

## Orthogeriatrics— Clinical Summary Document

# Ten Most Frequent Hip Fracture Complications and How to Avoid Them

1. **Delirium** occurs up to 61% of the time during hospitalization for hip fracture. There is no known treatment for delirium. Therefore, avoidance is the best strategy to manage delirium. Avoidance methods include retaining glasses and/or hearing aids, early surgery, avoiding tethers such as tubes, restraints, and other objects that tether the patient to the bed. Proper pain management and hydration of the patient is required.
2. **Aspiration pneumonia** is the most common cause for hospital readmission following hip fracture. Many patients with this condition will not survive. There is no certain way to prevent aspiration pneumonia. We recommend that providers elevate the head of the bed to allow gravity to drain the patient's secretions into the stomach.
3. **Urinary tract infections (UTI)** remain a common problem following hip fracture. A urinary catheter is often associated with hip fracture and may promote development or worsening of an infection. It is important to assess the patient on admission and each day for UTI. One helpful strategy is to remove the urinary catheter on the second day postoperatively. To ensure this occurs, it is best to template this order into standard order sets and nursing care plans.
4. **Congestive heart failure** is a common problem and represents one of the most common causes for hospital readmission. Although many patients carry this diagnosis on admission as a chronic condition, almost all are dehydrated on admission. Careful fluid management following surgery and monitoring the patient's weight following surgery are helpful strategies to avoid this condition.
5. **Constipation and obstipation** are common problems following hip fracture. Surprisingly, this is another common cause for hospital readmission. It is generally preventable with a proper postoperative bowel regimen.
6. **Fixation failures** happen approximately 2–10% of the time following surgery for hip fracture. Excellent fracture reduction, proper implant selection, and implant placement are all useful strategies to avoid this situation. Failure of fixation often leads to great disability or death following surgery.
7. **Venous thromboembolism.** Hip fracture patients are at high risk for venous thromboembolism. There is considerable disagreement on prophylactic management of this condition. Currently, the best recommendations are to anticoagulate for 28–35 days with low-molecular-weight heparin, factor 10a inhibitor, or long-term Warfarin®.
8. **Arrhythmia** may occur before, during, or after hip fracture surgery. If it occurs prior to surgery, cancellation of surgery is certain. A useful strategy to avoid common tachyarrhythmias is to use beta blockers (with a loose dose), pain management, and early surgery.
9. **Poor pain management.** Pain management is difficult and requires a multimodality approach. Early surgery is very helpful with stable fixation. Careful pain management includes use of oral or parenteral opioids to relieve the patient's pain. Acetaminophen and nonsteroidal antiinflammatory drugs may be used in certain cases. Regional nerve blockade is another useful strategy that requires special skills and generally an ultrasound machine.
10. **Pressure sores** are an avoidable complication of hip fracture surgery. There is great variation in their occurrence. A preemptive strategy can avoid most pressure sores. Early surgery and frequent repositioning with the help of nurses are essential avoidance techniques. Keeping the heels off the bed and avoiding delirium are also essential. Malnourished, demented, and delirious patients are all at increased risk for pressure sores.

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