

Prevention Methods and Risk Factors of Retained Surgical Items

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DESCRIPTION

Retained Surgical Items (RSI) is referred as never occurrences that are entirely avoidable. Few studies offer quantitative insight into RSI risk factors and their respective contributions to the overall RSI risk profile, despite the abundance of case reports, clinical series, and expert comments. Existing case-control studies are unable to consistently identify differences among the numerous suggested risks that are clinically significant. In order to develop a risk classification method that is applicable in clinical settings, these meta-analyses are helpful.

Three retrospective, case-control studies evaluating risk variables for RSI met the criteria for further investigation because they included appropriate group comparisons of patients with and without RSI. Body mass index, emergency procedure, anticipated operative blood loss of more than 500 mL, inaccurate or no surgical count, more than one sub procedure and surgical team, change in shift of nursing staff, post-operative hours, operative time, presence of trainee, and unexpected intraoperative factors were examined using comprehensive meta-analysis 2.0 (Bio Stat, Inc., Englewood, NJ) software. The RSI risk factors are divided into three categories such as low, middle and high risk.

Only three to six risk factors were connected to an increased incidence of RSI in the three trials. Data show that seven risk variables are significantly linked to a higher incidence of RSI. Intraoperative blood loss of more than 500 mL, operation length, more than one sub procedure, a lack of surgical counts, more than one surgical team, unexpected intraoperative factors, and an incorrect surgical count are some of the factors that have been found to increase the risk of RSI. Body mass index, emergency surgery, nursing staff changes, and post-operative hours were not substantially linked to an increased incidence of RSI.

Based on the studies, a risk stratification system and call for extensive, prospective, multicenter studies examining the impact

of particular institutional changes (such as universal surgical counts, radiographic confirmation of the absence of RSI, and radiofrequency labelling of surgical instruments and sponges) on the risk of RSI were suggested. Overall, some studies offer a significant basis for upcoming patient safety initiatives and clinical research on the incidence and prevention of RSI.

In contrast, magnetic retrieval devices, sharp detectors, and computer-assisted detection systems appear to be promising tools for increasing the success of metallic RSI recovery. The implementation of new technologies, such as barcode or Radio Frequency Identification (RFID) labelling, has been shown to improve patient safety, patient outcomes, and to reduce costs associated with retained soft items. When an RSI event occurs, it has a negative effect on the entire healthcare system. The best way to enhance the management and prevention of RSI occurrences is to take a proactive multimodal approach that concentrates on enhancing team communication and institutional support systems, standardizing reports, and incorporating new technologies.

CONCLUSION

Emergency situations, unanticipated modifications in the surgical plan, and patients with higher body mass indices all considerably increase the risk of RSI following surgery. Medical malpractice claim case-control analyses can be used to measure risk variables for particular types of errors. Case-control method is used to identify number of problems associated with risk variables. Retaining a foreign object increased fourfold and nine fold, respectively, when an operation required an unanticipated shift in course of action. Each of these indicators identifies circumstances and makes it harder to maintain track of items. Operations were considerably more likely to involve a failure to conduct a count of sponges and instruments. The greater risk that comes along with a higher Body Mass Index (BMI) reflects the space of a patient that has inside of them.

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