

Foreign Object Retained After Surgery

NQF#: Not NQF Endorsed

Developer: Centers for Medicare and Medicaid Services (CMS)

Data Source: CMS; MHCC

Description: Discharges with foreign body accidentally left in during procedure per 1,000 discharges.

Rationale: The problem of retained foreign objects after surgery is an issue for surgeons, hospitals, and the entire medical team. Typically, the objects left behind include surgical sponges and instruments located in the abdomen, retroperitoneum, and pelvis. Retained objects can have potentially harmful consequences for the patient, including life threatening complications. In addition, a further operation is usually necessary to remove the foreign object.

The estimated incidence of foreign objects left behind is between 0.3 to 1.0 per 1,000 abdominal operations and they often occur as a result of poor organization and poor communication between surgical staff during the procedure. The use of technology (i.e., radio-frequency tagging of surgical sponges), and better systems (i.e., improved surgical team communication, multiple “checks and balances”) can help minimize the incidence of these events.

Evidence for Rationale:

- Zejnullahu VA, Bicaaj BX, Zejnullahu VA, Hamza AR. Retained Surgical Foreign Bodies after Surgery. Open Access Macedonian Journal of Medical Sciences. 2017;5(1):97-100.
- Stawicki SP, Evans DC, Cipolla J, Seamon MJ, Lukaszczuk JJ, Prosciak MP, Torigian DA, Doraiswamy VA, Yazzie NP, Gunter OL Jr, Steinberg SM. Retained surgical foreign bodies: a comprehensive review of risks and preventive strategies. Scand J Surg. 2009;98(1):8-17.

Numerator: Number of occurrences of the diagnosis codes listed in the CMS “[Hospital Acquired Conditions List](#)” as a secondary diagnosis (diagnoses 2-9 on a claim) with a POA code of ‘N’ or ‘U’

Denominator: Number of acute inpatient surgical discharges. Surgical claims are identified following [AHRQ criteria](#) for patient safety indicators (PSIs).

Impact:

- Rare event

Opportunity:

- Opportunity for improvement exists, based on the coefficient of variation for the measure.

Evidence:

- Evidence ratings vary from Class C to Class R
 - Class C: non-randomized trial with concurrent or historical controls, case-control study, study of sensitivity and specificity of a diagnostic test, population-based descriptive study
 - Class D: cross-sectional study, case series, case report
 - Class R: consensus statement, consensus report, narrative review

Citations for Evidence:

- Institute for Clinical Systems Improvement (ICSI). Prevention of Unintentionally Retained Foreign Objects in Surgery. Health Care Protocol. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2007 Sep.