

Free Flap to Extremity Surgery – Inpatient perioperative Guidelines for Orthoplastic Surgery

The following guidelines are not all inclusive and are meant to be adjusted depending on the individual patient's needs. Ongoing communication and collaboration with the perioperative multidisciplinary team is essential to optimize patient outcomes.

Inclusion Criteria

1. Patients who undergo free flaps to their extremities by STC Orthoplastics surgeons and transfer to STC ICU, IMC, or Nursing floor for remainder of their hospital care.

Exclusion Criteria

1. This guideline does not apply to following patients
 - a. Patients who undergo free flap procedure and transfer immediately to non-Shock Trauma Center units to receive remainder of their hospital care or,
 - b. Patients who undergo free flaps to other body parts and not to their extremities or,
 - c. Patients who undergo non-free flaps (rotational flaps (propeller, pedicle, gastroc, soleus, or abdominal/groin flap) by Shock Trauma Orthoplastic surgeons.

Post-Op/ICU/IMC/Floor General Orders

1. Vital signs: per protocol in ICU, IMC, or Nursing Floor
2. Notify STC Ortho Floor Team for
 - a. Concern for active bleeding or hematoma
 - b. Concern for changes in flap check
3. Labs: Daily CBC, BMP, APTT
4. Foley Catheter – plan removal on POD3
5. Warm air blanket/ “Bair Hugger” at medium heat for 5 days
6. Strict elevation of free flap per protocol described below under “Activity”
7. Drain Care (Hemovacs and Jackson Pratt (JP) bulbs)
 - a. Empty and record q 4 hours and prn. Keep bulb compressed at all times.
 - b. Recipient drains will be continued and managed by STC Ortho Floor team
 - c. Donor site drains will be continued and managed by STC Plastics team.

Medications

1. Anticoagulants: Heparin drip at fixed rate per hour (determined by an attending surgeon at the end of surgery case). Daily APTT
2. DVT prophylaxis: Aspirin 81mg BID (chewable or enteric coated) per Trauma VTE Prophylaxis Guideline
 - a. If the following conditions are present, please discuss an alternative DVT prophylaxis regimen (weight-based enoxaparin or unfractionated heparin) with the Orthoplastics surgeons prior to initiating an alternative prophylaxis regimen.
 - i. Pregnancy or lactation
 - ii. Cancer or underlying chronic coagulopathy
 - iii. Ongoing treatment with therapeutic anticoagulation for an acute or chronic condition
 - iv. Strict NPO or inability to take or absorb enteral medications
 - v. Contraindications to aspirin:
 1. Salicylate or NSAID hypersensitivity
 2. Asthma, rhinitis, or nasal polyps
 3. History of GI bleed
 4. Age <20 year old with any viral infection with or without fever (Reye's Syndrome)
 5. G6PD deficiency
3. Blood product transfusion to maintain Hemoglobin level \geq 8 and Hematocrit \geq 25 until POD5.
4. No Nicotine products/patches for 6 weeks.

Free Flap to Extremity Management

1. Flap Check to recipient site
 - a. Check for temperature, color, capillary refill, and doppler signal around area marked with a suture
 - b. POD0-1/first 24 hours post op: q1h check by nursing; q6h (9PM and 4AM) check by Ortho resident overnight.
 - c. POD1-2/first 24-48 hours: q2h check by nursing; q6h (9PM and 4AM) check by Ortho resident overnight.
 - d. POD2/48 hours and onward: q4h check by nursing
 - e. Contact **STC Ortho Floor team** immediately for acute changes in flap – cool or cold flap, changes in color (blue, pale, or ruborous color), capillary refill <2 seconds or >6 seconds, or loss or change in doppler signals.

2. Mechanical Ventilation Management

- a. Management per ICU
- b. Plan for extubation on POD1 after Orthoplastic team rounds.

3. Nutrition

- a. Start and advance diet as tolerated
- b. No chocolate and caffeine until instructed otherwise.

4. Activity

- a. Bedrest for 5 days and maintain flap recipient extremity in the elevated position directed by surgical team upon arrival to ICU and sign out.
- b. POD5 – may get out of bed to chair with PT/OT for 1 hour and must maintain strict elevation.
- c. POD6 and onward – out of bed to chair only with strict elevation

5. Dangling Protocol

- a. POD14 – dangling protocol initiated upon clearance with Orthoplastic team
- b. See supportive information below – Rehabilitation Practice Guidelines Skin Grafts, Local Flaps & Free-Tissue Transfer OT, PT, Nursing & Allied Health Care
 - i. For specific activity guidelines regarding mobilization, dangling, and ROM of free flaps, rotational flaps, and skin grafts.