

ORTHOPAEDIC TRAUMA: EVOLUTION IN CARE

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Orthopaedic Trauma is a relatively recent subspecialty within orthopaedic surgery. Its beginnings go back to improvements in trauma care from World Wars I and II. With these developments in trauma care, an increasing number of severe injuries could be saved and coupled with the European System of centralization of care improved results were seen. During the 60's both in the U.S. and Europe, the creation of trauma centers began to appear. As well, the philosophy of early total care of the multi-injured persons showed that injured patients with fractures did better with early stabilization of their injuries than delayed. At the same time, the centralization of care meant that severe orthopaedic injuries were being cared for by a specific group of surgeons who began to develop an expertise in the management of these conditions. By the seventies the Europeans had shown the success of a trauma system and these began to spread world-wide being implemented based upon local conditions and medical practice norms. As a result, many methods of treatment were popularized such as early total care, immediate debridement of open fractures, leaving open fractures open and many injuries being considered emergency care. However, this led to a significant workload and difficulty for the orthopaedic trauma surgeon to provide quality care. With increasing research and the introduction of evidenced based medicine, these treatment principles were questioned. Damaged control orthopaedics has evolved to address the critically ill patient with multiple fractures who is at risk for aseptic inflammatory responses and immune compromise. Open fractures require exacting debridement but immediate surgery is not necessary. Closure of certain open fractures is now allowed and injuries such as the talar neck fracture and femoral neck fracture although in young individuals are urgent but not emergent. With these changes, orthopaedic trauma surgeons and orthopaedic trauma practices have been able to have more of a controlled life and thus deliver more coordinated care. The future will have to deal with ongoing issues with implant cost controls, where do biologics fit in to fracture care, and more importantly, the psychological aspects of trauma which to date have not been addressed. The evolution will continue in an appropriate fashion to provide excellent care for the injured patient.