REDUCING SURGICAL SITE INFECTION

Alexis® O Wound Protector/Retractor
“Programs that reduce the incidence of SSI can substantially decrease morbidity and mortality and reduce the economic burden for patients and hospitals.”
## Healthcare Impact

- SSI has added **$3 to $10 billion** to the cost of healthcare\(^1\)
- **2% to 5%** of patients undergoing inpatient surgery will develop an SSI\(^2\)
- There were over **290,000** cases of SSI in 2002, which resulted in over **8,000** deaths\(^3\)

## Patient Impact

On average, SSI patients:

- Spend an additional **7-10 days** in the hospital\(^4\)
- Are **60%** more likely to spend time in ICU\(^5\)
- Are **5 times** more likely to be readmitted to the hospital\(^5\)
- Have a **2-11 times** higher risk of death than patients without an SSI\(^4\)
- Require an additional cost of **$11,087 to $34,670** per infection\(^1\)

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Protection

- Significantly decreases risk of wound infection
- 360° of wound protection
- Maintains moisture at the incision site

Retraction

- 360° of circumferential retraction
- Distributes force evenly, eliminating point trauma and associated pain

Exposure

- Maximizes exposure, minimizes incision size
- Allows visualization of wound margins
- Frees up valuable hands in the Operating Room
Clinical Evidence


“Impervious plastic wound protectors reduce the risk of SSI when employed in non-trauma-related gastrointestinal and biliary tract surgery. Wound protectors represent a safe and simple intervention that may reduce postoperative morbidity and mortality.”

“There was a nonsignificant trend toward greater protective effect in studies using a dual ring protector (RR = 0.31, 95% CI 0.14-0.67, P = 0.003), rather than a single ring protector (RR = 0.83, 95% CI 0.38-1.83, P = 0.64).”


“Superficial incisional SSI was significantly diminished in the ALEXIS wound retractor group (P=0.006).”

“The ALEXIS wound retractor is more effective in preventing SSI in elective colorectal resections compared with conventional methods.”


“[E]nteric organisms were cultured twice as often from the inside surface of the retractor compared with the outside surface of the retractor (49% vs 26%, respectively; P < 0.0001).”

“[U]se of a plastic wound retractor may result in reduced enteric bacterial colonization of the surgical incision site during gastrointestinal surgery. Reduced colonization of the surgical incision site by enteric bacteria due to the use of a plastic wound retractor should result in a reduction in SSI following gastrointestinal surgery.”


“Laparoscopic colon and rectal resection using a clean and dirty technique, with sterile specimen extraction, re-gowning procedure and wound protection have proven to reduce the incidence of wound infections, for an overall SSI rate of 5.1% compared to previously reported rates of up to 30%.”
Clinical Evidence


“Only the use of a wound protector was found to significantly reduce the risk of wound infections in an adjusted analysis.”


“These results suggest that the [wound protector] protects an incision site from bacterial invasion.”

“[W]e consider that the low incidence of SSI may have resulted from the protective effects of the [wound protector].”


“In this study the use of barrier wound protection in elective open colorectal resectional surgery resulted in a clinically significant reduction in incisional surgical site infections.”

“There was a significant reduction in the incidence of incisional surgical site infections when the wound protector was used: 3 of 64 (4.7%) vs 15 of 66 (22.7%).”


“Our data demonstrate that a statistically significant reduction in the incidence of wound infection was achieved with the use of a wound-protection device. This device provides a simple intervention that may eventually have a large impact on the incidence of surgical wound infection and therefore annual health care expenditures.”
Clinical Evidence


“The wound infection rate of the [left upper quadrant] trocar site was significantly decreased when utilizing the wound retractor (18% to 0%).”


“We found that the wound retractor/protector prevented the incision site from drying, decreased tissue damage, and facilitated the migration of neutrophils, suggesting a preventive effect of the device with respect to wound infection.”

“The studied wound retractor/protector effectively protects wound tissue from damage due to environmental factors experienced during surgery.”


“The results of this study demonstrate that wound infection decreased significantly in the With Alexis retractor group.”

“It was suggested that the use of the Alexis wound retractor would protect surgical wounds from contamination by bacteria and thus prevent infection.”


“We have noticed a decrease in the incidences of wound infection after using the wound protector at our trocar site.”
Facility/System Name: Sample Facility  
City, State: Rancho Santa Margarita, CA  
Presented By: Applied Medical Representative

### Current Infection Analysis

<table>
<thead>
<tr>
<th></th>
<th>Sample Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Colorectal Procedures</td>
<td>360</td>
</tr>
<tr>
<td>Facility Colorectal Surgical Site Infection Rate</td>
<td>5.90%</td>
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<tr>
<td>Annual Colorectal Surgical Site Infections</td>
<td>21</td>
</tr>
<tr>
<td>Average Cost of a Colorectal Surgical Site Infection</td>
<td>$11,087</td>
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<tr>
<td>Annual Cost of Colorectal Surgical Site Infections</td>
<td>$232,827</td>
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</table>

### Financial Impact

<table>
<thead>
<tr>
<th>Investment in Alexis SSI Prevention Initiative</th>
<th>Savings in Colorectal SSI</th>
<th>TOTAL SAVINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>$24,120</td>
<td>$110,870</td>
<td>$86,750</td>
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</tbody>
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### Projected Infection Reduction with Alexis O Wound Protector

<table>
<thead>
<tr>
<th></th>
<th>50% Infection Reduction²</th>
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</thead>
<tbody>
<tr>
<td>Reduced Infection Rate with Alexis O Protector</td>
<td>2.95%</td>
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<tr>
<td>Annual Colorectal Surgical Site Infections</td>
<td>11</td>
</tr>
<tr>
<td>Annual Cost of Colorectal Surgical Site Infections</td>
<td>$121,957</td>
</tr>
<tr>
<td>Annual Cost of Alexis O Protectors for Colorectal Procedures</td>
<td>$24,120</td>
</tr>
</tbody>
</table>


2. Clinical studies have shown that the use of the Alexis O Protect in colorectal procedures reduced the occurrence of surgical site infections among patients between 79-100%. The above cost value analysis demonstrates savings based on a conservative 50% reduction in colorectal SSI rates.  

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Prepare the surgical site according to standard procedure, making sure the skin is clean and dry.

1. Place the template over the incision site, and mark an appropriate length incision line using a sterile marker.

2. Make an incision along the marked incision line.

3. Insert the green ring of the Alexis O wound retractor into the operative site.

4. Gently grasp the white retraction ring of the Alexis O retractor at the 10 o’clock and 2 o’clock position and roll inward.

5. Repeat until ultimate retraction is obtained.

6. Carefully check to ensure that no bowel or tissue entrapment has occurred.

7. Perform procedure through 360° retracted and protected incision site.

8. Retrieve the Alexis O retractor by simply removing the green inner ring from the peritoneal cavity.
The Alexis wound protectors are indicated for soft tissue and thoracic retraction

- Post Partum Tubal Ligation (XXS/XS)
- Bilateral Salpingo Oophorectomy (XS/S)
- Thyroidectomy (XS/S)
- Video-Assisted Thoracoscopic Surgery (VATS) (XXS/XS/S)
- Thoracotomy (S/M)
- Appendectomy (S/M)
- Myomectomy (S/M)

- Lap Colectomy (S/M)
- Mini-Laparotomy (S/M)
- Total Abdominal Hysterectomy (S/M/L)
- Mitral Valve Repair/Replacement (S/M)
- Cesarean Section (L/XL)
- Open Gastric Bypass (L/XL)
- Splenectomy (L/XL)
- Open Colon (L/XL)
- Pancreatectomy (L/XL)
# Breadth of Product Lines

## Alexis O Wound Protector/Retractor

*Featuring a rigid retraction ring for superior exposure*

<table>
<thead>
<tr>
<th>Reorder No.</th>
<th>Size</th>
<th>Qty</th>
</tr>
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<tbody>
<tr>
<td>C8401</td>
<td>Small, 2.5 – 6cm</td>
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</tr>
<tr>
<td>C8402</td>
<td>Medium, 5 – 9 cm</td>
<td>5/box</td>
</tr>
<tr>
<td>C8403</td>
<td>Large, 9 – 14cm</td>
<td>5/box</td>
</tr>
<tr>
<td>C8404</td>
<td>X-Large, 11 – 17cm</td>
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</table>

## Alexis Wound Protector/Retractor

*Featuring a flexible retraction ring for maximum conformity*

<table>
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</tr>
<tr>
<td>C8312</td>
<td>X-Small, 2 – 4cm</td>
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<td>C8301</td>
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<tr>
<td>C8302</td>
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<td>C8303</td>
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<tr>
<td>C8304</td>
<td>X-Large, 11 – 17cm</td>
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## Alexis O C-Section Retractor

*Featuring a rigid retraction ring for superior exposure*

<table>
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<th>Reorder No.</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>G6314</td>
<td>X-Large, 11 – 17cm</td>
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</tbody>
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## Alexis Laparoscopic System

*Featuring a rigid retraction for superior exposure*

<table>
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<tr>
<td>C8702</td>
<td>Medium, 5 – 9 cm</td>
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</tbody>
</table>

## Alexis Orthopaedic Protector

*Featuring a rigid retraction ring for superior exposure*

<table>
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<th>Reorder No.</th>
<th>Size</th>
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</thead>
<tbody>
<tr>
<td>HR001</td>
<td>Small/Small, 2.5 – 8cm</td>
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<tr>
<td>HR004</td>
<td>Small/Medium, 2.5 – 8cm</td>
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<tr>
<td>HR005</td>
<td>Medium/Large, 5 – 13cm</td>
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