Hennepin County Medical Center

Introduction of a Electronic Control Device in a Hospital Setting: Eight Months of Use

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Introduction

Use of the TASER® X26™ Electronic Control Device (ECD) by law enforcement to control agitated and potentially violent persons in society is becoming common. The ECD is generally considered an "intermediate weapon," similar to chemical irritant sprays or impact batons. The ECD is considered to be a non-lethal weapon per federal guidelines.¹

Unlike intermediate weapons that create pain compliance only, the ECD operates by physiologic skeletal muscle incapacitation in addition to painful stimulus. It does so by providing brief neuro-muscular interruption via low current, brief duration, pulsed electrical charges.

ECDs are known to provide a visual deterrent to escalating behavior when the LASER sighting device is activated ("Red Dot Compliance"). ECD use by healthcare security and protection personnel has not previously been described. Our objective is to report on the utility of the introduction of the ECD into a hospital environment.

Methods

The study took place in an urban, teaching Level I Trauma Center with an emergency department census of approximately 103,000 patients per year. Prior to 2008, the Medical Center Protection Officers carried chemical irritant spray and impact batons as their only force option tools.

In January, 2008, they began carrying ECDs. Standardized reports describing all ECD use on human subjects by the Medical Center Protection Officers have been made and these reports were retrospectively reviewed for this project.

Collected data points included other force options used, potential injuries avoided, witness comments, outcomes, and whether or not the ECD required full activation or if visual laser sight introduction of the ECD was sufficient to control the situation. Data was tabulated in spreadsheet format.



References

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Results

19 incidents involving the ECD deployments during the eight-month study period.

- 16 deployments with visual LASER sight introduction of the device only ("Red Dot Compliance").
- Two full probe deployments with a five-second activation cycle.
- One unholstering of the ECD but the LASER sight was not activated.

Two subjects required evaluation for injuries.

- One for probe removal and bandages to the probe sites.
- One for facial laceration sustained when the suspect became combative after handcuffing and was taken to the ground. (Injury was not related to the ECD use).

Three incidents required use of "empty hand" control techniques in addition to ECD deployment.

Witnesses at 16 incidents reported injuries were likely avoided due to the ECD preventing further behavior escalation. Incidents include:

- 18 hospital personnel or agitated persons.
- One aborted patient suicide attempt from a sharp object held to the throat.

Discussion

- Significant violence occurs within hospital environments and places patients and hospital personnel at risk.²
- The ECD represents a tool in society that law enforcement have used with success as a visual deterrent to violence.³
- The ECD can also be used as a force option to control individuals when violence is imminent.
- Features that prevent ECD abuse include a video recording device, internal memory of operation and anti-felon ID tags.
- ECD research involving human subjects has demonstrated reasonable levels of safety. 4,5,6,7
- The ECD appears to contribute to safe outcomes when used to control violence within a hospital setting.

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Conclusions

Introduction of the ECD into an urban healthcare setting has initially shown a promising ability to avert and control violent situations that could result in further injury to both the agitated subject and healthcare personnel. Longer term, multi-center study of this phenomenon is recommended for validation.

Conflict of Interest Disclosures

- 1) Drs. Ho and Dawes serve as expert consultants to TASER International and own shares of stock in the company.
- 2) Dr. Heegaard is a member of the TASER International Scientific Medical Advisory Board.
- 3) Dr. Miner has no conflicts to declare.