

<table>
<thead>
<tr>
<th>Preoperative Surgical Plan</th>
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</thead>
<tbody>
<tr>
<td><strong>Patient Name:</strong> XXX</td>
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<tr>
<td><strong>Age:</strong> XX</td>
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<tr>
<td><strong>Past Medical History:</strong> XX</td>
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<tr>
<td><strong>Past Surgical History:</strong> XX</td>
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<tr>
<td><strong>Allergies:</strong> XX</td>
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<td><strong>Medications:</strong> XX</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Hgb: x</th>
<th>K⁺</th>
<th>Cr: x</th>
<th>BMI: xx</th>
<th>Albumin: xx</th>
<th>INR: xx</th>
</tr>
</thead>
</table>

**Verify:** Cross-match for 4u PRBC, Pre-operative antibiotic administration, Tranexamic acid administration

**Confirm:** Current Implants - Acetabulum/ Femur/Head size

Physical Examination/Neurovascular Status/Note prior incisions

**Abbreviations:** THA, total hip replacement; ORIF, open reduction internal fixation; BID, twice daily; PRN, as needed; Hgb, hemoglobin; K, potassium; Cr, creatinine; BMI, body mass index; INR, International Normalized Ratio; ESR, erythrocyte sedimentation rate; CRP, C-reactive protein; PRBC, packed red blood cells
Table 2 (continued)
Detailed Pre-Operative Surgical Technique

Positioning:
- Transfer patient to table with OR table bed sheet under lumbar spine, leave sheets/blankets on stretcher
- Remove traction pin if placed prior to surgery
- Position patient in the lateral decubitus position with the right side up and apply hip positioners
  - Single pad over the sacrum
  - Double pad over the ASIS and pubic symphysis, beginning slightly proximal and angling distally
- Place egg crate under down leg; apply axillary roll 2 fingerbreadths beneath left axilla
- Secure right arm over elevated arm board or pillows
- Tape down leg to bed at the ankle
- Assure hip positioners are in good position and will allow hip flexion to 90 degrees
- Pelvis should be level to floor and stable

Draping:
- Non-sterile blue U drape around the groin and 10-10 drape across the upper pelvis
- Hang leg in candy cane
- Non-sterile scrub with betadine scrub brush
- Sterile paint with betadine stick
- Down sheet
- 2 sterile towels stapled together and placed around groin and stapled to skin; 1 sterile towel across upper pelvis
- Impervious blue U sheet from bottom over towels
- Impervious blue U from top over towels
- Impervious stockinette over the foot to the level of Gerdy's tubercle
- Mark out old incision and discard marking pen
- Ioban along bottom of leg
- Ioban top of leg
- Sticky U drape up
- Bar drape across pelvis

Surgical Approach: Extensile posterolateral approach to the hip/femur
- Evaluate old incision; if in adequate position, use and extend
- If malpositioned, draw new incision
- Clearly identify fascia; use cobb elevator to clear off
- Fascial incision based over vastus ridge then complete with mayo scissors
- Define plane between underlying gluteus maximus and deep gluteus medius
- Split gluteus maximus and place Charnley retractor beneath fascia
- Identify posterior border of vastus lateralis
- Identify gluteus maximus insertion on posterior border of femur and release (careful due close proximity sciatic nerve)
- Follow posterior border of vastus lateralis proximally into posterior capsular approach
- Extend the approach proximally over the border of the acetabulum and posterior ilium
- Tag posterior capsule with 3-#5 Ethibond sutures
- Posterior structures might be disrupted due to fracture; If so, follow to acetabulum
- Follow vastus lateralis distally and approach femur via subvastus approach to expose fracture
- Identify and coagulate/tie off perforators
- Carefully free remainder of femoral prosthesis from greater trochanter using flexible osteotomes and high speed burr if necessary
- Dislocate and remove prosthesis using a bone hook

**Acetabular Preparation (if needed)**
- Place retractor over anterior acetabular wall (poke through capsule with tonsil and spread to create trajectory)
- Place retractor over posterior acetabular wall or under transverse acetabular ligament
- Once fully exposed, examine prior acetabular shell for stability
- If loose or malpositioned, remove liner and screws if present and use explant osteotomes to remove cup
- Using prior head size as a template, begin reaming 2mm below that
- Initially medialize, then sequentially ream up with correct version and abduction angle to achieve an adequate rim fit (between anterosuperior/posteroinferior columns)
- Once satisfied, impact acetabular component
- Secure acetabular component with 2 screws into the posterosuperior quadrant
- Insert polyethylene liner and impact

**Femoral Preparation**
- Expose proximal femur and shaft
- Using the Charnley, retract the greater trochanter fragment anteriorly
- Place prophylactic cable distal to fracture site prior to reaming (roughly 1 fingerbreadth or 1 cm distal to the distal extent of the fracture line)
- Begin reaming by hand
- Ream until engaging diaphyseal fit is achieved
- Insert trial stem, attached modular neck/head, and reduce the hip to assess length and stability.
  - If the fracture fragments “line up” with the hip reduced then the length is approximated
- Check reduction/length with fluoroscopy
- Place femoral stem
- Place trial body with standard neck and +0 head
- Assess stability
- If stability acceptable, mark version with bovie on the femur
• Remove trial body and place real components
• Reduce hip
• Use high speed burr to burr out the inner aspect of the greater troch piece (if needed due to excessive varus remodeling)
• Reduce greater trochanter fragment back to femur using pointed reduction clamps and then secure with 2-3 more cables below the level of the lesser trochanter

Closure
• Irrigation with 3 liters of warm normal saline
• Allow vastus lateralis to drape over femoral shaft
• Repair posterior capsule using free needle and previously placed heavy suture
• Place subfascial drain, exiting proximally, anterolaterally
• 1-vicryl interrupted suture for facsia
• 2-0 vicryl deep dermal suture
• 3-0 nylon vertical mattress for skin (if prior incision used); if new incision used, may close with staples
• Assess need for incisional vacuum dressing based on edema/drainage; if necessary, place vacuum sponge over non-adherent dressing on skin; leave in place for 3-5 days at 80mmHg

Post-Operative Plan
• Toe-touch weight bearing (10-20 pounds)
• Posterior hip precautions; No active abduction for 6 weeks; abduction pillow
• Remove drain when <20cc/shift
• Deep venous thrombosis prophylaxis for 6 weeks
• Antibiotics pending culture results
• Follow up cultures
• Physical therapy/occupational therapy