AST Recommended Standards of Practice for Bowel Technique

Introduction
The following Recommended Standards of Practice were researched and authored by the AST Education and Professional Standards Committee and have been approved by the AST Board of Directors. They are effective April 13, 2008.

AST developed the Recommended Standards of Practice to support health care facilities in the reinforcement of best practices related to the implementation of intraoperative bowel technique. The purpose of the Recommended Standards is to provide an outline that health care workers (HCWs) in the perioperative setting can use to develop and implement policies and procedures for bowel technique. The Recommended Standards is presented with the understanding that it is the responsibility of the health care facility to develop, approve, and establish policies and procedures for bowel technique according to established hospital protocols.

Rationale
The following are Recommended Standards of Practice related to the intraoperative use of bowel technique, also referred to as contamination or isolation technique. The technique is utilized to prevent cross-contamination of the surgical abdominal wound by peritoneal microorganisms that could result in a surgical site infection (SSI). SSIs are the third most frequently reported nosocomial infection.[6] Additionally, SSIs are the most common nosocomial infection among surgical patients accounting for 38% of infections and of those, two-thirds involved the incision and one third involved organs or body cavities.[6] SSIs result in an increase in postoperative days that the patient spends in the hospital and deep SSIs are associated with a greater increase in hospital stays and costs. Even though SSIs significantly contribute to the morbidity and mortality rates of surgical patients, improved surgical techniques, such as the use of meticulous bowel technique aid in reducing the risk of SSI to the surgical patient. Therefore, bowel technique should be practiced on all surgical procedures that involve entry into the gastrointestinal (GI) tract; this includes open and endoscopic procedures. All members of the surgical team should be involved in the process of developing and implementing health care facility policies and procedures for establishing the consistent use of bowel technique.

Standard of Practice I

The principles of bowel technique should be utilized by the surgical team in order to avoid cross-contamination and reduce the risk of surgical site infection to the patient.

1. Bowel technique should be recognized as beginning when the GI tract is opened and ends once the tract is closed. [1,4]
2. All items, including instruments, sponges, suction tip, Bovie tip, gloves and gowns, that come into contact with the open GI tract are considered contaminated. [1,5]

A. The Certified Surgical Technologist (CST) in the first scrub role should create two Mayo stand set-ups; one is for the clean incision and dissection into the peritoneal cavity as well as instruments for a clean closure, and a second set-up is for use on the open GI tract.
B. The instruments in the second set-up are considered contaminated and should be isolated from the first set-up and from the sterile back table.
C. The CST and other members of the sterile surgical team should not handle the supplies and instruments that are on the first Mayo stand set-up and on the sterile back table until the GI tract has been closed, and gloves and gowns have been changed.
D. Sterile towels should be placed around the surgical incision site prior to the GI tract being opened to aid in reducing the possibility of cross-contamination and preventing a surgical site infection from GI tract spillage. According to surgeon's preference, a polyethylene wound protector may also be utilized.[5]
E. When closure of the GI tract is complete, the CST should remove the suction tip and Bovie tip to place with the other contaminated instruments and supplies on the second Mayo stand set-up, as well as remove the sterile towels that were placed around the surgical incision and remove the asepto.
F. Upon closure of the GI tract, and removal of the contaminated items, the members of the sterile surgical team should change gloves and gowns. The CST in the first scrub role should be the first person to change his/her gown and gloves, and then assist the other sterile team members in donning new sterile gown and gloves.[1]
G. The CST should complete the following actions after changing the gown and gloves: new suction tip and Bovie tip should be positioned, clean sponges brought onto the sterile field, new asepto obtained, and Mayo stand with clean closure instruments positioned. The CST should be prepared for assisting with the placement of a new sterile laparotomy drape over the contaminated drape or squaring off the incision site with towels (surgeon's preference).

3. Surgical team members should be familiar with and review the health care facility policies and procedures for the practice of bowel technique on a routine basis.
   A. The health care facility should promote a standardized routine for implementing bowel technique that all surgical team members should follow for all procedures involving opening the GI tract. A consistent, standardized method of employing bowel technique by everyone on the surgical team is important in reducing SSIs.

Competency Statements

Competency Statements	Measurable Criteria
1. The CST and Certified First Assistant (CFA) have the knowledge of the principles of aseptic technique in order to	1. Educational standards as established by the *Core Curriculum for Surgical Assisting* and the *Core Curriculum for Surgical*

reduce the risk of SSI.	*Technology*.[1,2] 2. The subject of aseptic technique is included in the didactic studies as a surgical technology student, including the principles of bowel technique. Bowel technique is included in the didactic studies of the surgical assistant specific to the role and duties. 3. Surgical technology and surgical assistant students demonstrate knowledge of aseptic techniques, including bowel technique in the lab/mock O.R. setting and during clinical rotation. 4. As practitioners, CSTs and CFAs implement the principles of aseptic technique, including when necessary, bowel technique. 5. CSTs and CFAs complete continuing education to remain current in their knowledge of aseptic technique and up-dated techniques to prevent SSIs and cross-contamination, including annual review of the policies and procedures of the health care facility.

References

1. *Core Curriculum for Surgical Assisting*. 2nd ed. Littleton, CO: Association of Surgical Technologists; 2006.

2. *Core Curriculum for Surgical Technology*. 5th ed. Littleton, CO: Association of Surgical Technologists; 2002.

3. Allen G, Caruthers B, Smith C. General surgery. In: Frey K, Ross T, eds. *Surgical Technology for the Surgical Technologist: A Positive Care Approach*. 3rd ed. Clifton Park, NY: Delmar Cengage Learning; 2008:393-495.

4. Principles of gastro-intestinal anastomosis. Surgical Knowledge and Skills Website Edinburgh, England: Royal College of Surgeons of Edinburgh. http://www.edu.rcsed.ac.uk/hst%20skills%20course/hst%202.htm. Accessed March 6, 2008

5. Smith C. Gastrointestinal surgery. In: Rothrock JC, McEwen DR, eds. *Alexander's Care of the Patient in Surgery*. 13th ed. St Louis, MO: Mosby; 2006; 297-355.

6. Guideline for prevention of surgical site infection, 1999. US Department of Health and Human Services, Centers for Disease Control and Prevention Website. http://www.cdc.gov/ncidod/dhqp/pdf/guidelines/SSI.pdf. Accessed March 8, 2008.