

Supplemental materials – surgical procedures

Intramedullary nailing: Alignment is achieved by closed or limited open reduction of the fracture. A standard reamed intramedullary nail is inserted. Supra- or infrapatellar access to the knee is used according to the surgeon's preferences. One or more cortical screws, blocking screws and locking screws may be used if deemed appropriate due to the fracture pattern. Prophylactic antibiotics either 2 g dicloxacillin or 1.5 g cefuroxime are administered before the surgical procedure according to the hospital's standard prophylactic protocol. Postoperative antibiotics are administered at the discretion of the surgeon based on individual patient considerations.

External ring fixator: Closed or limited open reduction of the fracture is performed. An external ring fixator (Truelok-Hexapod System, Orthofix srl or Taylor Spatial Frame, Smith & Nephew) with at least one or two rings on each side of the fracture is attached on both sides of the fracture.

Connection to the bone is obtained by hydroxyapatite-coated half pins and/or k-wires with or without olives according to the surgeon's preferences. One or more cortical screws may be used if deemed appropriate due to the fracture pattern. After applying the ring fixator, alignment is assessed radiologically and corrected both peri- and postoperatively. Patients are administered preoperative antibiotics (Dicloxacillin) preoperatively 15 minutes before surgery. Following surgery, antibiotics are continued until wounds, pin- and wire perforations are dry. All patients are administered a standard rehabilitation program on discharge.