Crime Scene

The Trauma Patient in the Hospital Emergency Department: An Unrecognized Crime Scene

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Abstract: According to the FBI's Uniform Crime Reporting Program, in 2013 an estimated 1,163,146 violent crimes occurred nationwide.[1] When a victim of a violent crime survives their injury and is transported to the emergency department (ED) for treatment, it becomes another "primary" crime scene.

Historically, the emphasis of emergency personnel has been to treat the patient's injuries without consideration of the associated forensic issues. In the United States and many other countries, the coroner or medical examiner is responsible for the investigation of unnatural or suspicious deaths. With the exception of specific guidelines relating to evidence collection in sexual assault cases, there is no physician or specialty responsible for addressing the forensic needs of living patients who survive their trauma.

Because the majority of emergency providers do not receive training in forensic issues, they often make mistakes in regards to the detection, collection and packaging of physical evidence which is transported with the victim to the ED.

Smialek[2] noted that due to a lack of standardized protocols for evidence collection, during the provision of patient care, critical evidence may be lost, discarded or inadvertently washed away. In addition, invasive procedures performed in the ED may alter wounds or cause injuries to be confused with events occurring during the resuscitation. Moreover, if wounds are not properly documented at the time of injury, they will heal over time and their appearance will change.[2]

The lack of forensic training for physicians also leads to the misinterpretation of wounds. In one study [3], Randall, showed that physicians correctly identified entrance and exit wounds less than half of the time. Dr. Richard Carmona[4] also documented the problems of evidence collection in the ED. He reviewed the records for 100 admissions to the Trauma Service which had the potential for criminal or civil actions, and found poor, improper, or inadequate documentation in 70% of cases. In 38 of these cases, potential evidence was either not secured, not documented, or was discarded.

Clinical Forensic Medicine involves the application of forensic medical techniques to living patients.[5] In the ED these techniques include the evaluation and documentation of traumatic injuries and the collection of evidentiary material for possible medico legal use.[5]

In the majority of emergency departments, there are no standardized protocols for evidence collection and preservation. In addition, medical providers do not have the necessary training to understand the need to incorporate these protocols into patient care in cases with forensic implications. As a result, the mistakes we make may deny the criminal justice system access to accurate forensic information, and also deny the victim access to short-lived evidence of critical significance needed in subsequent criminal or civil proceedings.

The lack of training in Clinical Forensic Medicine needs to be addressed. The well-trained emergency physician, when evaluating wounds in living patients, should apply the same forensic principals that the forensic pathologist applies to the dead. We also believe that the implementation of nationalized standardized clinical forensic protocols will clearly benefit the forensic needs of living victims of crime.