Autologous Breast Reconstruction Clinical Pathway

Site Applicability

Vancouver General Hospital

UBC Hospital

Pathway Patient Goals

Inclusion Criteria

Unilateral or Bilateral Autologous Breast Reconstruction Procedures:

- DIEP
- Free TRAM
- TUG
- SGAP

With or without:

- Mastectomy
- Mastopexy
- Axillary node dissection
- Reduction mammoplasty

Home Discharge Criteria

Instructions

1. Review pathway once per shift for patient care goals and expected outcomes
2. Do not document on this pathway, complete documentation in the Electronic Health Record (Cerner) or paper chart as per policy

Day of Surgery (Post-op Day 0)	
Focus of Care	**Expected Outcomes**
Cardiopulmonary • Incentive spirometry /deep breathing Q 1 H while awake • Chest auscultation Q 12 H • Patient to avoid coughing. Teach patient to huff if urge to cough	• Clear breath sounds in all lung fields • Vital signs stable • Lab values within normal limits
Free TRAM/DIEP Mastectomy Flap **<u>Flap/wound assessment:</u>** • Q 1 H X 48 hours, temp to touch/colour/cap refill/turgor • Doppler at stitch Q 1 H X 48 hours • Mastectomy flap q 1 H X 48 hours for bruising/swelling • Axilla for hematoma (increased swelling, pain or bleeding) • Contralateral breast (if reduction or mastopexy) for swelling/bleeding	• Flap health within normal limits • Doppler signal detectable • No evidence of hematoma • Drainage from dressings within normal limits • Abdominal wound has no discolouration or blistering **Notify surgeon stat if flap is:** • Mottled, dusky, white, cold, hard, flat, capillary refill below 1 or above 3 seconds or absent or there is a marked change in flap • Doppler signal is absent
Drain Care • Label location of each drain (left/right breast, left/right abdomen) • Strip drains Q 6 H and PRN, empty and record output Q 12 H and prn • Notify M.D. if drain output excessive, sanguineous/breast swelling (bleeding)	• Drains patent/volume/colour within normal limits
Pain • Assess pain q1h until controlled then assess Q 4 H	• Patients states pain is at an acceptable level
PONV • Assess post-op nausea and vomiting 1 H until controlled. Patient to avoid retching/ vomiting. • Select antiemetics in the order written on the physicians order form	• Patient has no episodes of retching or vomiting
DVT/PE **Mobility, Sleep, Lymphedema** • Bedrest today • HOB 45 degrees and knees in flexed position (TRAM/DIEP) **or** HOB flat (SGAP TUG) • Calf compression until mobile • TEDS until discharged. Remove TEDS Q 12 H for 20 minutes • Warm room to 30 degrees C if ordered **Axillary Node Dissection:** • Elevate affected arm on pillow. If possible, avoid using affected arm for BP/IV/ venipuncture. Encourage arm activity as tolerated	• Continuous night sleep for at least 4 hours

Elimination • Foley catheter to straight drainage • Remove Foley catheter at 0600 in am if ordered	• Urine output at or above 30 ml/hr
Hydration and Nutrition • NPO x 24 hours	• Fluid balance within normal limits • IV patent, site free from pain, swelling or redness
Anxiety/Fear • Anticipate and discuss patient's concerns/fears related to surgery	• Patient describes anxiety as acceptable
Teaching **Nurse Reviews:** • Deep breathing, need to avoid coughing. Teach patient to huff if urge to cough and leg exercises while in bed • Reinforce how to use PCA • Teach strategies to cope with/prevent PONV • Need for calf compression until patient is mobile • Teach patient to strip drain and record output Q12H and PRN **PT Reviews:** • Incentive spirometer and safe mobilization	

Post-op Day 1	
Focus of Care	**Expected Outcomes**
Cardiopulmonary • Incentive spirometry /deep breathing Q 1 H while awake (assist) • Chest auscultation Q 12 H • Patient to avoid coughing. Teach patient to huff if urge to cough	• Clear breath sounds in all lung fields • Vital signs stable • Lab values within normal limits
TRAM/LD flap; Mastectomy flap **<u>Flap/wound assessment:</u>** • Q 1 H X 48 hours, temp to touch/colour/cap refill/turgor • Doppler Q 1 H X 48 hours • Mastectomy flap q 1 h X 48 for bruising/swelling • Axilla for hematoma (increased swelling, pain or bleeding) • Contralateral breast (if reduction or mastopexy) for swelling/bleeding	• Flap health within normal limits • Doppler signal detectable • No evidence of hematoma • Drainage from dressings within normal limits • Abdominal wound has no discolouration or blistering **Notify surgeon stat if flap is:** • Mottled, dusky, white, cold, hard, flat, capillary refill below 1 or above 3 seconds or absent or there is a marked change in flap • Doppler signal is absent
Drain Care • Strip drains Q 6 H and PRN, empty and record output Q 12 H and prn • Notify M.D. if drain output excessive, sanguineous, associated with breast swelling (bleeding)	• Drains patent/volume/colour within normal limits
Pain • Assess pain q1h until controlled then assess Q 4 H	• Patients states pain is at an acceptable level
PONV • Assess post-op nausea and vomiting Q 1 H until controlled. Patient to avoid retching/ vomiting. • Select antiemetics in the order written on the physicians order form • If patient has PONV, assess if PCA is associated & begin weaning off according to POPS orders	• Patient has no episodes of retching or vomiting
DVT/PE **Mobility, Sleep, Lymphedema** • Bedrest today or up with assistance and sitting in chair (TRAM) • HOB 45 degrees and knees in flexed position (TRAM/DIEP) **or** HOB flat (SGAP TUG) • Calf compression until walking TID (cannot walk outside of the room if warm room order is not D/C)	• Continuous night sleep for at least 4 hours

• TEDS until discharged. Remove TEDS Q 12 H for 20 minutes • Splint abdomen; teach patient to avoid stretching abdominal muscles (TRAM/DIEP) **Axillary Node Dissection:** • Elevate affected arm on pillow. If possible, avoid using affected arm for BP/IV/ venipuncture. Encourage arm activity as tolerated	
Elimination • Foley catheter to straight drainage today if on bedrest • Remove Foley catheter at 0600 in am if ordered (may be ordered to remain until POD2)	• Urine output at or above 30 ml/hr
Hydration and Nutrition • NPO until 24 hr post-op, then xanthine free clear fluids to DAT	• Tolerating xanthine free fluids or DAT • IV patent, site free from pain, swelling or redness
Anxiety/Fear • Anticipate and discuss patient's concerns/fears related to surgery	• Patient describes anxiety as acceptable
Teaching/Discharge Planning **Nurse Reviews:** • Deep breathing, need to avoid coughing. • Teach patient to huff if urge to cough and leg exercises while in bed • Teach importance of taking analgesic around the clock once PCA discontinue • Teach strategies to cope with/prevent PONV • Need for calf compression until patient is mobile • Teach patient to strip drain and record output Q12H and PRN **PT Reviews:** • Incentive spirometer	

Post-op Day 2	
Focus of Care	**Expected Outcomes**
Cardiopulmonary • Incentive spirometry /deep breathing Q 1 H while awake (assist) • Chest auscultation Q 12 H • Patient to avoid coughing. Teach patient to huff if urge to cough	• Clear breath sounds in all lung fields • Vital signs stable • Lab values within normal limits
TRAM/LD flap **Mastectomy flap** **<u>Flap/wound assessment:</u>** • Q 1 H X 48 hours, temp to touch, colour, cap refill & turgor • Doppler Q 1 H X 48 hours then Q 2 H • Mastectomy flap q 2 h for bruising/swelling • Axilla for hematoma (increased swelling, pain or bleeding) • Contralateral breast (if reduction or mastopexy) for swelling/bleeding	• Flap health within normal limits • Doppler signal detectable • No evidence of hematoma • Drainage from dressings within normal limits • Abdominal wound has no discolouration or blistering **Notify surgeon stat if flap is:** • Mottled, dusky, white, cold, hard, flat, capillary refill below 1 or above 3 seconds or absent or there is a marked change in flap • Doppler signal is absent
Drain, Wound Care • Strip drains Q 6 H, empty and record output Q 12 H and prn • Notify M.D. if drain output excessive, sanguineous, associated with breast swelling (bleeding) • Change donor site dressing today and prn if ordered • Polysporin to umbilicus today and prn	• Drains patent/volume/colour within normal limits
Pain • Assess pain q1h until controlled then assess Q 4 H • Wean off PCA today if able	• Patients states pain is at an acceptable level
PONV • Assess post-op nausea and vomiting Q 1 H until controlled. Patient to avoid retching/ vomiting. • Select antiemetics in the order written on the physicians order form • If patient has PONV and PCA, begin to wean off PCA	• Patient has no episodes of retching or vomiting
DVT/PE **Mobility, Sleep, Lymphedema** • Up with assistance and sitting in chair • HOB 45 degrees and knees in flexed position (TRAM/DIEP) **or** HOB flat (SGAP TUG) • Calf compression until walking TID	• Continuous night sleep for at least 4 hours

• TEDS until discharged. Remove TEDS Q 12 H for 20 minutes • Mobility and exercise program (PT) **Axillary Node Dissection:** • Elevate affected arm on pillow. If possible, avoid using affected arm for BP/IV/ venipuncture. Encourage arm activity as tolerated	
Elimination • Foley catheter removed by 0600 today	• Urine output at or above 30 ml/hr
Hydration and Nutrition • Regular xanthine free diet	• Patient is tolerating xanthine free regular diet • IV patent, site free from pain, swelling or redness
Anxiety/Fear • Anticipate and discuss patient's concerns/fears related to surgery	• Patient describes anxiety as acceptable
Teaching **Nurse Reviews:** • Deep breathing, need to avoid coughing. Teach patient to: huff if urge to cough and leg exercises while in bed • Teach importance of taking analgesic around the clock once PCA discontinued • Teach strategies to cope with/prevent PONV • Need for calf compression until patient is mobile • Teach patient to strip drain and record output Q12H and PRN **PT Reviews:** • Arm exercises	

Post-op Day 3	
Core Issues	**Expected Outcomes**
Cardiopulmonary • Patient to avoid coughing. Teach patient to huff if urge to cough • Chest auscultation Q 12 H	• Clear breath sounds in all lung fields • Vital signs stable • Lab values within normal limits
TRAM/LD flap **Mastectomy flap** **<u>Flap/wound assessment:</u>** • Q 2 H, temp to touch, colour, cap refill & turgor • Doppler at stitch Q 2 H • Mastectomy flap q 2 h for bruising/swelling • Axilla for hematoma (increased swelling, pain or bleeding) • Contralateral breast (if reduction or mastopexy) for swelling/bleeding	• Flap health within normal limits • Doppler signal detectable • No evidence of hematoma • Drainage from dressings within normal limits • Abdominal wound has no discolouration or blistering **Notify surgeon stat if flap is:** • Mottled, dusky, white, cold, hard, flat, capillary refill below 1 or above 3 seconds or absent or there is a marked change in flap • Doppler signal is absent
Drain and Wound Care • Strip drains Q 6 H, empty and record output Q 12 H and prn • Notify M.D. if drain output excessive, sanguineous, associated with breast swelling (bleeding) • Polysporin to umbilicus daily and prn	• Drains patent/volume/colour within normal limits
Pain • Assess pain Q 1 H until controlled then assess Q 4 H	• Patients states pain is at an acceptable level
PONV • Assess post-op nausea and vomiting Q 1 H until controlled. Patient to avoid retching/ vomiting. • Select antiemetics in the order written on the physicians order form	• Patient has no episodes of retching or vomiting
DVT/PE **Mobility, Sleep, Lymphedema** • Up walking independently • HOB 45 degrees and knees in flexed position (TRAM/DIEP) **or** HOB flat (SGAP TUG) • Mobility and exercise program (PT) **Axillary Node Dissection:** • Elevate affected arm on pillow. If possible, avoid using affected arm for BP/IV/ venipuncture. Encourage arm activity as tolerated	• Ambulating independently • Continuous night sleep for at least 4 hours
Elimination	• Urine output within normal limits
Hydration and Nutrition	• Patient is tolerating xanthine free regular diet

Anxiety/Fear • Anticipate and discuss patient's concerns/fears related to surgery	• Patient describes anxiety as acceptable

Teaching/Discharge Planning

PT

- Ensure patient understands content of exercise pamphlet

Nurse

- Transport home arranged
- Provide Patient Information Booklet
- Provide prescription and discharge summary
- Follow-up appointment with plastic surgeon and General surgeon if mastectomy.
- Information about BCCA counselling services if needed.
- Review activity restrictions (no heavy lifting, house/garden work for 3 months)
- Constipation management
- Complications reviewed (seroma, infection, abdominal hernia, DVT/PE)

Drain care

- Drain emptying/stripping demonstrated
- Return demonstration by patient/family
- Provide drain care booklet and explain how to record drain output
- Provide measuring cups, alcohol swabs -drain care
- May shower 24 hours after all drains are removed.

Post-op Day 4 or more	
Focus of Care	**Expected Outcomes**
Cardiopulmonary • Chest auscultation Q 12 H	• Clear breath sounds in all lung fields • Vital signs stable • Lab values within normal limits
TRAM/LD flap **Mastectomy flap** **<u>Flap/wound assessment:</u>** • Q 2 H until ordered, then Q 4 H, temp to touch, colour, cap refill & turgor • Doppler Q 2 H until ordered, then Q 4 H • Mastectomy flap q 4 h for bruising/swelling • Axilla for hematoma (increased swelling, pain or bleeding) • Contralateral breast (if reduction or mastopexy) for swelling/bleeding	• Flap health within normal limits • Doppler signal detectable • No evidence of hematoma • Drainage from dressings within normal limits • Abdominal wound has no discolouration or blistering **Notify surgeon stat if flap is:** • Mottled, dusky, white, cold, hard, flat, capillary refill below 1 or above 3 seconds or absent or there is a marked change in flap • Doppler signal is absent
Drain, Wound Care • Strip drains Q 6 H, empty and record output Q 12 H and prn • Notify M.D. if drain output excessive, sanguineous, associated with breast swelling (bleeding) • Polysporin to umbilicus daily and prn	• Drains patent/volume/colour within normal limits
Pain • Assess pain q1h until controlled then assess Q 4 H	• Patients states pain is at an acceptable level
PONV • Assess post-op nausea and vomiting Q 1 H until controlled. Patient to avoid retching/ vomiting. • Select antiemetics in the order written on the physicians order form	• Patient has no episodes of retching or vomiting
DVT/PE **Mobility, Sleep, Lymphedema** • Up walking independently • HOB 45 degrees and knees in flexed position (TRAM/DIEP) **or** HOB flat (SGAP TUG) • Calf compression until walking TID • TEDS until discharged. Remove TEDS Q 12 H for 20 minutes • Mobility and exercise program (PT) **Axillary Node Dissection:** • Elevate affected arm on pillow. If possible, avoid using affected arm for BP/IV/ venipuncture. Encourage arm activity as tolerated	• Ambulating independently • Continuous night sleep for at least 4 hours

Elimination	• Urine output within normal limits
Hydration and Nutrition	• Patient is tolerating xanthine free regular diet
Anxiety/Fear • Anticipate and discuss patient's concerns/fears related to surgery	• Patient describes anxiety as acceptable

Teaching/Discharge Planning

PT

- Ensure patient understands content of exercise pamphlet

Nurse

- Transport home arranged
- Provide Patient Information Booklet
- Provide prescription and discharge summary
- Follow-up appointment with plastic surgeon and General surgeon if mastectomy.
- Information about BCCA counselling services if needed.
- Review activity restrictions (no heavy lifting, house/garden work for 3 months)
- Constipation management
- Complications reviewed (seroma, infection, abdominal hernia, DVT/PE)

Drain care

- Drain emptying/stripping demonstrated
- Return demonstration by patient/family
- Provide drain care booklet and explain how to record drain output
- Provide measuring cups, alcohol swabs -drain care
- May shower 24 hours after all drains are removed.

Developed By

Effective Date:	
Posted Date:	
Last Revised:	
Last Reviewed:	
Approved By:	
	Endorsed By: **Final Sign Off:**
Owners:	VCH
	Developer Lead(s): • Clinical Nurse Educator, Transplant, Urology, Gynecology, Plastics, VGH • Clinical Nurse Educator, High Acuity Unit, UBCH