General Thoracic Surgery
Postoperative Events

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Nichole Arcaro – No Disclosures
David Wormuth – Consultant/Advisory Board Consulting on IQVIA Migration with STS
SeqNo 3310: Postoperative Events Occurred

• Capture events that occur at any time during the hospitalization regardless of length of stay
• Capture events that occur within 30 days of the surgery date once discharged from the hospital

• Events during a “Readmission” truncate at the 30th POD from index procedure
  • The operative day is day 0
Clarification: “Double Counting”

• All applicable events are captured
  • The risk model is “all or nothing”
  • Collect all data elements applicable to the event

• Examples
  • Unanticipated postoperative invasive procedure (3330) for bronchopleural fistula (3340) and pulmonary event bronchopleural fistula (3490)
  • Unanticipated postoperative invasive procedure (3330) for empyema (3340) and empyema requiring treatment (3730)
  • Unanticipated postoperative invasive procedure (3330) for other (3340) and tracheostomy (3530)
SeqNo 3330: Unanticipated Post-Operative Invasive Procedure

- Collect all unplanned procedures
- Do not include staged procedures
- Do not limit procedures to the operating room
  - Invasive procedures may be done at the bedside
- Do not include postoperative toilet bronchoscopy, central venous access, arterial line placement, or foley catheter placement
SeqNo 3340: Primary Reason for procedure

- Survey Question – tells us the prime focus of the procedure
  - Bleeding
  - Bronchopleural Fistula
  - Empyema
  - Middle lobectomy for torsion
  - Conduit necrosis/failure following esophageal surgery
  - Other

- NB: Code details in other fields as appropriate
Anastomotic Leaks

• Medical (SeqNo 3620)
• Surgical (SegNos 3350, 3360, 3370, 3380)
  • 3350 – Anastomotic leak following esophageal surgery (Yes or No)
    • If Yes
      • 3360 – Anastomotic leak – surgical drainage and repair (Yes or No)
      • 3370 -- Anastomotic leak – stent placement (Yes or No)
      • 3380 -- Anastomotic leak – additional chest tube placement (Yes or No)
        • (excludes placement by IR)
Medical Anastomotic Leaks (SeqNo 3620)

• Minor leaks able to be managed with existing drains and/or placement of an IR pigtail/drain with image guidance
• Infection (SSI SeqNo 3740) is assumed with this code, not necessary to indicate 3740 as well
• Usually will have prolonged NG placement and NPO status.
• Does NOT require any other invasive procedure (Stent, Reoperation etc)
Surgical Leaks (SegNo 3350, 3360, 3370, 3380)

• Only exposed if you code Yes to “Unanticipated Post-Operative Invasive Procedure” (SeqNo 3330) – anything but toilet bronchoscopy, central line, art line or foley catheter is a Yes

• Somewhat illogically, going to IR and having a pigtail placed does NOT count as Surgical Management at this point in time
  • Not an Anastomotic Leak – Additional Chest Tube Placement (SeqNo 3380) by definition per the Training Manual V2.41 October 14, 2019 version
Surgical Leaks – Management Questions

3350 – Anastomotic leak following esophageal surgery (Yes or No)
  • If Yes
    • 3360 – Anastomotic leak – surgical drainage and repair (Yes or No)
      • IE, return to OR to attempt correction of the leak
    • 3370 – Anastomotic leak – stent placement (Yes or No)
      • IE, insertion of intraesophageal stent to seal leak from inside
    • 3380 – Anastomotic leak – additional chest tube placement (Yes or No)
      • (excludes placement by IR)
      • Chest tube at bedside, new site insertion of a chest tube
SeqNo 3430: Air leak > 5 days duration

- Indicate whether the patient experienced a postoperative air leak for more than five days
- Air leaks present pre-op do not count
- Days must be consecutive
- Count from the day the air leak was documented to when the chest tube comes out, even if the patient went home
SeqNos 3520 and 3480: Vent 48 Hr and Resp Fail

• Reintubation – at any point after leaving the OR beats time
• Only use 3520 for a patient that was kept intubated for more than 48 hours from end of case
  • Includes a tube change from double lumen to single lumen at the end of the case
• Use 3480 for a patient that failed any degree of extubation attempt after leaving the OR
• You would only use 3520 AND 3480 for a patient that was extubated more than 48 hours from OR and then had to be reintubated at a point of time after the initial extubation
SeqNo 3560: Atrial Arrhythmia Requiring Treatment

• Should really include the word “New” and lose “Requiring Treatment”

• Capture NEW onset of atrial arrhythmias (Atrial Fib, Flutter, SVT) FOLLOWING surgery
  • Include any episode of A-Fib lasting longer than one (1) hour and/or requiring treatment
SeqNo 3820: Medical Chylothorax

• Chylothorax Requiring Medical Intervention (Only)
  • Answer Yes if only medical treatments were required
  • Answer No if a surgical intervention was done
    • Per the Training Manual V2.41 October 14, 2019 version

• You might have wanted both as typically medical treatments are continued even if surgical treatment was done as well.
  • Belt and suspender’s approach
Capturing “Other”

• Events that extend the length of stay or impact the patient’s outcome
STS Composite Quality Rating: Postoperative Events for Lobectomy for Lung Cancer

<table>
<thead>
<tr>
<th>Major complication endpoint</th>
<th>Seq. no 2.3</th>
<th>Seq. no 2.41</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonia</td>
<td>1780</td>
<td>3460</td>
</tr>
<tr>
<td>Acute Respiratory Distress Syndrome</td>
<td>1790</td>
<td>3470</td>
</tr>
<tr>
<td>Bronchopleural Fistula</td>
<td>1810</td>
<td>3490</td>
</tr>
<tr>
<td>Pulmonary Embolus</td>
<td>1820</td>
<td>3500</td>
</tr>
<tr>
<td>Initial Ventilator Support &gt; 48 hours</td>
<td>1840</td>
<td>3520</td>
</tr>
<tr>
<td>Reintubation</td>
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<td>3480</td>
</tr>
<tr>
<td>Tracheostomy</td>
<td>1860</td>
<td>3530</td>
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<tr>
<td>Myocardial Infarction</td>
<td>1900</td>
<td>3580</td>
</tr>
<tr>
<td>Unexpected Return to the OR</td>
<td>1720</td>
<td>3330</td>
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</tbody>
</table>
## STS Composite Quality Rating: Postoperative Events for Esophagectomy

<table>
<thead>
<tr>
<th>Major complication endpoint</th>
<th>Seq. no 2.3</th>
<th>Seq. no 2.41</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonia</td>
<td>1780</td>
<td>3460</td>
</tr>
<tr>
<td>Recurrent laryngeal nerve paresis</td>
<td>2100</td>
<td>3780</td>
</tr>
<tr>
<td>Anastomotic leak requiring medical treatment only</td>
<td>1950</td>
<td>3620</td>
</tr>
<tr>
<td>Initial Ventilator Support &gt; 48 hours</td>
<td>1840</td>
<td>3520</td>
</tr>
<tr>
<td>Respiratory Failure</td>
<td>1800</td>
<td>3480</td>
</tr>
<tr>
<td>Unexpected Return to the OR</td>
<td>1720</td>
<td>3330</td>
</tr>
<tr>
<td>New renal failure per RIFLE criteria</td>
<td>2140</td>
<td>3810</td>
</tr>
</tbody>
</table>
Tracheal Resection Additional Events

• The Tracheal Resection module contains additional postoperative events intended for collection within 30 days of surgery or during the same admission if not discharged within 30 days

Additional Post-Operative Events

- Anastomotic dehiscence requiring drainage, revision, stent, tracheostomy, T-tube
- Anastomotic Dehiscen (2740)
- Anastomotic stricture requiring intervention
- Anastomotic Stricture (2750)
- Airway obstruction requiring intervention (e.g., unscheduled bronchoscopy)
- Airway Obstruct (2760)
- Recurrent nerve palsy
- Nerve Palsy Recurr (2770)
- Did the patient leave the hospital with tracheal appliance? (tracheostomy, T-tube or stent) Tracheal Appliance (2780)
Thank you for your attention!