#
#
#

# VASCULARIZED TISSUE TRANSFER (FLAP)

**PURPOSE:** To outline post-operative management of patients who have undergone free or rotational vascularized tissue transfer.

**SUPPORTIVE DATA:** Vascularized tissue transfer (flap) is a micro-surgical procedure which creates a vascular soft tissue covering for exposed bone, tendon or other vital structures. The viability of the tissue transfer depends on the adequacy of arterial perfusion, venous outflow, prevention of infection, and protection from injury.

The flap appears as a protuberant, fleshy, convex mass that may or may not be covered by split thickness skin graft. It is circumscribed by sutures and often dressed with antibiotic impregnated Vaseline gauze. Arterial and venous bruits can be heard using a Doppler device in a viable tissue flap. Impaired arterial perfusion and/or venous drainage is an emergency. Be prepared to assist with bedside surgical procedures, transfuse blood/blood products or prepare the patient to go to the operating room.

**ASSESSMENT:**

1. Assess flap perfusion:
   - Immediately upon arrival from PACU
   - Every15 minutes for the next 4 hours then
   - Every 30 minutes for the next 4 hours then
   - Every hour thereafter until provider determines flap is stable
   - At change of shift (both nurses assess together)

   Assess the following:
   - Arterial and venous flow with Doppler
   - Warmth and skin turgor by gently palpating the flap
   - Color of the muscle noting presence and/or absence of cyanosis or bleeding

2. Assess the following a minimum of every 4 hours for:
   - Color/condition of flap
   - Drainage
   - Signs/symptoms of infection
   - Sloughing

**INFECTION CONTROL:**

3. Maintain asepsis by:
   - Keeping Doppler probe clean
   - Performing percutaneous pin care BID (if applicable)

**SAFETY:**

4. Protect the operative site:
   - Maintain constant warm ambient temperature
   - Use Bair Hugger™ as ordered or cover lightly with a blanket over a cradle
   - Maintain limb elevation above the heart
   - Maintain anatomic alignment
   - Utilize limb restraint if necessary, in consultation with the provider

**PATIENT/ CAREGIVER EDUCATION:**

5. Instruct on the following:
   - To inform nurse if there is pain at flap site
   - Prevention of accidental trauma to flap
   - Importance of extremity elevation
   - Need for NPO status for up to 72 hours as ordered in case of emergent surgery
   - Avoidance of dietary sources of caffeine until flap and vascular grafts are completely healed
   - Importance of smoking cessation (if applicable)

| | |
|---|---|
| TEAM COLLABORATION | 6. Collaborate with provider regarding:<br>• Specific dressing procedures<br>• Confirmation of which provider is to be notified for microvascular complications<br>• Assessment parameters |
| REPORTABLE CONDITIONS: | 7. Report the following to the resident provider covering the primary surgical team service:<br>• Signs of impaired tissue perfusion such as:<br>– Site mottled, purple or pale in color or petechiae<br>– Site cool to touch<br>– Decrease in capillary refill<br>– Loss of doppler pulse detection<br>• Signs of infection<br>• Accidental trauma to/injury of the surgical site |
| ADDITIONAL STANDARDS: | 8. Refer to following as indicated:<br>• External Fixator<br>• High Risk for Peripheral Neurovascular Dysfunction<br>• Immobility<br>• Pain Management<br>• Pressure Ulcer Prevention and Management<br>• Leech Therapy<br>• Wound management/Vacuum Assisted Closure Therapy |
| DOCUMENTA-TION: | 9. Document in accordance with "Documentation" standards.<br>10. Document in iView on Systems Assessment Navigator Band |

| Initial date approved: 10/00 | Reviewed and approved by:<br>Professional Practice Committee<br>Nurse Executive Committee<br>Attending Staff Association Executive Committee | Revision Date:<br>11/13, 3/15, 10/20 |
|---|---|---|

REFERENCES:

AACN Procedure Manual for High Acuity, Progressive and Critical Care (2017) 7th Edition Chapter 128. Pages 1142 - 1149

Consult: LAC+USC Burn Service Nursing
Consult: LAC+USC Wound Care Specialist (Nursing)