustration, the Department of Public Health sponsored a consultation visit by the Trauma System Evaluation Subcommittee of the American College of Surgeons Committee on Trauma. This visit occurred in the fall of 2012. This multidisciplinary team looked at all aspects of trauma system management in the state. Its report, which was released this past spring, had a number of recommendations.[6] Central to these recommendations are three issues: the organization and reporting authority of the Statewide Trauma Committee, the status of the States Trauma Plan, and the funding of staff support for trauma by the Department of Public Health.

Recommendations:

1. **Trauma Committee:** The Statewide Trauma Committee (STC) should be re-engineered to reflect the realities of our state in 2013. Furthermore, the terms of service of its members should be better defined, and its composition should reflect the broad communities and disciplines who are involved in the care of the injured. The reporting relationship of the STC needs to be better defined and its role as an advisory body needs to be more clear.

2. **State Trauma Plan:** The legislature should use the updated policies and rules STC has suggested to amend the enabling legislation creating the committee, passed thirteen years ago. The legislature should review this plan and amend the 2000 enabling legislation informed by its contents– including the composition of state trauma committee and its potential regulatory role.

3. **Funding of staff:** The Department of Public Health needs to be better funded in order to manage the state's trauma resources effectively. The Office of Emergency Medical Services requires sufficient budget resources to hire a manager and an epidemiologist dedicated to the trauma system. The State Trauma Registry, arguably the most sophisticated population-based trauma data set in the country, needs to produce reports and analyses that will help us expand, improve, and better integrate the care of the injured in our state. Currently, it is not being used!

When the smoke cleared from Boylston Street last April, we were all justifiably proud of the magnificent job done by first responders, EMS, and our Trauma Centers. The citizens of the state deserve nothing less during disasters and on every other day. When unexpected injury occurs, we want victims to receive timely and state-of-the-art care, no matter in which corner of the Commonwealth they happen to be. Our wonderful public safety professionals, healthcare providers, and state regulators need the data to measure performance and the administrative horsepower to provide analysis and to drive improvement in our trauma system. The citizens of Massachusetts deserve nothing less!

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Chair Statewide Trauma Committee

Trauma Admissions by Age in Massachusetts 2009 and 2010

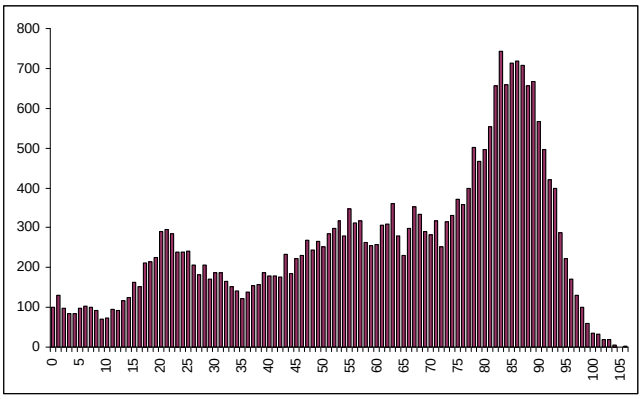

Figure 1: Trauma is a disease of all age groups

1. Faxon, N.W., *The Problems of Hospital Administration: I The Cocoanut Grove Disaster.* Ann Surg, 1943. **117**(6): p. 803-804.
2. Jangi, S., *Under the Medical Tent at the Boston Marathon.* New England Journal of Medicine, 2013. **368**(21): p. 1953-1955.
3. Biddinger, P.D., et al., *Be Prepared — The Boston Marathon and Mass-Casualty Events.* New England Journal of Medicine, 2013. **368**(21): p. 1958-1960.
4. Goralnick, E. and J. Gates, *We Fight Like We Train.* New England Journal of Medicine, 2013. **368**(21): p. 1960-1961.
5. Gwande, A. *Why Boston's Hospitals were ready*. New Yorker, 2013.
6. Winchell, R., et al., *Trauma System Consultation Report, Commonwealth of Massachusetts*, 2012, American College of Surgeons.