

OPEN

Open fracture
Patient
Evaluation
Nationwide



AO



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The management of open fractures at population level *are we hitting the targets?*

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BACKGROUND

- Open fracture patients benefit from timely and co-ordinated treatment.
- Guidelines for the management of open fractures are readily available.¹
- Evidence on current management is skewed by small, specialist centre and large, unfocussed registry data.

AIM

To report the current management of open fractures in the United Kingdom.

METHOD

Location: United Kingdom

Dates of data collection: 1.6.21 – 30.9.21

Design: Multicentre, prospective, observational cohort study.

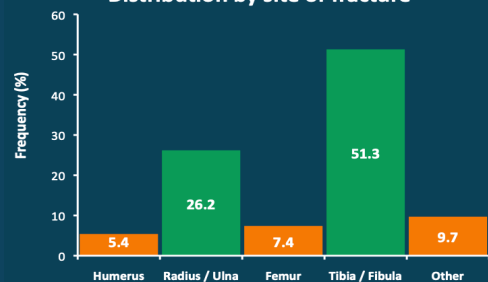
Inclusion criteria: All patients admitted with an open fracture (excluding phalanges and isolated hand injuries).

Outcome Measures: British Orthopaedic Association Standard (BOAST) for Open Fracture Management.¹

Location of participating hospitals



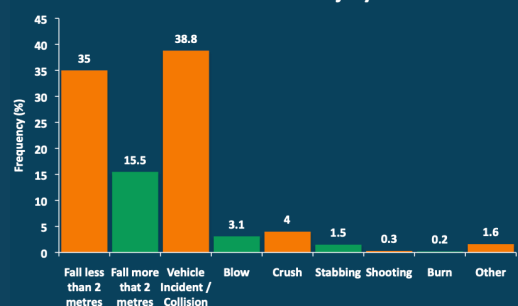
Distribution by site of fracture



RESULTS

- **Data:** Following exclusion criteria application, 1242 fractures recorded from 1175 patients across 51 centres were analysed.
- **Antibiotic administration:** Pre-hospital - 22.0%, Emergency Department - 69.0%, Ward - 9.1%.
- **Wound photograph:** 72.7%
- **Time to surgery (median):** Simple 17h14m, Complex 12h51m, Overall 16h14m.
- **Time of surgery:** 8am-8pm - 90.3%
- **First procedure:** Consultant Orthopaedic surgeon present – 89.2%, Consultant Plastic surgeon present - 45.1%, fixation and skin coverage - 59.8%, definitive fixation - 65%.
- **Staged procedures:** most common wound coverage - negative pressure wound therapy (67.7%)
- **Post coverage antibiotics:** 47%, median time 3 days.
- **Length of stay:** 9 days (median)
- **Weight bearing status:** Full - 45%, Partial - 16.4%, No weight bearing - 38.6%.

Mechanism of injury



CONCLUSION

The OPEN study provides a detailed insight into contemporary open fracture care. Patients are being operated on promptly and in working hours at specialist centres. Areas for improvement in orthopaedic care include combined patient review and follow up, scheduled operating and definitive soft tissue cover.

REFERENCES

- 1) British Orthopaedic Association Trauma Committee. British Orthopaedic Association Standard for Trauma (BOAST): Open fracture management. Injury. 2020;51(2):174–177.