

Try it Out

1 Enter location of fracture in “search.” For example: radius, tibia, etc. Less words the better.

Hip: Displaced Fracture of Femoral Neck, Hemiarthroplasty
Hip Fracture, Open Repair
Tibia/Fibula Shaft Fracture, Closed or Open Reduction
Femur Fracture, Removal of Internal Fixation Device
Femur Fracture, Shaft, Internal Fixation
Femur Fracture, Intercondylar, Open Reduction, Internal Fixation (ORIF)
Knee: Fracture of Tibial Plateau, Closed or Open Reduction
Ankle Fracture, Closed, Open Reduction, Internal Fixation (ORIF)
Ankle Fracture, Open, Open Reduction, Internal Fixation (ORIF)
Foot Fracture, Calcaneus or Talus, Open Reduction, Internal Fixation (ORIF)
Radius/Ulna Fracture, Closed or Open Reduction
Humerus Fracture, Closed or Open Reduction
Elbow Fracture, Open Treatment
Wrist Fracture, Open Treatment
Rib Fracture
Ankle Fracture, Closed, Open Reduction, Internal Fixation (ORIF) RRG
Ankle Fracture, Open, Open Reduction, Internal Fixation (ORIF) RRG
Elbow Fracture, Open Treatment RRG
Femur Fracture, Intercondylar, Open Reduction, Internal Fixation (ORIF) RRG
Femur Fracture, Removal of Internal Fixation Device RRG
Femur Fracture, Shaft, Internal Fixation RRG
Foot Fracture, Calcaneus or Talus, Open Reduction, Internal Fixation (ORIF) RRG
Hip Fracture, Open Repair RRG
Hip: Displaced Fracture of Femoral Neck, Hemiarthroplasty RRG

2 Confirm that ORTHO is planning to take patient to the OR and what type of procedure

3 Use the SURGICAL type of guidelines first before going to the Musculoskeletal GENERAL guideline.

4 The criterion presented for surgical procedures are for medical necessity of the procedure.

5 To determine the correct patient status, you must review the operative status criteria.

Ambulatory: Most closed reductions are treated on an ambulatory basis. Some simple closed fractures requiring open reduction in nonelderly (younger than 65 years) patients who do not require inpatient monitoring or treatment (eg, for compartment syndrome, other injuries) may be treated on an ambulatory basis.(19)Supporting evidence, suggestions, and alternatives

Inpatient: Most adult and some pediatric patients undergoing open reduction, and patients with open fractures, complex (eg, comminuted) fractures, multiple fractures, or who require prolonged (eg, more than 24 hours) inpatient monitoring or treatment (eg, for compartment syndrome, other injuries, unstable comorbidities) are treated on an inpatient basis

6 If you feel the patient should be inpatient pre-operatively despite the **operative status criteria**, here is an Ambulatory exception list:

Inpatient care is needed for clinically significant preoperative disease or condition, as indicated by 1 or more of the following:

- Severe infection
- Altered mental status
- Dangerous arrhythmia
- Hypotension
- Hypoxemia
- Other serious condition or finding that requires preoperative inpatient care (ie, cannot be treated in other setting)

Complex surgical approach or situation anticipated, as indicated by 1 or more of the following(3):

- Unusually difficult procedure (eg, because of previous operation dissection more extensive)
- Prolonged airway monitoring required (eg, severe obstructive sleep apnea, open neck procedure)(4)
- Other aspect or feature of procedure that indicates a need for longer than usual postoperative care or monitoring

Procedure is **not low risk[B]** and patient at high anesthetic risk, as indicated by 1 or more of the following[C](6)(7)(8)(9):

- American Society of Anesthesiologists class III or greater (severe systemic disease impairing function) American Society of Anesthesiologists (ASA) Physical Status Classification System(10)
- Severe frailty[D](12)(13)
- Age 85 years or older(14)
- Severe valvular disease (eg, severe aortic stenosis)
- Symptomatic coronary artery disease, or heart failure
- Other serious condition or finding that requires preoperative inpatient care (ie, cannot be treated in other setting)
- Symptomatic chronic lung disease (eg, COPD, chronic lung disease of prematurity)(15)
- Severe renal disease (eg, GFR less than 30 mL/min/1.73m² (0.5 mL/sec/1.73m²) or on dialysis)eGFR - Adult Calculator eGFR - Adult Calculator eGFR - Pediatric Calculator eGFR - Pediatric Calculator
- Morbid obesity (eg, body mass index greater than 40 BMI Calculator BMI Calculator) with hemodynamic or respiratory problems (eg, severe obstructive sleep apnea, hypoventilation)(4)(10)(16)(17)(18)
- Other patient condition or finding that places patient at increased anesthetic risk such that prolonged postoperative inpatient monitoring or treatment is needed

Presence of drug-related risk, as indicated by 1 or more of the following(19)(20)(21):

- Procedure requires discontinuing medication (eg, antiarrhythmic medication, antiseizure or anticoagulant medication), which necessitates preoperative or postoperative inpatient monitoring or treatment.[E](22)(23)(24)
- Preoperative use of drugs that may interact with anesthetic (eg, cocaine, amphetamines, monoamine oxidase inhibitor) such that longer postoperative monitoring or treatment is needed

7 Post operatively

Inadequate outpatient care situation, as indicated by 1 or more of the following(32)(33)(34)(35):

- Patient lives remote from medical facility and procedure has urgent complication potential, and temporary nearby residence cannot be arranged.
- Patient will have post procedure incapacitation and has inadequate assistance at home, or alternative level of care cannot be arranged.
- Patient will need longer general anesthesia or procedure side effect resolution time, and competent person to stay with patient on first postoperative night at home or alternative level of care cannot be arranged.
- Other outpatient care situation that precludes usual postoperative care plan (ie, no alternative to inpatient care)

Postoperative event, condition, or finding that warrants inpatient stay, as indicated by 1 or more of the following(36)(37)(38):

- Inadequate physiologic recovery (eg, cardiovascular or respiratory status not normal or near preoperative baseline) within ambulatory procedure time frame (eg, patient needs to be treated or monitored over a second midnight)
- Hemodynamic instability
- Dangerous arrhythmia
- Respiratory abnormalities (eg, Hypoxemia)
- Acute kidney injury requiring continued inpatient care, as indicated by ALL of the following(39)(40):
- Acute kidney injury, as indicated by 1 or more of the following:
 - 2-fold (or more) rise in serum creatinine from baseline
 - Reduction of more than 50% in estimated glomerular filtration rate from baseline eGFR - Adult Calculator eGFR - Adult Calculator eGFR - Pediatric Calculator eGFR - Pediatric Calculator
- Worsening clinical status (eg, rising creatinine) despite postoperative care (eg, hydration)
- Clinically significant electrolyte abnormalities (eg, hyperkalemia, hyponatremia)(41)(42)(43)
- Altered mental status (eg, beyond usual anesthesia recovery time period)
- Temperature not as expected and not appropriate for outpatient follow-up
- Ambulatory or appropriate activity level status not yet achieved post procedure[F](44)
- Operative site complication (eg, excessive drainage or bleeding, nerve injury)(45)(46)
- Postoperative effects not resolved or adequately managed (eg, pain or vomiting not appropriate for outpatient or next level of care)(47)

Complicating features requiring inpatient care, as indicated by 1 or more of the following:

- Severe complications of procedure (eg, bowel injury, airway compromise, vascular injury, severe hemorrhage)(48)
- Extensive (eg, dissection far beyond usual scope of procedure) or prolonged (eg, well beyond usual time frame) surgery
- Conversion to open or complex procedure that requires inpatient care (eg, open vs laparoscopic cholecystectomy, abdominal vs vaginal hysterectomy)
- Malignant hyperthermia(20)
- Other complicating feature requiring inpatient care (eg, drain management)