CED Joint Working Group

Conducted Energy Device (TASER™): At a Glance Guidance for ED Clinicians

FFLM, UKAFNP, NPCC, RCEM, CoP, RCN, AACE

The medico-legal guidelines and recommendations published by this CED Joint Working Group are for general information only. Appropriate specific advice should be sought from your medical defence organisation or professional association.
The Faculty has one or more senior representatives of the MDOs on its Board, but for the avoidance of doubt, endorsement of the medico-legal guidelines or recommendations published by the Faculty has not been sought from any of the medical defence organisations.
This guidance was produced in collaboration with UKFANP, NPCC, RCEM, College of Paramedics & the RCN

August 2022 Review prior to August 2026 – check www.fflm.ac.uk for latest updates

Conducted Energy Devices(CED)

This patient has presented to your department following being exposed to a Conducted Energy Device (CED), this is commonly known as TASER™ which is a brand of CED.

The police may have taken this patient directly from the arrest scene or via a custody suite, where they may have been assessed by a custody Health Care Professional. Where a clinician has referred from custody there should also be a transfer document highlighting the areas of specific concern & which referral criteria have been triggered.

The Police Officer has been advised to provide you with this document/letter to assist your assessment & treatment of this patient whilst they are in the department.

What is a CED?

A CED is a battery-operated device that fires at speed (via compressed nitrogen gas) 2 probes connected by insulated conductive wires. When fired, the probes are designed to connect to the person & on triggering, the device generates very rapid, short, repetitive electrical impulses for 5 seconds. Depending on the device this is approximately 19-44 pulses/second. This time period can be extended by the officer re-energising the device. These impulses cause neuromuscular incapacitation for a short period of time generally causing the patient to fall.

Probe types:

X26	X2	T7
		

The actual barb length for the probes varies between 9.6 & 11.7mm depending on model

What are the risks?

The majority of individuals exposed to CED do not suffer any significant ill effects beyond pain.

Fit & well individuals who are asymptomatic & free from injuries should not routinely be referred to ED & the NPCC has made it clear that police custody healthcare providers should **not** rely on ED in lieu of staffing custody adequately. Clinicians in custody are urged to refer direct to appropriate specialities & **not** refer to ED as a default.

Due to the high profile nature of any CED use, there is a low threshold for referral from custody for more in depth assessment than with other similar injury mechanisms.

The primary focuses of concern are to establish the reason for the initial deployment of the CED (they are used rarely & therefore consideration should be given to why it was required) & injury from an unprotected fall.

Clinicians should, therefore, be alert to the risk of physical or mental health crises which may have resulted in the individual being unable to understand or engage with police de-escalation. This may include acute behavioural disturbance (see RCEM guidance) & acute confusion due to sepsis or other organic disturbances.

What should ED be aware of?

In addition to the specific considerations described overleaf ED clinicians should be cognisant of the high profile nature & risk of these cases.

ED clinicians are not there to perform a forensic role, & therefore should make an independent assessment. This guidance relates to normal use of a CED only & does **not** mandate any actions by ED staff.

Clinicians should be particularly alert to the likelihood that they may need to produce a statement in relation to their assessment of individuals exposed to a CED at a later date. We recommend, in addition to a standard full assessment of patients presenting following CED exposure, that all patients have an ECG & injuries are documented (ideally on a body diagram) as in some cases the ED clinician will be the only clinician they see.

Version 2 29/08/2022

Specific Considerations

Areas for specific consideration & rationales for being referred to ED.

Cardiac	
Rationale	**Suggested action**
Whilst the evidence for cardiac complications varies, it appears that delayed dysrhythmias are rare. Those with pacemakers, vagus nerve stimulators or internal cardiac defibrillators require additional assessment.	Perform ECG & consider cardiac monitoring if indicated. Consider CXR (to confirm lead position) Pacemaker or equivalent 'box check' for implanted devices. Appropriate observation & monitoring for any ECG abnormalities or post exposure collapse.

Injuries	
Rationale	**Suggested action**
Neuromuscular incapacitation can cause an unprotected fall due to paralysis.	Head & c-spine injury assessment Consider occult injuries including posterior shoulder dislocation, & limb injuries including scaphoid & chest wall injuries. Documentation of relevant findings following head to toe examination.

Probe removal	
Rationale	**Suggested action**
Although in the majority of cases clinicians in custody will have already removed probes, where there is concern due to penetration of a high risk area they will be referred to ED. These may include: • Face • Neck • Genitalia • Joints • Eyes (there is a small risk of retinal damage from the electrical impulse, so ophthalmology review recommended if a probe has penetrated in periorbital region) • Penetration of tendons	Assess integrity & penetration of underlying structures. For X2 & X26 removal by hand is usually sufficient (a forceps/needle holder is optional) & firm, rapid traction whilst bracing the skin is usually adequate. T7 probes officers should provide a dedicated tool for removing the probe. Following removal probes should be examined for signs of damage (possibility of fragments left behind) & will be retained by officers. Appropriate wound care post removal as per local protocol

Pregnancy	
Rationale	**Suggested action**
Although theoretically low risk, mothers may have suffered an unprotected fall & intense muscular contraction.	Review by obstetric team in line with local policies (if referred from custody the HCP should refer direct to the obstetric team rather than to ED)

Burns	
Rationale	**Suggested action**
Superficial localised burns at barb sites should be managed in custody, however there is a risk of more significant burns if incapacitant spray has been used & ignited by the CED	In line with local burns management policies

Intoxication	
Rationale	**Suggested action**
Although intoxication alone is not an indicator for ED referral there can be concern regarding effects of intoxication masking occult injuries including head injuries. Equally there may be concerns regarding stimulant or other substance use which puts the individual at increased risk in relation to CED exposure	Manage in line with local & TOXBASE guidance, consider head injuries. Be alert to the potential for agitation or 'acute behavioural disturbance' & the need for sedation/tranquilisation.

Where patients are transferred back to custody clinicians should provide a discharge summary, including any medications given whilst in ED.

Visit www.fflm.ac.uk\CEDHub or scan the QR code below for additional information (including videos with guidance on barb removal) & the latest version of this guidance

Produced by the CED Working Group (members listed on the CEDHub)

Send any feedback & comments to:
forensic.medicine@fflm.ac.uk

Version 2 29/08/2022