



Science.
Applied to Life.™

Surgical Site Infection Risk Reduction Solutions



When it comes to helping ensure patient safety, we're all on the same team.

Protecting patients along the surgical journey is a clinical imperative that depends on the seamless interaction and dedication of professionals like you every step of the way.

Surgical site infections take a tremendous toll on patients, health care providers and facilities. 3M can help you mitigate risk of SSIs and transform patient outcomes for the better.



Patient Preparation Solution



Temperature Management



Sterilization and Cleaning Monitoring



Surgical Incision Management

Surgical site infections: Seeing the big picture.

While progress has been made to reduce SSIs, this is a complication that still occurs too often and may be preventable in up to 60% of cases.¹

SSIs are associated with physical and emotional trauma for patients, increased lengths of stay, resource consumption, and readmission rates. They also represent significant financial burden to health systems as they may not be reimbursable by payors and may increase litigation risk.²



SSI risk factor equation

Reducing a patient's microbial load and improving the resistance of the host are critical to reducing the risk of SSIs.

Every touchpoint matters.

A key to reducing the risk of SSIs is following evidenced based best practice guidelines as recommended by AAMI, AORN, CDC, ERAS, NICE and ACS NSQIP.

Prophylactic Antibiotics

NICE recommends that there must be a local guide to antibiotic prescribing including advice on appropriate surgical prophylaxis.⁴

Sterilization Monitoring and Aseptic Technique

- All surgical instruments and tools should have been through sterilization in cycles having acceptable sterilization monitoring results.
- Surgical staff should have training and practice in aseptic technique.

Surgical Incision Management

- Consideration and selection of most appropriate closure method and materials based on patient presentation.
- NICE recommends that surgical incisions should be covered with an appropriate interactive dressing at the end of the operation.⁴

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Surgical Preparation

A comprehensive approach to reduce the microbial load from a patient's skin should include:

- Patient bathing or washing⁴
- Nasal decolonization^{5,6}
- Hair removal when indicated: Clippers with disposable heads are recommended⁴
- Prepping surgical site with antiseptic⁴
- Reducing skin recolonization⁴

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Temperature Management

- To prevent intraoperative hypothermia active warming should begin prior to induction of anesthesia into recovery.
- Monitor and maintain core body temperature between 36°C and 37.5°C before, during and after surgery.⁷

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Surgical Environment^a

- Ensure effective ventilation
- Minimize traffic and personnel
- Practice procedures for equipment cleanliness

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Surveillance

- A standardized surveillance method should be used to monitor the risk and occurrence of SSIs for reporting and practice assessment.^{9,10}
- Patients and care partners should also be educated on the risk of SSIs.



Patient Preparation Solution

Take control with a comprehensive approach.

An aging population, a rise in comorbidities, and the emergence of antibiotic resistant bacteria are key factors contributing to the risk of infection in the patient population undergoing surgery.

The overall incidence of infection in surgery is low, but when infections occur, they can be devastating and costly. It is important to take every step possible to help reduce the risk factors of infection for your patients.

Understanding the factors that impact SSIs.

Patient preparation can help reduce the amount of bacteria from the patient's own skin with the right antiseptic products and approach.



Povidone-iodine solution for nasal decolonization



Single-patient-use surgical solution



Surgical clippers



Antimicrobial incise drape

Temperature Management

Pre-warm, monitor, maintain.

The difference between a positive patient outcome and a complicated recovery can be a matter of degrees. Unintended perioperative hypothermia is a frequent, yet preventable, complication of surgery. It can increase the rate of wound infection (SSI)^{11,12}, extend recovery time¹³ and length of stay¹⁴, and increase mortality rates¹⁴.

However, hypothermia can be prevented when temperature is monitored and an active warming measure is instituted throughout the perioperative process — starting before the induction of anesthesia.

The 3M™ Bair Hugger™ normothermia system provides a comprehensive solution that works seamlessly throughout the perioperative process to effectively and efficiently measure and manage patient temperature.

From noninvasive temperature monitoring and comforting warming gowns to the most extensive array of unique warming blankets, the 3M™ Bair Hugger™ normothermia system offers a complete temperature management portfolio.



Warming blanket system



Warming gown system



Temperature monitoring system

Surgical Incision Management

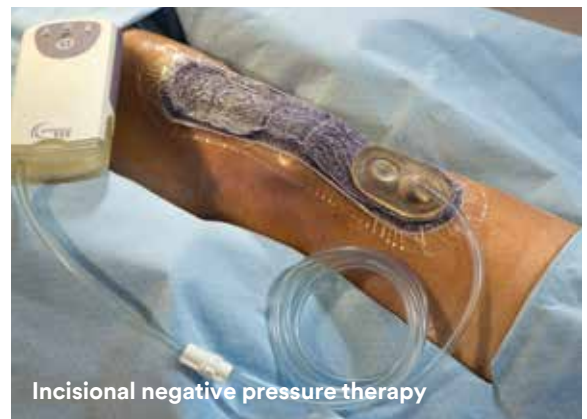
Get patients back to daily living.

Surgery has a unique set of challenges; today's environment of value-based care requires providers to constantly refine their practice while continually facing new hurdles.

When surgical site complications occur, like those listed below, they can lead to costly medical interventions (emergency department visits, readmissions, and revisions) and subpar patient experiences.

- Surgical Site Infections
- Surgical Wound Dehiscence
- Seromas
- Hematomas
- Necrosis
- Edema
- Pain

Meeting the benchmarks of value-based care while catering to patient needs is more difficult than ever. Healthcare organizations need new tools to support surgeons and improve the patient's healing journey.



Incisional negative pressure therapy



Surgical incision and wound dressings



Sterilization and Cleaning Monitoring

Simplify. Standardize. Streamline.

A unified force to help reduce patient risks. Patients exposed to contaminated instruments are at risk to develop surgical site infections. This exposure risk, plus the rise of antibiotic-resistant bacteria and hard-to-clean medical instruments and devices—makes the importance of sterilization and cleaning monitoring especially critical.

 **4 hours
of lost time**

During a recall, tracking down impacted instruments can take as long as 4 hours.¹⁵



Sterilization assurance
For all three major modalities:
Steam, VH₂O₂, and EtO



Cleaning monitoring
ATP monitoring for endoscopes
and high-touch patient surfaces



Digital monitoring and tracking
Real-time data accessibility
and electronic record-keeping

3M is your team behind the scenes, partnering with clinicians to improve patient outcomes.

3M is a global leader in manufacturing, technology, and lean six sigma processes, and we appreciate the commitment from your facility and staff to reducing process variation and improving patient outcomes. The 3M™ SSI Risk Reduction solution portfolio allows clinicians to advance quality of care, optimize product utilization, and streamline workflow.

3M can work with your team on implementing recommendations based on industry guidelines using a variety of tools:

- Competency checklists and protocols
- On-site education program
- Implementation of guideline-compliant protocols
- On-line continuing education through the 3MSM Health Care Academy

Discover how, together you and 3M can help raise the standard of patient care. For more information, contact your 3M representative.

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