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Position statement on Resuscitative Thoracotomy in Trauma Units

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In patients with penetrating chest trauma, 'resus room' thoracotomy can be a life-saving procedure, if performed within a short period of the patient sustaining cardiac arrest. The October 2015 Resuscitation Council Guidelines recommend that it should be considered in these circumstances.

Outside a Major Trauma Centre setting, it is unlikely that cardiothoracic surgery support will be available to take over the patient's management immediately following an ED resuscitative thoracotomy. If the Trauma Unit is geographically remote, a lengthy transfer may be required before definitive care can be delivered. In consequence, there may be local resistance to performing ED thoracotomy in such units, based on a belief that it is futile. This may lead to Emergency Physicians in such units being reluctant to carry out the procedure, even when trained to do so.

RCEM supports resuscitative thoracotomy for appropriately selected penetrating trauma patients, regardless of clinical setting. The availability (or otherwise) of local cardiothoracic services should not be the main factor in deciding whether or not to undertake the procedure.

The issue of resuscitative thoracotomy for blunt trauma – though also mentioned in the October 2015 Resuscitation Council guidelines – is far more contentious. It may not be appropriate to undertake in a TU setting unless suitable surgical support is immediately to hand.

Trauma Units must ensure that their staff are appropriately trained to deliver resuscitative thoracotomy.

Trauma Networks must ensure:

- that they have published guidance on the indications for resuscitative thoracotomy in trauma
- that each TU has developed locally appropriate guidelines for the ongoing care and transfer of these patients in the event of a successful outcome.

Options would include:

- the TU general surgical team performing damage control surgery locally.

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- a dedicated 24/7 pre-hospital retrieval service in the network who would support the transfer of the patient from TU to MTC
- Transfer of a cardio-thoracic surgeon from the MTC to the TU.
- Appropriately resourced and trained immediate transfer of the ventilated patient with an open chest to the MTC by the TU team.

Without an appropriate onwards 'chain of survival' resuscitative thoracotomy would be a futile procedure and should not be performed.