| Doc ID: | Title: MIS VATS Esophagectomy | Effective Date: 2/6/2018 |
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| Revision # n/a | Prepared By: Meredith Sturges and Arielle Butterly | Next Review Date: 2/6/2018 |
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| [x] Spectrum HCP | [ ] Divisional | [X] Departmental |
| Policy | [ ] Procedure | [X] Guideline |

## Purpose:

To standardize the care and treatment of patients undergoing Minimally Invasive Surgical Video Assisted Thoracoscopic (MIS VATS) Esophagectomy

## Scope:

Applies to vascular thoracic patients cared for at Maine Medical Center

## Guideline:

(1) All patients are considered full stomachs; RSI, HOB >30 degrees at all times for intubation/extubation/tube exchanges
(2) All patients get arterial lines, site not specified
(3) CVC only placed if patient's comorbidities warrant central line-discuss location with team if neck anastomosis planned. Large bore IV access required.
(4) T&S only
(5) Temperature Management; Foley temperature probe, fluid warming blanket on bed, lower body Bair hugger, fluid warmer
(6) Avoid vasoconstrictors for a theoretical risk to anastomosis once left gastric artery divided. Use crystalloid for hypotension, often up to 5-6 L given for case (2-3 L by flip to supine). Goal MAP of 70mmHg, but this can be hard to achieve. Highly encourage conversation with team for continued hypotension despite adequate fluid administration
(7) Low Tidal Volume (2-4 ml/kg) and low FiO2 (titrate to SaO2 >90%) for OLV, as patient tolerates
(8) NO Positive Pressure Ventilation after extubation, including high flow nasal cannula therapy in PACU (which may provide PEEP)
(9) Pain Management: Surgeon will place OnQ ball if thoracotomy required. If high suspicion of going open, patient may need consented for postop epidural (keep in mind SQ heparin is given preoperatively). If approach remains MIS, IV opioids are adequate for pain relief +/- OnQ ball
(10) Changing from SLT to DLT
a. Aspiration risk remains. Keep head elevated and suction available
b. Options for placement of DLT:
i. direct visualization
ii. tube exchanger:
The regular blue exchange catheters will not work. You need the long, soft tipped tube exchangers (Cook):
1. 14 Fr Tube Exchanger soft tip fits 37-41 DLT

2. 11 Fr Tube Exchanger soft tip fits 35 DLT
3. Need wire for 32 DLT (0.035 diameter wire 150cm) – and pedi fiber optic scope
(11) NG placement confirmed by surgeon after anastomosis and MUST REMAIN in place. Secure NG with nasal bridle. This can be obtained from the OR RN
(12) Patients generally recover in PACU

Procedure Order
-Straight to DLT.
-Surgeon will perform EGD to verify anatomy and tumor size and location. Surgeon will place NG (18 Fr) at this time but will move several times before needing secured at the end of the case
-Patient placed prone with slight right bump on bean bag, head facing right on shea. Arms above head at 90 degrees at shoulders and elbows
-R VATS with 3 ports for dissection of esophagus off chest wall
-Pt is then flipped supine for laparoscopic portion to preform partial gastrectomy, partial esophagectomy
-Switch to SLT (8.0 ETT) for bronchoscopy. This is done to verify no injury to bronchus and to clear pulmonary secretions
-Following abdominal portion, anastomosis done thru neck incision most frequently (can be done in chest- i.e. Ivor Lewis). NO noninvasive PPV can be used after anastomosis complete due to risk for anastomotic rupture.
-Transfer to PACU with low threshold for reintubation in the event of respiratory distress

## References: