

Reducing Risk of Surgical Site Infection (SSI) in Colorectal Surgery

Evidence-Based Guide

SSI is the #1 morbidity in Colorectal Surgery, resulting in increased costs, length of stay, and mortality¹⁻⁴

Patient Preparation

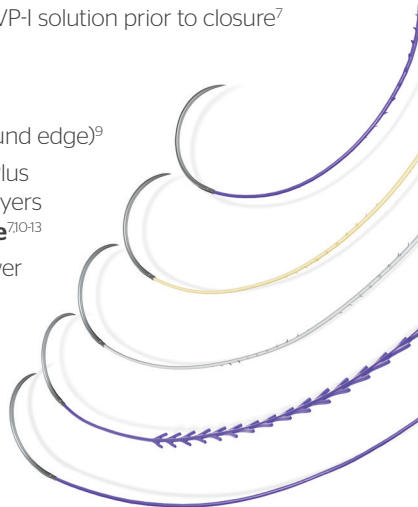
- ✓ **Administer IV antibiotics** within 1 hour of incision to reduce risk of SSI^{5,6}
- ✓ Allow 2 hours for vancomycin and fluoroquinolones⁵
- ✓ Use clippers for any necessary hair removal; **no shaving**⁷
- ✓ **Prepare skin** at surgical site with alcohol or chlorhexidine - not iodine⁸

Wound Protection

- ✓ Plastic **wound protector** may help to prevent SSI in open abdominal surgery⁸
- ✓ Consider wound irrigation with aqueous PVP-I solution prior to closure⁷

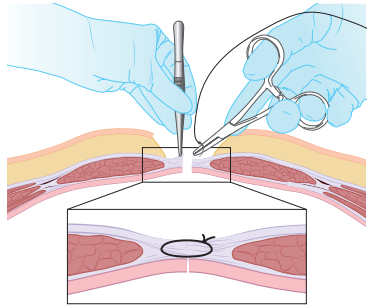
Suture Considerations

- ✓ Use **short stitch length** (5-8 mm from wound edge)⁹
- ✓ Triclosan-coated sutures, such as Ethicon Plus Antibacterial Sutures, may be used on all layers to **inhibit bacterial colonization of suture**^{7,10-13}
- ✓ Monofilament suture is associated with fewer infections compared to braided suture¹⁴



Wound Closure Technique

- ✓ Include **only the aponeurosis** in fascial closure to minimize tissue necrosis⁹
- ✓ **Minimize tension and optimize stitch length** to help prevent incisional hernia, as reoperation can increase the risk of infection^{15,16}



Additional Considerations

- A **topical skin adhesive**, such as DERMABOND ADVANCED® Topical Skin Adhesive, provides a microbial barrier¹⁷
- OR
- Limited evidence suggests wound vacuum therapy over closed incisions may be beneficial¹⁸

DERMABOND ADVANCED® Topical Skin Adhesive has not been tested or FDA cleared for use in conjunction with closed vacuum therapy.



To learn more, go to www.ethicon.com/ColorectalSSI

For complete indications, contraindications, warnings, precautions, and adverse reactions, please reference full package insert.

References: **1.** Kirchoff P, et al. *Patient Safety in Surgery*. 2010;45. **2.** European Centre for Disease Prevention and Control. Surveillance of surgical site infections in Europe 2010–2011. Stockholm: ECDC; 2013. **3.** Perencevich EN, et al. *Emerg Infect Dis*. 2003;9:196-203. **4.** Kirkland KB. *Infect Control Hosp Epidemiol*. 1999;31:784-785. **5.** Anderson DJ, et al. *Infect Control Hosp Epidemiol*. 2014;35:605-627. **6.** Bowater, et al. *Ann Surg*. 2009;249(5):551-556. **7.** Global Guidelines for the Prevention of Surgical Site Infection. World Health Organization. Geneva, Switzerland. 2016. **8.** Ban KA, et al. *J Am Col Surg*. 2017;224:59-74. **9.** Millbourn D, et al. *Arch Surg*. 2009;144:1056-1059. **10.** Barboit TA. *Surg Infect (Larchmt)*. 2002;3:545-553. **11.** Rothenburger S, et al. *Surg Infect (Larchmt)*. 2002;3:579-87. **12.** Ming X, et al. *Surg Infect (Larchmt)*. 2008;9:451-457. **13.** Ming X, et al. *Surg Infect (Larchmt)*. 2007;8:209-214. **14.** Fowler JR, et al. *Clin Orthop and Relat Res*. 2013;471(2):665-671. **15.** Muysoms FE, et al. *Hernia*. 2015;19:1-24. **16.** Murray BW, et al. *Am J Surg*. 2011;202: 558-560. **17.** Bhende S, et al. *Surg Infect (Larchmt)*. 2002;3:251-257.