IV and Drain Management Solutions

smith&nephew

IV3000◇

OPSITE◇ Visible Drain Dressing

ACTICOAT◇ Site

The human and economic cost of IV management

Through the provision of quality dressings for the management of IV lines, we can help to reduce bacterial growth near the IV site and provide security to vascular access devices. By lessening the risk of a patient developing an infection or experiencing device dislodgement, we can limit discharge delays and costs associated with these risks whilst increasing the likelihood of improving patient comfort.

"Catheter-related infection is recognised as a significant clinical problem."[1]

Do all dressings help to reduce the risk of infection?

Tape and gauze and non-woven adhesive dressings help to keep the insertion site dry, but they offer little protection against external pathogens such as bacteria and viruses.

While film dressings can offer protection against bacteria, another important consideration is how well a film dressing maintains the dryness of a site through its permeability or ability to breathe.

The Importance of keeping the site dry

Most film dressings have a low permeability suitable for moist wound healing, which encourages a layer of moisture underneath the dressing, necessary to facilitate repair of tissue and healing of a wound. With an IV site however, it is important that the insertion site remains dry and any moisture that is accumulated under the dressing is allowed to be transpired to the external environment. As bacterial proliferation can commonly occur in the presence of moisture, high permeability is of the utmost importance in an IV site dressing.

Moisture Vapour Transmission Rate (MVTR)

The MVTR represents the amount of moisture that passes through a dressing during a given period of time. The higher the MVTR, the more effectively moisture is removed, preventing the accumulation of pools of moisture under the membrane. MVTR is measured in g/m^2/24hrs.

Cutaneous colonisation of the insertion site and moisture accumulation under the dressing are significant risk factors for catheter-related infection.[2]

To help prevent catheter-related infection, guidelines state that dressings should be permeable to water vapour to maintain a dry IV site.[2]

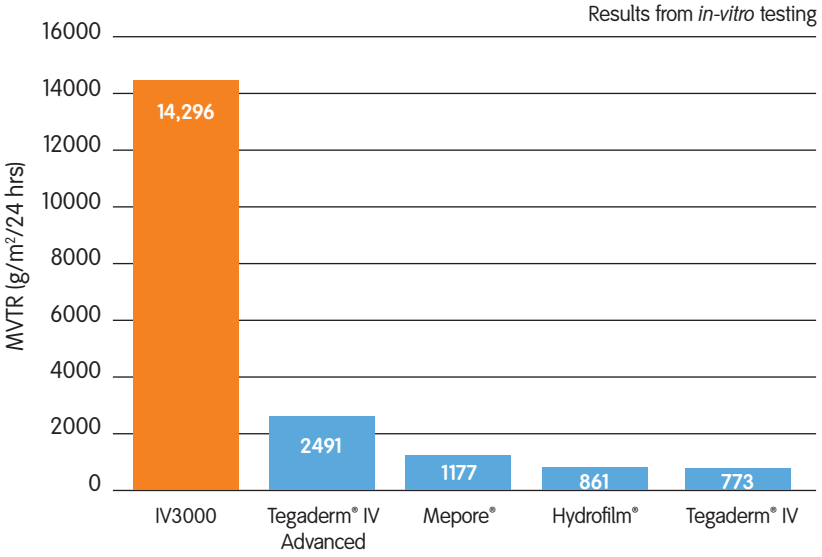
IV3000◇ was the first film designed as a highly breathable film to keep IV sites dry. With over 20 years of experience and clinical support, IV3000 stays dry and stays put while protecting the insertion site from outside contamination.

Read on to learn how REACTIC◇ film technology compares to other IV films on the market.

Nothing keeps an IV site dry like IV3000◇

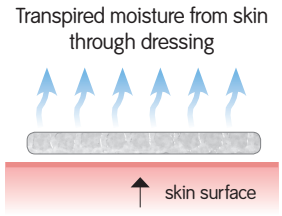
IV3000 has been specially designed for IV sites with its REACTIC◇ film and unique pattern grid adhesive allowing optimum moisture vapour transfer to reduce moisture build-up and bacterial growth.[3]

IV3000 offers an MVTR over **FIVE TIMES** that of its nearest competitor, helping to keep moisture levels under the dressing to a minimum.[4-7]

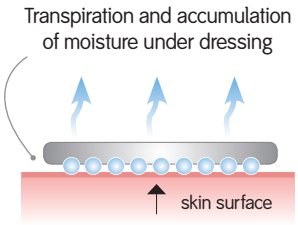


REACTIC technology allows the film to switch on when it senses moisture accumulating underneath the film.

In the absence of moisture the film remains switched off.



REACTIC◇ Film technology keeps the site dry



Other films

Reduced moisture, secure vascular access device, better patient care

IV3000 has demonstrated that it:

- Reduces the risk of catheter related infections by 25%[8]
- Reduces the risk of phlebitis and associated infection due to minimal catheter movement and dislodgement[9]
- Leads to improved adhesion, resulting in less dressing lift-up and longer wear times
- Reduces skin maceration[3]
- Reduces pain on removal due to pattern grid adhesive
- Has a low allergy adhesive to help reduce the risk of irritation

A clinical trial of 3931 central venous catheters has shown that using IV3000 dressings can reduce the incidence of catheter-related infections by 25% versus Tegaderm® or tape and gauze.[8]

A secure barrier to infection and an ideal dressing

Keep IV sites dry

The breathability of IV3000◇ reduces pooling of moisture, helping the dressing to stay in place without lifting.[10] IV3000 dressings form a protective barrier around the IV line to help prevent bacterial and viral infection.[11,12]

Reduced risk of infection

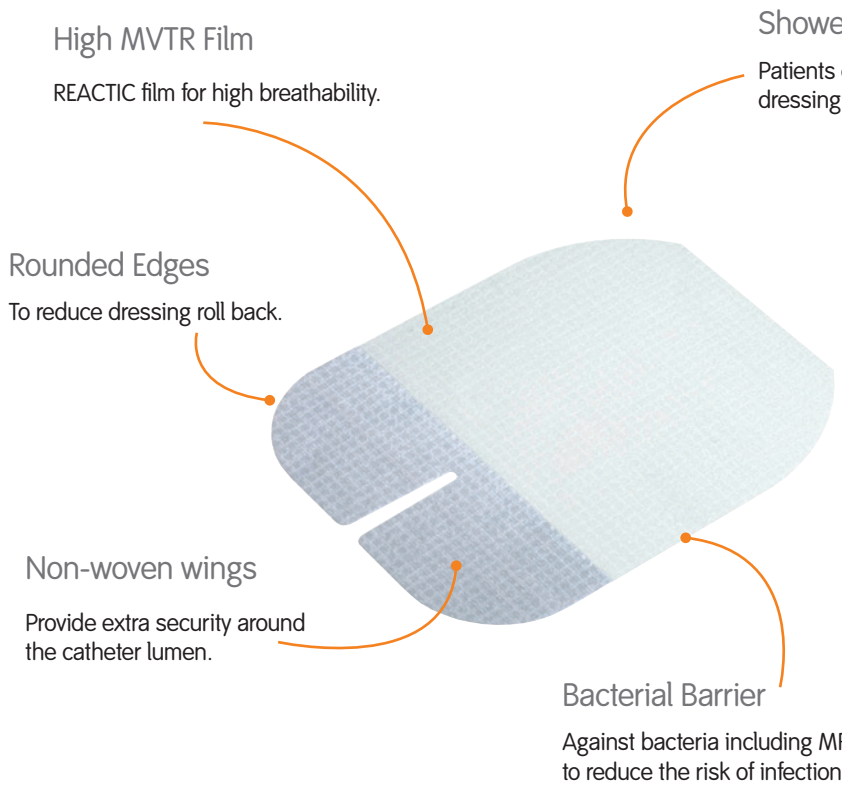
Minimal catheter manipulations, movement and dislodgement, helping to reduce the risk of phlebitis and associated infection.

Secure fixation

Minimal catheter dislodgment resulting in fewer needle sticks for patients and less opportunity for needle stick injuries to Healthcare Practitioners (HCPs).

Continuous visualisation of the insertion site

REACTIC film allows HCPs to monitor the insertion site for catheter security and signs of infection.



IV3000◇

Increase your antimicrobial options for central lines and at risk patients

ACTICOAT◇ Site is a nanocrystalline silver tri-laminate IV dressing consisting of an absorbent hydrocellular foam core laminated between a nanocrystalline silver-coated perforated, wound contact layer and a blue polyurethane top film. The nanocrystalline wound contact layer provides up to seven days of antimicrobial activity. It has a tailored design that is suitable for a variety of percutaneous catheters.

"...the cost of these (catheter related blood stream infections) is substantial, both in terms of morbidity and financial resources expended."[17]

Providing an effective barrier to microbial contamination

ACTICOAT Site combines the antimicrobial benefits of ACTICOAT with a foam dressing to provide optimal moisture management.

Nanocrystalline Silver broad spectrum antimicrobial activity

Effective against over 150 pathogens which include a broad spectrum of gram positive and negative bacteria and fungal wound pathogens. Also effective against antibiotic resistant pseudomonas, methicillin resistant staphylococcus aureus and vancomycin resistant enterococcus (VRE).[14]

Sustained release of silver for up to seven days

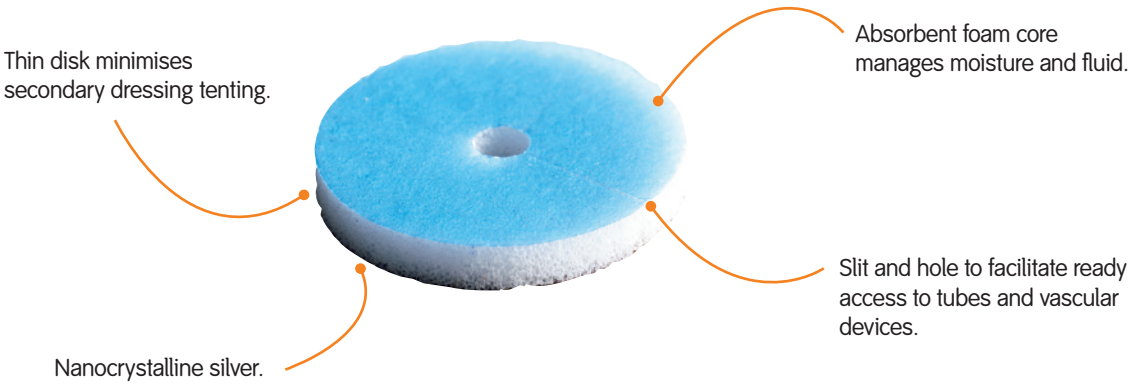
Ensures that ACTICOAT Site remains effective for up to seven days. On contact with moisture, nanocrystalline silver is donated to the insertion site at a sustained level.

Fast acting

In-vitro data shows that ACTICOAT Site demonstrated antimicrobial activity within 30 minutes.[15]

Broad patient population

Nanocrystalline silver is suitable to use on neonates and patients with a sensitivity to CHG.[16]



ACTICOAT◇ Site

When visibility and fluid management are key

Specifically designed for dressing drainage tubes and percutaneous catheters

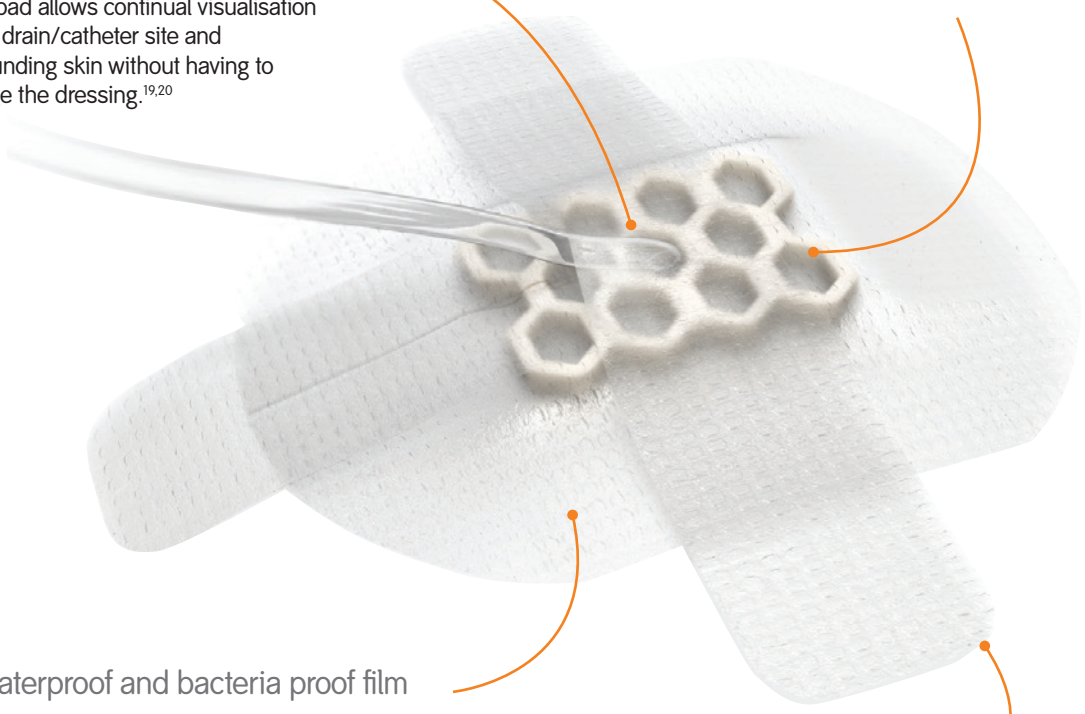
OPSITE◇ Visible Drain dressing has a triple layer construction which combines a low adherent wound contact layer, hydrocellular lattice foam pad, a highly permeable waterproof film and two film securing strips.

Continual visualisation of catheter insertion site

The lattice design of the hydrocellular foam pad allows continual visualisation of the drain/catheter site and surrounding skin without having to change the dressing.[19,20]

Highly absorbent lattice foam pad

The foam pad facilitates lateral spread across the lattice pad, which maximises absorbency reducing the risk of skin maceration.[18]



Waterproof and bacteria proof film

The film is impermeable to liquids and bacteria, and while the dressing remains intact, protects the drain/catheter site from outside contamination, helping to reduce the risk of infection.[21]

Securing strips

For added security and protection of the drain/catheter.

OPSITE◇ Visible Drain Dressing

An IV site dressing that continues to meet and beat clinical guidelines

Transparent film allows continuous observation.[22,23]

Waterproof layer allows patients to shower.[17,22,23]

IV3000◇ is not just semi-permeable but actively transpires IV site moisture.

Low allergy adhesive secures catheter in place.[22,23]

Sterile transparent semipermeable dressing covers the catheter site.[17,22,23]

Protects from external contamination.[23]

IV3000 meets and exceeds criteria for an ideal IV site dressing as defined in published clinical guidelines.[17,22-24]

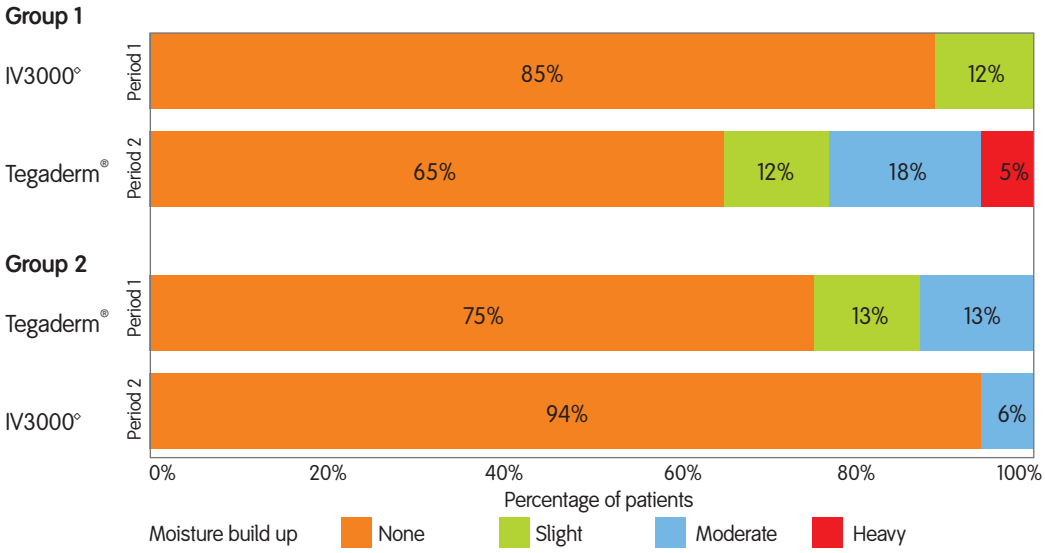
IV3000◇

Clinical evaluation

A product evaluation of IV3000 compared with Tegaderm® in the management of central vein catheters in the subclavian vein.[25]

This study was carried out in 2006 / 2007 in Japan. IV3000 was compared with Tegaderm® in the management of central catheters in the subclavian vein at the University Hospital Kyoto Japan. This study was designed to evaluate the local skin condition, the dressing condition and the management status of the central venous line catheter insertion site for IV3000 compared to Tegaderm. The study had a cross-over design in that patients were randomised to either Group I for which the order of dressing application was IV3000 – Tegaderm®, or Group II for which the order of the dressing application was Tegaderm – IV3000. Each dressing was worn once by each patient in the appropriate sequence.

The study was a cross-over study involving 40 patients. All patients were randomised to receive both dressings in a particular sequence. Periods 1 and 2 were defined to be the periods when the first and second dressings were in place respectively. Twenty patients were scheduled to receive the IV3000 dressing in the first period followed by the Tegaderm® dressing in the second period. Twenty patients were scheduled to receive the dressings in the opposite order.



Build-up of moisture around the catheter insertion site prior to removal for each patient group.

The primary objective of the study was to assess the level of moisture build up under the dressing around the catheter insertion site prior to dressing removal.

Secondary objectives reported are skin moisture rate under the dressing at removal, security of catheter fixation prior to removal and the conformability of the dressing to the catheter prior to removal.

They reported evidence of less moisture build up around the catheter insertion site prior to removal for the IV3000 dressing group compared to the Tegaderm® dressing group (p=0.020). For eight (24.2%) patients there was more moisture build up amongst the Tegaderm® group compared to the IV3000 group with only one (3.0%).

There was evidence of a lower skin moisture rate under the dressing at dressing removal for IV3000 compared to Tegaderm® (p=0.021).

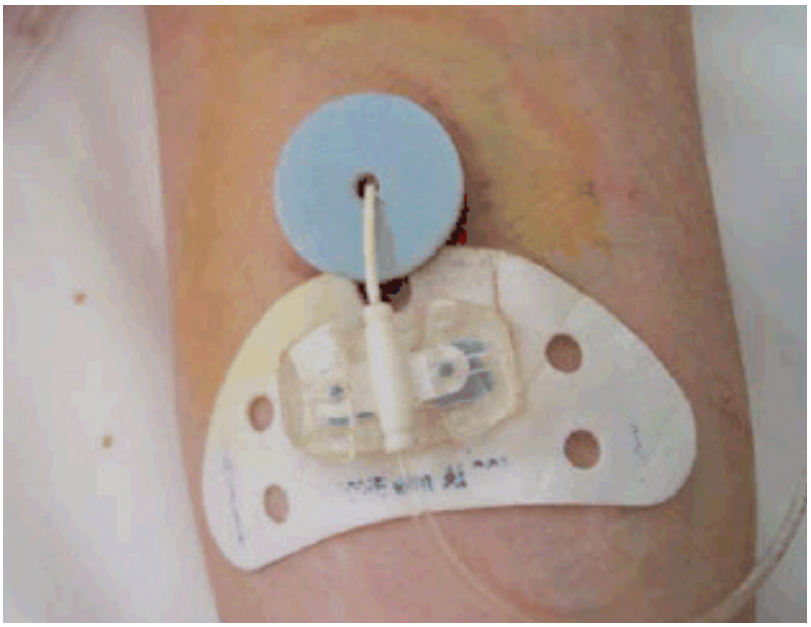
ACTICOAT◇ Site

Clinical evaluation

A prospective clinical evaluation of ACTICOAT Site was carried out with the objective of evaluating the ease of application/removal/patient comfort/pain and conformability of ACTICOAT Site IV dressing. Incidence of infection and dressing wear time were also documented.[26]

- The patients' average age was: 61
- 20/25 of catheters were PICCs
- 5/25 catheters were short term non-tunnelled central lines
- Patient pathologies were critical and varied
- Skin conditions at the start were normal in 21/25 and red in 4/25
- Skin condition continued to be reported as normal in 22/25 throughout the study

A total of 302 catheters days were assessed. Twelve patients completed the study period, for a total of 183 catheter days. Application and removal were documented as easy throughout the evaluation period and the investigator commented that the dressing was well liked by both patients and clinicians. No infection/inflammation was observed at the insertion site during the evaluation in any of the 25 patients.



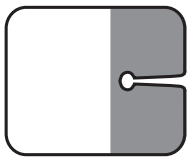
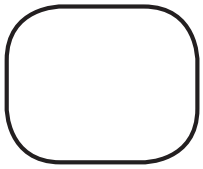
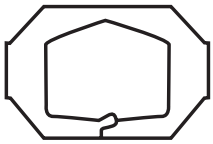
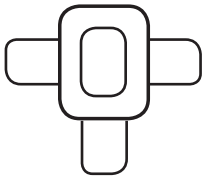
ACTICOAT Site applied at insertion site to reduce the risk of bacterial growth.

An IV dressing that protects your budget

Studies have shown that the cost of catheter related blood stream infections (CRBSI) in the US is between $33,000 and $44,000USD.[28]

- Reducing bacterial growth near the IV site is one way of reducing this risk[8]. Another way is to limit exposure of the IV site to the surrounding environment.
- IV3000 dressings can be kept in place for up to seven days, meaning fewer dressing changes and less chance of bacterial infection.[27]
- By reducing the risk of catheter line infections, mechanical phlebitis and vascular access device dislodgement, IV3000 can help to prevent patient discharge delays and provide extra reassurance against these risks.

Ordering information

	Product code	Dressing size	Quantity per carton	Recommended indication
IV3000◇				
Ported dressings 	66004011	5cm x 6cm	100	Paediatric
	4006	7cm x 9cm	100	Peripheral
	66004009	9cm x 12cm (oval)	50	Central
	66800512	11cm x 14cm	25	PICC
Non-ported dressings 	59410082	6cm x 7cm	100	Peripheral
	59410882	10cm x 12cm	50	Central
Frame Delivery 	4007	6cm x 7cm	100	Peripheral
	4008	10cm x 12cm	50	Central
Reinforced handle (orange-handles) 	4923	6cm x 8cm	100	Peripheral
	4924	6cm x 8.5cm	100	Peripheral
	4925	10cm x 14cm	10	Central
	4973	10cm x 14cm	50	Central
	4649	10cm x 20cm	50	PICC/Epidural
OPSITE◇ Visible Drain Dressing				
	66800842	10cm x 9cm	20	Drainage tubes / Percutaneous catheters
ACTICOAT◇ Site				
	66001788	2.5cm	10	Central / Jugular / PICC

References

1. Maki DG, Ringer M. Evaluation of dressing regimens for prevention of infection with peripheral intravenous catheters. JAMA 1987; 258: 2396-2403.
2. Ward V, et al. Guidelines for the prevention of infection associated with central intravascular devices. London: PHLS; 1997.
3. Richardson MC. An in-vivo assessment of microbial proliferation under transparent film dressings, In Maki DG ed. Improving Catheter Site Care. London: RSM; 1991: 29-33.
4. Tompkins L. Tegaderm® IV dressing physical properties. Data on file; 2008: report DS/07/224/R3a.
5. Tompkins L. IV3000® 1 hand dressing physical properties. Data on file; 2008: report DS/07/224/R1a.
6. Daubney L. Tegaderm IV Advanced Dressing - moisture vapour permeability and water transmission rate. Data on file; 2011: report DS/11/027/R1.
7. Tompkins L. Mepore TM IV Dressing Physical Properties. Data on file; 2008: report DS/07/224/R4a.
8. Treston-Aurand J, et al. Impact of dressing materials on central venous catheter infection rates. J Intrav Nurs 1997; 20: 201–206.
9. Tripepi-Bova KA, et al. A comparison of transparent polyurethane and dry gauze dressings for peripheral IV catheter sites: rates of phlebitis, infiltration, and dislodgement. Am J Crit Care 1997; 6: 377-381.
10. Jones A. Dressings for the management of catheter sites. JAVA 2004; 9: 26–33.
11. Benson R. Bacterial barrier properties of IV3000® against Methicillin-Resistant Staphylococcus Aureus (MRSA). Data on file; 2005: report 0505005.
12. Quinlan A. Bacterial viral barrier claim for IV3000 transparent dressing family. Data on file; 2004: report 200409902-01.
13. Benson R. Bacterial barrier testing of IV3000. Data on file; 2003: report WRP-TW042.
14. Sherritt Inc. Broad spectrum efficacy. Sherrit Inc: Fort Saskatchewan; 1993.
15. Land R. An in vitro assessment of the bacterial log reduction properties induced by silver – containing ACTICOAT Site. Data on file; 2006: report 0610001.
16. Rustogi R. et al. The use of Acticoat in neonatal burns. Burns 2005; 31(7): 878-882.
17. O'Grady NP, et al. Guidelines for the prevention of intravascular catheter-related infections. Clinical Infectious Diseases 2011;52(9):e162–e193.
18. O'Brien G, et al. A multi-centre, prospective, clinical in-market evaluation to assess the performance of OPSITE Post-Op Visible dressings. Int Wound J 2010; 7(5):329-337.
19. Tompkins L. Total absorption capacity of OPSITE POST-OP. Data on file; 2010: report DS/10/084/R1.
20. Foster D. Bacterial Barrier Properties of Dressing Top Films. October 2007.
21. Benson R. Bacterial barrier properties of OPSITE® Post-Op film against methicillin-resistant Staphylococcus aureus (MRSA). Data on file; 2005: report 0505004.
22. Loveday HP, et al. epic3: National evidence-based guidelines for preventing healthcare-associated infections in NHS hospitals in England. J Hosp Infect 2014; 86(supp1): S1-S70.
23. Queensland Health. Guideline. Percutaneous Central Venous Catheters. Brisbane; Queensland Health; 2015.
24. Chief Medical Officer. Winning Ways – Working together to reduce Healthcare Associated Infection in England. London: Department of Health; 2003.
25. Smith G. A product evaluation of IV3000 compared with Tegaderm in the management of central vein catheters in the subclavian vein. Data on file; 2009: report OR-DF/003.
26. Rowan S, et al. An open prospective clinical evaluation of a new antimicrobial IV site dressing. Poster presented European Wound Management Association conference, Helsinki; 2009.
27. Besley M. OpSite IV3000: potential for improved quality of life for haemodialysis patients with permanent central venous catheters. In: Maki DG ed. Improving Catheter Site Care. London: RSM; 1991: 57-59.
28. Hollenbeak, CS. The cost of catheter-related bloodstream infections, implications for the value of prevention. J Infus Nurs 2011; 34: 309-313.

Smith & Nephew Pty Ltd
Australia
85 Waterloo Road
North Ryde NSW 2113
PO Box 393
North Ryde NSW 1670
T +61 2 9857 3999
F +61 2 9857 3900
www.smith-nephew.com/australia
Customer Service
T 13 13 60
F 1800 671 000

Smith & Nephew Ltd
New Zealand
Unit A 36 Hillside Road
Wairau Valley Auckland 0627
PO Box 316005
Wairau Valley Auckland 0760
T +64 9 820 2840
F +64 9 820 2841
www.smith-nephew.com/new-zealand
Customer Service
T 0800 657 799 (Surgical)
T 0800 807 663 (Wound)

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