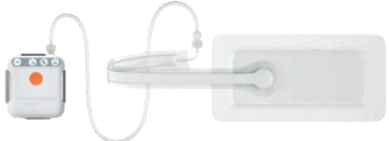
# Reducing the human and economic burden in abdominal surgery

Helping you get **CLOSER TO ZERO**◊ surgical site complications.

Smith+Nephew

PICO◊ 7

Single Use Negative Pressure Wound Therapy System



# Risks in abdominal surgery

Patient challenges are increasing:[1]

- **BMI ≥30**
- **ASA ≥3**
- **Diabetes**
- **Co-morbidities**

- Many wounds classified as contaminated/dirty:[2]
  **18%** to **48%** of bowel surgeries
- High incidence rate of surgical site infections (SSI):[1,2]
  **9.2%** to **27.6%** in large bowel surgery
- Majority are superficial incisional infections:[1,2]
  **62%** of large bowel surgeries

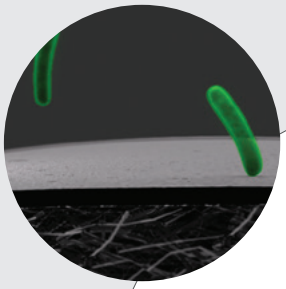
In abdominal surgery, identifying your high risk patients and using PICO may help reduce the cost and burden associated with SSIs.[3,4]

# Improving outcomes with incisional Negative Pressure Wound Therapy

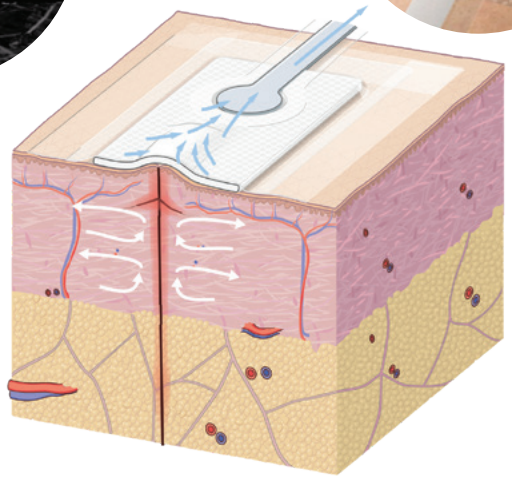
Negative Pressure Wound Therapy has multiple mechanisms of action that improve the speed, strength and quality of incisional wound healing. This minimises wound complications such as oedema, seroma and haematoma formation as well as dehiscence.[5]

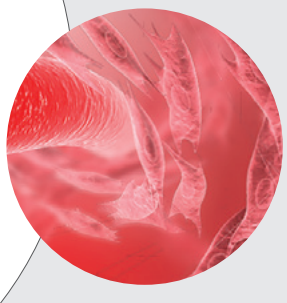
## The benefits of Negative Pressure Wound Therapy are:

**Protects** the incision from external contamination.[6]

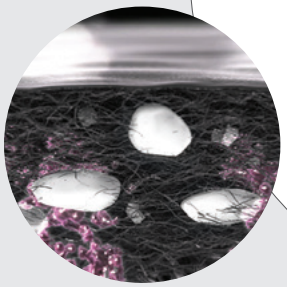


Holds closed incision edges together and helps **reduce tensile forces** across the incision.[7*]

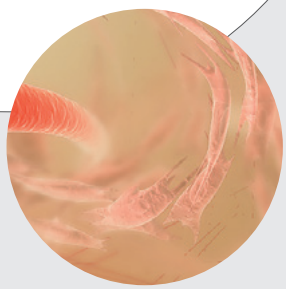




Helps **promote perfusion.**[9]



**Reduces seroma and haematoma** fluid collections.[4,8]

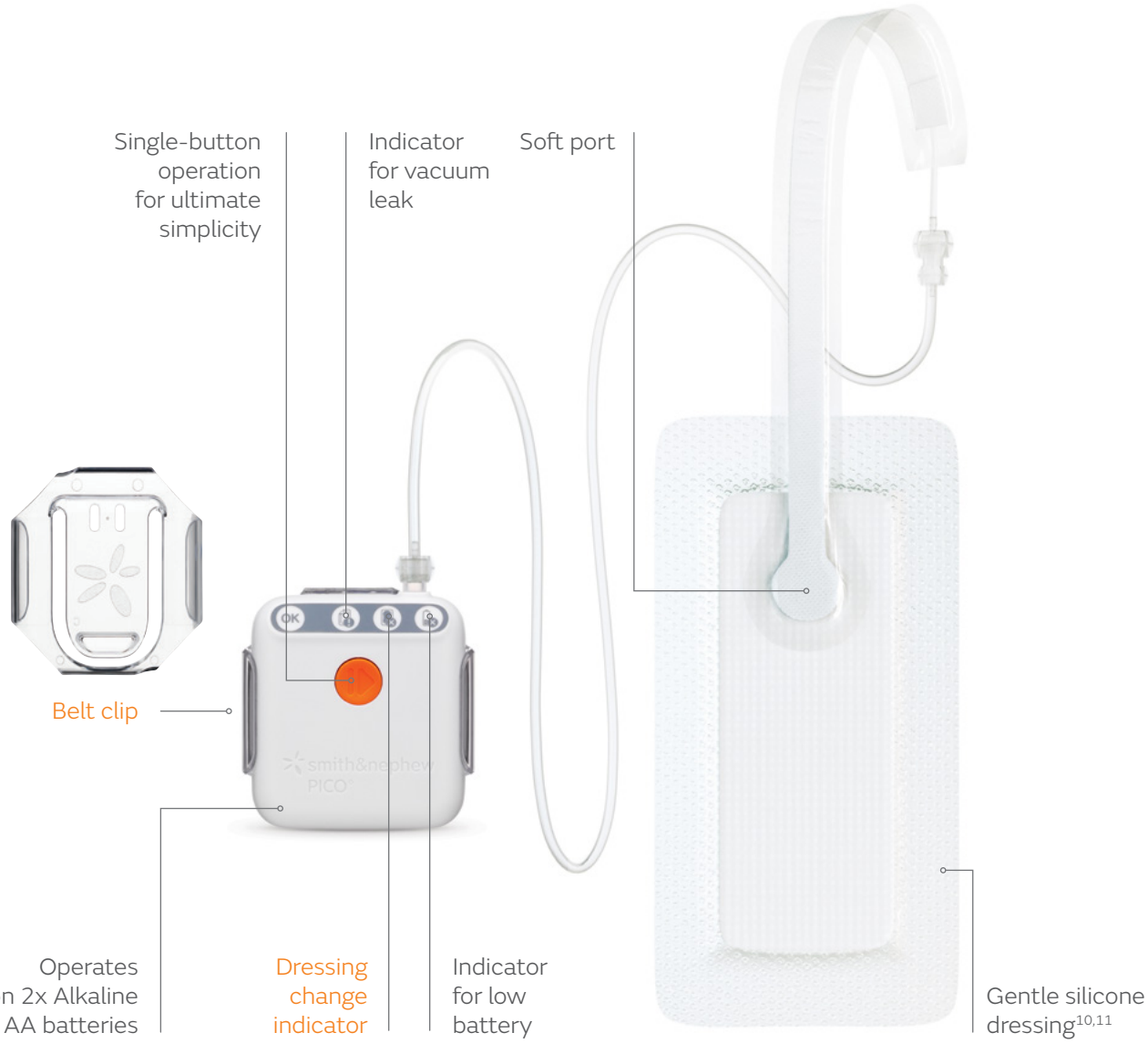


Helps **reduce oedema.**[9]

**In vitro* testing

# PICO◊ 7 with AIRLOCK◊ Technology: improved single-use NPWT

## The elements



# PICO◊ 7 dressings with AIRLOCK◊ Technology: leading the way in NPWT for closed surgical incision sites

**Absorption**[9]*

**20%**

Approximately 20% fluid still remains in the dressing

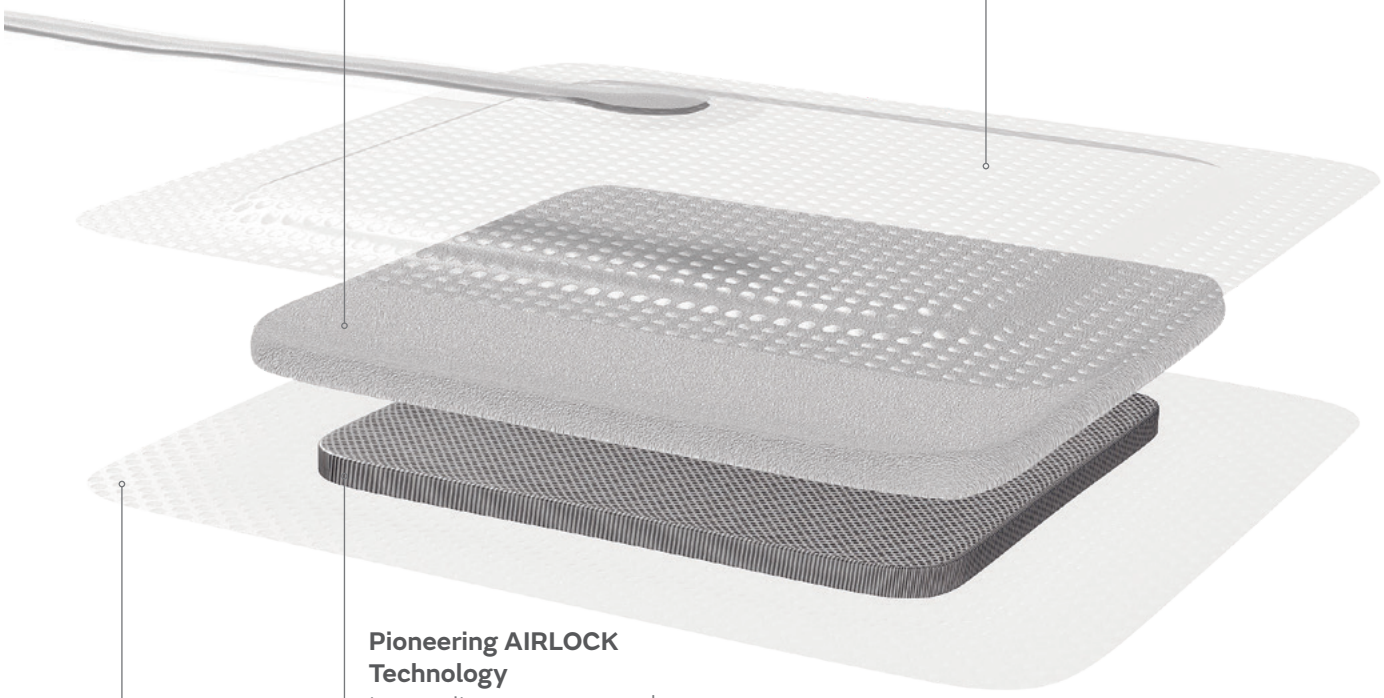
**Evaporation**[9]*

**80%**

On average 80% of the exudate is lost by evaporation

**Absorbent core**
locking exudate away from wound[9,12]*

**Top film layer**
has a high moisture vapour transmission rate[9] and protects the wounds from external contamination[13]



**Pioneering AIRLOCK Technology**
transmits pressure evenly across whole wound bed[9,14]

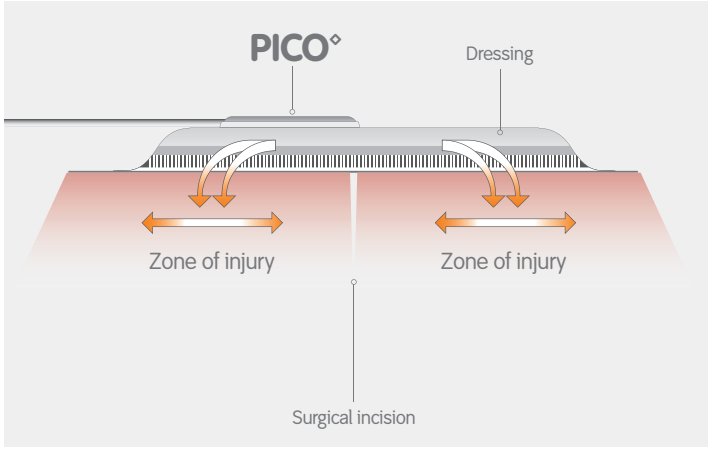
**Silicone adhesive layer**
protects the wound environment and helps to reduce pain on removal[13,15]†

For patient outcomes,
**this changes everything**

**In vitro* testing.
†ALLEVYN™ dressing has the identical silicone adhesive wound contact layer, with the same properties as the PICO dressing.

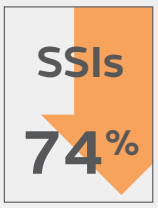
# The PICO◊ 7 system
# Pioneering by design

PICO 7 has a proprietary AIRLOCK◊ Technology layer which ensures that pressure is distributed in a uniform way across the incision and the zone of injury.[9,16*]




This pioneering AIRLOCK Technology layer also helps support the movement of fluid away from the wound and in conjunction with the super absorbent core prevents up to 99.9% of bacteria movement to the wound contact layer. It ensures that bacteria are locked away from the wound.[17*]

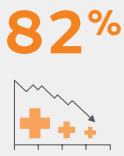
# Improving outcomes with PICO
# NPWT for surgical wounds




## Reduce SSIs by 74%

For patients with closed laparotomy wounds following abdominal surgery, PICO *significantly reduced* the incidence of SSIs by 74%†, compared to care with standard dressings, helping to reduce the length of hospital stays.[3]

For high-risk patients **this changes everything**




## Reduce seroma by 82%

In abdominal surgery for Crohn's disease, PICO *significantly reduced* the incidence of seroma by 82%‡, and reduced post-surgical complications compared to care with standard dressings.[4]

For patient recovery **this changes everything**

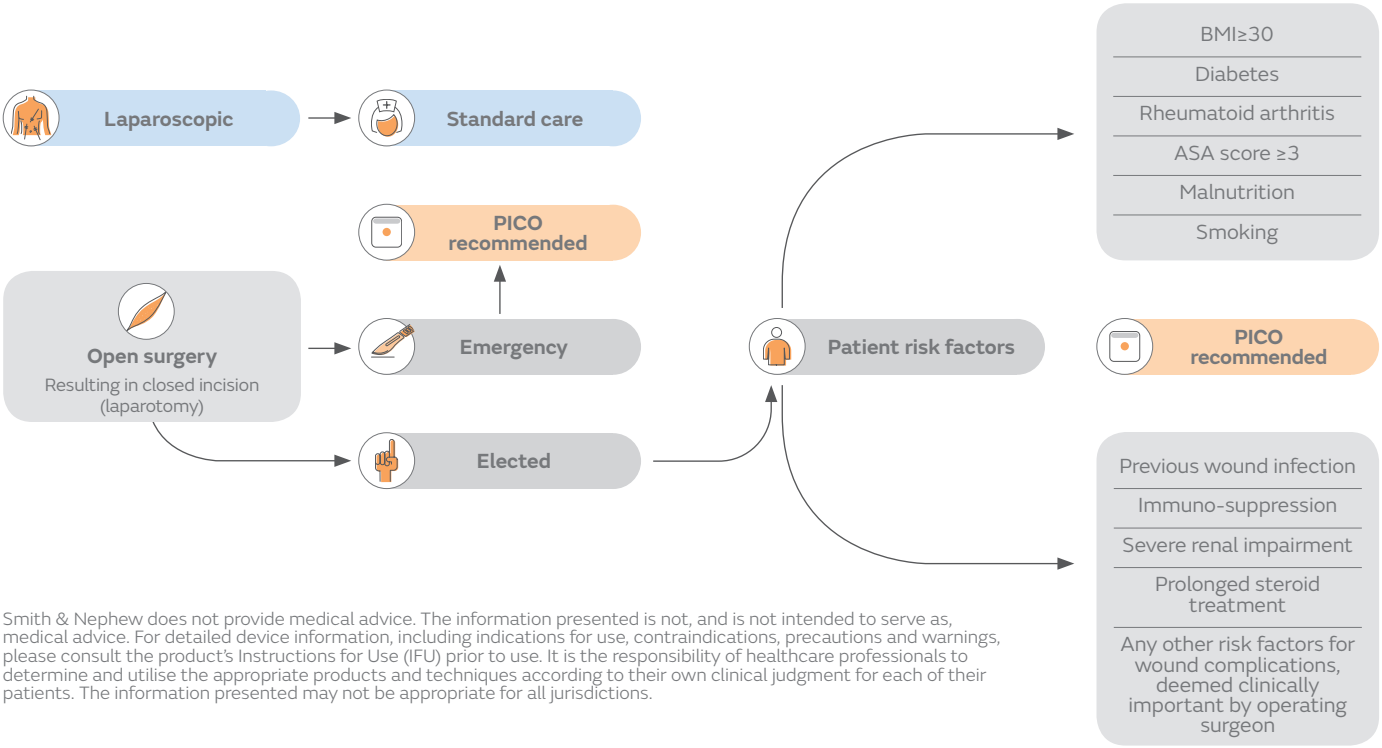

## Cut hospital stays by up to 8.6 days

In patients with closed laparotomy wounds following abdominal surgery, those treated with PICO had *significantly reduced* hospital stays, that on average were 8.6 days§ shorter than those treated with standard dressings.[4]

For healthcare budgets **this changes everything**

*_In vitro_ test over 4 days at -80mmhg. †Reduced SSIs %: 50 patient study; PICO 2 patients (8.3%); control group 8 patients (32.0%); p=0.043. ‡Reduction in seroma: 50 patient study. PICO 2 patients (8%); standard care 11 patients (44%); p=0.008. §50 patient study; length of stay reduced: PICO 6.1 days, control group 14.7 days; p=0.019.

# Abdominal surgery pathway[18]




Smith & Nephew does not provide medical advice. The information presented is not, and is not intended to serve as, medical advice. For detailed device information, including indications for use, contraindications, precautions and warnings, please consult the product's Instructions for Use (IFU) prior to use. It is the responsibility of healthcare professionals to determine and utilise the appropriate products and techniques according to their own clinical judgment for each of their patients. The information presented may not be appropriate for all jurisdictions.

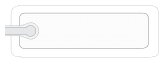
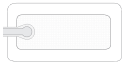
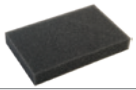
# ACTICOAT◊ Flex Antimicrobial Silver Barrier Dressing

## Proven antimicrobial protection

- Fast acting - ACTICOAT rapidly kills bacteria in as little as 30 minutes.[19-22]
- Effective against 150+ broad pathogens including MRSA, VRE and fungi.[19,20, 23-27]
- Sustained release of silver providing efficacy up to 3 or 7 days.[24,26]
- Open weave design allows easy fluid migration and exudate passage making it an ideal primary wound contact layer under negative pressure wound therapy.[28]

# Ordering information

## PICO◊ 7

| Dressing | Dressing size | 2x dressing kit* | 1x dressing kit** | Multipacks*** |
|---|---|---|---|---|
|  | 10cm x 20cm | 66802002 | 66802012 | 66802022 |
| | 10cm x 30cm | 66802003 | 66802013 | 66802023 |
| | 10cm x 40cm | 66802004 | 66802014 | 66802024 |
|  | 15cm x 15cm | 66802005 | - | - |
|  | 15cm x 20cm | 66802006 | - | - |
| | 15cm x 30cm | 66802007 | - | - |
|  | 20cm x 20cm | 66802008 | - | - |
| | 25cm x 25cm | 66802009 | - | - |
|  | Multisite small 15cm x 20cm | 66802000 | - | - |
| | Multisite large 20cm x 25cm | 66802001 | - | - |
| **Consumables** | **Dressing size** | **Product code** | | |
|  | Foam dressing filler 10cm x 12.5cm x 1.5cm | 66801021 | - | - |
|  | Gauze dressing filler 11.4cm x 3.7m | 66802127 | - | - |

* 2 x dressing kit = 2 dressings + 1 pump; ** 1 x dressing kit = 1 dressing + 1 pump; *** Multipacks = 5 dressings only

## ACTICOAT◊ Flex 3

| Code | Description | Items per unit |
|---|---|---|
| 66801290 | 4cm x 15cm | Box/5 |
| 66801291 | 4cm x 25cm | Box/5 |
| 66801292 | 4cm x 35cm | Box/5 |
| 66800396 | 5cm x 5cm | Box/5 |
| 66800398 | 10cm x 10cm | Box/5 |

## ACTICOAT◊ Flex 7

| Code | Description | Items per unit |
|---|---|---|
| 66800395 | 5cm x 5cm | Box/5 |
| 66800397 | 10cm x 12.5cm | Box/5 |

*_In vitro_ testing does not necessarily predict clinical performance.

Smith & Nephew Pty Ltd
Australia
T +61 2 9857 3999
F +61 2 9857 3900

Smith & Nephew Ltd
New Zealand
T +64 9 820 2840
F +64 9 820 2841

www.smith-nephew.com/australia
www.smith-nephew.com/new-zealand

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For detailed product information, including indications for use, contraindications, precautions and warnings, please consult the product's applicable Instructions for Use (IFU) prior to use.

**References:**

**1.** Tanner, et al. Post-discharge surveillance to identify colorectal surgical site infection rates and related costs, *J Hosp Infect* 2009. 72; 243-250. **2.** Public Health England, Surveillance of Surgical Site Infections in NHS Hospitals in England, December 2017. **3.** O'leary DP, Peirce C, Anglim B, et al. Prophylactic Negative Pressure Dressing Use in Closed Laparotomy Wounds Following Abdominal Operations: A Randomized, Controlled, Open-label Trial: The P.I.C.O. Trial. *Ann Surg.* 2017;265(6):1082-1086. **4.** Selvaggi F, Pellino G, Sciaudone G, et al. New Advances in Negative Pressure Wound Therapy (NPWT) for Surgical Wounds of Patients Affected with Chron's Disease. *Surgical Technology International.* 2014;24:83-89. **5.** Karlakki S, et al. Negative pressure wound therapy for management of the surgical incision in orthopaedic surgery. *Bone Joint Res* 2013; 2: 276-284. **6.** Lumb H. Bacterial barrier testing (wet-wet) of PICO™ dressing with a 7 day test duration against S. marcescens. Data on file; 2011: report 1102010. **7.** Loveluck J, et al. Biomechanical modeling of the forces applied to closed incisions during single-use Negative Pressure Wound Therapy. *ePlasty* 2016; 16:1 83-195. **8.** Canonico S, et al. Therapeutic possibilities with portable NPWT. Initial multidisciplinary observations with the negative pressure device. *Acta Vulnol* 2012; 10: 57-66. **9.** Malmsjö M, Huddleston E, Martin R. Biological Effects of a Disposable, Canisterless Negative Pressure Wound Therapy System. *ePlasty.* 2014;14:1 - 15. **10.** Hurd T, et al. A multi-centre in-market evaluation of ALLEVYN Gentle border. *Wounds UK* 2009; 5: 32-44. **11.** Rossington, A; A prospective, open, non-comparative, multicentre study to evaluate the functionality and dressing performance of a new negative pressure enhanced dressing (NPED) in acute wounds, CT09/02, May 2015. **12.** Data on File DS/18/015/R. Summary Wound Model Report for Opal PICO 7. January 2018. **13.** Data on file reference 1102010 – Bacterial Barrier Testing (wet-wet) of PICO Dressing with a 7 day Test Duration against S. marcescens; Helen Lumb, February 2011.**14.** Data on File. DS/17/253/R. Project Opal PICO 7 System Stability Testing – Initial Time Point. October 2017. **15.** Hurd T, et al. A multi-centre in-market evaluation of ALLEVYN Gentle border. *Wounds UK* 2009; 5: 32-44. **16.** Data on File. DS/17/253/R. Project Opal PICO 7 System Stability Testing – Initial Time Point. October 2017. **17.** Data on file reference 1712012 Retention of P. aeruginosa & S. aureus in PICO dressings after 24hrs NPWT. December 2017. **18.** Caswell and Whitehouse. Prophylactic use of PICO Negative Pressure Wound Therapy to reduce surgical site infections following large bowel surgery. Wounds UK, Harrogate 2015. **19.** Wright JB, Lam K, Hansen D, Burrell RE. Efficacy of topical silver against fungal burn wound pathogens. *American Journal of Infection Control* 1999;27(4):344-50. **20.** Wright JB, Lam K, Burrell RE. Wound management in an era of increasing bacterial antibiotic resistance: a role for topical silver treatment. *American Journal of Infection Control* 1998; 26(6):572-577. **21.** Driffield K. ACTICOAT™ Flex 7 has antimicrobial activity in 30 minutes. Data on file; 2008: report 0810014. **22.** Driffield K. ACTICOAT™ Flex 3 has antimicrobial activity in 30 minutes. Data on file; 2008: report 0810018. **23.** Driffield K. Antimicrobial activity of ACTICOAT™ Flex 7 against a broad spectrum of wound pathogens. Data on file; 2008: report 0810012. **24.** Driffield, K; Antimicrobial activity of ACTICOAT™ Flex 7 dressings in a seven-day repeat challenge. Data on file; 2008: report 0810013. **25.** Driffield K. Antimicrobial Activity of ACTICOAT™ Flex 3 Antimicrobial activity of ACTICOAT™ Flex 3 against a broad spectrum of wound pathogens. Data on File; 2008: report 0810016. **26.** Driffield K. Antimicrobial activity of ACTICOAT™ Flex 3 dressings in a 3 day repeat challenge test. Data on file; 2008: report 0810017. **27.** Sherritt Inc, Westaim Biomedical Inc. Broad spectrum efficacy. Data on file; 1993: report 931001. **28.** Lumb H. The antimicrobial activity of ACTICOAT™ Flex 3 while under Negative Pressure Wound Therapy. Data on file; 2008: report 0810015.