Preventing Surgical Site Infection (SSI)

Plus Antibacterial Sutures are a cost-effective part of an SSI prevention bundle*

WHO RECOMMENDATION	RECOMMENDATION TYPE/ QUALITY OF EVIDENCE	RANGE OF ESTIMATED INCREMENTAL COSTS PER CASE		
		< $5	$5-$20	> $20
Antimicrobial Sutures Use antimicrobial sutures[1]	Conditional/Moderate[1] 13 RCTs, 5347 patients[1]	●	**Just 48¢ more on average per strand than traditional suture![2]**	
Maintaining Normothermia Use warming devices in the OR and during the surgical procedure[3]	Conditional/Moderate[1] 2 RCTs, 478 patients[1]		●	●
Pre-op Bathing Patients should bathe or shower prior to surgery with plain or antimicrobial soap	Conditional/Moderate[1] 7 RCTs, 11327 patients[4]	●		
Surgical Site Preparation Use alcohol-based antiseptic solutions based on chlorhexidine gluconate[6]	Strong/Low-to-moderate[1] 17 RCTs, 4899 patients[5]	●		
Hair Removal Only if necessary and then with clipper	Strong/Moderate[1] 15 RCTs or quasi-randomized trials, 4065 patients[7]	●		
Optimal Timing for Pre-op Surgical Antibiotic Prophylaxis Administer prior to surgical incision when indicated[8]	Strong/Low[1] 113 Observational Studies, 53,975 patients[1]		●	●
Use of Protocols for Intensive Perioperative Blood Glucose Control Use for both diabetic and nondiabetic adult patients	Conditional/Low[1] 15 RCTs, 2836 patients[1]	●		
Wound Protective Devices Consider the use of wound protector devices in clean-contaminated, contaminated, and dirty abdominal surgical procedures[9]	Conditional/Very low (for abdominal surgery)[1] 10 RCTs and 1 prospective controlled study, 2949 patients[1]		●	●
Post-op Advanced Dressings Do not use any type of advanced dressing over a standard dressing[10]	Conditional/Low (do not use)[1] 10 RCTs, 2628 patients[11]	●		

SSIs are potentially catastrophic for patients, costly for clinics and hospitals, and under increasing scrutiny by payers and policymakers. With the proven ability of triclosan-coated sutures to address a known risk factor for SSI, cost-effective Plus Sutures should be part of your infection prevention bundle.[12-14]

A **single SSI** can cost up to

$39,000[15†]

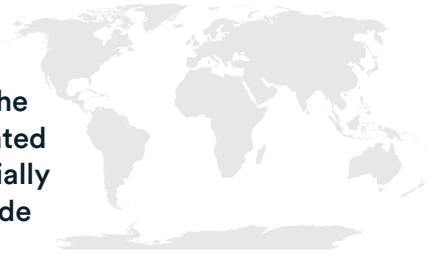
SSI-related treatment costs may no longer be reimbursed

Meta-analysis demonstrates

28% reduction

in SSI risk with the use of triclosan-coated sutures[‡§]

Plus Sutures are the only triclosan-coated sutures commercially available worldwide



Plus Suture costs on average 48¢ more per strand than traditional suture[2]

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

*Selected measures from WHO guidelines were chosen based on evidence-supported interventions recommended by Dr. Charles E. Edmiston, Jr. Please refer to the 2018 edition for the full list of 29 recommendations on 23 topics for SSI prevention.[16]

†As shown in a coronary artery bypass surgery.

‡Included 21 RCTs, 6462 patients, 95% CI: (14, 40%), *P*<0.001.

§All triclosan-coated sutures in these RCTs were Ethicon Plus Antibacterial Sutures (MONOCRYL® Plus Antibacterial (poliglecaprone 25) Suture, Coated VICRYL® Plus Antibacterial (polyglactin 910) Suture, and PDS® Plus Antibacterial (polydioxanone) Suture).

References: 1. WHO Global Guidelines for the Prevention of Surgical Site Infection. 2018. https://apps.who.int/iris/bitstream/handle/10665/277399/9789241550475-eng.pdf. Accessed May 9, 2020. **2.** Plus Suture Cost Analysis. 2019. Ethicon, Inc. **3.** Welch T. A common sense approach to hypothermia. *AANA Journal*. 2002;70(3):227-231. **4.** WHO Global Guidelines for the Prevention of Surgical Site Infection, Appendix 2. 2018. https://www.ncbi.nlm.nih.gov/books/NBK536394/#webapp2.app4. Accessed May 9, 2020. **5.** WHO Global Guidelines for the Prevention of Surgical Site Infection, Appendix 8. 2018. https://www.ncbi.nlm.nih.gov/books/NBK536434/#webapp8.app4. Accessed May 9, 2020. **6.** Lee I, Agarwal R, Lee B, et al. Systematic Review and Cost Analysis Comparing Use of Chlorhexidine with Use of Iodine for Preoperative Skin Antisepsis to Prevent Surgical Site Infection. *Infect Control hosp Epidemiol*. 2010;31(12):1219-1229. **7.** WHO Global Guidelines for the Prevention of Surgical Site Infection, Appendix 7. 2018. https://www.ncbi.nlm.nih.gov/books/NBK536407/#webapp7.app4. Accessed May 9, 2020. **8.** Wilson SE, Turpin RS, Kumar RN, et al. Comparative costs of ertapenem and cefotetan as prophylaxis for elective colorectal surgery. *Surg Infect*. 2008;9(3):349-356. **9.** Lee P, Waxman K, Taylor B, et al. Use of wound-protection system and postoperative wound-infection rates in open appendectomy: A randomized prospective trial. *Archives of Surgery*. 2009;144(9):872-875. **10.** Sadik K, Flener J, Gargiulo J, et al. A US hospital budget impact analysis of a skin closure system compared with standard of care in hip and knee arthroplasty. *ClinicoEcon Outcomes Res*. 2018;11:1-11. **11.** WHO Global Guidelines for the Prevention of Surgical Site Infection, Appendix 26. 2018. https://www.ncbi.nlm.nih.gov/books/NBK536417/#webapp26.app4. Accessed May 9, 2020. January 23, 2020. **12.** Zimlichman E, Henderson D, Tamir O, et al. Health Care–Associated Infections; A Meta-analysis of Costs and Financial Impact on the US Health Care System. *JAMA Internal Medicine*. 2013;173(22):2039-46. **13.** Saleh A, Faour M, Sultan A, et al. Emergency Department Visits Within Thirty Days of Discharge After Primary Total Hip Arthroplasty: A Hidden Quality Measure. *J Arthroplasty*. 2019;34:20-26. **14.** de Jonge SW, Atema JJ, Solomkin JS, Boermeester MA. Meta-analysis and trial sequential analysis of triclosan-coated sutures for the prevention of surgical site infection. *Brit J Surg*. 2017;ePub-DOI: 10.1002/bjs.10445. **15.** de Lissovoy G, Pan F, Patkar A, et al. Surgical Site Infection Incidence and Burden Assessment Using Multi-institutional Real-world Data. Presented at EU ISPOR, 2011, Madrid, Spain. **16.** Edmiston CE. Demystifying the Surgical Care Bundle in the Prevention of Surgical Site Infections. Presented at Association for Professionals in Infection Control and Epidemiology (APIC) symposium. 2019. Ethicon, Inc.

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