

## Take-Home Messages from the UK Orthopaedic Experience

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**Purpose:** Despite improvements in surgical techniques, open fractures remain a significant source of morbidity and mortality worldwide. The UK has seen some fundamental changes in the way in which these complex injuries are managed over the past decade, driving an improvement in outcomes. This poster discusses the UK “orthopaedic” experience and provides key messages to enhance patient care.

**Methods:** A retrospective review of data from patients sustaining an open fracture over the past 10 years presenting to UK major trauma centers was undertaken. Key themes were drawn from these data and synthesized with the experience of leading UK trauma surgeons producing a series of take-home messages.

**Results:** National, multidisciplinary guidance for the management of open fractures was introduced in the UK in 2012, standardizing management in emergency and reconstructive settings. Interestingly, the incidence of open fractures has increased over the last 10 years, although this may be due to increased identification and better reporting. A retrospective review of open fracture outcomes at a UK major trauma center (MTC) demonstrated low levels of infection (7.4%) and high levels of limb salvage (93%). UK guidance states that open long bone fractures should be managed in a center capable of providing orthopaedic care. Data from the past decade have shown that the target time to soft-tissue coverage (72 hours) for open fractures occurs more frequently at MTCs. Configuration of a network to facilitate transfer to specialist centers helps to improve outcomes by achieving timely debridement and soft-tissue coverage. The age profile of patients sustaining open fractures is changing, with a significant increase in older females. Poor bone and soft-tissue quality coupled with multiple comorbidities make treatment challenging. These injuries necessitate a modified management strategy that involves a single-stage procedure permitting immediate weightbearing. Novel orthopaedic techniques may be employed in high-risk patients to increase the chance of limb salvage.

**Conclusions:** The UK’s experience of managing open fractures over the past decade has yielded some key take-home messages. The adoption of national guidance has standardized open fracture care and led to improving outcomes in terms of infection and limb salvage. Managing complex open injuries at specialist centers capable of joint orthopaedic and plastic surgical care has improved time to soft-tissue coverage. Open fractures in elderly patients are increasing. Managing these injuries is challenging but must involve the fewest surgical procedures and allow immediate weightbearing.