Surgeon National Provider Identifier (NPI)

Variable Name: Surgeon NPI

Intent of Variable: For sites to have the ability to track each surgeon’s surgical cases.

Definition: “The National Provider Identifier (NPI) is a Health Insurance Portability and Accountability Act (HIPAA) Administrative Simplification Standard. The NPI is a unique identification number for covered health care providers. Covered health care providers and all health plans and health care clearinghouses must use the NPIs in the administrative and financial transactions adopted under HIPAA. The NPI is a 10-position, intelligence-free numeric identifier (10-digit number). This means that the numbers do not carry other information about healthcare providers, such as the state in which they live or their medical specialty.”

Criteria: Assign the Attending Surgeon’s NPI.

Options:
Select the appropriate Surgeon (NPI).

Tumor involving CNS

- This variable will no longer be collected for cases with January 1, 2014 operation dates.

- The DDC felt that this is a repeat of a child who would be captured with the variable of Childhood Malignancy.
Superficial SSI

Criteria: An infection that occurs within 30 days of the principal operative procedure **AND** the infection involves only skin or subcutaneous tissue of the incision **AND** at least **ONE** of the following:

1. Purulent drainage, with or without laboratory confirmation, from the superficial incision
2. Organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision
3. Superficial incision is deliberately opened by the surgeon and has at least one of the following signs or symptoms of infection:
   - pain or tenderness
   - localized swelling
   - redness or heat

   **EXCEPTION:** to this criterion (only) is if the wound is cultured and results return negative, the occurrence would not be assigned based on this criterion.

4. Diagnosis of superficial incisional SSI by the surgeon or attending physician
REGARDING POINT “3” IN THE SUPERFICIAL SSI CRITERIA: Was one of the following present at the incision site for the principal operative procedure: pain or tenderness, or localized swelling, or redness, or heat AND was the superficial incision deliberately opened by the Surgeon?

YES

Was the incision cultured?

YES, cultured positive
Assign an SSI

YES, cultured negative

Is there a clear physician diagnosis of INFECTION in the record?

NO

Assign an SSI based on Criterion 4

YES

Did the MD clearly document “NO infection”, or uninfected hematoma, seroma, or fluid collection?

NO

Were antibiotics prescribed?

YES
Assign an SSI

NO
Assign an SSI

Do not assign an SSI
Superficial SSI

Scenarios to Clarify (Assign Variable):
- Superficial SSI occurs at a drain site in which the drain was placed during the principal operative procedure.
- Surgical Site documentation of pus in superficial layers, redness, wound opened and cultured, cultures return negative. (Assign SSI as this scenario meets criteria with purulent drainage)

Scenarios to Clarify (Do Not Assign Variable):
- Stitch abscess (minimal inflammation and discharge confined to the points of suture penetration)
- Infected burn wound
- Incisional SSI that extends into the fascia and muscle layers (see deep incisional SSI)
- Diagnosis of cellulitis alone
- Diagnosis of vaginitis after vaginal surgery
- Diagnosis of oral thrush after oral surgery
- Report infection that involves both superficial and deep incision sites as deep incisional SSI

Notes:
- Only SSIs at the incision site of the principal operative procedure should be assessed. Incision sites for “other” or “concurrent” procedures, if they are in distinctly different anatomical sites should not be assessed. If there is question as to whether or not an incision site was an integral portion of the principal operative procedure, include this site in your SSI assessment. Please be aware that a single principal operative procedure can have more than one incision.
Organ/Space SSI

Criteria:
An infection that occurs within 30 days of the principal operative procedure AND involves any of the anatomy (e.g., organs or spaces), other than the incision, which was opened or manipulated during the operation AND at least ONE of the following:

- Purulent drainage from a drain that is placed through a stab wound into the organ/space.
- Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space
- An abscess or other evidence of infection involving the organ/space that is found on direct examination, during reoperation, or by histopathologic or radiologic examination
- Diagnosis of an organ/space SSI by a surgeon or attending physician

Scenarios to Clarify (Assign Variable):
- Anastomotic leaks involving the GI or GU system or which involve enteric contents
- Diagnosis of an inner ear infection following a tympanoplasty

Scenarios to Clarify (Do Not Assign Variable):
- A diagnosis of C-Diff following a principal operative procedure will not be included as an organ/space site infection
- Report an organ/space SSI that drains through the incision as a deep incisional SSI
- Fistulas alone, unless they independently meet the other criteria listed above
Key Notes:

• Diagnosis of vaginitis alone after vaginal surgery will not be assigned unless meets other criteria
• Diagnosis of oral thrush alone after oral surgery will not be assigned unless meets other criteria
• Have included an algorithm to help with infections that may meet criterion 3 in appendix J
• C- Diff in isolation will no longer meet criteria to assign an organ/space infection

This is in conjunction with the program wide variable for surgical site infections.
ICD 9/ICD10 Codes

Beginning January 1, 2014 sites will have the option of using ICD-9 or ICD-10 Codes for these variables with ICD code fields.

Other Postoperative Occurrence (ICD Code)
Postoperative Diagnosis (ICD Code)
Hospital Readmission
Reoperation

These variables will continue to utilize the associated ICD 9 codes with the diagnoses on the collect lists to be entered

Cardiac ICD 9
Congenital Malformation
Sepsis Within 48 Hours Prior to Surgery (SIRS/Sepsis/Septic Shock):

The criteria for Pediatric Systemic Inflammatory Response Syndrome (SIRS) described below without evidence of infection constitute SIRS. The criteria for Sepsis are the presence of SIRS accompanied by one of the criteria of Infection. The criteria for Septic Shock are the presence of Sepsis accompanied by one of the criteria for Cardiovascular Dysfunction. The criteria for SIRS/Sepsis/Septic Shock must be met within 48 hours prior to the principal operative procedure.

SIRS Criteria: Two of the four following criteria must be met and must be noted within 48 hours prior to principal operative procedure, but one of the two must be either Temperature or Leukocyte count. However, temperature and leukocyte count together satisfy these criteria as two of the four following criteria. Please note the Removal of “in the absence of external or painful stimuli” requirement from the tachycardia and Respiratory rate options.

- Temperature >38 °C or <36 °C (oral, axillary, rectal, tympanic or central catheter probe)
- Leukocyte count (Table 1 below) elevated or depressed for age with leukopenia not secondary to chemotherapy
- Tachycardia (Table 1 below) in the absence of drugs, which persists for >30 minutes. For children < 1 yr. of age: bradycardia (Table 1 below), in the absence of deep sedation, beta blockers, or other cardioactive drugs which persists for >30 minutes.
- Respiratory rate (Table 1 below) which persists for >30 minutes, OR a requirement for mechanical ventilation not related to underlying neuromuscular disease. For children < 1 yr. of age: documented apnea.
Sepsis Within 48 Hours Prior to Surgery (SIRS/Sepsis/Septic Shock):

**SEPSIS Criteria:** Criteria for both Pediatric Systemic Inflammatory Response Syndrome (SIRS) and Infection must be met to assign Sepsis. The criteria for SIRS must be noted within 48 hours prior to principal operative procedure. The criteria for infection may be noted within 48 hours prior to the principal operative procedure (Criterion A) or at the time of the principal operative procedure (Criterion B).

**Infection Criterion A:** SIRS criteria must be met within 48 hours before the principal operative procedure. And One of the following:
- Positive blood culture
- Radiologic evidence of an abscess
- Clinical documentation of purulence at, or a positive culture from, any site which is documented by a physician as being thought to be the cause of the septic picture

**Infection Criterion B:** Findings at principal operative procedure SIRS criteria must be met within 48 hours before the principal operative procedure. And One of the following:
- Ischemic/infarcted bowel requiring resection
- Enteric contents in the operative site
- Purulence in the operative site
- Positive intraoperative culture
- Perforated bowel or other viscus
Sepsis Within 48 Hours Prior to Surgery (SIRS/Sepsis/Septic Shock):

**Septic Shock Criteria:** The patient must meet the criteria for **Sepsis (SIRS criteria and Infection Criteria)**. And in addition the patient must require one of the vasoactive drugs from the list below to maintain perfusion, or an increase in dose if a patient is already receiving a vaso active drug.

- Dopamine
- Dobutamine
- Epinephrine
- Norepinephrine
- Vasopressin
- Isoproterenol
- Ephedrine
- Inamrinone
- Milrinone

* Only the drugs from this list may be used to assign Septic Shock
Sepsis Within 48 Hours Prior to Surgery (SIRS/Sepsis/Septic Shock):

- **SIRS** – A 10 yo girl presents with a 4 hour history of mild cramping RLQ pain which has suddenly become acute. On examination she has RLQ muscle spasm and percussion tenderness. Temp is 37 °C tympanic, HR 140, RR 20, WBC 8.3. An ultrasound shows an enlarged, non cystic right ovary. At laparoscopy she has a gangrenous ovarian torsion which is reduced. The ovary is not removed. Although the patient is tachycardic and tachypneic, neither her temperature nor her WBC is abnormal for age and she does **not meet the SIRS criteria**.

- **Sepsis** – If the patient described above had a WBC of 14.0 she would meet the SIRS criteria. If the gangrenous ovary were resected she would **not meet the infection criteria** because Infection Criterion B requires infarcted/perforated bowel.
Postoperative Systemic Sepsis

Criteria for both Pediatric Systemic Inflammatory Response Syndrome (SIRS), and Infection must be met within 30 days after the principal operative procedure. To assign Postoperative Systemic Sepsis the patient must meet SIRS criteria and the criteria for Infection.

**Infection Criterion A may be used at any time in the 30 day postoperative period:** SIRS criteria must be met within 48 hours in the postoperative period before or after one of the following findings.

- Positive blood culture
- Radiologic evidence of an abscess
- Clinical documentation of purulence at, or a positive culture from, any site which is documented by a physician as being thought to be the cause of the septic picture

**Infection Criterion B are the findings of the operation.**

For **principal operative procedure** SIRS criteria must be met within 7 days following the principal operative procedure.

For **reoperation** SIRS criteria must be met within 48 hours before the reoperation or 7 days after the reoperation.

**Operative Findings:**

- Ischemic/infarcted bowel requiring resection
- Enteric contents in the operative site
- Purulence in the operative site
- Positive intraoperative culture
- Perforated bowel or other viscus
Postoperative Systemic Sepsis

For an event to be considered a Postoperative Occurrence of Systemic Sepsis when sepsis was present preoperatively there must be a new source of infection.

• If Sepsis was present preoperatively without Septic Shock, progression to Septic Shock postoperatively is assigned as a Postoperative Occurrence of Septic Shock.

• Only the highest level of Sepsis/ Septic Shock is assigned as an occurrence. If the patient meets criteria for sepsis and the criteria for septic shock, only the occurrence of septic shock is assigned.

• Do not use positive screening tests that are done to determine the presence of organisms that may only increase the risk of infection. Positive screening tests are not acceptable as proof of infection. Examples include: throat screens for beta hemolytic Streptococcus, swabs for Methicillin-resistant Staphylococcus aureus (MRSA) and Vancomycin-resistant Enterococci (VRE). There must be a positive culture from an affected site or a positive blood culture.

• A child may meet criteria for SIRS and may meet criteria for Cardiovascular Dysfunction, and clinically be in shock. However, unless the Sepsis criteria are met, the event may not be assigned as Septic Shock. Although this scenario occurs clinically, there is no consensus in the critical care literature for the recognition of SIRS with Shock as a separate entity.
Post operative Sepsis

- A patient has an appendectomy for perforated appendicitis with generalized peritonitis and meets the SIRS criteria preoperatively. The patient is assigned pre-operative sepsis. On POD 6 the patient meets SIRs criteria and a CT scan demonstrates a pelvic abscess. Although the patient meets post operative SIRs criteria, this does not fulfill the requirement that there is a new source of infection, because the perforation which existed preoperatively is the cause of the post operative abscess.

Post-operative sepsis is not assigned
A patient has a gangrenous appendicitis but does not meet the SIRS criteria preoperatively. On POD 5 the patient is febrile, tachycardic and tachypneic, and meets the SIRS criteria for age. On POD 6 the patient undergoes exploratory laparotomy. The patient is found to have a small bowel obstruction due to a phlegmon. Culture from phlegmon grows aerobic and anaerobic organisms. **The positive intraoperative culture meets Criterion B and postoperative sepsis is assigned.**
A 12 yo patient has an appendectomy for perforated appendicitis with generalized peritonitis and meets the criteria for Preoperative Sepsis. Postoperatively, he is febrile each afternoon to 39 °C, his white blood count remains elevated. On the morning of the 4th postoperative day, his white count is 15,000. That afternoon, a CT scan is done which demonstrates a multi-loculated pelvic abscess. On return from the radiology suite, he becomes tachycardic to 150, and his blood pressure falls to 73/50. He fails to respond to a 60 ml/kg bolus of isotonic crystalloid and is begun on dopamine. Over the next hour with the continuation of isotonic crystalloid, his pulse rate falls to 120, his pressure returns to 100/48, but he continues to require dopamine to maintain perfusion. Although the patient had Sepsis preoperatively and the pelvic abscess does not constitute a new source of infection, progression to shock postoperatively which requires the use of a vasoactive drug to maintain perfusion is assigned as a Postoperative Septic Shock occurrence.
Post operative Sepsis/Shock

- A neonate is on a vasoactive drug preoperatively due to cardiac dysfunction and goes to the OR for a tracheostomy. Postoperatively, the patient develops SIRS, has a positive blood culture, and is maintained on the same dose of vasoactive drug as the preoperative dose. The patient does not require an increase in dosage of the vasoactive drug and does not require the addition of a second vasoactive drug. This patient would be assigned the occurrence of Post-operative Sepsis, but would not be assigned Post operative Septic Shock.
SIRS/Sepsis/Septic Shock

Key Notes:

- The statement of “in the absence of external or painful stimuli which persists for >30 minutes” has been removed for the SIRs criteria requirements of tachycardia and tachypnea.

- Infection Criterion A may be used at any time in the 30 day postoperative period, SIRS criteria must be met in the postoperative period 48 hours before or after any one of the findings in Criterion A.

- Infection Criterion B: for the principal operative procedure, SIRS criteria must be met within 7 days following the principal operative procedure.

- Infection Criterion B: for a reoperation, SIRS criteria must be met within 48 hours before or 7 days after the reoperation.
Congenital Malformation

Tips for abstracting the Preoperative Risk Factor: Congenital Malformation

1. Always start with the **diagnosis** found in the medical record (not the ICD-9 problem list).

2. Review the provided “Collect List” and only collect the congenital malformation diagnoses that are on the “Collect List”.

3. Once the diagnosis has been verified, utilize the assigned ICD-9 code associated with the diagnosis provided on the collect list and enter it into the workstation. If there are multiple diagnoses on the collect list, all malformation ICD-9 codes should be entered.

4. Do not record anything in the “Severity” Field. This field is not required, and may be left blank.
5. Congenital malformations are present at birth but may not have been diagnosed till later in infancy or childhood. The diagnoses on the list with an asterisk (*) indicates conditions to be collected only if diagnosed before the age of 4 years.

6. If a child has a syndrome, review the medical chart for any components of the syndrome that are included on the “Collect List”

7. Submit to Clinical Support the name, description, and ICD-9 code of any congenital malformation identified that is not included on either provided lists (“Collect” or “Do Not Collect”); this information will be used to modify these lists in the future.
“Syndromes” are groups of conditions or congenital malformations that tend to occur together frequently. The presentation of the associated congenital malformations and/or associated pre-operative risk factors variables may vary widely.

A patient with any syndrome requires an analysis/review of the medical record for the presence of those conditions known to be associated with the syndrome.

The appropriate congenital malformations associated with the syndrome that are included on the “Collect List” should be recorded, along with the corresponding preoperative variable, if any.
Congenital Malformation

Variable Name: Congenital Malformations

Program Legend: Pediatric

Intent of Variable: Identify patients with, or with a history of, a congenital defect at the time of the principal operative procedure.

Definition: A structural, functional or genetic abnormality present at birth.

Criteria: Record the documented congenital malformation(s) present, or a history of the congenital malformation(s) from the “Provided Collect List” of malformations found in appendix J along with its associated code.
Congenital Malformation

Scenarios to Clarify (Assign Variable):
• Some diagnoses can be congenital or acquired (e.g. scoliosis). For the Congenital Malformation variable, these diagnoses are only included if the diagnosis was made at the age of 3 years or before. These diagnoses are marked with an asterisk (*) in the “Collect List”.
• All other congenital malformation diagnoses (those without asterisk) on the “Collect List” are collected regardless of diagnostic time frame as the congenital malformation was present at birth but may not have been diagnosed till later in infancy or childhood.
• A patient has the diagnosis of Malrotation – should be collected no matter when it is diagnosed and no matter if it associated with volvulus or not – assign 751.4 Congenital Anomalies of intestinal Fixation and assign the Esophageal/Gastric Disease/Intestinal variable.
• A patient has a diagnosis of in utero alcohol, cocaine, heroin, etc... exposure – assign 760.71 Nox Affecting Newborn Alcohol
• Patients with any cleft palate code (749.2, 749.20, 749.21, 749.22, 749.23, 749.24, 749.25) should be assigned 749.2 Cleft Palate And Cleft Lip.
• “ Syndromes” are groups of conditions or congenital malformations that tend to occur together frequently. The presentation of the associated congenital malformations and/or associated pre-operative risk factors variables may vary widely. A patient with any syndrome requires an analysis/review of the medical record for the presence of those conditions known to be associated with the syndrome. The appropriate preoperative variables that apply to the patient should be selected.
  • VACTERL (or VATER) – may include the following congenital abnormalities: Vertebral defect, anorectal defects, cardiac defects, tracheoesophageal defects, renal/kidney defects, limb defects and growth. Collect all codes that the patient has on the provided “Collect List”.
  • CHARGE Association – assign 758.9 Conditions Due To Anomalies Of Unspecified Chromosome. Review the medical record for the presence of those known associated conditions that may be present with the syndrome. Record those that the patient has. Record those that the patient has that are on the “Collect List”. Remember to also select the appropriate preoperative variables which apply to the patient.
Congenital Malformation

• Thoracic Insufficiency Syndrome (Jeune’s Syndrome) – These patients frequently requires VEPTR surgery. Assign 754.2 Congenital Musculoskeletal Deformities of Spine.

Scenarios to Clarify (Do Not Assign Variable):
• For diagnoses that can be congenital or acquired (e.g. scoliosis), do NOT include if the diagnosis was made at the age of 4 years or older. These diagnoses are marked with an asterisk (*) in the “Collect List”.

Notes:
• Collect all congenital malformation diagnoses for the patient that are listed on the provided “Collect List”.
• Do Not record congenital malformations found on the “Do Not Collect” list. Please note that this list is NOT all inclusive and can be found in Appendix J.
• Submit to clinical support the name, description and ICD-9 code of any congenital malformation identified that is not included on the provided lists; this information will be used to modify the lists in the future. This list of submitted diagnoses from the SCR’s will be reviewed by the DDC-P and /or M&E Committee and the ACS for possible revision of the definition.
• Only specific Congenital Malformation diagnoses that are on the provided “Collect List” are recorded in the Congenital Malformation variable and also in the appropriate preoperative risk variable.
• Enter (Yes) if congenital malformation(s) is on the provided “Collect List”. Enter the associated code or codes from the “Collect List”. Assign to appropriate Neonate category. (Neonates < 1500 grams at the time of surgery / Neonates ≥ 1500 grams at the time of surgery or infants/children/teenagers with a history of a congenital defect at the time of surgery).
• Do NOT record anything in the “Severity” field.
A newborn patient is transferred to your hospital for a TE fistula repair and posterior sagittal anorectoplasty for an imperforate anus. Upon review of the medical chart you find the patient has VACTERL association.
Congenital Malformation/Syndrome Practice

• VACTERL (or VATER) association is a disorder that affects many body systems. VACTERL stands for Vertebral defects, Anorectal defects, Cardiac defects, Tracheoesophageal defects, Renal/kidney defects, and Limb abnormalities. People diagnosed with VACTERL association typically have at least three of these characteristic features.

• Affected individuals may have additional abnormalities that are not among the characteristic features of VACTERL association.

• Collect all codes that the patient has on the provided “Collect List”.
Congenital Malformation/Syndrome Practice

- Upon further chart review you find the patient has additional malformations:
  - VSD
  - Syndactyly of the right middle and ring fingers
  - Hemivertebra of the midthoracic spine resulting in scoliosis
  - Right renal agenesis
  - Single Umbilical artery
  - Hypospadias
  - Congenital Hypothyroidism

- What should you capture?
Congenital Malformation/Syndrome Practice

- **Imperforate Anus** - *Congenital Malformation* (751.2) - Esophageal/Gastric Disease/Intestinal
- **TEF** - *Congenital Malformation* (750.3) - Esophageal/Gastric Disease/Intestinal
- **VSD** - Cardiac Risk - Minor Cardiac Risk - (745.4)
- **Syndactyly** (of the right middle and ring fingers) - Do not collect
- **Scoliosis*** - (caused by hemivertebra of the midthoracic spine) - *Congenital Malformation* (754.2)
Congenital Malformation/Syndrome Practice

- **Right Renal Agenesis** - Congenital Malformation (753.0)
- **Single Umbilical Artery** - Do not collect
- **Hypospadias** – Do not collect
- **Congenital Hypothyroidism** - Congenital Malformation (243)

- Some diagnoses can be congenital or acquired (e.g. scoliosis). For the Congenital Malformation variable, these diagnoses are only included if the diagnosis was made at the age of 3 years or before. These diagnoses are marked with an asterisk (*) in the “Collect List”.

- All other congenital malformation diagnoses (those without asterisk) on the “Collect List” are collected regardless of diagnostic time frame as the congenital malformation was present at birth but may not have been diagnosed till later in infancy or childhood.
**Congenital Malformation**

**Key Changes**

- Do not record anything in the “Severity” Field. This field is not required, and may be left blank.
- Diagnoses on the “Collect” and “Do Not Collect” lists have been updated.
- The “Collect list” is organized by systems and alphabetical lists in the variable definition.
- The “Do not collect list” is located in Appendix J.
- Some diagnoses can be congenital or acquired (e.g. scoliosis). For the Congenital Malformation variable, these diagnoses are only included if the diagnosis was made at the age of 3 years or before. These diagnoses are marked with an asterisk (*) in the “Collect List”.
- All other congenital malformation diagnoses (those without asterisk) on the “Collect List” are collected regardless of diagnostic time frame as the congenital malformation was present at birth but may not have been diagnosed till later in infancy or childhood.