North East London & Essex
Trauma Network

Open Fracture Pathway Trauma Unit ED Management– All Ages

The content of this pathway reflects the latest version of NICE guidance NG37 (2016) and BOAST (2017). The following is not an exhaustive description of the management of an open fracture but rather identifies the key points along the patient pathway

Inclusions:

- ALL isolated lower limb open long bone fractures, plus those of the hindfoot and midfoot and pelvis
- All Isolated upper limb long bone fractures that require soft tissue coverage or vascular repair.
- This applies to patients of ALL AGES.
- Polytrauma patients should follow the major trauma pathway

Exclusions:

- Hand and wrist; Forefoot; Facial fractures (follow existing pathways via plastics / maxfax)

Antibiotics:

- All patients should receive antibiotics within 1 hour of injury
- Adults: IV Co-amoxiclav 1.2g is ideal or Clindamycin 600mg if penicillin allergic.
- Children: IV Co-amoxiclav or Clindamycin if penicillin allergic, dose titrated to weight
- Tetanus prophylaxis must be considered and given if unsure of status.

ED management / Initial management:

- Do not perform mini washouts in the ED. Gross and obvious contaminants should be removed only
- If photography is immediately available and permitted within your TU please take a photograph of any wounds on the affected limb
- Saline soaked gauze and film should then be used to dress, and be left undisturbed
- Antibiotics should be given urgently (within 1 hour of injury) if not already done so and time recorded.
- Limbs should be realigned and splinted and neurovascular status documented.
- Compartment syndrome may need to be managed with emergency decompression locally as per BOAST guidelines

Transfers:

- Arrange ED-ED transfer
- Utilise refer-a-patient to send the referral to the RLH ED team
- Initiate image transfer
- **Any obvious open fracture received at a TU can be referred directly by the TU ED without the need to involve the local orthopaedic team. Local orthopaedic input on decision to transfer is only required if there is any ambiguity on the fracture status.**

Surgery:

- Initial debridement should be a combined consultant delivered orthopaedic and plastic surgery procedure.
- Debridement within 12 hours of injury for IIIa/IIIb and 24 hours for all others.
- Definitive cover / closure should be within 72 hours
- Definitive internal hardware only performed at same time as closure or coverage.

Repatriation:

- Transfer of patients back to their local hospital must occur expeditiously once the acute phase is complete
- If being transferred to a TU within the NELETN an accepting consultant is NOT required and the patient will go under the care of the on-call orthopaedic team at the time of arrival, local ownership can be decided upon at that point
- If a bed has not been identified within the timescales outlined in the network handbook, the patient will be transferred to the TU ED.

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Trauma Unit ED Checklist

Patient Demographics

Date and Time of INJURY:……………………………………………………

- IV Antibiotics given?
  - Co-amoxiclav 1.2g (or titrated dose for children)……………………………… ☐
  - Clindamycin 600mg for penicillin allergy (or titrated dose for children). ☐
  - Other (with variation explained)………………………………………………………. ☐
- Adequate pain relief given for transfer ☐
  - Detail……………………………………………………………………………………………
- Tetanus immune? Please circle Yes No
- If no, Revaxis given…………………………………………………………………………… ☐
- Refer-a-patient sent to RLH ED………………………………………………………………. ☐
- Photograph of wound sent via NHS.net or uploaded to refer-a-patient……. ☐
  If via email, to be sent directly to the accepting clinician
- Wound dressed with saline soaked gauze and film………………………………… ☐
- Neurovascular status recorded…………………………………………………………… ☐
- Image transfer initiated………………………………………………………………………… ☐
- RLH ED team informed of transfer…………………………………………………………. ☐