ENT Transoral Robotic Surgery (TORS) +/- Neck Dissection ERAS Clinical Pathway

Site Applicability

Vancouver General Hospital (VGH)

Overall ERAS Goals:

- ↓ stress response to surgery
- Improve patient experience
- ↓ complications and Length of Stay (LOS)

Specific ERAS Goals:

1. Gum chewing x 15 minutes while awake, 3 times a day
2. POD 0 Meds with sips of clear fluids and ice chips , POD 1 Pureed with oral nutritional supplement (e.g. Ensure Plus Calories BID , POD 2 Post Surgical Transition Diet (regular texture) with oral nutritional supplement (e.g. Ensure Plus Calories) BID, POD 3 General diet with oral nutritional supplement (e.g. Ensure Plus Calories) BID
3. Discontinue indwelling urinary catheter POD 1 by 06:00 hrs
4. Saline lock IV when drinking greater than or equal to 600mL/12hr
5. Capillary Blood Glucose TID and HS and Sliding scale insulin as ordered. If patient non-diabetic and all glucometer readings are less than 8.1mmol/Lx24 hrs, may discontinue glucometer
6. Ondansetron 4mg IV Q8H X 3 or 6 doses. First dose 8 hours after intra-op dose.
7. Mobility goals:
   POD 0: Dangle on edge of bed and walk to the bathroom
   POD 1: Walk to nursing station and back twice a day and sit up for 2-3 meals
   POD 2: Walk around the unit twice a day and sit up for all three meals

Pathway Patient Goals

Patient will recover from surgery with an expected 3-day length of stay (LOS) and experience a safe discharge home.
Patient will report pain below 4/10 or adequate for mobilizing and Deep Breathing and Cough exercises
Effective discharge planning and teaching provided to patient and caregivers for a safe discharge.

Inclusion Criteria

All patients having elective transoral robotic surgery with or without neck dissection.

Exclusion Criteria

- Non-robotic surgeries
- When significant deviations from expected outcomes are noted

Home Discharge Criteria

Instructions

1. Review pathway once per shift for patient care goals and expected outcomes
2. Complete documentation in the Electronic Health Record(Cerner) or paper chart as per policy

Post-op Day 0: Surgery Day	
Focus of Care	**Expected Outcomes**

Teaching, Discharge Planning	• Orient to unit & hospital routine
	• Reinforce pre-op teaching (deep breathing and leg exercises)
	• Review painscale/management
	• Patient and family understand outcome of surgery
	• ERAS Booklet:
	  • Patient has booklet at bedside
	  • Patient is aware of daily goals

Tests	• Standing orders for blood work
Consults	
Assessments, Treatments	• Vital signs and temperature as per post-op protocol (R12-20 min, P60-100, BP 90-150) • Level of consciousness (oriented x 3) • Chest auscultation Q4hrs PRN (breath sounds clear; resp easy & regular, no SOB, no resp distress) • Pulse oximeter Q4hrs PRN - titrate oxygen to keep SpO_2 92% or greater (or SpO_2 88-92% for patients with COPD) • Capillary Blood Glucose TID and HS and Sliding scale insulin as ordered. If patient non-diabetic and all glucometer readings are less than 8.1mmol/Lx24 hrs, may discontinue glucometer • Assess peripheral IV site (free of infection, redness) • Assess for facial symmetry, loss of sensation to face/ear • Assess neck incision (**monitor for swelling, bleeding, evidence of hematoma**) • Neck incision well approximated, sutures *in situ* • Assess abdominal status Q4hrs PRN (soft, non distended, bowel sounds x 4 audible) • Monitor and empty hemovac drainage Q6hrs PRN (**No sanguineous drainage**) • **Strip hemovac drain** Q1hr x 4hrs then Q6hrs PRN • **Suture scissors at bedside at all times (tape to HOB)**
Airway Adequate	• Airway patent, can clear own secretions • Assess patient's voice (absence of hoarseness, stridor)
Activity, Rest	• Elevate HOB 30° • Encourage deep breathing and leg exercises Q1hr while awake • Plantar dorsi-flexion exercises Q1hr while awake • Dangle legs on side of bed • Walk to the bathroom with assistance
Medications	• Analgesics scheduled & prn • Antiemetic scheduled prn • Polysporin BID to neck incision
Pain	• Pain assessment Q1hr until pain is controlled then Q4hrs and PRN (pain adequately controlled) • 1 teaspoon of honey swish and swallow Q4hr

	• Sedation level within norm • Pruritus controlled
Nutrition	• Ice chips • Meds with sips of Clear Fluids • Gum chewing x 15 minutes while awake, 3 times a day • Nausea controlled • Ondansetron 4mg IV Q8H X 3 or 6 doses. First dose 8 hours after intra-op dose.
Elimination	• Voiding adequately (urine output greater than 30 mLs/hr) • Foley catheter to straight drainage (urine output greater than 30 mLs/hr) • Passing flatus
Anxiety/Fear	• Nurse will anticipate and discuss patient's/families concerns and fears related to surgery • Information needs met
Desired Outcomes within Normal Limits	• Airway patent • Vital signs and temp stable within normal range/satisfactory • Neck incision well approximated • Hemovac drain(s) output/colour within normal range/satisfactory • Patient states pain is at an acceptable level • Nausea controlled • Tolerates oral intake • Fluids and electrolytes balanced • Patient describes anxiety as acceptable

Post-op Day 1	
Focus of Care	**Expected Outcomes**

Teaching, Discharge Planning	• Reinforce importance of deep breathing and leg exercises
	• Review pain scale/management
	• Patient and family understand outcome of surgery
	• Hemovac drain care teaching initiated – if applicable
	• **Discuss potential discharge in 3 days**
	• Discuss potential needs upon discharge (home support/home care nursing)
	• ERAS Booklet:
	  ○ Patient has booklet at bedside
	  ○ Patient is aware of daily goals
	• **Discharge supplies:**
	  ○ provide "Hemovac pamphlet" along with a measuring container

Tests	• Standing orders for blood work
Consults	• Speech Language Pathology for swallow/diet assessment • Physical Therapy for neck exercises
Assessments, Treatments	• Vital signs and temperature as per post-op protocol (R12-20 min, P60-100, BP 90-150) • Level of consciousness (oriented x 3) • Chest auscultation Q4hrs PRN (breath sounds clear; resp easy & regular, no SOB, no respdistress) • Pulse oximeter Q4hrs PRN – titrate oxygen to keep SpO_2 92% or greater (or SpO_2 88-92% for patients with COPD) and **wean to room air** • Capillary Blood Glucose TID and HS and Sliding scale insulin as ordered. If patient non-diabetic and all glucometer readings are less than 8.1mmol/Lx24 hrs, may discontinue glucometer • Assess peripheral IV site (free of infection, redness) • **Saline lock IV** when tolerating oral fluids greater than or equal to 600 mL/12hrs • Assess for facial symmetry, loss of sensation to face/ear • Assess neck incision (**monitor for swelling, bleeding, evidence of hematoma**) • Neck incision well approximated, sutures *in situ* • Assess abdominal status Q4hrs PRN(soft, non distended, bowel sounds x 4 audible) Monitor and empty hemovac drainage Q6hrs PRN **(No sanguineous drainage)** • **Strip hemovac drain** Q1hr x 4hrs then Q6hrs PRN • **Suture scissors at bedside at all times (tape to HOB)**
Adequate Airway	• Airway patent, can clear own secretions • Assess patient's voice (absence of hoarseness, stridor)
Activity, Rest	• Elevate HOB 30° • Encourage deep breathing and leg exercises Q4hr PRN • Up in chair for meals (2-3 times/day) • Walk to the nursing station and back with help (minimum 2 times a day) • Assisting with am care • **Seen by physiotherapist for neck exercises**

Medications	• Analgesics scheduled & prn • Antiemetic scheduled & prn • Polysporin BID to neck incision
Pain	• Pain assessment Q1hr until pain is controlled then Q4hrs prn (pain adequately controlled) • 1 teaspoon of honey swish and swallow Q4hr • Sedation level within normal
Nutrition	• Pureed diet with oral nutritional supplement (e.g. Ensure Plus Calories) BID • Gum chewing x 15 minutes while awake, 3 times a day • Nausea controlled • Ondansetron 4mg IV Q8H X 3 or 6 doses
Elimination	• **Foley removed at 06:00 hours** • Voiding adequately (urine output greater than 30 mLs/hr) • Passing flatus
Anxiety/Fear	• Nurse will anticipate and discuss patient's/families concerns and fears related to surgery • Information needs met
Desired Outcomes within Normal Limits	• Airway patent • Vital signs and temp stable within normal range/satisfactory • Neck incision well approximated • Hemovac drain(s) output/colour within normal range/satisfactory • Patient states pain is at an acceptable level • Nausea controlled • Tolerates oral intake • Fluids and electrolytes balanced • Patient describes anxiety as acceptable • Patient initiating and managing self care of hemovac drain • Ambulating – returning to baseline level of function

Post-op Day 2	
Focus of Care	**Expected Outcomes**

Teaching, Discharge Planning	• Reinforce importance of deep breathing and leg exercises
	• Review pain scale/management
	• Hemovac drain care teaching accomplished – if applicable
	• Plan to go home tomorrow
	• Discuss potential needs upon discharge (home support/home care nursing)
	• Inform patient/family of all resources arranged upon discharge
	• Inform patient timing of suture removal if applicable
	• ERAS Booklet:
	  ○ Patient has booklet at bedside
	  ○ Patient is aware of daily goals

Tests	• Standing orders for blood work
Consults	• Home care nursing (re: hemovac drain care) if applicable
Assessments, Treatments	• Vital signs and temp as per post-op protocol (R12-20 min, P60-100, BP 90-150) • Level of consciousness (oriented x 3) • Chest auscultation Q4hrs PRN (breath sounds clear; resp easy & regular, no SOB, no resp distress) • Pulse oximeter Q4hrs PRN (greater than 93%) on room air • Assess peripheral IV site (free of infection, redness) • **Saline lock IV** when tolerating oral fluids greater than or equal to 600 mL/12hrs • Assess for facial symmetry, loss of sensation to face/ear • Assess neck incision (monitor for swelling, bleeding, evidence of hematoma) • Neck incision well approximated, sutures *in situ* • Assess abdominal status Q4hrs PRN (soft, non distended, bowel sounds x 4 audible) • Monitor and empty hemovac drainage Q6hrs PRN (**No sanguineous drainage**) • **Strip hemovac drain** Q6hrs PRN • **Suture scissors at bedside at all times (tape to HOB)**
Adequate Airway	• Airway patent, can clear own secretions • Assess patient's voice (absence of hoarseness, stridor)
Activity, Rest	• Elevate HOB 30° • Encourage deep breathing and leg exercises Q4hr PRN • Up in chair for all meals (3 times/day) • Walk around the unit minimum 2 times • Independent with am care • **Patient performing re: neck and shoulder exercises**
Medications	• Analgesics PRN • Antiemetic PRN • Polysporin BID to neck incision

Pain	• Pain assessment Q1hr until pain is controlled then Q4hrs PRN(pain adequately controlled) • 1 teaspoon of honey swish and swallow Q4hr • Sedation level within norm
Nutrition	• Post surgical transition diet with oral nutritional supplement (e.g. Ensure Plus Calories) BID • Gum chewing x 15 minutes while awake, 3 times a day • Nausea controlled • Ondansetron 4mg IV Q8H X 6 doses
Elimination	• Voiding adequately (urine output greater than 30 mLs/hr) • Passing flatus • Note any normal BM • Note any diarrhea
Anxiety/Fear	• Nurse will anticipate and discuss patient's/families concerns and fears related to surgery • Information needs met
Desired Outcomes within Normal Limits	• Airway patent • Vital signs and temp stable within normal range/satisfactory • Neck incision well approximated • Hemovac drain(s) output/colour within normal range/satisfactory • Patient states pain is at an acceptable level • Nausea controlled • Tolerates oral intake • Fluids and electrolytes balanced • Patient describes anxiety as acceptable • Patient able to self manage self care of hemovac drain if applicable • Mobilizing independently - at baseline level of function

Post-op Day 3 until discharge	
Focus of Care	**Expected Outcomes**

Teaching, Discharge Planning	• Reinforce importance of deep breathing and leg exercises
	• Review pain scale/management
	• Hemovac drain care teaching accomplished – if applicable
	• Plan to go home today
	• Inform patient/family of all resources arranged upon discharge
	• Inform patient timing of suture removal if applicable
	• ERAS Booklet:
	  ○ Patient has booklet at bedside
	  ○ Patient is aware of daily goals

Tests	• Standing orders for blood work
Consults	• Home care nursing (re: hemovac drain care) if applicable
Assessments, Treatments	• Vital signs and temp as per post-op protocol (R12-20 min, P60-100, BP 90-150) • Level of consciousness (oriented x 3) • Chest auscultation Q4hrs PRN (breath sounds clear; resp easy & regular, no SOB, no resp distress) • Pulse oximeter Q4hrs PRN (greater than 93%) on room air • Assess peripheral IV site (free of infection, redness) • **Remove saline lock IV** • Assess for facial symmetry, loss of sensation to face/ear • Assess neck incision (monitor for swelling, bleeding, evidence of hematoma) • Neck incision well approximated, sutures *in situ* • Assess abdominal status Q4hrs PRN (soft, non distended, bowel sounds x 4 audible) • Monitor and empty hemovac drainage Q6hrs PRN(**No sanguineous drainage**) • **Strip hemovac drain** Q6hrs PRN if applicable • **Suture scissors at bedside at all times (tape to HOB)**
Adequate Airway	• Airway patent, can clear own secretions • Assess patient's voice (absence of hoarseness, stridor)
Activity, Rest	• Elevate HOB 30° • Encourage deep breathing and leg exercises Q4hr prn • Up in chair for all meals (3 times/day) • Walk around the unit minimum 2 times • Independent with am care • **Patient performing re: neck exercises**
Medications	• Analgesics prn • Antiemetic prn • Polysporin BID to neck incision

Pain	• Pain assessment Q1hr until pain is controlled then Q4hrs PRN(pain adequatelycontrolled) • 1 teaspoon of honey swish and swallow Q4hr • Sedation level within norm
Nutrition	• General diet with oral nutritional supplement (e.g. Ensure Plus Calories) BID • Gum chewing x 15 minutes while awake, 3 times a day • Nausea controlled
Elimination	• Voiding adequately (urine output greater than 30 mLs/hr) • Passing flatus • Note any normal BM • Note any diarrhea
Anxiety/Fear	• Nurse will anticipate and discuss patient's/families concerns and fears related to surgery • Information needs met
Desired Outcomes within Normal Limits	• Airway patent • Vital signs and temp stable within normal range/satisfactory • Neck incision well approximated • Hemovac drain(s) output/colour within normal range/satisfactory • Patient states pain is at an acceptable level • Nausea controlled • Tolerates oral intake • Fluids and electrolytes balanced • Patient describes anxiety as acceptable • Patient able to self manage self care of hemovac drain if applicable • Mobilizing independently - at baseline level of function

Supplemental Days	
Focus of Care	**Expected Outcomes**

Teaching, Discharge Planning	• Reinforce importance of deep breathing and leg exercises
	• Review pain scale/management
	• Hemovac drain care teaching accomplished – if applicable
	• Plan to go home today
	• Inform patient/family of all resources arranged upon discharge
	• Inform patient timing of suture removal if applicable
	• ERAS Booklet:
	  ○ Patient has booklet at bedside
	  ○ Patient is aware of daily goals

Tests	• Standing orders for blood work
Consults	• Home care nursing (re: hemovac drain care) if applicable
Assessments, Treatments	• Vital signs and temp as per post-op protocol (R12-20 min, P60-100, BP 90-150) • Level of consciousness (oriented x 3) • Chest auscultation Q4hrs PRN (breath sounds clear; resp easy & regular, no SOB, no respdistress) • Pulse oximeter Q4hrs PRN (greater than 93%) on room air • Assess peripheral IV site (free of infection, redness) • **Remove saline lock IV** • Assess for facial symmetry, loss of sensation to face/ear • Assess neck incision (monitor for swelling, bleeding, evidence of hematoma) • Neck incision well approximated, sutures *in situ* • Assess abdominal status Q4hrs PRN (soft, non distended, bowel sounds x 4 audible) • Monitor and empty hemovac drainage Q6hrs PRN (**No sanguineous drainage**) • **Strip hemovac drain** Q6hrs PRN if applicable • **Suture scissors at bedside at all times (tape to HOB)**
Adequate Airway	• Airway patent, can clear own secretions • Assess patient's voice (absence of hoarseness, stridor)
Activity, Rest	• Elevate HOB 30° • Encourage deep breathing and leg exercises Q4hr prn • Up in chair for all meals (3 times/day) • Walk around the unit minimum 2 times • Independent with am care • **Patient performing re: neck exercises**
Medications	• Analgesics prn • Antiemetic prn • **Polysporin BID to neck incision**

Pain	• Pain assessment Q1hr until pain is controlled then Q4hrs PRN(pain adequatelycontrolled) • 1 teaspoon of honey swish and swallow Q4hr • Sedation level within norm
Nutrition	• General diet with oral nutritional supplement (e.g. Ensure Plus Calories) BID • Gum chewing x 15 minutes while awake, 3 times a day • Nausea controlled
Elimination	• Voiding adequately (urine output greater than 30 mLs/hr) • Passing flatus • Note any normal BM • Note any diarrhea
Anxiety/Fear	• Nurse will anticipate and discuss patient's/families concerns and fears related to surgery • Information needs met
Desired Outcomes within Normal Limits	• Airway patent • Vital signs and temp stable within normal range/satisfactory • Neck incision well approximated • Hemovac drain(s) output/colour within normal range/satisfactory • Patient states pain is at an acceptable level • Nausea controlled • Tolerates oral intake • Fluids and electrolytes balanced • Patient describes anxiety as acceptable • Patient able to self manage self care of hemovac drain if applicable • Mobilizing independently - at baseline level of function

Developed By

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Owners:	VCH
	Developer Lead(s): Clinical Nurse Educator, General/Vascular Surgery, OTL-HNS & GIMedicine, VGH