

Background and rationale: Proximal femoral fractures can be caused by high-energy trauma in young people and often low-energy trauma in older people (e.g., age ≥ 65 years) when they are termed fragility proximal femoral fractures. For fragility fractures, there is strong evidence that multidisciplinary care, involving co-management with physicians, allows early operative intervention. This facilitates prompt mobilisation, improves patient outcomes, and reduces mortality and morbidity. **Inclusions:** Skeletally mature patients with closed proximal femoral fractures, including fragility fractures. **Exclusions:** Patients with pathological fractures and periprosthetic fractures.

Standards of Care

1. A defined pathway of care for patients presenting with suspected proximal femoral fractures must be documented, including an established referral pathway for patients needing transfer to another facility for definitive treatment. Transfers should occur without delay and with appropriate splintage, and with pre-arranged local protocols. All medical records and radiographs should accompany the patient. Hospitals undertaking operative fixation must have intra-operative fluoroscopy available and functional.
2. In all suspected proximal femoral fractures, a primary and secondary trauma survey, including the ABCD resuscitation protocol, should be undertaken on arrival. This must include a documented history, and clinical examination, including a cognitive assessment, blood tests and ECG at presentation. Analgesia should be administered immediately and recorded.
3. Radiographs, including an AP pelvis and lateral hip view on the affected side, should be performed on presentation. Additional imaging of the femur, or other areas, should be taken if clinically indicated. If access to radiography is not immediately available, imaging should be performed within 24 hours of presentation. If patients have hip pain after a fall and are unable to bear weight, but have negative radiographs, further imaging or cross-sectional imaging is required.
4. Regular analgesia, including paracetamol, should be prescribed and documented. Older patients can be sensitive to opioids, and careful titration is needed. Non-steroidal anti-inflammatories should be avoided in older patients, as they cause acute renal injury.
5. Patients with fragility fractures should be managed by a multidisciplinary team, including co-management with physicians and anaesthetists, to immediately optimise correctable comorbidities and enable early surgery. A policy for anticoagulation medication management is needed, as well as local protocols to prevent pressure sores, delirium, and acute kidney injury.
6. In patients with fragility proximal femoral fractures, the decision for surgery is based on pre-injury mobility and function, and medical fitness, including cognition. The decision should be discussed with the multidisciplinary team, patient, and carers. They should be informed about the injury, the treatment plan and the expected outcome, and be given the opportunity to ask questions.
7. Non-operative treatment can be considered, but only for those with significant pre-injury comorbidities, limited mobility, and impaired function that threatens survival, anaesthetic tolerance, and the ability to recover function post-operatively. For those patients, appropriate regular analgesia should be prescribed, and the patient mobilized as pain allows.
8. A fragility fracture can complicate or precipitate a terminal illness. In this case, palliative care should be provided. This might include surgery for pain relief and nursing care.
9. Drinking fluids in the pre-operative period should be encouraged, in accordance with local policies, with consideration given to IV hydration. Efforts should be made to minimize the duration of pre-operative fasting.
10. In patients considered for surgical intervention, it should be performed within 3 days of presentation. The WHO Surgical Safety Checklist must be completed, a single dose of prophylactic antibiotics and tranexamic acid should be given at the start of surgery.
11. Patients sustaining an undisplaced intracapsular fracture, on both AP and lateral views, including those with valgus impaction, should be treated by surgical fixation.
12. Patients sustaining displaced intracapsular fragility fractures should be treated by cemented replacement arthroplasty. In those with high-energy displaced intracapsular fractures, either surgical reduction and fixation or replacement arthroplasty can be performed. There is the option of total hip replacement for those who had high physical demands pre-injury.
13. Patients with extracapsular trochanteric fractures should undergo reduction and fixation, using preferably a sliding hip screw.
14. Patients with subtrochanteric fractures should undergo reduction and fixation using a locked intramedullary nail.
15. Patients with a fragility fracture should be allowed to fully bear weight as tolerated, without restriction, the day after surgery. Appropriate walking aids should be prescribed. Patients must have inpatient physiotherapy until fit for discharge.
16. For patients who present more than 2 weeks after their initial injury, the decision to operate should be made on an individual basis by an experienced orthopedic surgeon.
17. The risk of VTE should be assessed according to local guidelines. If chemoprophylaxis is required, low-dose aspirin is recommended.
18. All patients with fragility fractures should have a multifactorial falls risk assessment, nutritional assessment, and a bone health assessment, and be prescribed appropriate medication and rehabilitation when indicated.
19. Patients and carers must be given information on expected functional recovery, possible complications, and rehabilitation, including advice on return to pre-injury activities. This should be in the patient's own language and/or in a pictorial format and should be available in both printed and digital formats.
20. Wounds should be reviewed after 2 weeks. Further follow-up should be dependent on local protocols. Patients should be able to access advice or follow-up with the treating hospital if they have concerns or if there are reported complications.
21. Patient management of all cases should be audited against the above standards and complications reported. The audit should be presented at the departmental meeting. This should be done quarterly and then annually once established.