



Approved April 1, 2008
Revised March 10, 2015
Revised April 14, 2017

AST Guidelines for Best Practices for Sterility of the Underside of the Mayo Stand

Introduction

The following Guidelines for Best Practices were researched and authored by the AST Education and Professional Standards Committee, and are AST approved.

AST developed the Guidelines to support healthcare delivery organizations (HDO) reinforce best practices in the sterility of the underside of the sterile draped Mayo stand as related to the role and duties of the Certified Surgical Technologist (CST®), the credential conferred by the National Board of Surgical Technology and Surgical Assisting. The purpose of the Guidelines is to provide information OR supervisors, risk management, and surgical team members can use in the development and implementation of policies and procedures for sterility of the underside of the sterile draped Mayo stand in the surgery department. The Guidelines are presented with the understanding that it is the responsibility of the HDO to develop, approve, and establish policies and procedures for the surgery department regarding the sterility of the underside of a sterile draped Mayo stand per HDO protocols.

Rationale

The following Guidelines address the sterility of the underside of a sterile draped *Mayo stand*. Controversy has always existed concerning the underside of a sterile draped Mayo stand, the concern being if it can't be seen and monitored by the sterile surgical team members and specifically the CST in the first scrub role, then it should not be considered a sterile area of the sterile drapes. This is comparable to the sterile gown in which the *principles of asepsis* state that only the area that can be seen in the front, mid-chest down to the level of the sterile field, is considered sterile.^{1,2} However, the sterile gown is a different situation in which the back of the gown is not coming into contact, or rather, shouldn't be coming into contact, with other sterile items on the sterile field including the back of the gown should not be facing towards the sterile back table. There are other principles of asepsis that address this unique situation including sterile surgical team members passing each other front-to-front or back-to-back.^{1,2} On-the-other-hand, the *Mayo stand drape* is a sterile cylindrical drape that is closed at one end and encircles the upper portion of the Mayo stand in its entirety.¹ Therefore, the whole Mayo stand, when draped, is part of the sterile field.

Evidence-based Research and Key Terms

The research of articles, letters, nonrandomized trials, and randomized prospective studies is conducted using the Cochrane Database of Systematic Reviews and MEDLINE®, the U.S. National Library of Medicine® database of indexed citations and abstracts to medical and healthcare journal articles.

The key terms used for the research of the Guidelines include: Mayo stand; Mayo stand drape; principles of asepsis; sterile technique. Key terms used in the Guidelines are italicized and included in the glossary.

Guideline I

Only sterile items should be placed or moved within a sterile field or in other words, sterile-to-sterile.^{1,3}

1. A sterile field is established for every surgical procedure that includes the sterile draped back table, sterile basin stand, Mayo stand (occasionally the Mayo stand is not utilized during a procedure and the CST works off the back table), and sterile drapes that have been placed on the patient.^{1,3} The CST applies the methods of *sterile technique* when setting up the sterile field to prevent contamination and the patient from acquiring a postoperative surgical site infection (SSI).
2. The CST places the sterile cylindrical Mayo stand drape that encloses the upper portion of the stand allowing it to be positioned over the patient after the sterile drapes have been placed.^{4,5}
 - A. The underside of the sterile draped Mayo stand is considered sterile since the principle of asepsis states only sterile items should touch or extend over sterile surfaces.^{1,3,4}
 - B. Sterile items such as the electrocautery cord, power cords, and suction tubing that are positioned underneath the Mayo stand are considered sterile with the CST having passed the ends of the cords and tubing off the foot of the OR table to the circulating person using sterile technique prior to the placement of the Mayo stand.

Guideline II

The surgery department should review the policies and procedures (P&P) regarding draping techniques and establishing the sterile field on an annual basis.

1. The surgery department should include members of the surgical team and administration when reviewing the P&Ps, including CSTs, surgeons, RNs, risk management, and infection control officer.
 - A. The surgery department should document when the P&Ps were reviewed, revision completed (if necessary), and who participated in the review process.
2. CSTs must be familiar with the P&Ps for establishing the sterile field and draping techniques to prevent contamination and the patient from acquiring a SSI.

Guideline III**CSTs should complete continuing education to remain current in their knowledge of the principles of asepsis and methods of sterile technique.⁶**

1. Surgery department continuing education on principles of asepsis and sterile technique is essential to preventing SSIs.⁶
 - A. The continuing education should be based upon the concepts of adult learning, referred to as andragogy. Adults learn best when the information is relevant to their work experience; the information is practical, rather than academic; and, the learner is actively involved in the learning process.⁷
 - B. It is recommended surgery departments use various methods of instruction to facilitate the learning process of CSTs.
 - 1) If the education is primarily lecture, methods to engage learners include presentation of case studies for discussion, and audience discussion providing suggestion for improving the use of sterile technique.
 - 2) Other proven educational methods include interactive training videos, and computerized training modules and teleconferences.
 - 3) The continuing education should be delivered over short periods of time such as in modules, and not in a one-time lengthy educational session.
2. Continuing education programs should be periodically evaluated for effectiveness including receiving feedback from surgery department personnel.
3. The surgery department should maintain education records for a minimum of three years that include dates of continuing education; names and job titles of employees that completed the continuing education; synopsis of each continuing education session provided; names, credentials, and experiences of instructors.

Competency Statements

Competency Statements	Measurable Criteria
<p>1. CSTs have detailed knowledge of the principles of asepsis and methods of sterile technique.</p> <p>2. CSTs have the knowledge and skills to establish, maintain, and monitor the sterile field to reduce the risk of SSI to the patient.</p>	<p>1. Educational standards as established by the <i>Core Curriculum for Surgical Technology</i>.³</p> <p>2. The didactic subjects of the principles of asepsis, sterile technique, and preparing and establishing the sterile field are included in a CAAHEP accredited surgical technology program.</p> <p>3. Students demonstrate knowledge of the principles of asepsis, sterile technique, and preparation of the sterile field in the lab/mock OR and during clinical rotation.</p> <p>4. As practitioner's, CSTs apply the methods of sterile technique when preparing and establishing the sterile field.</p> <p>5. CSTs complete continuing education to remain current in their knowledge of sterile technique and prevention of SSIs including annual review of the policies of the surgery department.⁶</p>

CST® is a registered trademark of the National Board of Surgical Technology & Surgical Assisting (NBSTSA).

Glossary

Mayo stand: Small portable stand with tray on top that is covered with a sterile drape and on which the instruments and supplies that are most frequently used for the surgical procedure are placed; it is positioned over the patient.¹

Mayo stand drape: A sterile cylindrical drape that is placed over the top portion of the Mayo stand as part of the creating the sterile field.

Principles of asepsis: Practices of the surgical team members to prevent the patient from acquiring a postoperative surgical site infection.¹

Sterile technique: The application of the principles of asepsis.

References

1. Frey K. (ed.). *Surgical technology for the surgical technologist: a positive care approach*. 5th ed. Clifton Park, NY: Delmar Cengage Learning; 2017.
2. Gruendemann BJ, Mangum SS. *Infection prevention in surgical settings*. Philadelphia, PA: W.B. Saunders; 2001.
3. Association of Surgical Technologists. Core curriculum for surgical technology. 2011.
http://www.ast.org/uploadedFiles/Main_Site/Content/Educators/Core%20Curriculum%20v2.pdf. Accessed November 27, 2016.
4. Roark J. Guidelines for maintaining the sterile field. August 2003. *Infection Control Today*. <http://www.infectioncontrolday.com/articles/2003/08/infection-control-today-08-2003-guidelines-for-ma.aspx>. Accessed November 27, 2016.
5. Disposable Mayo stand cover. Publication Number US3747655A. July 24, 1973. <https://www.google.com/patents/US3747655>. Accessed November 27, 2016.
6. Association of Surgical Technologists. AST CE policies for the CST and CSFA. 2005. Revised July 2016. <http://www.ast.org/webdocuments/CEpolicies/#>. Accessed November 27, 2016.
7. Pappas C. The adult learning theory-andragogy-of Malcolm Knowles. May 2013. <https://elearningindustry.com/the-adult-learning-theory-andragogy-of-malcolm-knowles>. Accessed November 27, 2016.