Alexis®

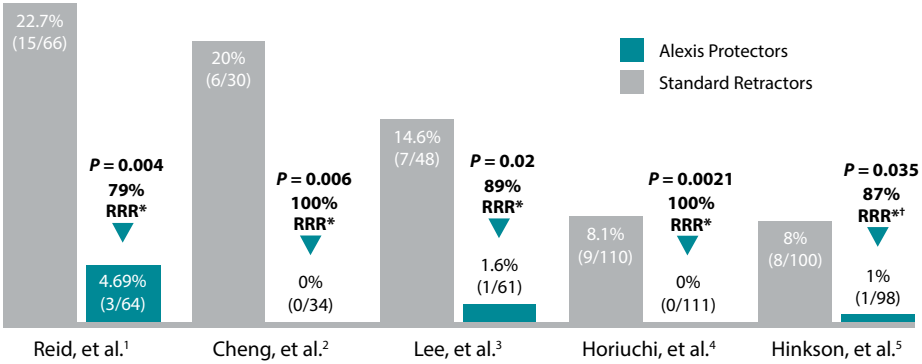
Wound Protectors/Retractors

Applied Medical

IS ALEXIS BRAND PART OF YOUR STANDARD OF CARE?

Protect Every Incision with Alexis Wound Protectors

Rate of Superficial Incisional SSI – Alexis Protectors vs. Standard Retractors



**RRR (relative risk reduction) was defined as the proportion of the control group (standard retractors) experiencing a given outcome minus the proportion of the treatment group (Alexis protector) experiencing the outcome, divided by the proportion of the control group (standard retractors) experiencing the outcome.*
†Data reflects superficial/deep incisional and organ space SSI

360° Protection:

Reduces surgical site infection[1-5]

Shields incision site from bacterial invasion[6,7]

Maintains moisture to promote healing[8]

360° Atraumatic Retraction:

Maximizes exposure with a minimum incision size

Offers unparalleled exposure without trauma and pain associated with prolonged point retraction

Provides hands-free retraction, reducing strain, discomfort and fatigue associated with traditional hand-held retractors[9]

Creates tamponade effect to minimize blood loss[5]

Ultimate Versatility:

Achieves protection and retraction in a wide range of specialties, patient sizes and incision sizes

Facilitates rapid and effortless setup

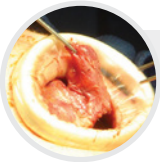
Procedural Applications

Colon & Rectal

Lap Colectomy (S, M Laparoscopic System)
Open Colectomy (L, XL, XXL)

Bariatric

Lap Gastric Bypass (XS, S)
Open Gastric Bypass (L, XL)



General

Inguinal Hernia Repair (XS, S)
Thyroidectomy (XS, S)
Appendectomy (S, M)
Splenectomy (L, XL)
Pancreatectomy (L, XL)
Whipple (L, XL, XXL)

Cardiothoracic

Video-Assisted Thoracoscopic Surgery (VATS) (XXS, XS, S)
Mitral Valve Repair/Replacement (S, M)
Thoracotomy (S, M)

OB/GYN

Postpartum Tubal Ligation (XXS, XS)
Bilateral Salpingo-Oophorectomy (XS, S)
Lap Hysterectomy (S, M Laparoscopic System)
Mini-Laparotomy (S, M)
Myomectomy (S, M)
Total Abdominal Hysterectomy (S, M, L)
Cesarean Section (L, XL)

Breast

Lumpectomy (XS, S)
Mastectomy (S, M)
Sentinel Lymph Node Biopsy (XXS, XS, S)

Orthopaedic

Total Shoulder Arthroplasty (S/S)
Total Hip Arthroplasty (S/M, M/L)

Alexis O Wound Protector/Retractor

Featuring a rigid retraction ring for maximum exposure

Reorder No.	Size	Sheath Length	Incision Range	Qty/Box
C8401	Small	18cm	2.5-6cm	5/Box
C8402	Medium	18cm	5-9cm	5/Box
C8403	Large	25cm	9-14cm	5/Box
C8404	X-Large	34cm	11-17cm	5/Box
C8405	XX-Large	36cm	17-25cm	5/Box

Alexis Wound Protector/Retractor

Featuring a flexible retraction ring for anatomical conformity

Reorder No.	Size	Sheath Length	Incision Range	Qty/Box
C8313*	XX-Small	20cm	1-3cm	5/Box
C8323*	XX-Small, Short	11cm	1-3cm	5/Box
C8312	X-Small	19cm	2-4cm	5/Box
C8322	X-Small, Short	13cm	2-4cm	5/Box
C8301	Small	18cm	2.5-6cm	5/Box
C8302	Medium	18cm	5-9cm	5/Box
C8303	Large	25cm	9-14cm	5/Box
C8304	X-Large	34cm	11-17cm	5/Box

Alexis O C-Section Protector/Retractor

Featuring a rigid retraction ring for maximum uterine exposure

Reorder No.	Size	Sheath Length	Incision Range	Qty/Box
G6313	Large	25cm	9-14cm	5/Box
G6314	X-Large	34cm	11-17cm	5/Box

*Models including a tether to facilitate device removal

Alexis Laparoscopic System with Kii® Fios® First Entry

Featuring a laparoscopic cap and trocar to facilitate specimen extraction

Reorder No.	Size	Sheath Length	Incision Range	Qty/Box
C8701	Small	18cm	2.5-6cm	5/Box
C8702	Medium	18cm	5-9cm	5/Box

Alexis Orthopaedic Protector

Featuring a rigid retraction ring for maximum retraction and a flexible retraction ring for maximum versatility

Reorder No.	Size	Sheath Length	Incision Range	Qty/Box
Rigid Retraction Ring				
HR001	Small/Small	14cm	2.5-8cm	5/Box
HR004	Small/Medium	14cm	2.5-8cm	5/Box
HR005	Medium/Large	17cm	5-13cm	5/Box
Flexible Retraction Ring				
HR101	Small/Small	14cm	2.5-8cm	5/Box
HR104	Small/Medium	14cm	2.5-8cm	5/Box
HR105	Medium/Large	17cm	5-13cm	5/Box

1. Reid K, Pockney P, Draganic B, Smith SR. Barrier wound protection decreases surgical site infection in open elective colorectal surgery: A randomized clinical trial. *Dis Colon Rectum*. 2010;53(10):1374-1380. (Level of Evidence 1)

2. Cheng KP, Roslani AC, Sehha N, et al. ALEXIS O-Ring wound retractor vs conventional wound protection for the prevention of surgical site infections in colorectal resections. *Colorectal Dis*. 2012;14(6):e346-e351. (Level of Evidence 1)

3. Lee P, Waxman K, Taylor B, Yim S. Use of wound-protection system and postoperative wound-infection rates in open appendectomy: A randomized prospective trial. *Arch Surg*. 2009;144(9):872-875. (Level of Evidence 1)

4. Horiuchi T, Tanishima H, Tamagawa K, et al. Randomized, controlled investigation of the anti-infective properties of the Alexis retractor/protector of incision sites. *J Trauma*. 2007;62(1):212-215. (Level of Evidence 1)

5. Hinkson L, Siedentopf J-P, Weichert A, Henrich W. Surgical site infection in cesarean sections with the use of a plastic sheath wound retractor compared to the traditional self-retaining metal retractor. *Eur J Obstet Gynecol Reprod Biol*. 2016;203:232-238. (Level of Evidence 1)

6. Horiuchi T, Tanishima H, Tamagawa K, et al. A wound protector shields incision sites from bacterial invasion. *Surg Infect (Larchmt)*. 2010;11(6):501-503. (Level of Evidence 4)

7. Mohan HM, McDermott S, Fenelon L, et al; Members of the University College Dublin Wound Retractor Study Group. Plastic wound retractors as bacteriological barriers in gastrointestinal surgery: A prospective multi-institutional trial. *J Hosp Infect*. 2012;81(2):109-113. (Level of Evidence 2)

8. Horiuchi T, Nakatsuka S, Tanishima H, et al. A wound retractor/protector can prevent infection by keeping tissue moist and preventing tissue damage at incision sites. *Helix Review Series: Infectious Diseases*. 2007;(3):17-23. (Level of Evidence 5)

9. Spera P, Lloyd JD, Hernandez E, et al. AORN ergonomic tool 5: Tissue retraction in the perioperative setting. *AORN J*. 2011;94(1):54-58.

Visit www.appliedmedical.com/alexis for more information

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Clinical Evidence

Supporting the Use of Alexis Wound Protectors

"Our meta-analysis found that dual-ring wound protectors reduce the odds of SSI in patients undergoing lower gastrointestinal surgery."

...

"We demonstrated evidence of a subgroup difference where dual-ring wound protectors reduced SSIs while single-ring retractors did not, which provides greater insight in the choice of wound protection devices."

Zhang L, Elsolh B, Patel SV. Wound protectors in reducing surgical site infections in lower gastrointestinal surgery: An updated meta-analysis. *Surg Endosc.* 2018;32(3):1111-1122. (Level of Evidence 1)

"Among adult patients with intrabiliary stents, the use of a dual-ring wound protector during [pancreaticoduodenectomy] significantly reduces the risk of incisional SSI."

Bressan AK, Aubin J-M, Martel G, et al. Efficacy of a dual-ring wound protector for prevention of surgical site infections after pancreaticoduodenectomy in patients with intrabiliary stents: A randomized clinical trial. *Ann Surg*. 2018;268(1):35-40. (Level of Evidence 1)

"[T]he use of plastic-sheath wound retractors such as the Alexis® O C-Section Retractor compared to the traditional Collins self-retaining metal retractor in low-risk women, having the first cesarean is associated with a significantly reduced risk of surgical site infection."

...

"There is significant reduction in the use of electric cautery for subcutaneous bleeding, bowel handling and postoperative pain. Operator satisfaction is improved and postoperative pain is less."

Hinkson L, Siedentopf J-P, Weichert A, Henrich W. Surgical site infection in cesarean sections with the use of a plastic sheath wound retractor compared to the traditional self-retaining metal retractor. *Eur J Obstet Gynecol Reprod Biol.* 2016;203:232-238. (Level of Evidence 1)

"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."

Edwards JP, Ho AL, Tee MC, Dixon E, Ball CG. Wound protectors reduce surgical site infection: A meta-analysis of randomized controlled trials. *Ann Surg*. 2012;256(1):53-59. (Level of Evidence 1)

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

Cheng KP, Roslani AC, Sehha N, et al. ALEXIS O-Ring wound retractor vs conventional wound protection for the prevention of surgical site infections in colorectal resections. *Colorectal Dis*. 2012;14(6):346-351. (Level of Evidence 1)

"[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."

Mohan HM, McDermott S, Fenelon L, et al; Members of the University College Dublin Wound Retractor Study Group. Plastic wound retractors as bacteriological barriers in gastrointestinal surgery: A prospective multi-institutional trial. *J Hosp Infect.* 2012;81(2):109-113. (Level of Evidence 2)

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

Horiuchi T, Tanishima H, Tamagawa K, et al. A wound protector shields incision sites from bacterial invasion. *Surg Infect (Larchmt)*. 2010;11(6):501-503. (Level of Evidence 4)

"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%); P = .004."

Reid K, Pockney P, Draganic B, Smith SR. Barrier wound protection decreases surgical site infection in open elective colorectal surgery: A randomized clinical trial. *Dis Colon Rectum*. 2010;53(10):1374-1380. (Level of Evidence 1)

"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."

Lee P, Waxman K, Taylor B, Yim S. Use of wound-protection system and postoperative wound-infection rates in open appendectomy: A randomized prospective trial. *Arch Surg*. 2009;144(9):872-875. (Level of Evidence 1)

"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."

Horiuchi T, Nakatsuka S, Tanishima H, et al. A wound retractor/protector can prevent infection by keeping tissue moist and preventing tissue damage at incision sites. *Helix Review Series: Infectious Diseases*. 2007;(3):17-23. (Level of Evidence 5)

"Wound infection was significantly diminished in the With Alexis retractor group (p=0.0021)."

Horiuchi T, Tanishima H, Tamagawa K, et al. Randomized, controlled investigation of the anti-infective properties of the Alexis retractor/protector of incision sites. *J Trauma*. 2007;62(1):212-215. (Level of Evidence 1)

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SITE **INFECTION**

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