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Checklist

# Preventing Retained Surgical Items

Although the unintended retention of surgical items is considered a “never event,” it remains a persistent risk during surgery and other invasive procedures. Outcomes from retained surgical items (RSIs) can range from mild to severe patient harm, including the need for additional surgery, extended hospitalization, pain, infections, perforations, obstructions, emotional trauma, and even death. RSIs also can have emotional and reputational implications for healthcare providers as well as financial consequences for healthcare organizations in terms of nonreimbursable patient care expenses and liability exposure.

In busy clinical environments and procedural settings, various factors can contribute to errors involving RSIs, including lack of policies, communication breakdowns, distractions, inadequate staff education, and more. Developing an approach for preventing RSIs requires comprehensive strategies supported by a strong culture of safety. This checklist[1] is intended to help healthcare organizations and providers evaluate their current efforts related to RSI prevention and identify areas for improvement.

| | Yes | No |
|---|---|---|
| *Leadership and Organizational Culture* | | |
| Do organizational leaders support high-reliability processes, safety initiatives, and quality improvement programs? | ☐ | ☐ |
| Do leaders uphold and promote the organization’s commitment to patient safety and reducing adverse events through goal setting and resource allocation? | ☐ | ☐ |
| Does the organization have a culture that prioritizes safety above volume and efficiency and empowers staff to advocate for patient safety? | ☐ | ☐ |
| Does organizational culture reinforce the concept that preventing RSIs is a team responsibility rather than an individual responsibility? | ☐ | ☐ |

| | Yes | No |
|---|---|---|
| *Leadership and Organizational Culture (continued)* | | |
| Does the organization have a nonpunitive approach to staff feedback and risk identification, in which staff members do not have to fear retaliation when reporting safety issues? | ☐ | ☐ |
| Do organizational leaders promptly and appropriately address issues related to disruptive behavior, intimidation, and hierarchical problems? | ☐ | ☐ |
| Do organizational leaders consistently address issues related to noncompliance with policies/procedures and lack of competency? | ☐ | ☐ |
| *Policies and Procedures* | | |
| Are risk assessments conducted to identify which surgical items are at risk of being retained based on the type of procedure (e.g., minimally invasive procedures, open surgeries, labor and delivery, catheterization, etc.)? | ☐ | ☐ |
| Based on the results of risk assessments and evidence-based resources, are policies and standardized procedures developed and implemented to help prevent RSIs? | ☐ | ☐ |
| Does the organization use a multidisciplinary approach for developing policies and procedures to prevent RSIs? | ☐ | ☐ |
| Do policies and procedures related to RSIs establish roles, responsibilities, and accountabilities of the perioperative team? | ☐ | ☐ |
| Do policies and procedures related to RSIs include clear guidance on inspecting the quality/integrity of surgical items and counting items? | ☐ | ☐ |
| As part of protocols for inspecting and counting surgical items:<br>• Has the organization determined what items to count and when they should be counted based on a risk assessment?<br>• Is documentation related to inspecting and counting surgical items standardized and consistent across procedural areas?<br>• Is the terminology for surgical instruments, devices, and supplies standardized? | ☐<br>☐<br>☐ | ☐<br>☐<br>☐ |

| | Yes | No |
|---|---|---|
| *Policies and Procedures (continued)* | | |
| • Are counting procedures performed both audibly and visibly by at least two members of the perioperative team (at least one of whom is a registered nurse)? | ☐ | ☐ |
| • Are counts always conducted in the same sequence (e.g., largest to smallest items, proximal to distal from the wound)? | ☐ | ☐ |
| • Are instrument sets used to make counting more efficient and accurate, including preprinted count sheets that match standardized sets used in the facility? | ☐ | ☐ |
| • Are counting procedures restarted if interruptions occur? | ☐ | ☐ |
| • Does the surgeon or lead physician verbally acknowledge the count? | ☐ | ☐ |
| • Is a whiteboard used to document surgical items so the entire team can see which items are in the surgical field? | ☐ | ☐ |
| • Are items that are introduced to the surgical field during the procedure included in the count? | ☐ | ☐ |
| • Does the team verify the accuracy of counts listed on prepackaged surgical items (e.g., sponges)? | ☐ | ☐ |
| • Are surgical items inspected before and after use for signs of damage that could result in retained fragments? | ☐ | ☐ |
| • Do surgical item counts occur prior to the procedure, before closure of a cavity, before wound closure, and at skin closure or the conclusion of the procedure? | ☐ | ☐ |
| • Do full surgical item counts occur at breaks and shift changes? | ☐ | ☐ |
| • Does the anesthesia provider wait until the final surgical item count is verified before starting to emerge the patient from anesthesia? | ☐ | ☐ |

| | Yes | No |
|---|---|---|
| *Policies and Procedures (continued)* | | |
| Are well-defined policies and procedures in place for how the perioperative team should proceed if a surgical item count is incorrect and cannot be reconciled, including protocols for imaging, wound exploration, communication with the radiologist, and patient handling? | ☐ | ☐ |
| Do policies and procedures stipulate documentation requirements, such as documenting:<br>• The results of surgical item counts?<br>• Notification of perioperative team members?<br>• Details related to surgical items that are intentionally left inside patients?<br>• Actions taken when counts are incorrect and cannot be reconciled? | ☐<br>☐<br>☐<br>☐ | ☐<br>☐<br>☐<br>☐ |
| Are policies and procedures in place for reporting RSIs (including near misses) and analyzing incidents to determine contributing factors and identify corrective solutions? | ☐ | ☐ |
| Are written copies of policies and procedures available in procedural areas? | ☐ | ☐ |
| *Environmental Factors* | | |
| Are efforts made to minimize noise and distractions in the operating room, such as phone calls, pages, interruptions, and music? For more information, see *Risk Tips: Managing Operating Room Noise and Distractions*. | ☐ | ☐ |
| Is the number of people in the operating room limited to essential team members to prevent unnecessary distractions? | ☐ | ☐ |
| Does a member of the perioperative team survey the procedural area prior to setup to ensure no countable surgical items have been left from a previous procedure? | ☐ | ☐ |
| Is the layout of procedural areas standardized to improve familiarity for perioperative teams? | ☐ | ☐ |
| Do procedural areas have adequate lighting to allow perioperative team members to see the white board and inspect the integrity/quality of surgical instruments? | ☐ | ☐ |

| | Yes | No |
|---|---|---|
| *Environmental Factors (continued)* | | |
| Is the patient brought into the operating room only after the initial count has occurred to prevent distractions from patient care activities? | ☐ | ☐ |
| *Communication* | | |
| Does the organization encourage and support efforts to enhance team-based care and address communication barriers (e.g., through the use of techniques that support speaking up for patient safety)? | ☐ | ☐ |
| Does the surgical process include briefings and debriefings to allow team members the opportunity to voice potential concerns? | ☐ | ☐ |
| Are verbal cues used to alert the team when surgical items are placed in a body cavity and not immediately removed? | ☐ | ☐ |
| Are standardized handoff procedures in place that outline the appropriate information to share verbally and in writing (e.g., details about when wound packing material is used, the number of items packed, and a written order for removal)? | ☐ | ☐ |
| Does the surgical process include a closing timeout to allow the perioperative team to perform an uninterrupted surgical item inspection and count prior to wound closure? | ☐ | ☐ |
| When counts are unreconciled and imaging is required, do delegated members of the perioperative team communicate directly with the radiologist? | ☐ | ☐ |
| *Training and Competency* | | |
| Do perioperative team members receive ongoing education about organizational policies and procedures related to RSIs and individual and collective roles in the prevention of RSIs? | ☐ | ☐ |
| Do perioperative team members receive comprehensive training on surgical item counting procedures at least annually? | ☐ | ☐ |
| Are perioperative team members educated about common risk factors for RSIs, such as emergency procedures, unanticipated changes during procedures, the involvement of more than one surgical team, team turnover during procedures, and patients who have high body mass indexes? | ☐ | ☐ |

| | Yes | No |
|---|---|---|
| *Training and Competency (continued)* | | |
| Is training provided and encouraged that strengthens team-based care and communication, such as the Agency for Healthcare Research and Quality's TeamSTEPPS® program? | ☐ | ☐ |
| Do perioperative team members receive training and education related to new instruments and devices and their associated risks related to retention? | ☐ | ☐ |
| Is a mechanism in place to assess the competency of individuals following training and education initiatives? | ☐ | ☐ |
| Is a mechanism in place for evaluating team members' compliance with policies and procedures related to preventing RSIs? | ☐ | ☐ |
| *Quality Improvement* | | |
| Are policies and procedures for RSI prevention reviewed periodically and when new procedures, instruments, and devices are introduced to identify and address gaps and areas for improvement? | ☐ | ☐ |
| Are adverse events or near misses related to an RSI or count discrepancy investigated and reported as part of the facility's event reporting system? | ☐ | ☐ |
| Is documentation related to RSI near misses and incidents reviewed to identify trends and develop quality improvement initiatives? | ☐ | ☐ |
| Are assistive products and technologies incorporated into practice that can help prevent RSIs, such as sponge pocketing systems, bar-coding, radiofrequency detection systems, and radiofrequency identification systems? | ☐ | ☐ |

# Endnote

[1] American College of Surgeons. (2016, October 1). Revised statement on the prevention of unintentionally retained surgical items after surgery. Retrieved from https://bulletin.facs.org/2016/10/revised-statement-on-the-prevention-of-unintentionally-retained-surgical-items-after-surgery/; ECRI. (2011, September 1). *Unintentionally retained surgical items*. Retrieved from www.ecri.org; Fencl, J. L. (2016, June 25). Guideline implementation: Prevention of retained surgical items. *AORN Journal, 104*(1), 37-48. https://doi.org/10.1016/j.aorn.2016.05.005; Pyrek, K. M. (2017, March 31). Preventing retained surgical items is a team effort. *Infection Control Today.* Retrieved from www.infectioncontroltoday.com/patient-safety/preventing-retained-surgical-items-team-effort; Steelman, V. M., Shaw, C., Shine, L., & Hardy-Fairbanks, A. J. (2019, April). Unintentionally retained foreign objects: A descriptive study of 308 sentinel events and contributing factors. *The Joint Commission Journal on Quality and Patient Safety, 45*(4), 249-258. Retrieved from https://pubmed.ncbi.nlm.nih.gov/30341013/; The Joint Commission. (2013, October 17). Preventing unintended retained foreign objects. *Sentinel Event Alert (51)*. Retrieved from www.jointcommission.org/resources/patient-safety-topics/sentinel-event/sentinel-event-alert-newsletters/sentinel-event-alert-issue-51-preventing-unintended-retained-foreign-objects/; Wallace, S. C. (2017, March). Retained surgical items: Events and guidelines revisited. *Pennsylvania Patient Safety Authority, 14*(1), 27-35. Retrieved from http://patientsafety.pa.gov/ADVISORIES/Pages/201703_RSI.aspx