Esophagectomy Clinical Pathway

Site Applicability

Vancouver General Hospital (VGH)

Pathway Patient Goals

Inclusion Criteria

- Trans hiatal, 3-hole, thoraco-abdominal esophagectomy with or without partial or complete gastrectomy

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

Pre-Operative (admit prior) / Chest Centre	
Category / Focus / Care	**Desired Outcomes**
Discharge Planning/Teaching • Pamphlet: Before and After your Esophagectomy • Pamphlet: Pain Control After Surgery – Patient Information • Pamphlet: Epidural Analgesia – Patient Information • Pamphlet: Patient Controlled Analgesia – Patient Information • Pamphlet: Your safety while in hospital • Pamphlet: ICOUGH • Pamphlet: Lowering your risk for a Surgical Infection (pre-operative cleansing wipes) • Smoking Cessation • Discuss expected length of stay 12 days • As per patient history, identify issues that may affect discharge and follow up as appropriate (SW/CML)	• **Understands pre-op care & usual post-op course, plan for pain management, and measures to prevent post-op complications – per patient education pamphlets** • **Understands usual length of stay and expected discharge time of 10 am** • **Appropriate discharge plan in place, if not, social work/CML has been consulted**
Tests • HIV antibody test • CBC with automated differential and platelet count • Electrolytes, urea, creatinine, calcium, alkaline phosphatase, total and direct bilirubin, total protein, albumin, pre-albumin, aspartate transaminase (AST), lactate dehydrogenase (LDH) • INR, PTT • Group and Screen • Electrocardiogram • Chest X-ray PA and Lateral	• **Blood work and CXR completed and acceptable for surgery**
Treatments/ Assessments • Patient Admission Assessment completed • Systems assessment and VS Q shifts • Anesthesia consult • Medication Reconciliation completed • Bowel prep on admission to ward (Phosphate oral solution PO on admission to ward) • Pre-operative cleansing wipes at HS and in am	• **Pre-operative baseline assessment completed and acceptable for surgery**
Activity/Rest and/or ADLs • Activity as tolerated	• **Adequate sleep/rest**
Nutrition • Clear fluids • Carbohydrate loading at HS (500 ml of clear juice) e.g. apple juice • NPO after midnight	• **Adequate hydration and CHO intake preoperative**

OR Day / PACU / Chest Centre	
Category / Focus / Care	**Desired Outcomes**
Discharge Planning/Teaching • Reinforce post-op care plan • Surgeon communicates with family post-op • Transfer to ward when PACU discharge criteria met	• **Understands usual events / expectations of operative day** • **Understands usual post-op course, plan for pain management, and measures to prevent post-op complications – per patient education pamphlets**
Tests to be done POD 0 at HS • CBC, electrolytes, urea, creatinine, glucose, magnesium, calcium, albumin, pre-albumin, phosphate and ABGs (ABGs when arterial line in situ). • Chest X-ray daily x 4 days	• **Blood work and CXR completed and acceptable**
Treatments/ Assessments • VS, assessment, and treatment as per PACU standards of care • Vital signs Q2H and PRN (as per POPS protocol) • Systems assessment Q4H and PRN • Intake and output Q6H • O2 to keep SaO2 >92% (2-4 Lpm required with epidural x 48 hrs except when patient is ambulating) • Chest Tube to -20cm suction, monitor drainage/system Q1H, record chest drainage Q6H • ECG Monitor (Telemetry) • NG to low continuous suction OR G tube to low intermittent suction; **do not use anti-reflux valve on NG air vent or reposition NG** • Flush NG/G tube with 15 ml of normal saline Q4H • Flush blue vent on NG with 15 ml air post tube flushes • J-tube capped • Change neck dressing PRN • Note if arterial line, CVC, and/or peripheral IV maintenance	• **Alert and oriented as pre-op, no delirium** • **Vital signs within expected parameters** • **SpO2 within normal limits of titration protocol** • **Respiratory rate, rhythm and effort are stable** • **Breath sounds within expected parameters** • **Chest tube drainage less than 100 mL/hr x 3 consecutive hours** • **No air leak or evidence of progressive subcutaneous emphysema** • **No evidence of bile, chyle or purulent drainage from CT** • **No evidence of bile or purulent discharge from neck wound** • **Chest tube dressing dry, intact and occlusive** • **Incision dressings dry & intact** • **No evidence of cardiac pain or evidence of new myocardial ischemia/infarction** • **No dysrhythmia requiring intervention** • **IV patent and site free from pain, redness, swelling or discharge.** • **Functioning NG and J-tube**
Activity/Rest and/or ADLs • DB & C, incentive spirometry (3 breaths) Q30min while awake • HOB minimum 30° at all times • Bedrest • ROM and leg exercises Q4H while awake • Mouth care TID	• **Adequate sleep/rest** • **Performs ADL's with assistance** • **Effective deep breathing and coughing**
Pain • Epidural protocol • PCA protocol	• **Adequate pain control, pain (<4/10) is not interfering with mobilization and DB & C** • **Sedation score less than 3 and/or respiratory rate greater than 8/min** • **Epidural catheter intact, with dressing dry and intact**
Nutrition • NPO	• **No nausea or vomiting**
Elimination • Foley catheter to straight drainage • Catheter care BID	• **Urine output greater than 0.5-1.0 ml/kg/hr**

Post-Op Day 1	
Category / Focus / Care	**Desired Outcomes**
Discharge Planning/Teaching • Assess for issues affecting discharge and follow-up as appropriate • Ensure patient has all required teaching booklets, reinforce post op care plan	• **Patient understands usual post-op course, plan for pain management, and measures to prevent post-op complications – per patient education pamphlets** • **Appropriate discharge plan in place, if not, social work/CML has been consulted Patient and family** • **prepared for anticipated discharge date**
Tests to be done POD 1 in am • CBC, electrolytes, glucose amylase, urea, creatinine, calcium, magnesium, phosphate QAM for 4 days ABGs (if arterial line in situ POD 1) • Chest X-ray daily x 4 days	• **Blood work and CXR completed and acceptable**
Treatments/ Assessments • Vital signs Q4H and PRN (as per POPS protocol) • Systems assessment Q6H and PRN • Intake and output Q6H • O2 to keep SaO2 >92% (2-4 Lpm required with epidural x 48 hrs except when patient is ambulating) • Maintain chest tube suction as ordered • Monitor chest drainage/system Q1H, record chest drainage Q6H • ECG Monitor (Telemetry) • Change chest tube dressing on POD 1 • Observe surgical incision dressings Q shift • NG to low continuous suction OR G tube to low intermittent suction; **do not use anti-reflux valve on NG air vent or reposition NG** • Flush NG/G tube with 15 ml of normal saline Q4H • Flush blue vent on NG with 15 ml air post tube flushes • J-tube capped • Change neck dressing OD + PRN • Note if arterial line, CVC, and/or peripheral IV maintenance	• **Alert and oriented as pre-op, no delirium** • **Vital signs within expected parameters** • **SpO2 within normal limits of titration protocol** • **Respiratory rate, rhythm and effort are stable** • **Breath sounds within expected parameters** • **Chest tube drainage less than 100 ml /hr x 3 consecutive hours** • **No air leak or evidence of progressive subcutaneous emphysema** • **No evidence of bile, chyle or purulent drainage from CT** • **No evidence of chest tube site infection** • **Incision dressings dry & intact** • **No evidence of cardiac pain or evidence of new myocardial ischemia/infarction** • **No dysrhythmia requiring intervention** • **IV patent and site free from pain, redness swelling or discharge** • **Functioning NG and J-tube**
Activity/Rest and/or ADLs • DB & C, incentive spirometry (3 breaths) Q30min while awake • HOB minimum 30° at all times • Dangle at side of bed BID • ROM and leg exercises Q4H while awake • Mouth care TID	• **Adequate sleep/rest** • **Performs ADL's with minimal assistance, demonstrates progressive activity** • **Effective deep breathing and coughing** • **Demonstrates exercises as per discharge pamphlet**
Pain • Epidural protocol • PCA protocol • Assess readiness to wean epidural/PCS • Start J-tube analgesia	• **Adequate pain control, pain (<4/10) is not interfering with mobilization and DB & C** • **Sedation score less than 3 and/or Respiratory Rate greater than 8/min** • **Epidural catheter intact, with dressing dry and intact**
Nutrition • Begin J-tube feeds as per dietitian's orders • Daily weight	• **No nausea, vomiting, cramping or abdominal distension**
Elimination • Foley catheter to straight drainage • Catheter care/peri care BID	• **Urine output greater than 0.5-1.0 ml/kg/hr**

Post-Op Day 2	
Category / Focus / Care	**Desired Outcomes**
Discharge Planning/Teaching • Assess for issues affecting discharge and follow-up as appropriate • Ensure patient has all required teaching booklets, reinforce post op care plan • Review discharge plan and confirm date with CML	• **Patient understands usual post-op course, plan for pain management, and measures to prevent post- op complications – per patient education pamphlets** • **Patient & family understand discharge instructions per pamphlets and follow up plan/appts** • **Appropriate discharge plan in place, if not, social work/CML has been consulted** • **Patient and family prepared for anticipated discharge date**
Tests • CBC, electrolytes, glucose amylase, urea, creatinine, calcium, magnesium, phosphate QAM for 4 days ABGs (if arterial line in situ POD 1) • Chest X-ray daily x 4 days	• **Blood work and CXR completed and acceptable**
Treatments/ Assessments • Vital signs Q4H and PRN (as per POPS protocol) • Systems assessment Q12H and PRN • Intake and output Q6H • O2 to keep SaO2 >92% (wean as tolerated) • Maintain chest tube suction as ordered • Monitor chest drainage/system Q1H, record chest drainage Q6H • Observe chest tube dressings Q shift • Remove incision dressings and apply PRN • NG to low continuous suction OR G tube to low intermittent suction; **do not use anti-reflux valve on NG air vent or reposition NG** • Flush NG/G tube with 15 ml of normal saline Q4H • Flush blue vent on NG with 15 ml air post tube flushes • Flush J-tube Q4H and before and after medications with 30 ml water vigorously and adjust as recommended by dietician • Change neck dressing OD+PRN • ECG monitor (Telemetry) • Discontinue arterial line if not needed • Note if CVC, and/or peripheral IV maintenance	• **Alert and oriented as pre-op, no delirium** • **SpO2 within normal limits of titration protocol or on room air** • **Respiratory rate, rhythm and effort are stable** • **Breath sounds within expected parameters** • **Vital signs within expected parameters** • **Chest tube drainage minimal** • **No air leak or progressive subcutaneous emphysema** • **Chest tube site dressing dry and intact** • **No evidence of cardiac pain or evidence of new myocardial ischemia/infarction** • **No dysrhythmia requiring intervention** • **No evidence incision infections** • **IV patent and site free from pain, redness, swelling or discharge.** • **Functioning NG and J-tube**
Activity/Rest and/or ADLs • DB & C, incentive spirometry (3 breaths) Q30min while awake • HOB minimum 30° at all times • Up in chair BID • Ambulate with assistance x 1 as tolerated • Mouth care TID	• **Adequate sleep/rest** • **Performs ADL's with minimal assistance, demonstrates progressive activity** • **Effective deep breathing and coughing** • **Demonstrates exercises as per discharge pamphlet**
Pain • Epidural protocol • PCA protocol • Assess readiness to wean epidural/PCA • Start J-tube analgesia	• **Adequate pain control, pain (<4/10) is not interfering with mobilization and DB& C** • **Sedation score less than 3 and/or Respiratory Rate greater than 8/min** • **Epidural catheter intact, with dressing dry and intact**
Nutrition • J-tube feeds as per dietitian's orders • Daily weight	• **No nausea, vomiting, cramping or abdominal distension**
Elimination • Remove Foley catheter (if no appropriate indication for) • Catheter care/peri care BID • Bowel protocol as per PowerPlan	• **Urine output greater than 0.5-1.0 ml/kg/hr**

Post-Op Day 3	
Category / Focus / Care	**Desired Outcomes**
Discharge Planning/Teaching • Assess for issues affecting discharge and follow-up as appropriate • Ensure patient has all required teaching booklets, reinforce post op care plan • J-tube Care teaching (flushing and giving medications) • Dalteparin teaching • Review discharge plan and confirm date with CML	• **Patient understands usual post-op course, plan for pain management, and measures to prevent post-op complications – per patient education pamphlets** • **Patient & family understand discharge instructions per pamphlet and follow up plan/appointments**
Tests • CBC, electrolytes, glucose amylase, urea, creatinine, calcium, magnesium, phosphate QAM for 4 days ABGs (if arterial line in situ POD 1) • Chest X-ray daily x 4 days	• **Blood work and CXR completed and acceptable**
Treatments/ Assessments • Vital signs Q6H and PRN (as per POPS protocol) • Systems assessment Q12H and PRN • Intake and output Q6H • O2 to keep SaO2 >92% (wean as tolerated) • Chest tube removal (**Physician order required**) • Maintain chest tube suction as ordered • Monitor chest drainage/system Q1H, record chest drainage Q6H • Observe chest tube dressings Q shift • Surgical incisions open to air • NG to low continuous suction OR G tube to low intermittent suction; **do not use anti-reflux valve on NG air vent or reposition NG** • Flush NG/G tube with 15 ml of normal saline Q4H • Flush blue vent on NG with 15 ml air post tube flushes • Flush J-tube Q4H and before and after medications with 30 ml water vigorously and adjust as recommended by dietician • ECG monitor (Telemetry) • Note if CVC, and/or peripheral IV maintenance	• **Adequate rest/sleep** • **Alert and oriented as pre-op, no delirium** • **SpO2 within normal limits of titration protocol or on room air** • **Respiratory rate, rhythm and effort are stable** • **Breath sounds within expected parameters** • **Vital signs within expected parameters** • **Chest tube drainage minimal or chest tube removed** • **No air leak if chest tube present** • **No evidence of progressive subcutaneous emphysema** • **Chest tube site dressing dry and intact** • **No evidence of cardiac pain or evidence of new myocardial ischemia/infarction** • **No arrhythmia requiring intervention** • **No evidence of new myocardial ischemia/infarction** • **Incisions dry and intact, wound edges approximated** • **IV patent and site free from pain, redness, swelling or discharge** • **Functioning NG and J-tube**
Activity/Rest and/or ADLs • DB & C, incentive spirometry (3 breaths) Q30min while awake • HOB minimum 30° at all times • Up in chair for 1 hour x 2 • Ambulate with assistance BID • Mouth care TID	• **Adequate sleep/rest** • **Performs ADL's independently** • **Effective deep breathing and coughing** • **Demonstrates exercises as per discharge pamphlet**
Pain • Epidural protocol • PCA protocol • Assess readiness to wean epidural/PCA • Start J-tube analgesia	• **Adequate pain control, pain (<4/10) is not interfering with mobilization and DB& C** • **Sedation score less than 3 and/or Respiratory Rate greater than 8/min** • **Epidural catheter intact, with dressing dry and intact**
Nutrition • J-tube feeds as per dietitian's orders • Daily weight	• **No nausea, vomiting, cramping or abdominal distension**
Elimination • Bowel protocol as per PowerPlan	• **Urine output greater than 0.5-1.0 ml/kg/hr** • **Patient has had BM since surgery**

Post-Op Day 4	
Category / Focus / Care	**Desired Outcomes**
Discharge Planning/Teaching • Assess for issues affecting discharge and follow-up as appropriate • Ensure patient has all required teaching booklets, reinforce post op care plan • J-tube Care teaching (flushing and giving medications) • Dalteparin teaching • Review discharge plan and confirm date with CML	• **Patient understands usual post-op course, plan for pain management, and measures to prevent post-op complications – per patient education pamphlets** • **Patient & family understand discharge instructions per pamphlet and follow up plan/appointments**
Tests • CBC, electrolytes, glucose amylase, urea, creatinine, calcium, magnesium, phosphate QAM for 4 days ABGs (if arterial line in situ POD 1) • Chest X-ray daily x 4 days	• **Blood work and CXR completed and acceptable**
Treatments/ Assessments • Vital signs Q6H and PRN (as per POPS protocol) • Systems assessment Q12H and PRN • Intake and output Q6H • O2 to keep SaO2 >92% (wean as tolerated) • Chest tube removal (**Physician order required**) • Maintain chest tube suction as ordered • Monitor chest drainage/system Q1H, record chest drainage Q6H • Observe chest tube dressings Q shift • Surgical incisions open to air • NG to low continuous suction OR G tube to low intermittent suction; **do not use anti-reflux valve on NG air vent or reposition NG** • Flush NG/G tube with 15 ml of normal saline Q4H • Flush blue vent on NG with 15 ml air post tube flushes • Flush J-tube Q4H and before and after medications with 30 ml water vigorously and adjust as recommended by dietician • ECG monitor (Telemetry) • Note if CVC, and/or peripheral IV maintenance	• **Alert and oriented as pre-op, no delirium** • **SpO2 within normal limits of titration protocol or on room air** • **Respiratory rate, rhythm and effort are stable** • **Breath sounds within expected parameters** • **Vital signs within expected parameters** • **Chest tube drainage minimal or chest tube removed** • **No air leak if chest tube present** • **No evidence of progressive subcutaneous emphysema** • **Chest tube site dressing dry and intact** • **No evidence of cardiac pain or evidence of new myocardial ischemia/infarction** • **No arrhythmia requiring intervention** • **No evidence of new myocardial ischemia/infarction** • **Incisions dry and intact, wound edges approximated** • **IV patent and site free from pain, redness, swelling or discharge** • **Functioning NG and J-tube**
Activity/Rest and/or ADLs • DB & C, incentive spirometry (3 breaths) Q30min while awake • HOB minimum 30° at all times • Up in chair for 1 hour x 3 • Ambulate with assistance in hall > 3 times/day • Mouth care TID	• **Adequate sleep/rest** • **Performs ADL's independently** • **Effective deep breathing and coughing** • **Demonstrates exercises as per discharge pamphlet**
Pain • Epidural protocol • PCA protocol • Assess readiness to wean epidural/PCA • Start J-tube analgesia	• **Adequate pain control, pain (<4/10) is not interfering with mobilization and DB& C** • **Sedation score less than 3 and/or Respiratory Rate greater than 8/min** • **Epidural catheter intact, with dressing dry and intact**
Nutrition • J-tube feeds as per dietitian's orders	• **No nausea, vomiting, cramping or abdominal distension**
Elimination • Bowel protocol as per PowerPlan	• **Urine output greater than 0.5-1.0 ml/kg/hr** • **Patient has had BM since surgery**

Post-Op Day 5	
Category / Focus / Care	**Desired Outcomes**
Discharge Planning/Teaching • Assess for issues affecting discharge and follow-up as appropriate • Ensure patient has all required teaching booklets, reinforce post op care plan • J-tube Care teaching (flushing and giving medications) • Dalteparin teaching • Review discharge plan and confirm date with CML • Discharged – patient meets discharge criteria page 29	• **Patient understands usual post-op course, plan for pain management, and measures to prevent post-op complications – per patient education pamphlets** • **Patient & family understand discharge instructions per pamphlet and follow up plan/appointments**
Treatments/ Assessments • Vital signs Q12H and PRN (as per POPS protocol) • Systems assessment Q12H and PRN • Intake and output Q6H • O2 to keep SaO2 >92% (wean as tolerated) • Chest tube removal (**Physician order required**) • Maintain chest tube suction as ordered • Monitor chest drainage/system Q4H, record chest drainage Q6H • Observe chest tube dressings Q shift • Chest incisions open to air • NG to low continuous suction OR G tube to low intermittent suction; **do not use anti-reflux valve on NG air vent or reposition NG** • Flush NG/G tube with 15 ml of normal saline Q4H • Flush blue vent on NG with 15 ml air post tube flushes • Flush J-tube Q4H and before and after medications with 30 ml water vigorously and adjust as recommended by dietician • ECG monitor (Telemetry) • Discontinue CVC if not needed • Note peripheral IV maintenance	• **Alert and oriented as pre-op, no delirium** • **SpO2 within normal limits of titration protocol or on room air** • **Respiratory rate, rhythm and effort are stable** • **Breath sounds within expected parameters** • **Vital signs within expected parameters** • **Chest tube site drainage minimal or chest tube removed** • **No air leak if chest tube present Or evidence of progressive subcutaneous emphysema** • **Chest tube site dressing dry and intact** • **No evidence of cardiac pain or evidence of new myocardial ischemia/infarction** • **No arrhythmia requiring intervention** • **No evidence of new myocardial ischemia/infarction** • **Surgical incisions dry and intact, wound edges approximated** • **IV patent and site free from pain, redness, swelling or discharge**
Activity/Rest and/or ADLs • DB & C, incentive spirometry (3 breaths) Q30min while awake • HOB minimum 30° at all times • Up in chair > 3 hours/day (and for all meals) • Ambulate with assistance in hall > 3 times/day • Mouth care TID	• **Adequate sleep/rest** • **Performs ADL's independently** • **Effective deep breathing and coughing** • **Demonstrates exercises as per discharge pamphlet**
Pain • J-tube analgesia prn	• **Adequate pain control, pain (<4/10) is not interfering with mobilization and DB & C** • **Sedation score less than 3 and/or Respiratory Rate greater than 8/min**
Nutrition • J-tube feeds as per dietitian's orders • Gastrograffin swallow test • Clear fluids if passes swallow test	• **No nausea, vomiting, dysphagia, acid reflux, cramping or abdominal distention** • **Tolerating 50% of oral diet**
Elimination • Bowel protocol as per PowerPlan	• **Urine output greater than 0.5-1.0 ml/kg/hr** • **Patient has had BM since surgery**

Post-Op Day 6	
Category / Focus / Care	**Desired Outcomes**
Discharge Planning/Teaching • Assess for issues affecting discharge and follow-up as appropriate • Ensure patient has all required teaching booklets, reinforce post op care plan • J-tube Care teaching (flushing and giving medications) • Dalteparin teaching • Review discharge plan and confirm date with CML • Discharged – patient meets discharge criteria page 29	• **Patient understands usual post-op course, plan for pain management, and measures to prevent post-op complications – per patient education pamphlets** • **Patient & family understand discharge instructions per pamphlet and follow up plan/appointments**
Treatments/ Assessments • Vital signs Q12H and PRN (as per POPS protocol) • Systems assessment Q12H and PRN • Intake and output Q6H • O2 to keep SaO2 >92% (wean as tolerated) • Surgical incisions open to air • NG to low continuous suction OR G tube to low intermittent suction; **do not use anti-reflux valve on NG air vent or reposition NG** • Flush NG/G tube with 15 ml of normal saline Q4H • Flush blue vent on NG with 15 ml air post tube flushes • Flush J-tube Q4H and before and after medications with 30 ml water vigorously and adjust as recommended by dietician • Discontinue ECG monitor (Telemetry) if no longer indicated • Discontinue peripheral IV/saline lock if not needed and epidural out	• **Alert and oriented as pre-op, no delirium** • **SpO2 within normal limits of titration protocol or on room air** • **Respiratory rate, rhythm and effort are stable** • **Breath sounds within expected parameters** • **Vital signs within expected parameters** • **Surgical and CT site Incisions dry and intact, wound edges approximated** • **Functioning J-tube**
Activity/Rest and/or ADLs • DB & C, incentive spirometry (3 breaths) Q30min while awake • HOB minimum 30° at all times • Up in chair > 3 hours/day (and for all meals) • Ambulate with assistance in hall > 3 times/day • Mouth care TID	• **Adequate sleep/rest** • **Performs ADL's independently** • **Effective deep breathing and coughing** • **Demonstrates exercises as per discharge pamphlet**
Pain • PO analgesia prn	• **Adequate pain control, pain (<4/10) is not interfering with mobilization and DB & C** • **Sedation score less than 3 and/or Respiratory Rate greater than 8/min**
Nutrition • J-tube feeds as per dietitian's orders • Oral diet as tolerated (esophageal surgery diet)	• **No nausea, vomiting, dysphagia, acid reflux, cramping or abdominal distention** • **Tolerating 50% of oral diet**
Elimination • Bowel protocol as per PowerPlan	• **Urine output greater than 0.5-1.0 ml/kg/hr** • **Patient has had BM since surgery**

Post-Op Day 7	
Category / Focus / Care	**Desired Outcomes**
Discharge Planning/Teaching • Assess for issues affecting discharge and follow-up as appropriate • Ensure patient has all required teaching booklets, reinforce post op care plan • J-tube Care teaching (flushing and giving medications) • Dalteparin teaching • Review discharge plan and confirm date with CML • Discharged – patient meets discharge criteria page 29	• **Patient understands usual post-op course, plan for pain management, and measures to prevent post-op complications – per patient education pamphlets** • **Patient & family understand discharge instructions per pamphlet and follow up plan/appointments**
Treatments/ Assessments • Vital signs Q12H and PRN (as per POPS protocol) • Systems assessment Q12H and PRN • Intake and output Q6H • O2 to keep SaO2 >92% (wean as tolerated) • Surgical incisions open to air • Flush J-tube Q4H and before and after medications with 30 ml water vigorously and adjust as recommended by dietician	• **Alert and oriented as pre-op, no delirium** • **SpO2 within normal limits of titration protocol or on room air** • **Respiratory rate, rhythm and effort are stable** • **Breath sounds within expected parameters** • **Vital signs within expected parameters** • **Surgical and CT site Incisions dry and intact, wound edges approximated** • **Functioning J-tube**
Activity/Rest and/or ADLs • DB & C, incentive spirometry (3 breaths) Q30min while awake • HOB minimum 30° at all times • Ambulate independently • Mouth care TID • Up in chair for all meals	• **Adequate sleep/rest** • **Performs ADL's independently** • **Effective deep breathing and coughing** • **Demonstrates exercises as per discharge pamphlet**
Pain • PO analgesia prn	• **Adequate pain control, pain (<4/10) is not interfering with mobilization and DB & C** • **Sedation score less than 3 and/or Respiratory Rate greater than 8/min**
Nutrition • J-tube feeds as per dietitian's orders • Oral diet as tolerated (esophageal surgery diet)	• **No nausea, vomiting, dysphagia, acid reflux, cramping or abdominal distention** • **Tolerating 75% of oral diet**
Elimination • Bowel protocol as per PowerPlan	• **Urine output greater than 0.5-1.0 ml/kg/hr** • **Patient has had BM since surgery**

Post-Op Day 8	
Category / Focus / Care	**Desired Outcomes**
Discharge Planning/Teaching • Assess for issues affecting discharge and follow-up as appropriate • Ensure patient has all required teaching booklets, reinforce post op care plan • J-tube Care teaching (flushing and giving medications) • Dalteparin teaching • Review discharge plan and confirm date with CML • Discharged – patient meets discharge criteria page 29	• **Patient understands usual post-op course, plan for pain management, and measures to prevent post-op complications – per patient education pamphlets** • **Patient & family understand discharge instructions per pamphlet and follow up plan/appointments**
Treatments/ Assessments • Vital signs Q12H and PRN (as per POPS protocol) • Systems assessment Q12H and PRN • Intake and output Q6H • O2 to keep SaO2 >92% (wean as tolerated) • Surgical incisions open to air • Flush J-tube Q4H and before and after medications with 30 ml water vigorously and adjust as recommended by dietician	• **Alert and oriented as pre-op, no delirium** • **SpO2 within normal limits of titration protocol or on room air** • **Respiratory rate, rhythm and effort are stable** • **Breath sounds within expected parameters** • **Vital signs within expected parameters** • **Surgical and CT site Incisions dry and intact, wound edges approximated** • **Functioning J-tube**
Activity/Rest and/or ADLs • DB & C, incentive spirometry Q1H while awake • HOB minimum 30° at all times • Ambulate independently • Mouth care TID • Up in chair for all meals	• **Adequate sleep/rest** • **Performs ADL's independently** • **Effective deep breathing and coughing** • **Demonstrates exercises as per discharge pamphlet**
Pain • PO analgesia prn	• **Adequate pain control, pain (<4/10) is not interfering with mobilization and DB & C** • **Sedation score less than 3 and/or Respiratory Rate greater than 8/min**
Nutrition • J-tube feeds as per dietitian's orders • Oral diet as tolerated (esophageal surgery diet)	• **No nausea, vomiting, dysphagia, acid reflux, cramping or abdominal distention** • **Tolerating 75% of oral diet**
Elimination • Bowel protocol as per PowerPlan	• **Urine output greater than 0.5-1.0 ml/kg/hr** • **Patient has had BM since surgery**

Post-Op Day 9, 10, 11, 12	
Category / Focus / Care	**Desired Outcomes**
Discharge Planning/Teaching • Assess for issues affecting discharge and follow-up as appropriate • Ensure patient has all required teaching booklets, reinforce post op care plan • J-tube Care teaching (flushing and giving medications) • Dalteparin teaching • Review discharge plan and confirm date with CML • Discharged – patient meets discharge criteria page 29	• **Patient understands usual post-op course, plan for pain management, and measures to prevent post-op complications – per patient education pamphlets** • **Patient & family understand discharge instructions per pamphlet and follow up plan/appointments**
Treatments/ Assessments • Vital signs Q12H and PRN (as per POPS protocol) • Systems assessment Q12H and PRN • Intake and output Q6H • O2 to keep SaO2 >92% (wean as tolerated) • Surgical incisions open to air • Flush J-tube Q4H and before and after medications with 30 ml water vigorously and adjust as recommended by dietician	• **Alert and oriented as pre-op, no delirium** • **SpO2 within normal limits of titration protocol or on room air** • **Respiratory rate, rhythm and effort are stable** • **Breath sounds within expected parameters** • **Vital signs within expected parameters** • **Surgical and CT site Incisions dry and intact, wound edges approximated** • **Functioning J-tube**
Activity/Rest and/or ADLs • DB & C, incentive spirometry Q1H while awake • HOB minimum 30° at all times • Ambulate independently • Mouth care TID • Up in chair for all meals	• **Adequate sleep/rest** • **Performs ADL's independently** • **Effective deep breathing and coughing** • **Demonstrates exercises as per discharge pamphlet**
Pain • PO analgesia prn	• **Adequate pain control, pain (<4/10) is not interfering with mobilization and DB & C** • **Sedation score less than 3 and/or Respiratory Rate greater than 8/min**
Nutrition • J-tube feeds as per dietitian's orders • Oral diet as tolerated (esophageal surgery diet)	• **No nausea, vomiting, dysphagia, acid reflux, cramping or abdominal distention** • **Tolerating 75% of oral diet**
Elimination • Bowel protocol as per PowerPlan	• **Urine output greater than 0.5-1.0 ml/kg/hr** • **Patient has had BM since surgery**

Discharge Criteria (must be completed on discharge)
• Pamphlet: Before and After Your Esophagectomy • Weigh patient on day of discharge • Prescription(s) and discharge medication reconciliation form given – new medication reviewed with patient • Patient instructed on pain management strategies and how to wean from pain medicines at home • Patient instructed on bowel management while taking narcotics • My Discharge Plan given to patient • Dalteparin teaching completed if indicated (Esophagectomy for malignancy: Patient to go home on Dalteparin for total of 28 days from date of surgery). • Surgical incision(s) well approximated, free of redness and drainage • Incision staples can be removed 5-7 days after surgery. If patient going home with staples, give patient staple remover to have staples removed in GP office • CT site free of redness and drainage and **suture removed**. *Suture can be removed 5 days after chest tube removal, if site healing. If patient is discharged with suture give patient sterile scissors to have suture removed in GP office • ADLs performed to an acceptable level (close to baseline) prior to discharge • Pamphlet: Caring for Your Jejunostomy Tube

Developed By

Effective Date:	
Posted Date:	
Last Revised:	
Last Reviewed:	
Approved By:	
	Endorsed By: **Final Sign Off:**
Owners:	VCH
	Developer Lead(s): • Patient Care Coordinator, Chest Centre T12 & LB8D, VGH