**Appendix:** Thedefinition of postoperative PSIs

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| **PSI#8 Postoperative Hip Fracture** |
| **Numerator** | Discharges with ICD-9-CM code for hip fracture in any secondary diagnosis field among cases meeting the inclusion and exclusion rules for the denominator.  |
| **Denominator**  | All surgical discharges age 18 and older defined by specific DRGs or MS-DRGs and an ICD-9-CM code for an operating room procedure.**Exclude Cases:*** with principal diagnosis of hip fracture or secondary diagnosis present on admission.
* where the only operating room procedure is hip fracture repair.
* where a procedure for hip fracture repair occurs before or on the same day as the first operating room procedure.
* with diseases and disorders of the musculoskeletal system and connective tissue (MDC 8).
* with principal diagnosis (or secondary diagnosis present on admission, if known) of seizure, syncope, stroke, coma, cardiac arrest, poisoning, trauma, delirium and other psychoses, or anoxic brain injury.
* with any diagnosis of metastatic cancer, lymphoid malignancy or bone malignancy, or self-inflicted injury.
* MDC14 (pregnancy, childbirth, and puerperium).
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| **PSI#9 Postoperative Hemorrhage or Hematoma** |
| **Numerator** | ICD-9-CM code for postoperative hemorrhage or postoperative hematoma in any secondary diagnosis field **AND** ICD-9-CM code for postoperative control of hemorrhage or for drainage of hematoma procedure code.  |
| **Denominator**  | All surgical discharges age 18 and older defined by specific DRGs or MS-DRGs and an ICD-9-CM code for an operating room procedure.**Exclude Cases:*** with principal diagnosis of postoperative hemorrhage or postoperative hematoma or secondary diagnosis present on admission.
* where the only operating room procedure is postoperative control of hemorrhage or drainage of hematoma.
* where a procedure for postoperative control of hemorrhage or drainage of hematoma occurs before the first operating room procedure.
* MDC 14 (pregnancy, childbirth, and puerperium).
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| **PSI#10 Postoperative Physiologic and Metabolic Derangement** |
| **Numerator** | Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for physiologic and metabolic derangements in any secondary diagnosis field. Discharges with acute kidney failure (subgroup of physiologic and metabolic derangements) must be accompanied by a procedure code for dialysis. |
| **Denominator**  | All elective\* surgical discharges18 years and older defined by specific DRGs or MS-DRGs and an ICD-9-CM code for an operating room procedure. \*Elective - SID Admission type # is recorded as elective (Admission Type = 3)**Exclude cases:** * with preexisting condition (principal diagnosis or secondary diagnosis present on admission) of physiologic and metabolic derangements.
* with acute renal failure (see Numerator) where a procedure for dialysis occurs before or on the same day as the first operating room procedure.
* with both a diagnosis code of ketoacidosis, hyperosmolarity, or other coma (subgroups of physiologic and metabolic derangements coding) and a principal diagnosis of diabetes.
* with both a secondary diagnosis code for acute renal failure (subgroup of physiologic and metabolic derangements coding) and a principal diagnosis of acute myocardial infarction, cardiac arrhythmia, cardiac arrest, shock, hemorrhage, or gastrointestinal hemorrhage.
* MDC 14 (pregnancy, childbirth and the puerperium).
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| **PSI#11 Postoperative Respiratory Failure** |
| **Numerator** | Discharges among cases meeting the inclusion and exclusion rules for the denominator. With ICD-9-CM codes for acute respiratory failure in any secondary diagnosis field. **OR** Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes as follows: * Mechanical Ventilation for 96 consecutive hours or more - zero or more days after the major operating room procedure code.
* Mechanical Ventilation for less than 96 consecutive hours or undetermined - two or more days after the major operating room procedure code.
* Reintubation - one or more days after the major operating room procedure code.
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| **Denominator**  | All elective\* surgical discharges age 18 and older defined by specific DRGs or MS-DRGs and an ICD-9-CM code for an operating room procedure. \*Elective - SID Admission type # is recorded as elective (Admission Type = 3)**Exclude cases:** * with principal diagnosis of acute respiratory failure or secondary diagnosis present on admission.
* with ICD-9-CM diagnosis code of neuromuscular disorder.
* where a procedure for tracheostomy is the only operating room procedure.
* where a procedure for tracheostomy occurs before the first operating room procedure.
* with any diagnosis code of craniofacial anomalies with

1) a procedure code for laryngeal or pharyngeal surgery or 2) a procedure on face. * MDC 14 (pregnancy, childbirth, and puerperium).
* MDC 4 (diseases/disorders of respiratory system).
* MDC 5 (diseases/disorders of circulatory system).
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| **PSI#12 Postoperative Pulmonary Embolism or Deep Vein Thrombosis** |
| **Numerator** | Discharges among cases meeting the inclusion and exclusion rules for the denominator. With ICD-9-CM codes for deep vein thrombosis or pulmonary embolism in any secondary diagnosis field. |
| **Denominator**  | All surgical discharges age 18 and older defined by specific DRGs or MS-DRGs and an ICD-9-CM code for an operating room procedure.**Exclude cases:** * with principal diagnosis of deep vein thrombosis or pulmonary embolism or secondary diagnosis present on admission.
* where a procedure for interruption of vena cava is the only operating room procedure.
* where a procedure for interruption of vena cava occurs before or on the same day as the first operating room procedure.
* MDC 14 (pregnancy, childbirth, and puerperium).
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| **PSI#13 Postoperative Sepsis** |
| **Numerator** | Discharges among cases meeting the inclusion and exclusion rules for the denominator. With ICD-9-CM code for sepsis in any secondary diagnosis field. |
| **Denominator**  | All elective\* surgical discharges age 18 and older defined by specific DRGs or MS-DRGs and an ICD-9-CM code for an operating room procedure. \*Elective - SID Admission type # is recorded as elective (Admission Type = 3)**Exclude cases:** * with principal diagnosis of sepsis or secondary diagnosis present on admission.
* with a principal diagnosis of infection.
* with any code for immunocompromised state or cancer.
* MDC 14 (pregnancy, childbirth, and puerperium).
* with length of stay of less than 4 days.
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| **PSI#14 Postoperative Wound Dehiscence** |
| **Numerator** | Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM code for reclosure of postoperative disruption of abdominal wall procedure. |
| **Denominator**  | All abdominopelvic surgical discharges age 18 and older.**Exclude cases:** * where a procedure for reclosure of postoperative disruption of abdominal wall occurs. before or on the same day as the first abdominopelvic surgery procedure.
* where length of stay is less than 2 days.
* with any diagnosis or procedure code for immunocompromised state.
* MDC 14 (pregnancy, childbirth, and puerperium).
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| **PSI#18 Obstetric Trauma-Vaginal with instrument** |
| **Numerator** | Discharges among cases meeting the inclusion and exclusion rules for the denominator. With ICD-9-CM codes for 3rd and 4th degree obstetric trauma in any diagnosis field.  |
| **Denominator**  | All vaginal delivery discharges with any procedure code for instrument-assisted delivery. |
| **PSI#19 Obstetric Trauma-Vaginal without instrument** |
| **Numerator** | Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for 3rd and 4th degree obstetric trauma in any diagnosis field. |
| **Denominator**  | All vaginal delivery discharge patients.**Exclude cases:** * with instrument-assisted delivery.
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| **PSI#20 Obstetric Trauma-Cesarean section** |
| **Numerator** | Discharges among cases meeting the inclusion and exclusion rules for the denominator.with ICD-9-CM code for obstetric trauma in any diagnosis or procedure field. |
| **Denominator**  | All Cesarean delivery discharges.  |