

Brief Overview of Surgical Surveillance Data Validation and Findings by NYSDOH Hospital- acquired Reporting Program(HAIRP)

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Validation of Surgical Indicators reported by NYS Hospitals as mandated by PHL 2819

- Public Health Law § 2819 enacted in Jul 2005. NYS Hospitals have been reporting HAI data since 2007.
 - HAIRP audits and validates hospitals' infection data to ensure that the comparison and reporting of HAI rates are fair, accurate and reliable.
 - Currently in the U.S. there are 37 States with HAI Reporting Mandates.
 - NYS HAI Annual reports: https://www.health.ny.gov/statistics/facilities/hospital/hospital_acquired_infections/
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What is required to report?

- NHSN does not mandate reporting
- NHSN is a mechanism for collecting and analyzing surveillance data, based on what a facility has chosen to enter in their Monthly Reporting Plan
- The decision to use NHSN depends on:
 - CMS Inpatient Quality Reporting Program
 - Your facility internal risk assessment
 - Required reporting by your state or other organization

A snapshot into Selected Data Validation

Findings from:

- Auditing 22 facilities
- Timeframe of audited data: Q4 '19, Jul-Dec '20, Jan – Dec '21
- Cardiac, colon, abdominal hysterectomy, hip replacement, fusion procedures
- Counties location of audited facilities: New York, Brooklyn, Bronx, Richmond, Rockland, and Albany

The big picture

- 764 surgical procedures reviewed

- 23 procedures deleted from NHNS due to ineligible ICD-10 codes
- 5 procedures removed from NHNS because outpatient
- 4 procedures removed since done < 24hrs from the end of the previous procedure (more later)
- 4 procedures underreported

Recommendations

- Use current NHSN ICD-10 procedural codes, updated annually
- OR scheduled procedures to be validated with ICD-10 codes
- Flag patients with procedures done on consecutive days
- Inpatient procedures only: date of admission and discharge on different calendar days

SSI Reporting and Event Accuracy

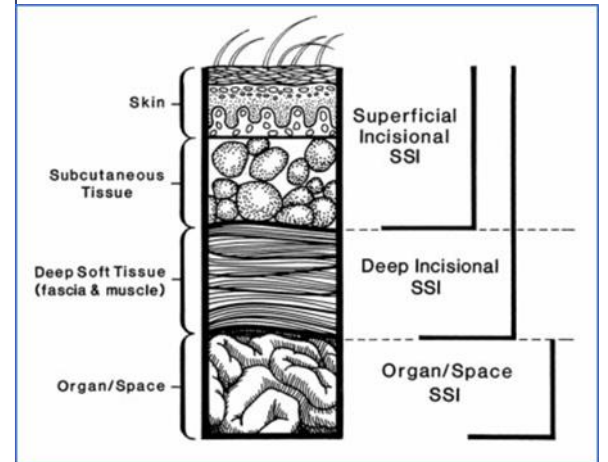
SSI missed overall= 36

- Colo= 17; Hyst= 8; Fusion= 7; Cardiac= 3; HPRO= 1

SSI deleted= 4 (no SSI, duplicate entry)

SSI events detail discrepancies:

- Date of event (**13**) → *DOE is the date the 1st element, used to meet criteria, is documented*
- SSI extent - SIP vs. Deep vs O-S (**14**) → *see picture*
- SSI type- Bone vs MED (3) → *Remember “Reporting Instructions”*
- SSI assigned to incorrect procedure -i.e., wrong in timeline or multiple-NHSN procedures performed (5) → *attribute the SSI to the most recently performed NHSN operative procedure. Attribute SSI to the procedure that is thought to be associated with the infection*
- When SSI identified (2) – *P, RO, RF, A*
- SSI reported pathogens: incorrect, incomplete, not reported (14)



SSI Risk Elements and Accuracy of Reporting

- Wound class (39)
- BMI (47)
- DM (29)
- ASA (13),
- Scope (45)
- Trauma (35)
- Procedure duration (30)
- HPRO type (tot/hemi/revision) – 18
- Spinal approach/level (15)
- Anesthesia (12), Wound closure (9), DOP incorrect (9)

Advices for Accurate and Complete Surgical Surveillance Reporting

Wound class:

- Report as documented in record
- Wound class is assigned by a person involved in the surgical procedure (for example, surgeon, circulating nurse, etc.) based on the wound class schema that is adopted within each organization.
- IP must not change wound class when reporting in NHSN
- Wound class cannot be used for PATOS determination.
- Colon procedure classified clean cannot be reported.
 - *Caveat: per recent NHSN clarification: Addendums are allowed as long as they are not beyond 30 days post-discharge from the index operative procedure admission in accordance with CMS. "The addendum below appears beyond the 30 days post-discharge from the index operative procedure admission"*

Risk Elements: BMI(47) DM (29) ASA (13)

Complex 30-day SSI model (used for CMS IPPS):

- Uses **Diabetes, ASA score**, gender, age, **BMI**, oncology hospital and closure technique to determine risk for COLO (under the 2015 baseline, BS2)
- Uses **Diabetes, ASA score**, age, **BMI** and oncology hospital to determine risk for HYST (under the 2015 baseline, BS 2)

NYS and SSI Risk adjustment:

- Colon – ASA, duration, BMI, laparoscope
- Hysterectomy: DM, ASA, BMI, duration, laparoscope
- HIP: ASA, BMI, procedure type
- CABG chest: DM, BMI, gender
- CABG donor: BMI, DM
- FUSN- tbd

Risk elements: Scope (45) Trauma (35) Procedure duration (30)

Scope – for ICD-10-PCS codes, answer the scope question using the procedure approach as indicated by the fifth (5th) character of the ICD-10-PCS code.

ICD-10 5th Character:

- 0 Approach: Open → scope= NO
- 3 Approach: Percutaneous (Included only in CRAN and VSHN categories- procedures with BURR holes) → scope= NO
- 4 Approach: Percutaneous endoscopic → Scope= YES
- 7 Approach: Via natural or artificial opening → Scope= NO
- 8 Approach: Via natural or artificial opening with endoscopic → NO
- F Approach: Via natural or artificial opening with percutaneous endoscopic assistance → Scope =YES

Trauma – mostly replated to reporting of HIP, much less in FUSN procedures

Duration: The interval in hours and minutes between the Procedure/Surgery Start Time and the Procedure/Surgery Finish Time, as defined by the Association of Anesthesia Clinical Directors (AACD).

More than one operative procedure through same incision/surgical space within 24 hours-- The 24-hour rule (Denominator Reporting Instruction #9) applies to all operative procedures. It applies when you have an NHSN operative procedure followed by another NHSN or non-NHSN operative procedure, and also when you have a non-NHSN operative procedure followed by an NHSN operative procedure, via the same operative site within 24 hours. When applying the 24-hour rule, the second procedure is considered part of/an extension of the first procedure.

More about Risk Elements

- HPRO type (tot/hemi/revision) – 18
 - Refer to Instructions in ICD-10-PCS & CPT Codes - Guidance for completing NHSN procedure details related to HPRO - Hip prosthesis (Arthroplasty of hip) and KPRO - Knee prosthesis (Arthroplasty of knee) operative procedures.
- Spinal approach/level (15)
 - Refer to “FUSN ICD-10-PCS Codes- Guidance for Spinal level and Approach (Supplemental Guidance may be used to complete the NHSN Operative Procedure Details. Each FUSN ICD-10-PCS procedure code has been mapped to indicate:
 - Spinal Level – level along the spinal column where the procedure is performed
 - Approach – location the incision is made by the surgeon (Anterior, Posterior or Both)
- Anesthesia (12)
- Wound closure (9)
- DOP incorrect (9)