Head and Neck Flap Recommendations

1. Flaps survive on blood flow; therefore the MAP should be kept above 80 mmHg. Urine output > 0.5cc/kg/hr.
2. Expect Dextran 40 at 25cc/hour to be used for 48 hours to help perfusion. In rare cases, other anticoagulants are used including heparin. At this time, we prefer to avoid Lovenox until the Dextran is discontinued and in some cases longer (as long as the drains remain in for highest flap failure risk patients)
3. ASA suppository daily.
4. Flaps require O2, but high viscosity is undesirable; therefore the Hct should be kept at 26-32. Transfusion should only be given after discussed with the head and neck team unless it is an emergency and in that case we should be notified ASAP. Blood products should be administered slowly with attention to fluid status.
5. Avoid excessive fluid administration to head and neck patients, especially flap patients.
6. Under no circumstances should pressors be given unless it's to save the patient's life or in special cases when discussed with the head and neck team.
7. Room temperature is critical to pedicled and free flap survival. It should be maintained at 80 deg F.
8. Flap monitoring is critical. Clinical evaluation should include color, temperature, and capillary refill and should be done hourly. Call any abnormalities immediately.
   a. White/pale/slow or no cap refill = arterial insufficiency
   b. Blue/purple/rapid capillary refill = venous insufficiency

   Some flaps will have the following performed by the resident only. If there is a question of arterial insufficiency or venous congestion by Doppler or clinical examination, the nurse should immediately call the resident on call. A physician should evaluate the patient immediately. If the resident does not see the patient within 10 minutes, the senior resident or faculty (Dr. Fancy or Dr. Al-Rawi, not the faculty on call) should be called. Either Dr. Fancy or Dr. Al-Rawi (and usually both) will be available for all flaps for the first 72 hours after surgery. NURSES should never pinprick a free flap. Physicians will use a 21-gauge needle to prick free flaps at least once per day the first 3 days and these needles should be at the bedside. Larger needles are rarely used.

9. Most flaps require Q 1 hour Doppler checks and Q 1 hour color checks. Please notify the MD with any decrease in the audible pulse. We will try to identify a place for dopplering both the artery and vein and it will be marked. This will vary depending on the position of the anastomosis and the geometry of the flap insetting.
10. Patient positioning as well as HOB is to be determined by ENT and the orders and bedside board will indicate this for each specific patient.
11. The desired SAS level is to be determined by ENT.
12. IV access options are to be determined by ENT.
    a. subclavian catheter are ok if no pectoralis flap (preferable on the contralateral side to the tumor and to the free flap anastomosis)
    b. femoral lines are ok for short term usage
    c. No lines in the neck under any circumstances, even in emergency there are many other options.
13. All flaps will have the tracheostomy secured by sutures, usually 2 on each side. NO TRACH TIES as these may compress the vessels or cause edema of the neck compromising the vessels.
14. No trach collars for the first 72 hours. If the patient is off the ventilator, a t-piece is preferred to avoid cool mist causing vasoconstriction of the vessels.
15. Whenever possible, free flap patients should be off the ventilator within 48 hours.
16. Antibiotics are used in contaminated head and neck surgery. Timentin, Unasyn or comparable drugs have been shown to be most effective. Patients are at risk for gram positive and anaerobic infections but also gram negative infections due to the tracheostomy. The doses are in the orders. We use Rocephin, Vancomycin and Flagyl for skull base cases. For most routine head and neck cases, including soft tissue flaps, 24 hours of antibiotics is all that has been proven to be effective in the literature. For mandibular reconstructions, 48 hours are recommended. Occasionally, longer periods of antibiotic and other agents are required (in penicillin allergic patients, we often use clindamycin combined with Gentamicin).
17. Other orders are standard as for all head and neck patients (tube feedings, reflux prophylaxis, prn DT prophylaxis and such)
18. For radial forearm free flaps, no IV lines in the donor arm. Check finger cap refill. We leave the cast on for 7 days.

19. For fibula flaps, keep foot in mild flexion and monitor toe cap refill and pedal pulses. No lines in the donor leg.
20. Skin graft donor sites are covered with Opsite and this is reinforced if there is drainage, but generally not removed during the ICU period.
21. If there are any questions, **CALL**!