FRACTURE-RELATED INFECTION

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Infection complicates around 3–5% of all fracture fixations. Open tibia fractures are a high-risk group with up to 25% becoming infected after fixation. Calcaneal fractures and ankle fracture fixation in the elderly also have high infection rates. Many of the principles outlined above for PJI can be applied to infections associated with metalwork used to fix fractures. There are several clinical scenarios which must be addressed: /uni25CF Unhealed fracture with stable fixation . This is usually seen early after fixation and can be managed with deep sampling, debridement of infected tissues and man agement of dead spaces (often with local antibiotic carriers) (‘DAIR’ approach). It is extremely important to provide good soft-tissue cover over the fracture. In the tibia, this will most often require a plastic surgical reconstruction. After debridement, systemic antibiotics must be given to suppress infection until bone union. /uni25CF Healed fracture with infected implant . In these cases, the implant can be removed, but there should still be a careful debridement, deep sampling, dead space man agement and soft-tissue cover. /uni25CF Unhealed fracture with unstable fixation bility is essential for bone healing and eradication of in fection. If the implant is not stable, it should be removed and replaced by an external fixator. Radical excision of the infected fracture is needed and the resulting defect may present a major reconstructive c hallenge (Figure 43.7 Recently , antibiotic-coated locking nails have been used to restabilise infected fractures with some success. FRACTURE-RELATED INFECTION

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