The greatest risk factor for SSI is a patient’s skin.¹,²
Create an aseptic surface.
Every surgical patient risks Surgical Site Infection (SSI).

The skin can contain over 1 million bacteria per square centimeter.\(^3\)

It takes only 10 microbes per square centimeter* to cause a surgical site infection (SSI).\(^4\)*

*When implant is present

Reduce a patient’s microbial load is critical to avoiding an SSI. The Centers for Disease Control and Prevention (CDC) measures SSI risk using three distinct variables.\(^5\)

The variable we can most affect: the dose of bacteria on the skin.

Risk of SSI = Dose of bacteria \(\times\) Virulence of bacteria \(\div\) Patient risk factors

SSIs can affect a patient’s quality of life and create stress for patients and their families. And they place a huge operational and financial burden on health care systems and providers. Using evidence-based practices to reduce skin microbes — before and during surgery — and creating a barrier to microbial migration can help reduce the risk of an SSI.

A human and financial cost.

SSIs occur in 2-13% of surgical procedures in Australia.\(^6\)

Up to 60% of SSIs could be prevented by using evidence-based guidelines\(^6\).

Result in 2-11× increased risk of mortality\(^6\).

Surgical Site Infections

Lower patient satisfaction\(^25\).

Increase length of stay by 7-11 days\(^6\).

Approximately 5× as likely to result in readmission\(^10\).

Affect quality of life\(^8\).

Increase nursing care\(^22\).

\(^2\) Lower patient satisfaction

\(^3\) The skin can contain over 1 million bacteria per square centimeter.

\(^4\) It takes only 10 microbes per square centimeter to cause a surgical site infection (SSI).

\(^5\) The variable we can most affect: the dose of bacteria on the skin.

\(^6\) SSIs can affect a patient’s quality of life and create stress for patients and their families. And they place a huge operational and financial burden on health care systems and providers. Using evidence-based practices to reduce skin microbes — before and during surgery — and creating a barrier to microbial migration can help reduce the risk of an SSI.

\(^7\) SSIs occur in 2-13% of surgical procedures in Australia.

\(^8\) SSIs can affect a patient’s quality of life.

\(^9\) SSIs can affect a patient’s quality of life.

\(^10\) SSIs can affect a patient’s quality of life.
There are many antiseptic choices, but not all preps perform the same. Selecting the proper skin prep will reduce a patient’s bacterial load throughout the perioperative process, providing both immediate and lasting protection.

**Use CHG + alcohol**

Guidelines issued by the World Health Organization (WHO) recommend using an alcohol-based antiseptic solution with chlorhexidine gluconate (CHG) for surgical site skin preparation. CHG and alcohol is a highly effective combination for skin prep before surgery.

**Efficacy of antiseptics**

When antiseptics are compared for persistence and quick kill, a CHG and alcohol prep performs well compared with povidone iodine and alcohol, or any active alone.

<table>
<thead>
<tr>
<th>Active</th>
<th>Quick Kill</th>
<th>Persistence</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHG + alcohol</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>Povidone-iodine + alcohol</td>
<td>Excellent</td>
<td>Moderate</td>
</tr>
<tr>
<td>CHG</td>
<td>Moderate</td>
<td>Excellent</td>
</tr>
<tr>
<td>Povidone-iodine</td>
<td>Moderate</td>
<td>Excellent</td>
</tr>
<tr>
<td>Alcohol</td>
<td>Excellent</td>
<td>None</td>
</tr>
</tbody>
</table>

**CHG + alcohol more effective than PVP-I**

Preoperative surgical skin preparation with chlorhexidine gluconate and alcohol is more effective than povidone-iodine aqueous in preventing SSI across clean and clean-contaminated surgery.

**Risk of multi-use preps**

Multi-use antiseptics, including those containing CHG, can and do become contaminated. Contamination has been linked by the CDC and the U.S. FDA to infection and even death.

Guidelines recommend the use of a disposable, single-use antiseptic to prevent potential contamination.

**One patient, one prep**

For Hospital and Healthcare Professional Use Only

3M™ SoluPrep™ antiseptic solution combines two clinically proven antiseptics (Chlorhexidine gluconate 2%w/v and Isopropyl alcohol 70%/v/v), for preparing patients’ skin prior to surgery, a practice that aligns with WHO guidelines.

3M™ SoluPrep™ antiseptic solution comes in disposable, single-unit dose delivery mechanisms, which eliminate the risk of contamination associated with multi-use bottles.

**Indication:** Antiseptic for preparation of the patient’s skin prior to invasive procedure of dry skin sites only. Helps reduce bacteria that potentially can cause skin infection.

**Product Features**

- Available tinted
- Large coverage area
- Economical
- Single-dose and disposable
- Easy to use

**Bottles:** CHG + alcohol in an economical delivery option.

**Sponges:** Cost-effective single use prep with application technique similar to bottles.

For full product information including warnings and precautions, refer to product labelling.
Preps alone are not enough.

While skin prep antiseptics reduce microbes, they work primarily on the skin surface, not in the deeper layers of the skin. Chlorhexidine gluconate (CHG), in skin preps, for example, does not penetrate into the deeper layers of the skin. Below a depth of 300 microns, CHG concentration may not be effective for killing bacteria. Without additional protection, residual bacteria on the skin’s surface and bacteria that migrate from the hair follicles can be picked up by items that touch the skin and transferred into the incision, increasing the patient’s risk of infection.

Use an incise drape.

An incise drape creates a physical barrier to prevent objects like instruments, gloves and sponges from coming into contact with the patient’s skin, reducing the risk of contamination that could cause a costly and potentially devastating SSI. In a recent ex vivo study on human skin, the iodine in 3M™ Ioban™ 2 Antimicrobial Incise Drape was shown to be present at concentrations effective against MRSA at a depth of 1,000 microns, in the deeper layers of the skin, where hair follicles are present.
Help lower SSI risk and costs.

Bejko study results

In a study published in 2015, 3M™ Ioban™ 2 Antimicrobial Incise Drape was associated with lower SSI risk and reduced cost when compared to a non-antimicrobial incise drape in cardiac surgery.

Method and objective:
New prospective randomized study of patients undergoing cardiac surgery. 1,616 patients were matched based on risk factors. 808 patients with skin prep and a standard clear incise drape, and 808 patients with skin prep and 3M™ Ioban™ 2 Antimicrobial Incise Drape. Examined the efficacy of 3M™ Ioban™ 2 antimicrobial incise drape versus a standard clear incise drape and evaluated cost-effectiveness of each.

71% SSI rate reduction

SSI rate reduction of 71%
At 6.5%, overall incidence of SSIs for patients who received a non-antimicrobial incise drape was significantly higher than the 1.9% of those who received 3M™ Ioban™ 2 Antimicrobial Incise Drapes (p=0.001).

Costs were calculated for each of the procedures as: cost of drape + daily cost of VAC + hourly cost of the operating room for wound debridement + daily cost in hospital ward + cost of ICU.

$828,000 USD = total cost savings or about $1,025 USD per patient with 3M™ Ioban™ 2 incise drapes.

Reduce wound infection rates.

Yoshimura study results

In a retrospective study involving liver resection surgery, 3M™ Ioban™ 2 incise drape, compared with no incise drape, was associated with a significant reduction in postoperative wound infection rates, from 12.1% to 3.1% (p=0.01).

Method and objective:
Retrospective study from 1994 to 2001 looking at 206 patients undergoing liver surgery. Examined the impact on wound infection using just a skin prep vs. a skin prep and 3M™ Ioban™ Incise Drapes.

Using an aseptic surface to fight SSIs

The risk of SSI is a real — and devastating — possibility for every surgical patient. Using an effective prep along with an antimicrobial incise drape reduces bacterial load and creates a sterile surface to minimise wound contamination.
### 3M™ Ioban™ 2 Antimicrobial Incise Drapes with paper liner

<table>
<thead>
<tr>
<th>3M Cat No.</th>
<th>Product</th>
<th>Adhesive area</th>
<th>Items/box</th>
<th>Boxes/case</th>
</tr>
</thead>
<tbody>
<tr>
<td>6635*</td>
<td>3M™ Ioban™ 2 Antimicrobial Incise Drape</td>
<td>10cm x 20cm</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>6640**</td>
<td>3M™ Ioban™ 2 Antimicrobial Incise Drape</td>
<td>34cm x 35cm</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>6650**</td>
<td>3M™ Ioban™ 2 Antimicrobial Incise Drape</td>
<td>56cm x 45cm</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>6648**</td>
<td>3M™ Ioban™ 2 Antimicrobial Incise Drape</td>
<td>56cm x 60cm</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>6651**</td>
<td>3M™ Ioban™ 2 Antimicrobial Incise Drape</td>
<td>56cm x 85cm</td>
<td>10</td>
<td>4</td>
</tr>
</tbody>
</table>

### 3M™ Ioban™ 2 Antimicrobial Incise Drapes EZ with plastic liner

<table>
<thead>
<tr>
<th>3M Cat No.</th>
<th>Product</th>
<th>Adhesive area</th>
<th>Items/box</th>
<th>Boxes/case</th>
</tr>
</thead>
<tbody>
<tr>
<td>6661EZ**</td>
<td>3M™ Ioban™ 2 Antimicrobial Incise Drape EZ</td>
<td>26cm x 20cm</td>
<td>50</td>
<td>2</td>
</tr>
<tr>
<td>6640EZ</td>
<td>3M™ Ioban™ 2 Antimicrobial Incise Drape EZ</td>
<td>35cm x 35cm</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>6650EZ</td>
<td>3M™ Ioban™ 2 Antimicrobial Incise Drape EZ</td>
<td>60cm x 45cm</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>6648EZ</td>
<td>3M™ Ioban™ 2 Antimicrobial Incise Drape EZ</td>
<td>60cm x 60cm</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>6651EZ</td>
<td>3M™ Ioban™ 2 Antimicrobial Incise Drape EZ</td>
<td>60cm x 85cm</td>
<td>10</td>
<td>4</td>
</tr>
</tbody>
</table>

### 3M™ Steri-Drape™ Drapes With Ioban™ 2 Incise Area (Specialty Drapes)

<table>
<thead>
<tr>
<th>3M Cat No.</th>
<th>Product</th>
<th>Overall size</th>
<th>Adhesive area</th>
<th>Items/box</th>
<th>Boxes/case</th>
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</thead>
<tbody>
<tr>
<td>6677</td>
<td>Cardiovascular Sheet with 3M™ Ioban™ 2 Incise Film</td>
<td>254cm x 381cm</td>
<td>41cm x 97cm</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>6617</td>
<td>Isolation Drape with 3M™ Ioban™ 2 Incise Film and Pouch</td>
<td>320cm x 213cm</td>
<td>50cm x 24cm</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>6619</td>
<td>Large Isolation Drape with 3M™ Ioban™ 2 Incise Film and Pouch</td>
<td>378cm x 254cm</td>
<td>70cm x 32cm</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>6682</td>
<td>Cardio/Chest Drape with 3M™ Ioban™ 2 Incise Film</td>
<td>325cm x 200cm</td>
<td>78cm x 43cm</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>6687*</td>
<td>Craniotomy Drape with 3M™ Ioban™ 2 Incise Pouch</td>
<td>196cm x 406cm</td>
<td>36.8cm x 21.4cm</td>
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<td>1</td>
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<tr>
<td>6697</td>
<td>Cesarean Section Sheet with 3M™ Ioban™ 2 Incise Pouch</td>
<td>254cm x 292cm</td>
<td>30cm x 30cm</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

* Available in Australia Only  ** Available in NZ only

Ordering Information

3M™ SoluPrep™ Antiseptic Solution (2% chlorhexidine gluconate, 70% isopropyl alcohol)

<table>
<thead>
<tr>
<th>3M Cat No.</th>
<th>Product</th>
<th>Size</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>100.27 Tinted</td>
<td>2 Sponges</td>
<td>50 mL</td>
<td>40cm x 40cm per sponge</td>
</tr>
<tr>
<td>103.26 Tinted</td>
<td>Bottle</td>
<td>225 mL</td>
<td>88cm x 87cm* (*per 100 mL)</td>
</tr>
</tbody>
</table>

Medicine Classification AU: OTC Medicine.
Medicine Classification NZ: General Sale Medicine.
References

7. Hooper et al. 2015 'Surgical site infection – a population-based study in Australian adults measuring the compliance with correct timing of appropriate antibiotic prophylaxis', Anaesesth Intensive Care, vol. 43, no. 4, pp. 461-467
23. 3M Medical Solutions Division
3M Australia Pty Limited
Building A, 1 Rivett Road, North Ryde NSW 2113
1300 363 878
www.3M.com.au/healthcare

3M New Zealand Limited
94 Apollo Drive, Rosedale, Auckland 0632
0800 80 81 82
www.3M.co.nz

For clinical and sales information, contact your 3M Sales Representative on 1300 363 878 (Australia) or 0800 80 81 82 (New Zealand).