PULMONARY VARIABLE UPDATE 2013

Unplanned Re-intubation
Structural Pulmonary/Airway Abnormalities
Unplanned Intubation

Unplanned Intubation/Reintubation with Ventilatory Support:

Patient required placement of an endotracheal tube or other similar breathing tube [Laryngeal Mask Airway (LMA), nasotracheal tube, orotracheal tube] and ventilatory support which was not intended or planned.
Unplanned Intubation

• The variable intent is to capture all-cause unplanned intubations, including but not limited to unplanned intubations for refractory hypotension, cardiac arrest, or inability to protect airway.

• All endotracheal reintubations are assigned regardless of cause. Accidental self-extubations requiring reintubation, or endotracheal tube replacement for mucous plug/concern for tube dislodgement would be included.
Unplanned Intubation

- Accidental self-extubations requiring reintubation, or endotracheal tube replacement for mucous plug/concern for tube dislodgement would be included.

- Emergency tracheostomy would be assigned.

NOTE:
During weaning trials, patients who were extubated and subsequently reintubated would be assigned; patients who undergo time off the ventilator, remain intubated, fail the trial, and were placed back on the ventilator without extubation would not be assigned
Unplanned Intubation

**Unplanned return to OR***:
Intubations for an unplanned return to the OR would not be assigned, as the intubation was planned; it was the return to the OR which was unplanned.

- In patients who were intubated for a return to the OR for a surgical procedure, unplanned intubation occurs after they have been extubated following surgery.
- In patients who were not intubated for a return to the OR, intubation at any time after their surgery was completed should be considered unplanned.
- If a patient was intubated for respiratory or cardiovascular instability prior to an unplanned return to the OR, the intubation would be assigned as unplanned.

*Unplanned return to the OR includes operations performed at the bedside (e.g. NICU, PICU).
Unplanned Intubation

Tracheostomy:
- Patients with newly placed tracheostomy would be assigned if tracheostomy was dislodged prior to the first planned change.
- Patients with a chronic/long-term tracheostomy would not be assigned, unless the tracheostomy tube itself was removed, and the patient required reintubation (endotracheal tube) or an emergency tracheostomy due to inability to cannulate existing tracheostomy tract. Uneventful chronic tracheostomy replacement (planned or unplanned) would not be assigned.
- Patients with a chronic/long-term tracheostomy who were not preoperatively mechanically ventilated, and were postoperatively off of mechanical ventilation but require resumption of mechanical ventilation due to cardiovascular or respiratory instability would be assigned. Patients with tracheostomy who were on preoperative mechanical ventilatory support would not be assigned in this scenario.
Unplanned Intubation

Examples to assign variable:

• 1 month old infant with diagnosis of hyperinsulemia who underwent 95% pancreatic resection and was extubated to 5L/min high-flow nasal cannula (HFNC). That afternoon, the patient had oxygen desaturation to 70% and then 30%; patient was apneic and clamping down. Respiratory therapy was at bedside and hand-ventilated with bag and mask; patient suctioned and reintubated with 3.5 ETT tube.

• Long-term tracheostomy patient who was off of the ventilator for one year underwent gastrostomy revision in OR. Postoperatively, he was on humidified oxygen per tracheostomy collar. On postoperative day 3, his respiratory rate was 60, and oxygen saturation dropped to 30%; the patient was emergently placed on ventilator.
Unplanned Intubation

Examples to assign:

• 34 week old (former 27 week gestation) baby remained on ventilator following colectomy. Patient was extubated but failed trial on nasal CPAP (not via ET tube). He had increased work of breathing and was reintubated.

• Patient with an old tracheostomy tract was endotracheally intubated but had a large leak from the tracheostomy tract. An attempt to place the endotracheal tube more inferiorly caused decreased ventilation. The endotracheal tube was removed, and the patient was masked. The dressing over the old tracheostomy tract was removed, and a tracheostomy tube was replaced through his existing tracheocutaneous fistula.
Unplanned Intubation

Examples NOT to assign:

- 33 week old (former 27 week gestation) who remained on ventilator following colectomy. Patient remained intubated during weaning trials but failed trial on ventilator CPAP. He had increased work of breathing, and ventilatory support was resumed with rate of 45, I-time 0.4, volume control TV 12-14 ml.

- 10 year old patient with glioma S/P ventriculostomy. Patient did well on oxygen mask trial; however, she was noted to have desaturations and was placed on BiPAP.

- 4 year old chronic tracheostomy/ventilator patient is postoperative from gastrostomy tube revision; tracheostomy is dislodged and replaced without difficulty.
Unplanned Intubation

Summary

- Intubation postoperatively, include
  - Intubation with ventilatory support once patient extubated
  - Endotracheal tube change (e.g. for kinking, dislodgement, mucous plugging)
- For tracheostomy patients, include
  - Emergent tracheostomy
  - New tracheostomy –tube change prior to 1st planned tracheostomy change
  - Old tracheostomy
    - Institution of ventilatory support (if patient not on chronic ventilatory support and off of ventilatory support postop)
    - Endotracheal intubation (if tracheostomy not able to be placed)
- Return to OR
  - Include if intubated prior to return to OR
  - Do not include intubation in OR for procedure itself
Structural Pulmonary/Airway Abnormality

**Structural Pulmonary/Airway Abnormalities:** Presence of structural pulmonary and/or airway abnormality with or without respiratory compromise.

- The intent of this variable is to capture anatomic conditions with potential for physiologic compromise that impact anesthetic/operative risk.

- See list of diagnoses by anatomic region below. Additional Structural Pulmonary/Airway diagnoses not found in the list should be compiled by the SCRs and sent to Clinical Support for review by the Data Definition Structural Pulmonary/Airway Subcommittee.
Structural Pulmonary/Airway Abnormality

**Rationale:**
Structural Pulmonary/Airway variable covers a wide range of pediatric diagnoses. Revisions attempt to provide schematic framework for inclusion of specific diagnoses within variable definition.

Severity of included disorders may improve with time (e.g. pleural effusion, tracheomalacia, pulmonary hypoplasia) or treatment (resection of compressive masses). However, lack of consistent diagnostic criteria for some disorders and difficulty in extracting from medical chart impede determining disease severity.
Structural Pulmonary/Airway Abnormality

**Current /Unrepaired/Unresected/Recurrent**
Include the diagnoses in the list below only if the lesion/condition is a current diagnosis at the time of surgery (treatment/repair/resection has not occurred or been completed).

*Upper airway* – mass effect or lesion/structural abnormality of pharynx/larynx
- Neck tumors with airway compression (e.g. teratoma, cystic hygroma/lymphangioma), laryngeal cleft, cricoid stenosis, subglottic stenosis, papillomas/intraluminal tumors, Pierre-Robin/hypoplastic mandible
- Obstructive sleep apnea – must have abnormal sleep study (polysomnography) or nocturnal pulse oximetry within 1 year, or prescribed treatment (e.g. CPAP) at the time of surgery

**Note:** Cleft palate is **not** included.
Structural Pulmonary/Airway Abnormality

Current / Unrepaired / Unresected / Recurrent

Lower airway – mass effect or lesion/structural abnormality of trachea/bronchus

- Neck or mediastinal tumor/mass compressing trachea/bronchus (e.g. lymphangioma, anterior mediastinal mass, bronchogenic cyst), tracheal/bronchial stenosis, bronchial atresia, papillomas/intraluminal tumors
Structural Pulmonary/Airway Abnormality

Current / Unrepaired / Unresected / Recurrent

**Pulmonary/parenchymal** – mass effect or lesion/structural abnormality/disease of lung parenchyma

- Mass effect – bronchogenic/foregut duplication cyst, congenital (CDH) or acquired diaphragmatic hernia, diaphragmatic eventration/paralysis
- Intrathoracic lesion – CCAM/CPAM, pneumatocele, blebs/bullae, pulmonary abscess/cavitation, intrathoracic pulmonary sequestration
- Pulmonary disease – congenital lobar emphysema, bronchiectasis

- Once treated, many of these lesions are unlikely to affect patient’s operative risk
Structural Pulmonary/Airway Abnormality

Acute
Include the diagnoses in the list below if there is documentation that meets the criteria listed:

Pulmonary/parenchymal
• Mass effect – pneumothorax, pleural effusion (including empyema, hemothorax, chylothorax) present within 7 days of surgery treated or to be treated. Do NOT include if no treatment is initiated/planned.
  • Limit to within 7 days of surgery – avoid searching record for past events that do not impact patient’s operative risk
  • Treated or to be treated – avoid collection of “trivial” pneumothorax or pleural effusion
### Structural Pulmonary/Airway Abnormality

**Chronic**
Include the diagnoses in the list below if recorded in the medical record any time prior to surgery:

*Upper airway* – mass effect or lesion/structural abnormality of pharynx/larynx (e.g. Laryngomalacia, vocal cord paralysis)

*Lower airway* – mass effect or lesion/structural abnormality of trachea/bronchus (e.g. Tracheomalacia, bronchomalacia)

*Pulmonary/parenchymal* – mass effect or lesion/structural abnormality/disease of lung parenchyma
  - Pulmonary disease – pulmonary hypoplasia (e.g. CDH, cystic-dysplastic kidneys)
  - Prior pulmonary resection – pneumonectomy, lobectomy (2 or more)
<table>
<thead>
<tr>
<th>Location</th>
<th>Mechanism</th>
<th>Examples</th>
<th>Inclusion Criteria</th>
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<tbody>
<tr>
<td>Upper airway (pharynx/larynx)</td>
<td>Mass effect</td>
<td>Neck tumor (e.g. teratoma, cystic hygroma/lymphangioma) with airway compression</td>
<td>Current/unresected</td>
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<td></td>
<td>Lesion/structural abnormality</td>
<td>Obstructive sleep apnea</td>
<td>Currently treated or abnormal study (sleep, nocturnal pulse oximetry) within 1 year</td>
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<tr>
<td></td>
<td></td>
<td>Laryngomalacia</td>
<td>All</td>
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<td>Vocal cord paralysis</td>
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<td>Laryngeal cleft</td>
<td>Current/unrepaired</td>
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<td>Cricoid stenosis</td>
<td>Current/unrepaired</td>
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<td>Subglottic stenosis</td>
<td>Current/unrepaired</td>
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<td>Papillomas/intraluminal tumor</td>
<td>Current/unresected</td>
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<td>Hypoplastic mandible (Pierre-Robin syndrome)</td>
<td>Current/unrepaired</td>
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<td>Lower airway (trachea/bronchus)</td>
<td>Mass effect</td>
<td>Tumor/mass compressing trachea/bronchus (e.g. anterior mediastinal mass, lymphangioma, bronchogenic cyst)</td>
<td>Current/unresected</td>
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<td>Lesion/structural abnormality</td>
<td>Tracheomalacia</td>
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<td>Bronchomalacia</td>
<td>All</td>
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<td>Tracheal stenosis</td>
<td>Current/unrepaired</td>
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<td>Bronchial stenosis</td>
<td>Current/unrepaired</td>
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<td>Bronchial atresia</td>
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<td>Papillomas/intraluminal tumor</td>
<td>Current</td>
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<td>Mass effect</td>
<td>Pneumothorax</td>
<td>Within 7 days</td>
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<td>Bronchogenic/foregut duplication cyst</td>
<td>Current/unresected</td>
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<td>Congenital or acquired diaphragmatic hernia</td>
<td>Current/unrepaired/recurrent</td>
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<td>Diaphragmatic eventration/paralysis</td>
<td>Current</td>
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<td>Lesion</td>
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<td>Blebs/bullae</td>
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<td>Pulmonary abscess/cavitation</td>
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<td>Intrathoracic pulmonary sequestration</td>
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<td>Current/unresected</td>
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<td>Disease</td>
<td>Pulmonary hypoplasia</td>
<td>All</td>
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<td>Congenital lobar emphysema</td>
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<td>Current</td>
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<td></td>
<td>Bronchiectasis</td>
<td>Current</td>
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<td>Prior pulmonary resection</td>
<td>Pneumonectomy</td>
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<td>Lobectomy (2 or more)</td>
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VARIABLE CHANGES

For
January 2013
Additional Anesthesia Technique(s)

Select from the list below any additional anesthesia techniques used.

• (1) General – (including IV anesthesia with intubation or Laryngeal Mask Airway/LMA)
• (2) Spinal
• (3) Epidural
• (4) Caudal
• (5) Regional
• (6) Local – (usually performed by the surgeon)
• (7) Other
MIS Code Variable

Currently the options of

**Code 43659** (UNLISTED LAPAROSCOPY PROCEDURE, STOMACH) and
Other

**N/A** option is being added for codes that already have a code specific for the minimally invasive approach.
MIS Code Variable

MIS code variable:
Choose the appropriate option in the drop down box for the MIS code variable:
• 43659 code
• Other
• N/A

1) In the MIS/Laparoscopic code field, choose the code 43659, if this was the original CPT code assigned to the case.
2) Choose other if a different “unspecific” CPT code is assigned to the case where the equivalent open code was assigned as the CPT code and on the inclusion list
3) Choose N/A if the CPT code assigned to the case
Pre operative Information Exception

In the scenario where an **urgent** or **emergent** surgery is performed and the situation does not allow for complete preoperative documentation of a history and physical (H&P), information from the H&P, which was dictated postoperatively but within 48 hours of the Principal Operative Procedure, may be utilized to assign preoperative variables. Such documentation must describe the patient’s previous medical history.

Information derived solely as a result of the Principal Operative Procedure or established during the postoperative timeframe may not be utilized, unless a particular variable specifically allows it.

*This guidance resembles current Centers for Medicare and Medicaid (CMS) rules*
Pre operative Information Exception

- Scenarios to Clarify (Assign):

10 year old patient requires an emergent appendectomy. The emergent nature of the procedure does not allow for complete preoperative documentation of the patient’s previous medical history. Patient has 18-p syndrome, achondroplasia, Hypoplastic Left Heart Syndrome requiring cardiac surgery, on Coumadin which was not stopped and on Prilosec for GERD. Information from the H&P, which was dictated postoperatively but within 48 hours of the Principal Operative Procedure, may be utilized to assign preoperative variables. Rationale: All the diagnoses were known diagnoses for the patient prior to the operation and describe the patient’s previous medical history; they were not established during the postoperative timeframe.
Pre operative Information Exception

Scenarios to Clarify (Not Assign):

• One hour old infant goes emergently to the OR with the diagnosis of Gastroschisis and requires silo placement. Postoperatively the patient has echo, renal ultrasound and head ultrasound at 24 hours of age. The infant is found to have an ASD, VSD and Endocardial Cushion Defect, absent left kidney and grade three Intraventricular hemorrhage with hydrocephalus. The results of testing performed after the principal operative procedure may not be utilized to assign preoperative variables. Rationale: Only the diagnoses that were known to exist (gastroschisis in this case) may be used to assign preoperative variables; testing done postoperatively to confirm diagnoses are considered to be established during the postoperative timeframe.
Prior Operation

- **Prior Operation within 30 days:** The patient has had a major surgical procedure performed within 30 days prior to the assessed operation that is listed on the CPT Code Inclusion List. Also, *include* any transplant procedures or trauma procedures if performed within 30 days prior to the assessed operation.

- **Rationale for change:**
  - The pediatric SCRs were asked which variables caused them the most difficulty in assigning an appropriate response. The variable of “Prior Operation within 30 days” was the most problematic. The SCRs felt that the intent should be to capture all major therapeutic surgical procedures done within the 30 days prior to the principal procedure. This should include major cardiac and neurosurgical procedures as well as transplant and major trauma procedures.

- We recommend that NSQIP-Peds return to the original definition of this variable. The original variable definition was changed by Clinical Support in 2011 because it is a program wide variable. The adult NSQIP will no longer collect this variable. However, we feel that prior operation within 30 days represents a definable risk factor in the pediatric population. We feel that returning to the original definition will provide the most consistent data collection.
Prior Operation within 30 days

- **New definition**
  - Variable Name: Prior Operation within 30 days
  - Intent of variable: To capture the risk associated with a pediatric patient’s having had a therapeutic operative procedure within 30 days prior to the principal operation.
  - Definition: The patient has had a therapeutic operation prior to surgery.
  - Criteria:
    - The patient has had a therapeutic surgical procedure performed by a credentialed provider within 30 days prior to the principal operative procedure.
    - The provider must be a physician credentialed to perform surgical procedures under general anesthesia.
    - Do not include examinations under anesthesia, diagnostic tests or procedures (such as bronchoscopies, lumbar punctures, GI endoscopies, CTs or MRIs), circumcisions, suture removals, central line placements or any other procedure not performed by a credentialed provider.
  - Options: Yes/No
Prior Operation within 30 days

Scenarios to Clarify (Assign Variable):

• Two month old is taken to the OR for pyloromyotomy on 6/22. H&P states patient had repair of coarctation of the aorta on 5/30.

• Rationale: Coarctation repair was a therapeutic surgical procedure done by a credentialed provider within 30 days prior to the principal procedure.

• Three year old is taken to the OR for G-tube placement on 1/10. H&P states patient had a craniectomy for excision of a meningioma on 12/19.

• Rationale: Craniectomy was a therapeutic surgical procedure done by credentialed provider within 30 days prior to the principal procedure.
Prior Operation within 30 days

Scenarios to Clarify (Do Not Assign Variable):
Two month old is taken to the OR for pyloromyotomy on 6/22. H&P states patient had a circumcision done on 5/30.
• Rationale: Circumcisions are not included as a therapeutic surgical procedure under this variable.
Three year old is taken to the OR for G-tube placement on 1/10. H&P states patient had a central line placed for chemotherapy on 12/19.
• Rationale: Central line placements are not included as a therapeutic surgical procedure under this variable.

Notes: The prior operation within 30 days does not have to be on the current Pediatric NSQIP CPT inclusion list in order to be assigned for this variable. All therapeutic surgical procedures done within 30 days prior to the principal operative procedure are to be included.
Additional Guidance

• Acute Renal Failure Requiring Dialysis: In a patient who did not require dialysis preoperatively, worsening of renal dysfunction postoperatively requiring hemodialysis, ultrafiltration, or peritoneal dialysis. If the patient refuses dialysis you would still answer ‘Yes’ to this variable because he/she did require dialysis. Placement of a dialysis catheter is indicative of the need for dialysis, if accessed within 48 hours of placement.

• The cardiac subcommittee has updated the icd 9 code list

• Readmission likely/unlikely related to principal operative procedure
WOUND DISRUPTION/DEHISCENCE

Superficial and Deep

January 2013
Data Definitions Committee (DDC)
Members
Dr. Billmire- Co Chair
Dr. Heiss- Co Chair
Dr. Dibbins- Surgeon
Dr. Bruch-Surgeon
Dr. Saito-Surgeon
Dr. Chen-Surgeon
Dr. Blakey-Surgeon
Bonnie Anderson-SCR
CarolAnn Peters-Gelder-SCR
Debbie Liebrecht-SCR
Irene Baumgaertner-SCR
Marilyn Hirsch-SCR
Dr. Arjmand-Surgeon
Dr. Waters-Surgeon
Dr. Brighton-Surgeon
Dr. Ragheb-Surgeon
Dr. Urata-Surgeon
Wound Disruption/Dehiscence

Variable Name: Wound Disruption/Dehiscence

Current variable/definition:

• Wound Disruption/Dehiscence: Separation of the layers of a surgical wound, which may be partial or complete, with disruption of the fascia.
Wound disruption/dehiscence

Rationale for change:

What’s the Problem?

• The requirement of “fascial disruption” in the definition for wound dehiscence is difficult to apply to all surgical wounds. It fits best with abdominal wounds, but not very well with hypospadias repair, cleft palate repair, and others.
• Wound dehiscence, literally interpreted, is defined as wound separation (Latin: “to gape”), which may occur whether the fascia is intact or not.
• SCRs appropriately have difficulty applying the current definition to all surgical wounds and there is likely variability in how this occurrence is being captured at different sites.
Wound disruption/dehiscence

Rationale for change:

- Wound disruption/dehiscence occurs to varying degrees and is clinically relevant, thus important to collect. The varying degrees of wound dehiscence are mentioned in the current definition. Currently, however, only deep wound dehiscence is being recorded. If superficial wound dehiscence is evident, this is currently coded the same as a wound without separation.

- Two categories of wound dehiscence are recognized* and previously defined by the ICD9 as superficial and deep and we recommend utilizing these existing definitions for Peds NSQIP.

- *ICD9 also has a category for wound dehiscence, not otherwise specified (NOS) in addition to the superficial and deep categories. We believe that coding all wound dehiscences as either deep or superficial will be more informative.
Wound disruption/dehiscence

New definition/variable with examples:

**Variable Name:** Workstation change from the one choice of Postoperative “Wound Disruption” to two choices:

- “Superficial Wound Disruption/Dehiscence”
- “Deep Wound Disruption/Dehiscence”

**Intent of variable:** To collect postoperative surgical wound disruptions, whether superficial or deep.

**Definition:** Wound Disruption/Dehiscence: Separation of the layers of a surgical wound, which may be superficial or deep. If there is a separation of both the superficial and deep layers, collect as a deep wound disruption only.

In all cases, if there is documentation of an SSI, collect the appropriate SSI in addition to the wound separation or dehiscence. If a return to the operating room as a result of the separation or dehiscence occurs within 30 days, collect this separately.
Wound disruption/dehiscence

**Superficial wound disruption/dehiscence:** separation (or disruption) of the superficial (external) layer(s) of the surgical wound. Examples: mucosa, skin, subcutaneous tissue

**Clinical examples:**
- **General Surgery:** skin and/or subcutaneous tissue separation of an abdominal wound with no fascial separation
- **Neurosurgery:** separation of skin and/or subcutaneous tissue of a myelomeningocele repair wound without evidence of CSF leak
- **Orthopedics:** skin and/or subcutaneous separation of an extremity wound with no fascial separation
- **Plastics/ENT:** separation of palatal mucosa after cleft palate repair without separation of the deepest layers of closure (no oronasal fistula)
- **Urology:** skin or glans separation with no urethral involvement after hypospadias repair
Wound disruption/dehiscence

Deep wound disruption/dehiscence: separation (or disruption) of the internal (deep) layer(s) of the surgical wound.

- As a general rule, if separation of wound layers below the skin and subcutaneous tissues occurs, this is to be collected as deep wound dehiscence. Examples: fascia, muscle, ribs, skull, sternum, tendon or ligament

Clinical examples:
General Surgery:
- fascial separation of an abdominal wound
- recurrent gastrocutaneous fistula following closure of a g-tube site

Neurosurgery:
- separation of the deepest layers of a myelomeningocele repair wound (with or without CSF leak)
Wound disruption/dehiscence

Clinical examples:
Orthopedics: separation of paravertebral muscle and/or fascia after laminectomy

Plastics/ENT: oronasal fistula after cleft palate repair

Urology: urethrocutaneous fistula after hypospadias repair

Options: Wound Occurrences
- Superficial Wound Disruption/Dehiscence”
- “Deep Wound Disruption/Dehiscence”
Scenarios to Clarify (Assign Variable):
Examples of problems identified by DDC SCRs using postoperative notes from actual patient charts.

**General Surgery:**
1) **Index procedure**: laparotomy and Ladd’s procedure
   **Postop note**: “Abdomen soft, non-tender slightly distended. Wound has a lateral fluid collection and the fascia seems to be disrupted c/w an incisional hernia.”
   **Wound Occurrence?** Yes, Deep Wound Disruption
   **Rationale**: There is documented separation of the muscular layers of the wound even though the skin and subcutaneous tissue have remained intact. (This patient developed an incisional hernia which required repair)

2) **Index procedure**: Ladd’s procedure with appendectomy
   **Postop note**: “He had an area of dehiscence along abdominal incision yesterday. It was debrided at the bedside.”
   **Wound Occurrence?** Yes, at least Superficial Wound Disruption
   **Rationale**: Since the wound was opened/debrided at bedside this is probably only a superficial wound, however, the chart should be searched for any evidence subsequently that there is documentation that fascial separation has occurred.
Wound disruption/dehiscence

Scenarios to clarify (Assign Variable):

Neurosurgery:

3) Index procedure: Left craniotomy for removal of electrodes and anterior temporal lobectomy
Postop note: “...and presented to his clinic this morning with evidence of wound dehiscence and exposure of the underlying bone. There was no clinical evidence of overt infection, but given the condition of the repair it was felt prudent to irrigate the wound and reclose it.”
Wound Occurrence? Yes, Deep Wound Disruption/Dehiscence
The skull is exposed. This means that skin, subcutaneous tissue and muscle have dehisced. Since this is both a superficial and a deep wound disruption, it is collected as a deep wound disruption.

4) Index procedure: Ventriculo-Peritoneal Shunt
Postop note: “post-op notes, Wound leak, +CSF”
Wound Occurrence? Yes, at least Superficial Wound Disruption/Dehiscence
CSF leak at the site of the insertion of a shunt reservoir is a special problem because the device may be the source of the leak. For an external leak to occur there must be a superficial wound disruption. If there is not documentation in the chart that there is a deep wound disruption the subcommittee decided that it would be collected as a superficial wound disruption.
Wound disruption/dehiscence

Scenarios to clarify (Assign Variable):

Neurosurgery:
5) Index procedure: Untethering of spinal cord.
   Postop note: “...noted to have drainage from the incision. Seen in neurosurgery clinic this morning and 2 sutures placed by surgeon - within 1 hr - continues to steady drip CSF. Has developed a CSF leak from the distal aspect of the lumbar incision.”
   Return to OR Findings: “The fascial closure had failed at its inferior pole, and CSF emerged copiously through a dural suture site that widened considerably.”
   Wound Occurrence? Yes, Deep Wound Disruption/Dehiscence
   There is documentation of dehiscence of two deep layers: muscle and dura.

6) Index procedure: Lumbar laminectomy
   Postop note: “Over past 2 days parents noted that wound was opening. Today another stitch opened up and small amount purulent discharge today. Have f/u appointment with neuro tomorrow. Neuro F/U: Patient is a 21 month old s/p TC release who re-presents with wound dehiscence. Per the family, the patient has been picking at the wound. The wound has been erythematous, swollen and had some drainage for a few days.”
   Wound Occurrence? Yes, Superficial Wound Disruption/Dehiscence
   There is documentation that the skin and subcutaneous tissue have separated allowing drainage to occur and the clinician has stated that there is a wound dehiscence.
   There is also evidence that the wound probably is infected. However, SSI is collected separately from Wound Dehiscence and the SSI criteria must be met for an SSI to be collected.
Wound disruption/dehiscence

**Scenarios to clarify (Assign Variable):**
**Plastics (or ENT):**

7) **Index procedure:** Palatoplasty
**Postop note:** “On examination, has fistula is about 3 mm in diameter, and is located at the junction of the hard and soft palate….. His uvula is well reconstructed and there is still suture material in the soft palate.”

Wound Occurrence? Yes, Deep Wound Disruption/Dehiscence

Although it is not stated specifically the this is an oronasal fistula, the use of the word fistula indicates that there is a connection between the oral side of the closure and the nasal side of the closure which means that the deep layers between the two mucosal surfaces have dehisced/separated.
Wound disruption/dehiscence

Scenarios to clarify (Assign Variable):

Plastics:

8) Index procedure: Cleft lip closure.
Postop note: “Healing well with exception of very small muscle dehiscence at inferior free vermillion border, which will require revision at some time.”
Wound Occurrence? Yes, Deep Wound Disruption/Dehiscence
The statement that muscle has dehisced means that it is a deep wound disruption. Obviously, there is also a mucosal dehiscence for the muscle to be visible, but only the deep dehiscence is collected.

9) Index procedure: Incomplete cleft lip revision
Postop note: At the follow-up visit the surgeon notes that there is a 5mm separation at the vermillion border. There is no labial muscle visible in the wound.

Wound Occurrence? Yes, Superficial Wound Disruption

Rationale: It is documented that only the vermillion border (superficial tissue) separated.
Wound disruption/dehiscence

Scenarios to clarify (Assign Variable):

Urology:

10) Index procedure: Hypospadias

   Postop note: “ventral aspect of penis the catheter is visible.”
   Wound Occurrence? Yes, Deep Wound Disruption/Dehiscence

   Rationale: The fact that the catheter is visible means that the urethral closure has dehisced because the urethra is closed around the catheter for 360 degrees. This is a urethrocutaneous fistula.

11) Index procedure: Second stage hypospadias repair with tubularized graft.

   Postop note: “On examination, has a urethrocutaneous fistula at the proximal aspect of his penis at the base where the proximal urethra was. The majority of the phallus, however, is completely covered with skin from his tubularized urethra. The opening is approximately 5 mm in size.”

   Wound Occurrence? Yes, Deep Wound Disruption/Dehiscence
   Rationale: Urethrocutaneous fistula is documented
Wound disruption/dehiscence

Scenarios to Clarify (Do Not Assign Variable):

General Surgery:
1) A 3 year old girl has a large multilocular lymphangioma removed from the left axillary area with a suction drain left in place. The drain is removed on the 5th postoperative day and she is discharged. When she is seen in follow-up on the 15th postoperative day mother reports that there has been daily discharge from the drain site. The drainage is clear but probably less than a tablespoonful a day. The incision is intact and there has been no drainage through it.

Wound Occurrence? No

Rationale: A drain site is not a surgical wound. The incision is intact.
Wound disruption/dehiscence

Scenarios to Clarify (Do Not Assign Variable):

General Surgery:
2) A 26 week 10 day old premature infant is explored for necrotizing enterocolitis. The distal 50% of the ileum and the right colon are resected. An end ileostomy is brought out through a separate RLQ incision and matured. The midline laparotomy incision is closed primarily. On the 7th postoperative day it is noted that there is separation of the ileal mucosa and skin over 25% of the circumference of the ileostomy.
Wound Occurrence? No

Rationale: Separation of the skin and mucosa in enterostomies and colostomies is a frequent occurrence and is not regarded as a superficial wound disruption. If, however, a loop of bowel herniated out of the peritoneal cavity through the ileostomy incision next to the stoma, this would be collected as a Deep Wound disruption as would a parastomal hernia although the skin and ileostomy closure remained intact.
Wound disruption/dehiscence

Scenarios to Clarify (Do Not Assign Variable):**

**Neurosurgery:**

3) A 4 year old patient has a replacement of a Ventriculoperitoneal shunt reservoir. In outpatient follow-up at 10 days postoperatively, there appears to be a fluid collection beneath the skin which transilluminates but there is no external drainage of CSF.

Wound Occurrence? No

Rationale: Because the fluid accumulation might be caused by leakage from the reservoir and not be due to a deep wound disruption, this cannot be collected as a wound dehiscence/disruption.
Wound disruption/dehiscence

Scenarios to Clarify (Do Not Assign Variable):

**Orthopedics:**

4) A 16 year old girl had a scoliosis procedure done 21 days ago. A progress note states that there is a 5mm skin separation at the cephalad end of the wound which is stated in the operative report to be 25cm in length. There is no drainage. A Steri-strip is applied.

Wound Occurrence? No

**Rationale:** SCR discretion should be used. It is not possible to make a hard and fast rule about the percentage of the linear length of a wound which must be open for a Wound Disruption to be collected.
Wound disruption/dehiscence

Scenarios to Clarify (Do Not Assign Variable):

**ENT:**
5) **Index procedure:** Tonsillectomy as well as myringoplasty (tympanoplasty)
**Postop note:** “She did have a residual perforation in the anterior-inferior portion of the tympanic membrane that was approximately 5%.”

Wound Occurrence? No

**Rationale:** A tympanoplasty/myringoplasty is not considered to be a surgical wound and is not collected under Wound Disruption/Dehiscence
Wound disruption/dehiscence

Additional Guidance:
All Specialties - If it is stated that there is disruption/dehiscence of the surgical wound, but there is not enough documentation to determine whether deep layers of the surgical wound are disrupted, collect as superficial wound dehiscence.

ENT – A tympanoplasty (patch or graft) procedure doesn’t qualify as creating a surgical wound (typically performed for existing perforated tympanic membrane), therefore no wound disruption/dehiscence information is collected if this patch fails (e.g. recurrent tympanic membrane perforation).
Neurosurgery - Evidence of a cerebral spinal fluid (CSF) leak from a wound signifies at least a superficial wound dehiscence. If disruption/dehiscence of deeper layers is documented, collect as a deep wound dehiscence.

General Surgery –
Ostomy: If an ostomy stoma (enterostomy/colostomy) is brought out through a laparotomy wound and the wound is otherwise closed, separation of either the superficial and/or deep layers of the wound will be collected as a wound disruption/dehiscence.
If the ostomy is brought out through a separate incision that allows only the ostomy to protrude, separation of the skin and ostomy mucosa is not considered a Superficial Wound Disruption.

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