DEPARTMENT OF FIRE AND RESCUE SERVICES

GENERAL ORDER

320.14

Originating From	Issue Date	Revision Date	Attachments
Operations	**12/21/2009**	**n/a**	**A**

SUBJECT: TASER Incidents

APPLICABILITY: All Personnel

The Howard County Police Department (HCPD) has implemented use of the Conducted Electrical Device (CED). This policy provides information on that device, outlines protocol for treatment when a device has been deployed and specifies data collection requirements.

1 BACKGROUND

1.1 The Howard County Police Department has integrated Conducted Electrical Device, "TASER" into the use of force continuum. It is used to gain control of a violent, potentially violent or actively resisting subject. Each officer that is certified to use the device has been instructed to immediately notify Communications of a TASER deployment. When Communications is advised of the TASER deployment by police, Howard County Department of Fire and Rescue Services (DFRS) EMS will be activated and notified of the nature of the call**.** EMS response to TASER incidents will be classified as ALS-A calls. The MDO shall be notified to respond for incidents involving high-risk patients, or other issues at the discretion of the on-scene officer.

1.2 The TASER is a less-lethal weapon that effectively controls subjects and has been reported to cause less injury for both subjects and officers than other methods of control authorized in violent situations.

1.2.1 A compressed nitrogen gas canister propels two electrode-tipped barbs at a velocity of approximately 170 feet per second.

1.2.2 TASER electrical discharges can be released in two ways:

1.2.2.1 Probe mode – firing two probes from up to 25 feet into the subject, which deliver electrical pulses to the body through insulated wires connecting the probes to the TASER device causing muscular incapacitation.

1.2.2.1.1 The barb is a straight #8 fishhook

1.2.2.1.2 Length of the barb is .55 inches

1.2.2.1.3 Length of the entire shaft is 1.5 inches.

1.2.2.1.4 The device is equipped with a laser for aiming

1.2.2.2 Drive Stun mode – direct application of two contact electrodes on the device to the body causing electrical discharge to a much smaller area controlling the subject.

1.2.3 Physiology – the TASER transmits impulses in a sine wave energy delivery pattern. About .36 joules or 5 watts are delivered per pulse. The TASER is capable of delivering up to 50,000 volts in a 5 second period.

1.2.3.1 The average current delivered by the TASER X26 is 2.1 mAmps. The threshold for ventricular fibrillation is reported to be around 50 – 100 mAmps.

1.2.3.2 The electrical pulses cause electro-physical involuntary contraction of skeletal muscles, overriding the nervous signals to muscle, resulting in loss of motor control by the subject.

1.2.3.3 After-effects of the delivery of electrical energy include:

1.2.3.3.1 Residual muscle soreness (occasionally reported)

1.2.3.3.2 Potential injuries from falls following incapacitation

1.2.3.3.3 Muscle breakdown (rhabdomyolysis) is minimal when no more than one to three shocks are administered.

1.2.3.4 Data on safety of TASER shocks is not uniform.

1.2.3.4.1 Large scale use on healthy volunteer subjects results in no reported serious injury or death.

1.2.3.4.2 There is a small subset of subjects, characterized by conditions including heart disease (known or undiagnosed), illegal substance use, and/or excited delirium that experience Sudden Cardiac Arrest in one to a few hours after experiencing an electrical discharge. Current analysis points to the initial condition, excited delirium, and continued struggling as important factors in subsequent cardiac arrest.

1.2.3.5 Goals of EMS treatment:

1.2.3.5.1.1 Ensure safety of providers through a safe scene.

1.2.3.5.1.2 Evaluate and treat medical conditions associated.

1.2.3.5.1.3 Evaluate and treat injuries sustained.

1.2.3.5.1.4 Screen for characteristics in patients that may identify those at higher risk for medical complications following TASER shocks.

1.2.3.5.1.5 Transport **ALL** patients experiencing TASER discharge.

2 MARYLAND MEDICAL PROTOCOL

2.1 Safety – Before touching a patient subdued with a TASER, confirm with police that the subject is safe to touch. In this case, the police should have disconnected the wires from the handheld unit.

2.2 Security – Ensure scene safety. Prior to entering the law enforcement perimeter of operation, establish that police have control of both the scene and the patient. Use of the TASER implies that the subject was a risk to themselves or others.

2.3 General Patient Care

2.3.1 Perform airway, breathing and cardiovascular assessment per Maryland Medical Protocols (MMP).

2.3.1.1 Any patient witnessed to have cardiopulmonary arrest following TASER administered shocks should be treated with an Automatic External Defibrillator (AED).

2.3.1.1.1 If witnessed, immediately apply an AED, turn it on and operate via the prompts provided by the AED.

2.3.1.1.2 If unwitnessed by EMS, interface with the police and their AED operator (for a police-applied AED)

2.3.1.1.2.1 If unwitnessed arrest, perform two minutes of CPR prior to AED use (per MMP)

2.3.1.1.2.2 Use judgment, considering minimizing the delay to shock administration, when switching from AED to LP 12.

2.4 Specific Medical Care

2.4.1 Evaluate injuries, medical conditions, and behavioral emergencies and provide treatment per the MMP.

2.4.1.1 Violent or combative patients should be treated per the Behavioral Emergencies protocol. Interface with HCPD for their initial physical restraint and safe transition to an appropriate form of medical restraint. Plan to contact Medical Direction and consult to administer chemical treatment/restraint to reduce agitation/struggling.

2.4.1.1.1 If the patient is laying on his/her stomach, immediate positioning for medical monitoring includes rolling the patient onto either side.

2.4.1.1.2 As soon as practical, convert to proper medical restraint: the patient supine on the cot or backboard, one arm restrained above the head and the opposite arm restrained at the patient's side. Both legs are restrained to the lower cot or backboard. (refer to General Order 320.07, *Patient Restraints*)

2.4.1.2 As soon as possible following restraint, evaluate for medical causes of altered consciousness by obtaining a full set of vital signs, pulse oximetry and blood sugar by glucometry and assessing/examining the patient.

2.4.1.3 Evaluate trauma resulting from the fall or apprehension of the subject and treat traumatic injuries per the MMP.

2.4.1.4 All patients experiencing TASER activation shall be attached to a cardiac monitor and have a 12 lead ECG obtained.

2.5 Disposition/Transportation

2.5.1 For subjects in police custody, and pursuant to MMP and HCPD OPS-11, "**ALL** patients receiving electric conductive weapon intervention will be transported to the Emergency Department for assessment." These patients shall have an HCPD officer remain with the suspect throughout DFRS involvement on the incident.

2.5.2 In the unlikely event that the patient is not criminally charged, EMS shall evaluate the patient and strongly encourage the patient to accept transport to the hospital. If the subject declines transportation to the hospital, a treatment refusal shall be obtained as described in 2.5.3 below.

2.5.3 Explain to the patient that DFRS personnel are required to transport TASER patients to the hospital for medical evaluation. If the subject is a non-high risk patient (age < 40, alert, oriented x 3, cooperative, less than 3 TASER discharges, no medical history of cardiac or pulmonary disease, no high risk symptoms or signs) who despite counseling wishes to refuse transport, then follow the DFRS refusal policy guidelines and consult with Medical Direction. If medical direction agrees with the decision-making ability of the patient, then the patient must sign the refusal, with the police officer signing as a witness.

2.6 Removal of TASER barbs

2.6.1 High risk areas – any CED probe impalement in the head, neck, hands, areola, groin or genitalia must be stabilized in place and evaluated by a physician.

2.6.2 Non-high risk areas – trained HCPD officers, tactical trained EMS personnel and specifically trained and designated ALS providers (MDOs and selected ALS officers) may remove the probes unless the dart is fully embedded to the hub in tissue.

2.6.2.1 Probes are a sharps biohazard. Exercise caution in handling or working around probes.

2.6.2.2 The probes and the TASER cartridge are police evidence. HCPD will take custody of the evidence.

2.7 Documentation

2.7.1 Documentation will be made on the EMS TASER Data Collection Form (Attachment A) and the Medical Incident Report. Each medic unit will carry copies of the EMS TASER Data Collection Form.

2.7.2 Data elements documented will include:

2.7.2.1 Demographic data – name address, age, gender, ethnicity

2.7.2.2 History of drug use – prescription, alcohol, illicit drugs, caffeine, tobacco

2.7.2.3 Medical history – heart disease (history of coronary artery disease, dysrhythmias, valve problems), respiratory problems (asthma), metabolic disorders, other problems

2.7.2.4 Family history of hear problems or sudden cardiac death < age 60

2.7.2.5 Type of TASER deployment – barbs of drive stun; and location

2.7.2.6 Attach a copy of the 12-lead ECG to the EMS TASER Data Form

2.7.3 An EMS TASER Data Form and a copy of the MIR, with attached 12 lead ECG, for each subject experiencing TASER discharge, shall be forwarded through the MDO to the Executive Battalion Chief, EMS.

2.7.3.1 Data will be entered into a database for tracking exposures

2.7.3.2 Coordination with HCPD and HCGH on follow-up

2.7.4 High Risk is defined as any one of:

2.7.4.1 Age > 40 receiving one or more shocks

2.7.4.2 Any probe impalement in a high risk area (head, neck, hands, areola, groin or genitalia)

2.7.4.3 More than three shocks

2.7.4.4 Heart disease or chronic cardiopulmonary condition (per patient)

2.7.4.5 Pregnant

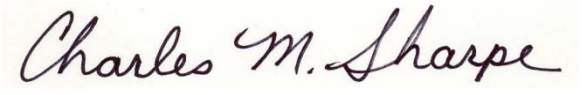
2.7.4.6 One or more high risk symptoms
- 2.7.4.6.1 Disorientation
- 2.7.4.6.2 Persistent agitation or hallucination
- 2.7.4.6.3 Hyperthermia
- 2.7.4.6.4 Persistent tachycardia, hypertension (SBP > 160) or hypotension (SBP ,90)
- 2.7.4.6.5 Unconsciousness (even briefly)
- 2.7.4.6.6 Observed seizure (when CED is not firing)
- 2.7.4.6.7 Chest pain or difficulty breathing
- 2.7.4.6.8 Significant injury from a fall or take-down

2.7.4.7 Non-high risk is defined as:
- 2.7.4.7.1 Age 18 – 40
- 2.7.4.7.2 No probe impalements in high risk areas
- 2.7.4.7.3 Less than three shocks
- 2.7.4.7.4 No known/reported heart disease or chronic cardiopulmonary disease
- 2.7.4.7.5 Not pregnant
- 2.7.4.7.6 Alert, oriented, cooperative
- 2.7.4.7.7 Compliant following one shock
- 2.7.4.7.8 No high risk symptoms/signs (as outlined in 2.7.4 above)

3 QUESTIONS

3.1 Questions regarding this program should be directed to the Executive Battalion Chief EMS.

Approved:



Charles M. Sharpe
Deputy Chief, Operations Command

Howard County Department of Fire and Rescue
EMS Response to CED/TASER Use
EMS Evaluation of Patient Experiencing TASER activation

Patient Name: _____Age: ____ Gender: ____
Address: _____ Incident #: _____
Inc. Date: _____ MAIS #: _____
Primary Provider Name/EID: _____

1. Pt. Age
□ ≤ 18
□ 19-39
□ 40-59
□ ≥ 60

2. History of Substance Use:
□ Alcohol □ Caffeine
□ Prescription Medications
□ Illicit drugs □ Nicotine/Tobacco Products

3. Medical History
□ Coronary Artery Disease (CAD)
□ Previous rhythm problem
□ Valvular Heart Disease
□ Family History of Early CAD
□ Respiratory Disease (Asthma, COPD)
□ Diabetes Mellitus
□ Other Chronic Medical conditions (CHF, Renal Disease, Liver Disease)

4. Drug Use Suspected by: Exam □ Slurred Speech □ Unsteady Gait □ Altered Consciousness

5. High Risk Exam/Assessment Findings (Select all that apply)
□ Age≥40 □ Probe impalement in high-risk area □ Heart Disease (Patient report)
□ Chronic Cardiopulmonary Disease□ Pregnant □ Delivery of three or more shocks
□ Disorientation □ Persistent agitation or hallucination □ Persistent tachycardia
□ Persistent hypertension (SBP > 160) □ Hypotension (SBP < 90)
□ Unconsciousness (even briefly) □ Observed Seizure (with TASER NOT firing)
□ Chest Pain or SOB □ Significant injury (fall or take-down)

6. TASER Mode □ Probe □ Drive Stun
a. # of probe discharges: _____
b. # of Drive Stun discharges: _____

7. TASER Probe Location (document on MIR)
□ Areola □ Neck
□ Hands □ Groin □ Genital area
□ Face (include eye, mouth) □ Other: _____ (Describe)

8. Probe Removal
□ By HCPD □ By HCFR □ By Hospital (Destination Hospital _____)

9. ECG Monitoring: □ 12 Lead ECG obtained and copy attached to MIR and this Form

10. Non High-Risk Confirmation (must check all)
□ Alert, oriented (no agitation) □ Cooperative (not struggling) □ Compliant after 1 shock
□ Age 18 – 40 □ No probe impalement in high risk areas □ Two or less shocks
□ No reported heart or chronic disease □ Not pregnant □ No high-risk symptoms

11. CQI/CQA Review:
MDO Initials/EID: _____/_____
EMS DC Initials/EID: _____/_____
Medical Director Initials/EID: _____/_____
Medical Director Comments: _____
_____