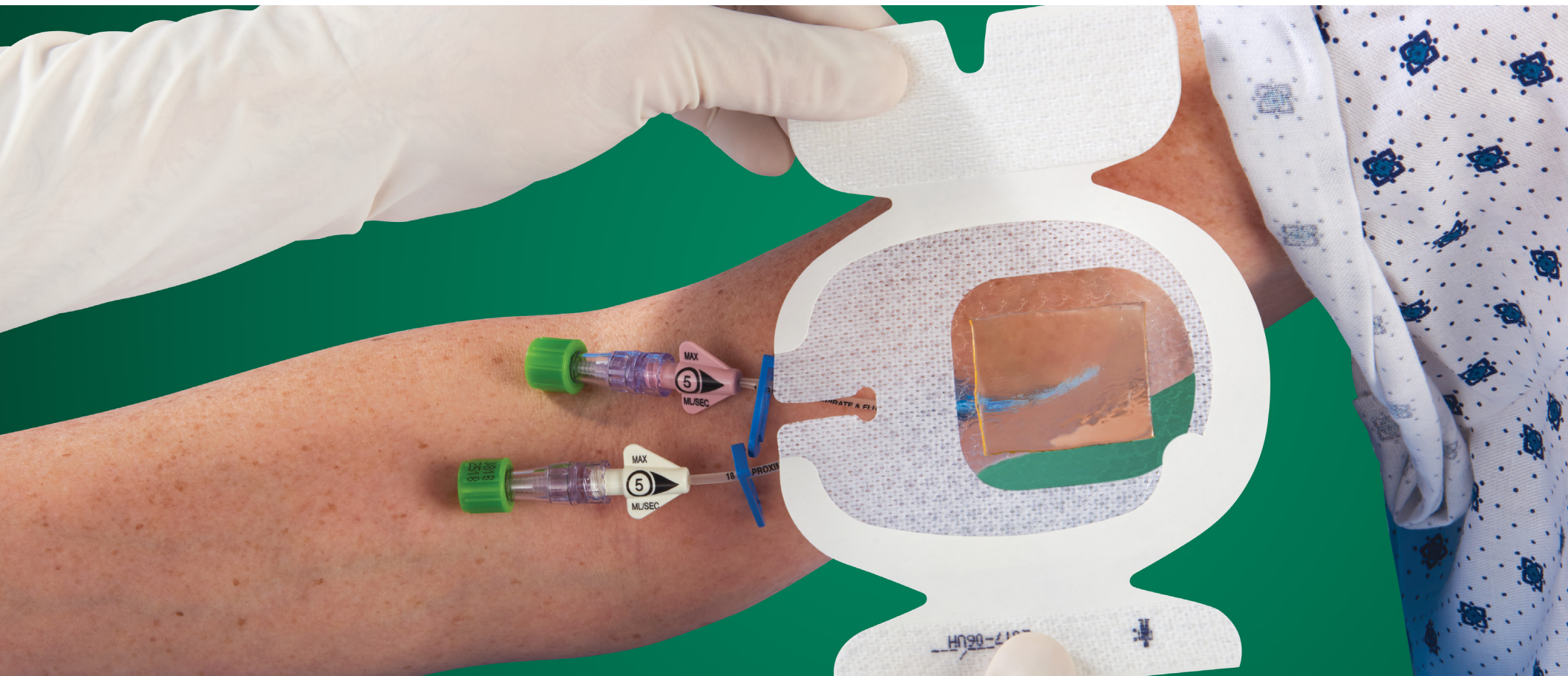




The evidence is clear

3M™ Tegaderm™ CHG Chlorhexidine Gluconate I.V. Securement Dressings

Clinical evidence summary

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Topics key	
	Infection reduction Measurable decrease in infection rate.
	Antimicrobial protection Microbial colonization and <i>in vitro</i> zone of inhibition.*
	Ease of use Product usability and clinician preference.
	Health economics Cost savings and overall economic impact.

*No clinical correlations intended.

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Meta-analysis

Effectiveness of chlorhexidine dressings to prevent catheter-related bloodstream infections. Does one size fit all? A systematic literature review and meta-analysis

Mireia Puig-Asensio, Alexandre R. Marra, Christopher A. Childs, Mary E. Kukla, Eli N. Perencevich and Marin L. Schweizer, *Infection Control & Hospital Epidemiology* 41, no. 12 (2020): 1388-1395.



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ICU and oncology

Chlorhexidine-impregnated dressing for prevention of catheter-related bloodstream infection: A meta-analysis

Nasia Safdar, John C. O'Horo, Aiman Ghufra, Allison Bearden, Maria Eugenia Didier, Dan Chateau, and Dennis G. Maki, *Critical Care Medicine* 42, no. 7 (2014): 1703-1713.



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ICU

Chlorhexidine dressings could reduce external ventricular drain infections: Results from a systematic review and meta-analysis

M. Waqar, A. Chari, A. Islam, et al, *The Journal of Hospital Infection* 117 (2021): 37-43.



10

Neuro-vascular

Chlorhexidine-impregnated dressing for the prophylaxis of central venous catheter-related complications: A systematic review and meta-analysis

Li Wei, Yan Li, Xiaoyan Li, Lanzheng Bian, Zunjia Wen, and Mei Li, *BMC Infectious Diseases* 19 (2019): 429.



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ICU

Randomized controlled trial

Suppression of regrowth of normal skin flora under chlorhexidine gluconate dressings applied to chlorhexidine gluconate-prepped skin

Muhammad H. Bashir, Linda K. M. Olson, and Shelley-Ann Walters, *American Journal of Infection Control* 40, no. 4 (2012): 344-348.



12

A randomized trial on chlorhexidine dressings for the prevention of catheter-related bloodstream infections in neutropenic patients

L. M. Biehl, A. Huth, J. Panse, et al, *Annals of Oncology* 27, no. 10 (2016): 1916-1922.



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Oncology

Updated 2026

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*No clinical correlations intended.

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Randomized controlled trial (continued)

Chlorhexidine gluconate dressings reduce bacterial colonization rates in epidural and peripheral regional catheters

Klaus Kerwat, Leopold Eberhart, Martina Kerwat, Dominik Hörth, Hinnerk Wulf, Thorsten Steinfeldt, and Thomas Wiesmann, *BioMed Research International* 2015 (2015): 149785.



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Neuro-vascular

Effect of an acrylic terpolymer barrier film beneath transparent catheter dressings on skin integrity, risk of dressing disruption, catheter colonisation and infection

A.I. Pivkina, V.G. Gusarov, S.I. Blot, I.V. Zhivotneva, N.V. Pasko, and M.N. Zamyatin, *Intensive and Critical Care Nursing* 46 (2018): 17-23.




15

ICU

Tegaderm™ CHG Dressing significantly improves catheter-related infection rate in hemodialysis patients

Marco Righetti, Nicola Palmieri, Oscar Bracchi, et al, *The Journal of Vascular Access* 17, no. 5 (2016): 417-422.




16

Hemodialysis

Randomized controlled trial to reduce bacterial colonization of surgical drains with the use of chlorhexidine-coated dressings after breast cancer surgery

Frida Rivera-Buendía, Rafael Franco-Cendejas, Cristina Guadalupe Román-López, et al, *Annals of Surgical Oncology* 26, no. 12 (2019): 3883-3891.




17

Oncology

Effectiveness of a chlorhexidine dressing on silver-coated external ventricular drain-associated colonization and infection: A prospective single-blinded randomized controlled clinical trial

Michel Roethlisberger, Giusi Moffa, Urs Fisch, et al, *Clinical Infectious Diseases* 67, no. 12 (2018): 1868-1877.




18

Neuro-vascular

Randomized controlled trial of chlorhexidine dressing and highly adhesive dressing for preventing catheter-related infections in critically ill adults

Jean-François Timsit, Olivier Mimoz, Bruno Mourvillier, et al, *American Journal of Respiratory and Critical Care Medicine* 186, no. 12 (2012): 1272-1278.




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Peer reviewed Chlorhexidine-impregnated transparent dressings decrease catheter-related infections in hemodialysis patients: A quality improvement project Ibironke W. Apata, John Hanfelt, James L. Bailey, and Vandana Dua Niyyar, <i>The Journal of Vascular Access</i> 18, no. 2 (2017): 103-108.	 Hemodialysis outpatient 20
Significant reduction in external ventricular drain-related infections after introducing a novel bundle protocol: A before and after trial Yoon-Hee Choo, Youngbo Shim, Hyeseon Kim, et al, <i>Journal of Korean Medical Science</i> 38, no. 50 (2023): e386.	 Neuro-vascular 21
Myths glorify what reality neglects: Efficacy and safety of chlorhexidine gluconate Bertrand Dugeon, Claire M. Rickard, Niccolò Buetti, Jérémy Guenezan, and Olivier Mimoz, <i>Current Infectious Disease Reports</i> 27, no. 14 (2025).	 ICU, non-ICU, ED, outpatient dialysis, oncology 22
Sustained reduction of catheter-associated bloodstream infections with enhancement of catheter bundle by chlorhexidine dressings over 11 years Philippe Eggimann, Jean-Luc Pagani, Elise Dupuis-Lozeron, Bruce Ekholm, Marie-Josèphe Thévenin, Christine Joseph, Jean-Pierre Revelly, and Yok-Ai Que, <i>Intensive Care Medicine</i> 45 (2019): 823-833.	 ICU 23
Chlorhexidine gluconate bathing reduces the incidence of BSI in adults undergoing inpatient hematopoietic cell transplantation Vinay K. Giri, Kristin G. Kegerreis, Yi Ren, et al, <i>Transplantation and Cellular Therapy</i> 27, no. 3 (2021): 262.e1-262.e11.	 Stem cell transplant 24
Nephrology nurses and infection preventionists: Working together to improve quality outcomes Nichole Harward, Sharon Sumner, and Katreena Merrill, <i>Nephrology Nursing Journal</i> 50, no. 6 (2023): 479-482.	 Dialysis 25

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*No clinical correlations intended.

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Comparative effectiveness of two chlorhexidine gluconate-containing dressings in reducing central line-associated bloodstream infections, hospital stay, and costs

Yuefeng Hou, Leah Griffin, Stéphanie F. Bernatchez, Joseph Hommes, Tarja Kärpänen, and Maria Palka-Santini, *INQUIRY: The Journal of Health Care Organization, Provision, and Financing* 60 (2023).

26

ICU, oncology, hemodialysis

Comparative analysis of different CVC dressing types convenience and economic effectiveness in allogeneic hemopoietic stem cell transplant recipients

Olga Ivanova, Julia Simakina, Marina Ermolova, et al, *Cellular Therapy and Transplantation* 5, no. 3 (2016): 37-38.

27

Oncology, stem cell transplant

Adoption of CHG impregnated transparent gel pad dressing on haemodialysis patient population with long-term central venous access

Khalill Juhoor and Annabelle Magdael, *Journal of Kidney Care* 7, no. 1 (2022).

28

Hemodialysis, inpatient and outpatient

Transparent film intravenous line dressing incorporating a chlorhexidine gluconate gel pad: A clinical staff evaluation

Tarja J. Karpanen, Anna L. Casey, Ira Das, Tony Whitehouse, Peter Nightingale, and Thomas S. J. Elliott, *The Journal of the Association for Vascular Access* 21, no. 3 (2016): 133-138.

29

Critical care unit

Clinical evaluation of a chlorhexidine intravascular catheter gel dressing on short-term central venous catheters

Tarja J. Karpanen, Anna L. Casey, Tony Whitehouse, Peter Nightingale, Ira Das, and Thomas S. J. Elliott, *American Journal of Infection Control* 44, no. 1 (2016): 54-60.

30

ICU

Impact of a 'catheter bundle' on infection rates and economic costs in the intensive care unit: A retrospective cohort study

Alberto Lucchini, Marco Giani, Emanuele Rezoagli, et al, *Nursing Reports* 14, no. 3 (2024): 1948-1960.

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ICU, ECMO center, dialysis

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Peer reviewed (continued)

Cost-effectiveness analysis of a transparent antimicrobial dressing for managing central venous and arterial catheters in intensive care units

Franck Maunoury, Anastasiia Motrunich, Maria Palka-Santini, Stéphanie F. Bernatchez, Stéphane Ruckly, and Jean-François Timsit, *PLOS ONE* 10, no. 6 (2015): e0130439.



32

ICU

The impact of replacing peripheral intravenous catheters when clinically indicated on infection rate, nurse satisfaction, and costs in CCU, step-down, and oncology units

Rosemary Catherine Olivier, Mary Wickman, Claudia Skinner, and Lilian Ablir, *American Journal of Infection Control* 49, no. 3 (2021): 327-332.



33

Oncology

Use of a 1-piece chlorhexidine gluconate transparent dressing on critically ill patients

Barbara Pfaff, Teresa Heithaus, and Madeline Emanuelson, *Critical Care Nurse* 32, no. 4 (2012): 35-40.



34

ICU

External ventriculostomy-associated infection reduction after updating a care bundle

Mariel Rojas-Lora, Luisa Corral, Ivan Zabaleta-Carvajal, et al, *Annals of Clinical Microbiology and Antimicrobials* 22, no. 59 (2023).



35

Neuro-vascular

Reduction of central venous line-associated bloodstream infection rates by using a chlorhexidine-containing dressing

S. Scheithauer, K. Lewalter, J. Schröder, A. Koch, H. Häfner, V. Krizanovic, K. Nowicki, R-D. Hilgers, and S. W. Lemmen, *Infection* 42, no. 1 (2014): 155-159.



36

ICU

Significant reduction of external ventricular drainage-associated meningoventriculitis by chlorhexidine-containing dressings: A before-after trial

Simone Scheithauer, Henna Schulze-Steinen, Anja Höllig, Luis Lopez-Gonzalez, Ralf-Dieter Hilgers, Marcus H. T. Reinges, Gernot Marx, and Sebastian Lemmen, *Clinical Infectious Diseases* 62, no. 3 (2016): 404-405.



37

Neuro-vascular

Economic impact of Tegaderm chlorhexidine gluconate (CHG) dressing in critically ill patients

Praveen Thokala, Martin Arrowsmith, Edith Poku, Marissa Martyn-St James, Jeff Anderson, Steve Foster, Tom Elliott, and Tony Whitehouse, *Journal of Infection Prevention* 17, no. 5 (2016): 216-223.



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ICU

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*No clinical correlations intended.

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Poster

Fitness of use of Biopatch® and Tegaderm™ CHG for protecting central venous catheters and arterial lines in critically ill patients

P. Eggimann, C. Joseph, and M. J. Thévenin, (oral presentation, 3rd International Conference on Prevention and Infection Control, Geneva, Switzerland, June 2015) and published in *Antimicrobial Resistance and Infection Control* 4, Suppl. 1, no. O26 (2015).



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ICU

Growth inhibition of microorganisms involved in CRBSIs by an antimicrobial transparent I.V. dressing containing chlorhexidine gluconate (CHG)

J. P. Hensler, D. L. Schwab, L. K. Olson, and M. Palka-Santini, poster session presentation, 19th Annual Conference of the European Society of Clinical Microbiology and Infectious Diseases 2009, Helsinki, Finland, May 16-19, 2009.



40

A different experience with two different chlorhexidine gluconate dressings for use on central venous devices

Cynthia A. Kohan and John M. Boyce (poster presentation, Association for Professionals in Infection Control and Epidemiology (APIC), Ft Lauderdale, Florida, 2013) and published in *American Journal of Infection Control* 41, no. 6 (2013): S142–S143.



41

A novel integrated chlorhexidine-impregnated transparent dressing for prevention of vascular catheter-related bloodstream infection: A prospective comparative study in healthy volunteers

D. Maki et al, poster presentation, the Society for Healthcare Epidemiology of America annual conference, 2008.



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Healthy subjects

Antimicrobial activity of a CHG-impregnated gel pad for I.V. site protection

D. Schwab et al, poster presentation, the conference of Infusion Nursing Society, Phoenix, Arizona, May 4, 2008.



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Additional information

Instructions for use

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Meta-analysis found CHG dressings associated with reduced CRBSI in adults with short-term CVCs

Mireia Puig-Asensio, Alexandre R. Marra, Christopher A. Childs, Mary E. Kukla, Eli N. Perencevich, and Marin L. Schweizer, "Effectiveness of chlorhexidine dressings to prevent catheter-related bloodstream infections. Does one size fit all? A systematic literature review and meta-analysis," *Infection Control & Hospital Epidemiology* 41, no. 12 (2020): 1388-1395, <https://doi.org/10.1017/ice.2020.356>.

Design

Systematic review and meta-analysis assessing the effectiveness of chlorhexidine gluconate (CHG)-impregnated dressings compared with nonantimicrobial dressings for prevention of catheter-related bloodstream infection (CRBSI). The analysis included 20 studies, predominantly randomized controlled trials, encompassing 15,590 catheters across primarily hospital-based settings.

Methods

A systematic review and meta-analysis conducted in accordance with PRISMA guidance and registered in PROSPERO informed this analysis. A librarian-led search of PubMed, CINAHL, EMBASE and ClinicalTrials.gov identified studies from inception through March 2019. Eligible studies compared chlorhexidine gluconate dressings with nonantimicrobial dressings for intravascular catheters and reported catheter-related bloodstream infections. Outcomes were pooled using random-effects meta-analysis.

Results

Subgroup	Risk ratio (RR)	95% confidence interval (CI)	Interpretation
Overall CRBSI	0.71	0.58–0.87	Significant reduction
Adult intensive care unit (ICU) patients	0.70	0.41–1.18	Not statistically significant
Onco-hematologic (adults)	0.54	0.36–0.81	Significant reduction
Short-term central venous catheters (CVCs) (adults)	0.67	0.50–0.90	Significant reduction
Long-term CVCs (adults)	0.80	0.22–2.95	Not statistically significant
Neonates & pediatric	0.90	0.57–1.40	Not statistically significant
Exit-site/tunnel infections	0.37	0.22–0.64	Significant reduction

Risk ratios (RR) shown are pooled estimates from meta-analysis. RR <1 favors CHG; 95% confidence intervals including 1 indicate results are not statistically significant.

CHG dressings are associated with reduction of CRBSIs in adults with short-term CVCs,
including patients with an onco-hematological disease

CHG dressings are associated with reduction of exit-site and tunnel infections
(pooled risk ratio [pRR] 0.51, p=0.004, 10 studies)

CHG dressings might reduce exit-site and tunnel infections in long-term CVCs

No finding on adverse reactions in the overall pediatric population.
An increased risk (15%) of severe reactions found in premature neonates with weights <1,000 g



A chlorhexidine-impregnated dressing is beneficial in preventing catheter colonization and, more importantly, CRBSI

Nasia Safdar, John C. O'Horo, Aiman Ghufuran, Allison Bearden, Maria Eugenia Didier, Dan Chateau, and Dennis G. Maki, "Chlorhexidine-impregnated dressing for prevention of catheter-related bloodstream infection: A meta-analysis," *Critical Care Medicine* 42, no. 7 (2014): 1703-1713, <https://doi.org/10.1097/CCM.0000000000000319>.

Design

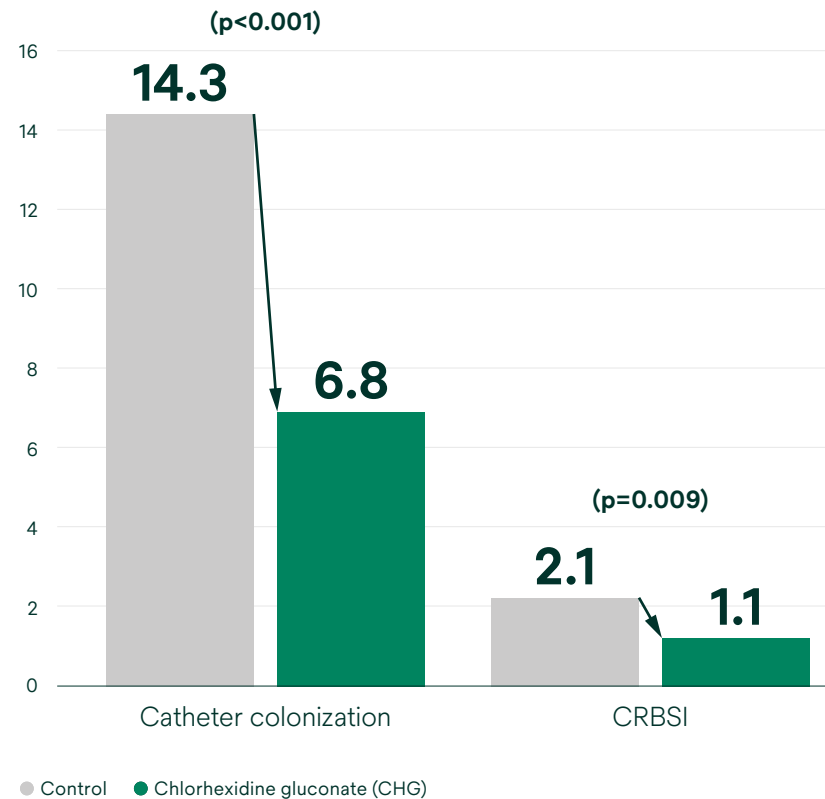
Meta-analysis of nine randomized controlled trials that met inclusion criteria.

Methods

Studies were randomized controlled trials comparing a chlorhexidine-impregnated dressing with conventional site care to assess the efficacy of a chlorhexidine-impregnated dressing for prevention of central venous catheter (CVC) and arterial catheter-related colonization and catheter-related bloodstream infection (CRBSI).

Results

Catheter colonization (% of catheters) and CRBSI (% of patients)



Significant reductions

in colonization and CRBSI
— across catheter types,
including CVCs and
arterial catheters



There was a low incidence rate

of contact dermatitis using a
chlorhexidine-impregnated
dressing in adults



CHG dressings associated with lower EVD-associated infection rates in a meta-analysis

M. Waqar, A. Chari, A. Islim, et al, "Chlorhexidine dressings could reduce external ventricular drain infections: Results from a systematic review and meta-analysis," *The Journal of Hospital Infection* 117 (2021): 37-43, <https://doi.org/10.1016/j.jhin.2021.06.006>.

Design

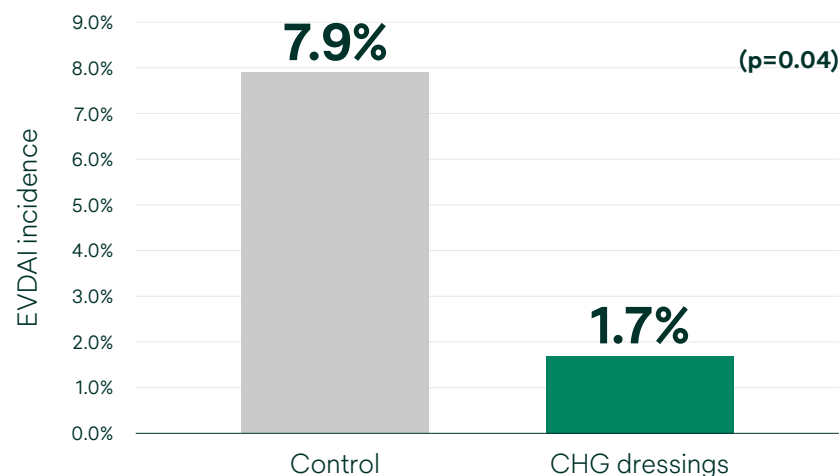
Systematic review and meta-analysis evaluating whether chlorhexidine gluconate (CHG) dressings reduce external ventricular drain-associated cerebrospinal fluid infection (EVDAI). In total, data from 880 patients with external ventricular drains (EVDs) were included in the analysis.

Methods

A systematic review and meta-analysis of four studies evaluating patients requiring EVDs. The primary outcome assessed across studies was EVDAI. Secondary outcomes included safety outcomes, catheter colonization and shunt dependency. Outcomes were synthesized across studies to evaluate the overall impact on infection risk and related clinical endpoints.

Results

CHG dressings may reduce EVDAI



Additional studies

Additional studies assessing the safety and application of CHG for neurovascular devices include:

Kwok M. Ho and Edward Litton, "Use of chlorhexidine-impregnated dressing to prevent vascular and epidural catheter colonization and infection: A meta-analysis," *Journal of Antimicrobial Chemotherapy* 58, no. 2 (2006): 281-287, <https://doi.org/10.1093/jac/dkl234>.

S. Scheithauer, M. Möller, A. Höllig, G. Marx, S. Thoröe, L. Lopez-Gonzalez, M. H. T. Reinges, and S. W. Lemmen, "Are chlorhexidine-containing dressings safe for use with ventricular drainages?" *Infection* 42 (2014): 545-548, <https://doi.org/10.1007/s15010-014-0596-2>.

Hans P. Sviggum, Adam K. Jacob, Katherine W. Arendt, Michelle L. Mauermann, Terese T. Horlocker, and James R. Hebl, "Neurologic complications after chlorhexidine antiseptics for spinal anesthesia," *Regional Anesthesia & Pain Medicine* 37 (2012): 139-144, <https://doi.org/10.1097/AAP.0b013e318244179a>.

Significantly reduced EVDAI

from **7.9%** (37/469) to **1.7%** (7/411) (p=0.04)

Lowered catheter colonization rates

(Roethlisberger et al., as reported by Waqar) **24%** (5/21) compared with **45%** (9/20) without CHG

Two studies document no reported adverse events

(0/44 patients)



"Chlorhexidine-impregnated dressing is beneficial to prevent CVC-related complications"

Li Wei, Yan Li, Xiaoyan Li, Lanzheng Bian, Zunjia Wen, and Mei Li, "Chlorhexidine-impregnated dressing for the prophylaxis of central venous catheter-related complications: A systematic review and meta-analysis," *BMC Infectious Diseases* 19 (2019): 429, <https://doi.org/10.1186/s12879-019-4029-9>.

Design

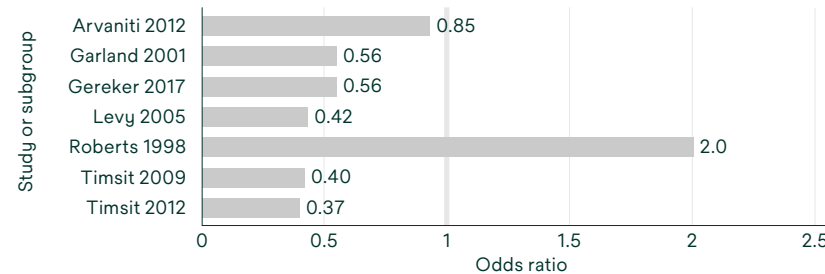
Meta-analysis of 12 randomized controlled trials with 6,028 patients that met inclusion criteria.

Methods

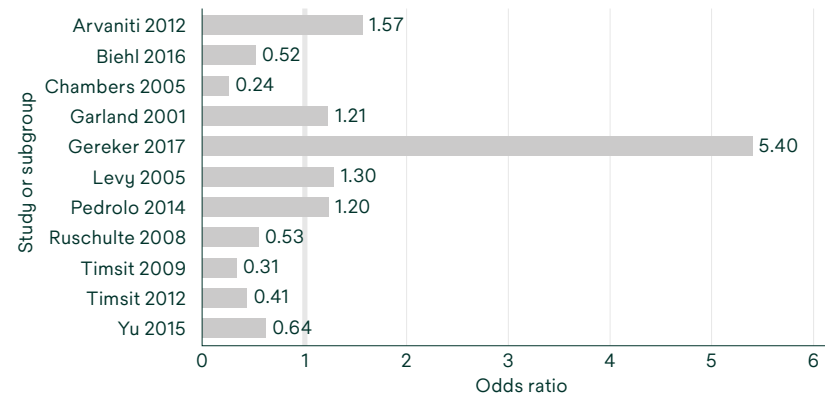
Studies were randomized controlled trials comparing chlorhexidine-impregnated dressing versus other dressing or no dressing for prophylaxis of central venous catheter (CVC)-related complications.

Results

Risk of catheter colonization



Incidence of catheter-related bloodstream infection (CRBSI)



Ratios <1 favor chlorhexidine-impregnated dressing.
Ratios >1 favor other dressing or no dressing.

Chlorhexidine-impregnated dressing is beneficial to **reduce the risk of catheter colonization** for CRBSI for patients with CVC



Chlorhexidine-impregnated dressings were conducive to **reduce the incidence of CRBSI**



Chlorhexidine transparent dressing could effectively **reduce the frequency of dressing changes** to ease workload of nursing staff





Tegaderm™ CHG Dressings suppress regrowth better than BIOPATCH® Disks on prepped skin after seven-day wear time

Muhammad H. Bashir, Linda K. M. Olson, and Shelley-Ann Walters, "Suppression of regrowth of normal skin flora under chlorhexidine gluconate dressings applied to chlorhexidine gluconate-prepped skin," *American Journal of Infection Control* 40, no. 4 (2012): 344-348, <https://doi.org/10.1016/j.ajic.2011.03.030>.

Design

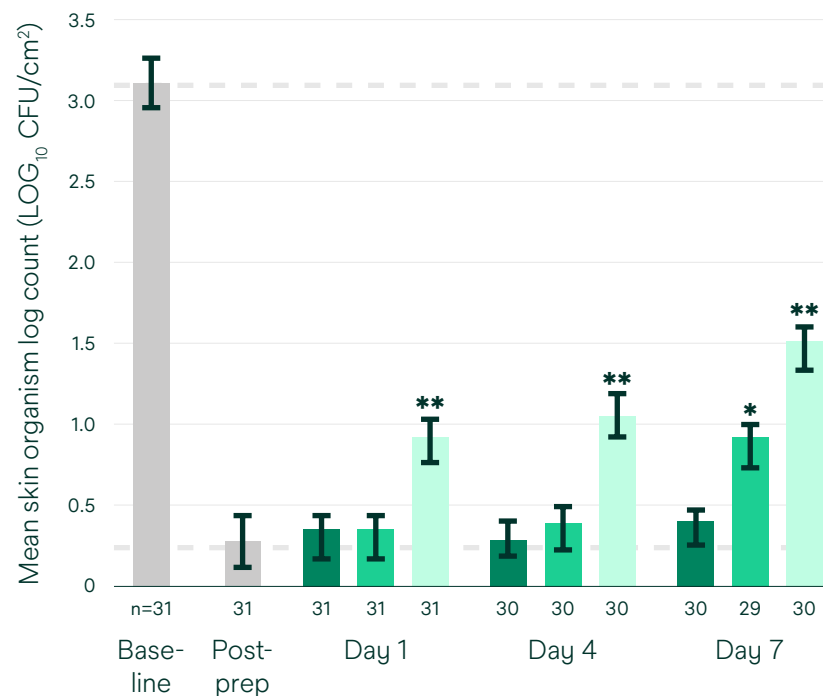
Randomized controlled trial comparing suppression of microbe regrowth on chlorhexidine gluconate (CHG)-prepped skin between control, CHG gel dressings and CHG disks.

Methods

Trial compared the skin organism suppression performance of CHG gel dressings and CHG disks on the backs of 30 healthy subjects.

Results

Mean skin organism log count over time



*p-values <0.01
**represents p-value <0.001

● CHG gel ● CHG disk ● Control

CHG gel had

significantly lower skin organism regrowth

than a standard transparent adhesive dressing



At seven days, CHG gel had

significantly lower skin organism regrowth

than CHG disks





Tegaderm™ CHG Dressing demonstrated an antimicrobial benefit during the complete long-term catheter therapy

L. M. Biehl, A. Huth, J. Panse, et al, "A randomized trial on chlorhexidine dressings for the prevention of catheter-related bloodstream infections in neutropenic patients," *Annals of Oncology* 27, no. 10 (2016): 1916-1922, <https://doi.org/10.1093/annonc/mdw275>.

Background

In neutropenic patients, mortality due to catheter-related bloodstream infections (CRBSIs) has been reported to be as high as 36%.¹

Design

Open-label randomized, multi-center trial in 10 German hematological departments measuring definite CRBSIs within the first 14 days of central venous catheter (CVC) placement.

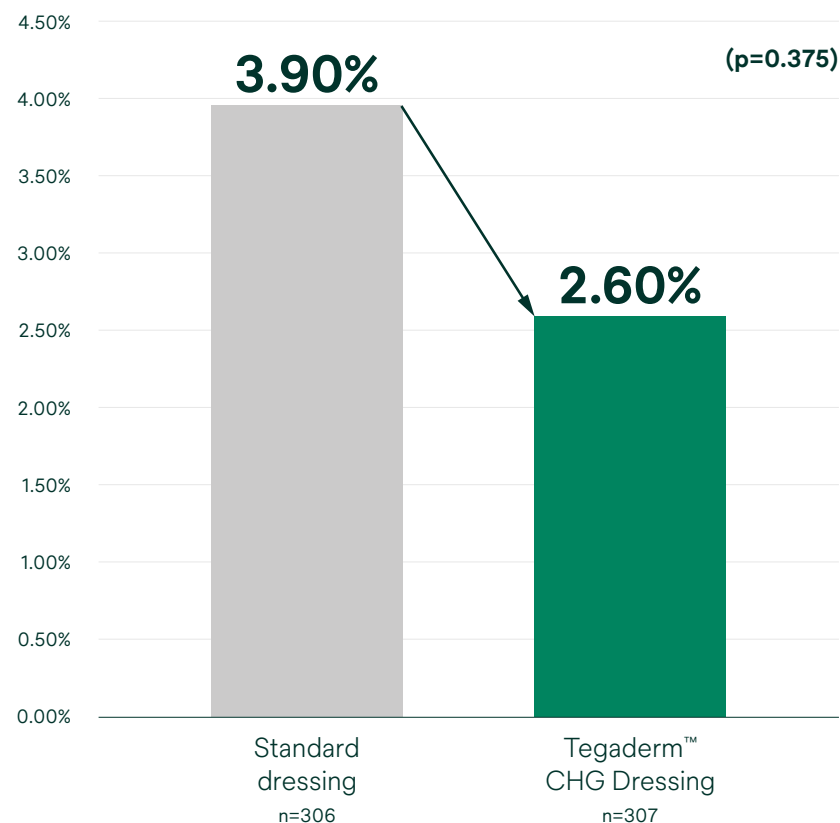
Methods

Study assessed 613 neutropenic patients (307 in the Tegaderm™ CHG Dressing group and 306 in the standard dressing group).

1. Dirk Luft, Claudia Schmoor, Christine Wilson, Andreas F. Widmer, Hartmut Bertz, Reno Frei, Dominik Heim, and Markus Dettenkofer, "Central venous catheter-associated bloodstream infection and colonisation of insertion site and catheter tip. What are the rates and risk factors in haematology patients?" *Annals of Hematology* 89 (2010): 1265-1275, <https://doi.org/10.1007/s00277-010-1005-2>.

Results

Definite CRBSI within first 14 days of CVC placement



Tegaderm™ CHG Dressing was well tolerated and associated with a

reduction in definite CRBSI within 14 days of CVC placement





Tegaderm™ CHG Dressing helps reduce the risk of bacterial colonization of the tip and the insertion site of epidural and local regional catheters used in anesthesia

Klaus Kerwat, Leopold Eberhart, Martina Kerwat, Dominik Hörth, Hinnerk Wulf, Thorsten Steinfeldt, and Thomas Wiesmann, "Chlorhexidine gluconate dressings reduce bacterial colonization rates in epidural and peripheral regional catheters," *BioMed Research International* 2015 (2015): 149785, <https://doi.org/10.1155/2015/149785>.

Design

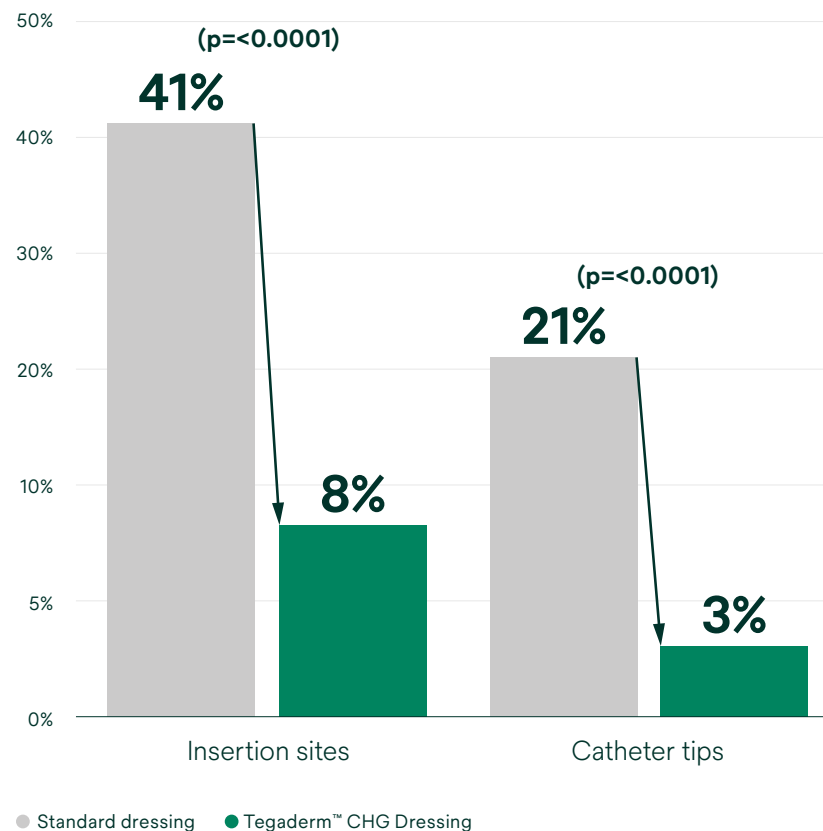
Prospective study that included a total of 337 anesthesia catheters from 308 patients in a routine clinical setting.

Methods

Examination of the effect of Tegaderm™ CHG Dressing applied to two separate patient groups requiring local regional or epidural anesthesia. Catheter tips and insertion sites were assessed for colonization after treatment was discontinued.

Results

Positive culture results



80% reduction

in insertion site colonization with use of Tegaderm™ CHG Dressing



86% reduction

in catheter tip colonization with use of Tegaderm™ CHG Dressing





Barrier film plus CHG dressing improved dressing integrity and skin outcomes without increasing infection risk

A.I. Pivkina, V.G. Gusarov, S.I. Blot, I.V. Zhivotneva, N.V. Pasko, and M.N. Zamyatin, "Effect of an acrylic terpolymer barrier film beneath transparent catheter dressings on skin integrity, risk of dressing disruption, catheter colonisation and infection," *Intensive and Critical Care Nursing* 46 (2018): 17-23, <https://doi.org/10.1016/j.iccn.2017.11.002>.

Design

Single-center, open-label randomized controlled trial comparing standard transparent central venous catheter (CVC) dressings with a transparent chlorhexidine gluconate (CHG)-impregnated dressing used with an acrylic barrier film. Sixty adult intensive care unit (ICU) patients were randomized, contributing 60 catheters and 533 catheter-days. Primary outcomes included dressing dwell time, disruption and skin integrity, with secondary outcomes of catheter colonization and central line-associated bloodstream infection (CLABSI) rates per 1,000 catheter-days.

Methods

Adult patients requiring central venous catheter placement with an anticipated dwell time of at least seven days were randomized prior to insertion. Standard care included alcohol-based chlorhexidine gluconate skin preparation, maximal sterile barriers and scheduled dressing changes every seven days or earlier if disrupted. The intervention group received a transparent CHG dressing with barrier film applied to peri-insertion skin. Outcomes included dressing disruption, skin reactions and moisture. Catheter-tip colonization was assessed using semi-quantitative culture methods, and CLABSI rates were reported per 1,000 catheter-days.

Results

Study outcomes in patients with standard transparent dressings vs. transparent CHG-impregnated dressings with the use of a lotion creating a skin-protective polymer film

Primary outcomes		Control group, standard transparent dressing without skin-protective barrier film (n=30)	Intervention group, transparent CHG-dressing, with skin-protective barrier film (n=30)	p-value
Dressing dwell time	Days	2.5 (1.0–3.0)	7.0 (6.0–7.0)	<0.001
Dressing disruptions	Partial	4 (13.3)	7 (23.3)	0.506
	Full	17 (56.7)	2 (6.7)	<0.001
Skin integrity	Hyperaemia of the insertion site	4 (13.3)	1 (3.3)	0.353
	Presence of skin irritations	1 (3.3)	0	>0.999
	Residues of adhesive on skin	0	0	>0.999
	Moisture under the dressing	6 (20)	0	0.009
	All skin integrity issues	11 (36.7)	1 (3.3)	0.001
Secondary outcomes	Presence of discharge from the insertion site	2 (6.7)	0	0.492
	CVC colonization	9 (30.0)	11 (36.7)	0.785
	CLABSI	5 (16.7)	2 (6.7)	0.424

Data is reported as median (interquartile range) for continuous variables and n (%) for discrete variables.

Significantly less dressing disruption in the barrier film + CHG dressing group
($p < 0.001$)



More skin integrity issues in standard group
($p = 0.001$)

CLABSI:
6.9/1,000 cd (CHG+barrier film) vs. 20.6/1,000 cd (standard) (not statistically significant)





First evidence-based study to show that Tegaderm™ CHG Dressing significantly reduces CRBSI rates in hemodialysis patients

Marco Righetti, Nicola Palmieri, Oscar Bracchi, et al, "Tegaderm™ CHG Dressing significantly improves catheter-related infection rate in hemodialysis patients," *The Journal of Vascular Access* 17, no. 5 (2016): 417-422, <https://doi.org/10.5301/jva.5000596>.

Design

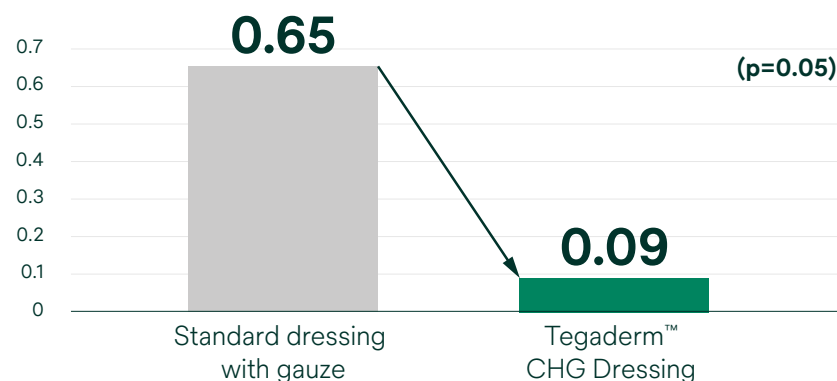
Prospective randomized cross-over trial measuring catheter-related infections (CRIs) and catheter-related bloodstream infections (CRBSIs) in prevalent hemodialysis patients in inpatient and outpatient settings.

Methods

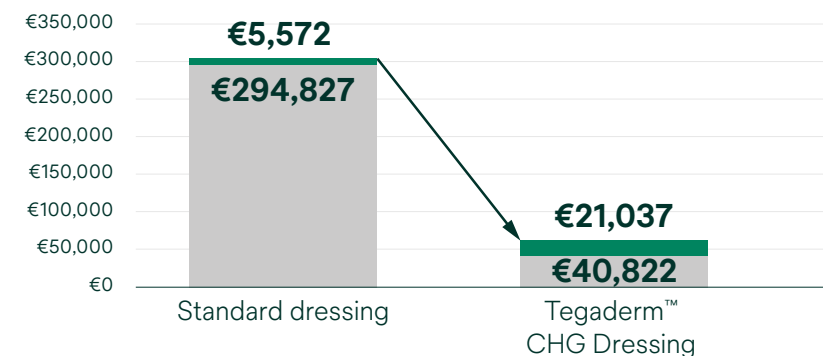
Study compared two treatments — Tegaderm™ CHG Dressing (n=29) changed weekly versus a standard dry gauze dressing (n=30) changed three times/week at every dialysis session (n=59).

Results

CRBSI incidence rate (per 1,000 catheter-days)



Annual healthcare cost savings



● Annual total CRBSI ● Annual dressing costs

86% reduction in CRBSI

incidence rate with Tegaderm™ CHG Dressing

€237,940

annual healthcare cost savings on CRBSIs when using Tegaderm™ CHG Dressing versus standard dressings



CHG-impregnated dressings significantly reduce bacterial colonization of surgical drains after breast cancer surgery

Frida Rivera-Buendía, Rafael Franco-Cendejas, Cristina Guadalupe Román-López, et al, "Randomized controlled trial to reduce bacterial colonization of surgical drains with the use of chlorhexidine-coated dressings after breast cancer surgery," *Annals of Surgical Oncology* 26, no. 12 (2019): 3883-3891, <https://doi.org/10.1245/s10434-019-07631-1>.

Design

Prospective, open-label randomized controlled trial evaluating the effect of a 2% chlorhexidine gluconate (CHG)-impregnated dressing at surgical drain exit sites following breast cancer surgery. Between 2016 and 2018, 104 patients with 167 drains were randomized to standard care or CHG dressing. Outcomes included drain colonization at postoperative weeks one and two and surgical-site infection incidence, with laboratory personnel blinded to treatment allocation.

Methods

At a 133-bed hospital in Mexico City, patients undergoing mastectomy or breast-conserving surgery with axillary procedures were randomized immediately before surgery. All patients received standardized perioperative antibiotics. Control care used alcohol exit-site cleansing, while the intervention applied a chlorhexidine gluconate dressing changed on postoperative day seven. Drain fluid and tubing samples were collected at weeks one and two for culture. Surgical site infections were defined using clinical and microbiological criteria within 30 days, or up to one year for expander reconstruction, with analyses conducted using intention-to-treat and per-protocol approaches.

Results

Outcome	Control	CHG dressing	p-value
POW1 bulb fluid colonization	42.9%	28.9%	p=0.06
POW2 bulb fluid colonization	79.7%	54.9%	p=0.001
Drain tube colonization	79.8%	50.7%	p<0.001

The study showed that **applying CHG antiseptic dressings at the drain exit site markedly decreased bacterial colonization within the closed drainage system** following breast cancer surgery



Of the 11 patients who developed a surgical site infection (SSI), **fewer occurred in the intervention group** (three patients; 5.8%) **compared with the control group** (eight patients; 15.4%)





Tegaderm™ CHG Dressing helps reduce the risk of EVD exit site contamination and EVDAs

Michel Roethlisberger, Giusi Moffa, Urs Fisch, et al, "Effectiveness of a chlorhexidine dressing on silver-coated external ventricular drain-associated colonization and infection: A prospective single-blinded randomized controlled clinical trial," *Clinical Infectious Diseases* 67, no. 12 (2018): 1868-1877, <https://doi.org/10.1093/cid/ciy393>.

Design

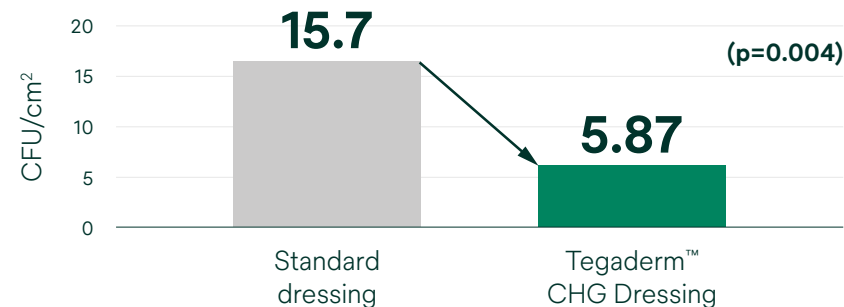
Randomized controlled trial comparing bacterial regrowth at external ventricular drain (EVD) site five days post-op between control (standard dressing) and chlorhexidine gluconate dressings (Tegaderm™ CHG Dressing).

Methods

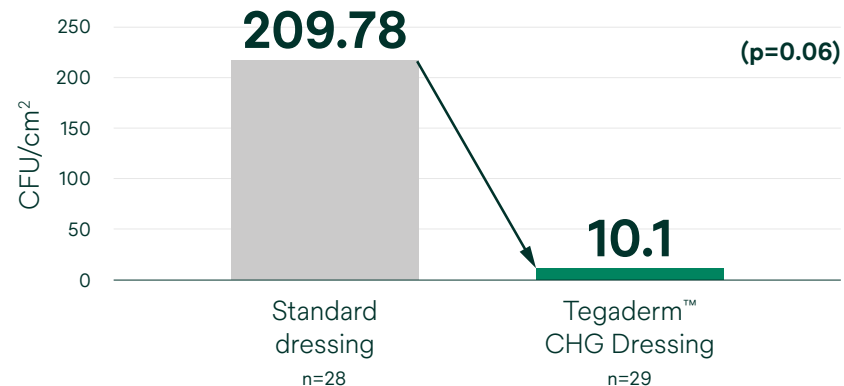
Study assessed 57 subjects (29 in the Tegaderm™ CHG Dressing group and 28 in the standard dressing group). Secondary endpoints included sonicated EVDs, EVD-associated infections (EVDAs) and surgical treatment of hydrocephalus.

Results

Cutaneous bacterial regrowth at EVD entry site five days post-op



Subcutaneous EVD segment sonification



Fewer infections were observed with Tegaderm™ CHG Dressing.

Difference was not statistically significant; study was underpowered to detect differences in EVDaI rates

Cutaneous bacterial regrowth at the EVD site was

lower

for Tegaderm™ CHG Dressing versus standard dressing

Bacterial colonization of the subcutaneous EVD segment and tip was

95% less

for Tegaderm™ CHG Dressing versus standard dressing



Tegaderm™ CHG Dressing decreased the CRBSI rate in ICU patients with intravascular catheter

Jean-François Timsit, Olivier Mimoz, Bruno Mourvillier, et al, "Randomized controlled trial of chlorhexidine dressing and highly adhesive dressing for preventing catheter-related infections in critically ill adults," *American Journal of Respiratory and Critical Care Medicine* 186, no. 12 (2012): 1272-1278, <https://doi.org/10.1164/rccm.201206-1038OC>.

Design

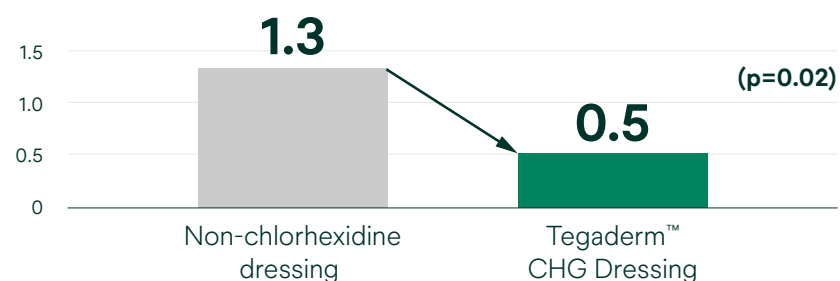
Multi-center randomized controlled trial comparing major catheter-related infections (CRIs) with or without catheter-related bloodstream infections (CRBSIs) and catheter colonization rates within central venous catheters (CVCs) and arterial catheters.

Methods

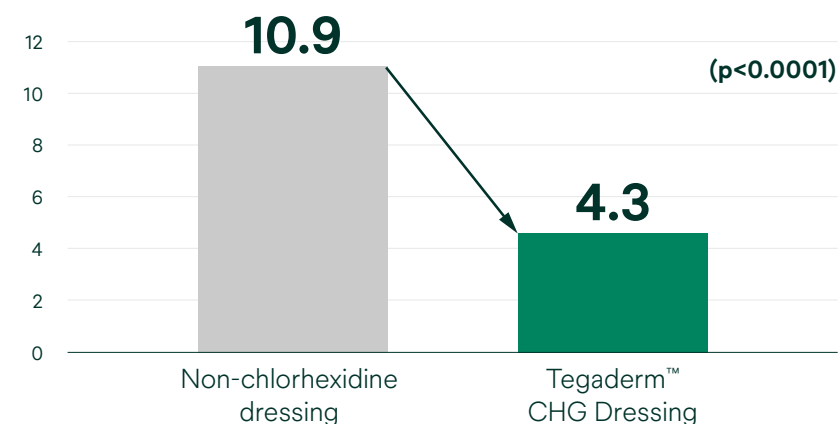
Trial compared chlorhexidine to non-chlorhexidine dressings to determine if Tegaderm™ CHG Dressing decreases catheter colonization and CRBSI rates in CVC and arterial catheters. Studies were conducted in 12 French intensive care units (ICUs) with a total of 1,879 patients evaluated.

Results

CRBSI rate (per 1,000 catheter-days)



Catheter colonization incidence (per 1,000 catheter-days)



CRBSI rate was

60% lower

with Tegaderm™ CHG Dressing versus non-chlorhexidine dressing



61% reduction

in catheter colonization incidence with Tegaderm™ CHG Dressing





Tegaderm™ CHG Dressing helps reduce the risk of CRI rates for hemodialysis patients with tunneled CVC

Ibironke W. Apata, John Hanfelt, James L. Bailey, and Vandana Dua Niyyar, "Chlorhexidine-impregnated transparent dressings decrease catheter-related infections in hemodialysis patients: A quality improvement project," *The Journal of Vascular Access* 18, no. 2 (2017): 103-108, <https://doi.org/10.5301/jva.5000658>.

Design

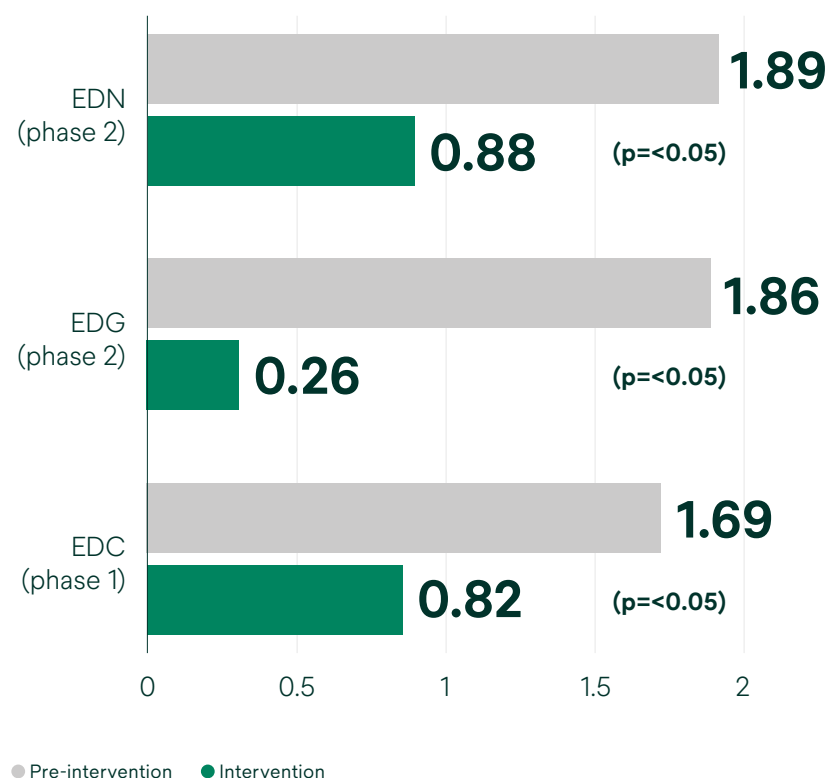
Prospective before and after intervention study measuring catheter-related infection (CRI) rates in patients with dialysis catheters.

Methods

Comparison of CRI rates in two dressing regimens – Tegaderm™ CHG Dressing and adhesive dry gauze dressings with an antibiotic ointment in hemodialysis patients having tunneled central venous catheters (CVCs). The study was conducted in two phases: Phase 1 assessed the impact of Tegaderm™ CHG Dressing on one dialysis unit (EDC) versus two control dialysis units (EDG and EDN); Phase 2 introduced Tegaderm™ CHG Dressing to the two control dialysis units.

Results

CRI rates (per 1,000 catheter-days) per respective outpatient units during intervention change



Tegaderm™ CHG Dressing was associated with a

substantial reduction in CRIs

across three hemodialysis units



In one unit, there was an

86% reduction

in infection rate





An EVD bundle protocol significantly reduced EVD-related infection rates in a before and after trial

Yoon-Hee Choo, Youngbo Shim, Hyeseon Kim, et al, "Significant reduction in external ventricular drain-related infections after introducing a novel bundle protocol: A before and after trial," *Journal of Korean Medical Science* 38, no. 50 (2023): e386, <https://doi.org/10.3346/jkms.2023.38.e386>.

Design

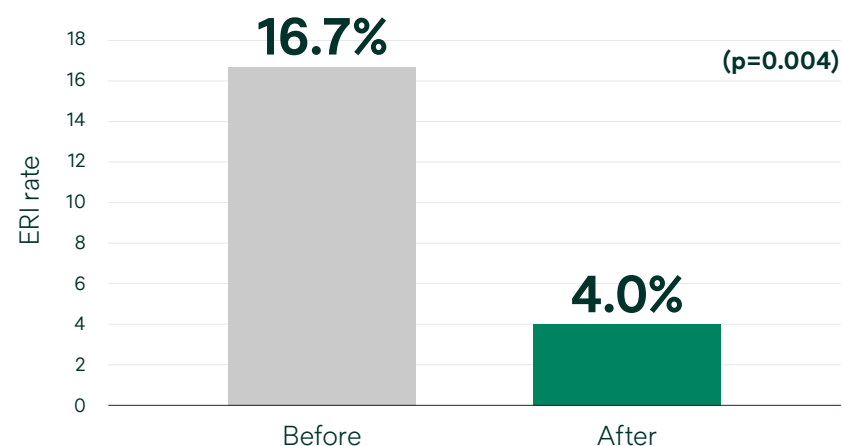
Prospective before-and-after study conducted in a tertiary intensive care unit (ICU) evaluating an external ventricular drain (EVD)-related infection (ERI) bundle. Outcomes from a two-year pre-implementation period were compared with a three-year post-implementation period, including 183 patients and 2,381 catheter-days, with ERI incidence measured per 1,000 catheter-days.

Methods

Retrospective data were collected during the pre-bundle period and prospective data during the post-bundle period among adult ICU patients with external ventricular drains. Exclusions included prior central nervous system infection, skull base surgery, EVD placement at another hospital or removal within three days. The bundle emphasized 2% chlorhexidine gluconate (CHG) skin preparation, a single pre-incision antibiotic dose and use of a transparent CHG gel pad dressing inspected daily and changed weekly if intact. Staff education, checklists and compliance monitoring supported implementation, and EVD-related infections were defined using culture and cerebrospinal fluid criteria.

Results

Significant reduction in ERI rate after implementing an ERI-bundle protocol with CHG gel dressing



Additional outcomes	Before	After
ERI per 1,000 catheter-days	14.35	3.21
Total catheter-days	1,115	1,266
Total EVD insertions	105	127
Total EVD maintenance days without infection	975	1,246

Protocol differences

Before group: Standard care

- Daily povidone iodine or CHG swab
- Adhesive pad dressing
- Prophylactic antibiotics during EVD
- EVDs prophylactically removed/replaced every seven days

After group: ERI-bundled protocol

- CHG skin prep
- Extended tunneling >5–10 cm
- Weekly CHG gel dressing change
- No routine prophylactic antibiotics
- No routine replacement of EVDs

ERI-bundle protocol with CHG gel dressing:

- Decreased ERI rates
- Eliminated extended use of prophylactic antibiotics while maintaining safety





Evidence review reinforces CHG as an effective, generally well-tolerated infection prevention antiseptic

Bertrand Drugeon, Claire M. Rickard, Niccolò Buetti, Jérémy Guenezan, and Olivier Mimoz, “Myths glorify what reality neglects: Efficacy and safety of chlorhexidine gluconate,” *Current Infectious Disease Reports* 27, no. 14 (2025), <https://doi.org/10.1007/s11908-025-00865-z>.

Design

Narrative review examining the efficacy and safety of chlorhexidine gluconate (CHG) for infection prevention across multiple applications. The authors synthesize clinical trials, meta-analyses and mechanistic literature to address concerns related to adverse effects, Gram-negative activity and potential resistance, contrasting common misconceptions with evidence-based clinical outcomes and safety observations.

Methods

This summary draws on a structured narrative synthesis of published evidence, including randomized trials, meta-analyses, observational studies and laboratory investigations evaluating chlorhexidine gluconate in infection prevention. Comparative evidence for alcoholic CHG and povidone-iodine formulations was reviewed, along with data supporting CHG dressings and bathing in high-risk populations. Safety findings and mechanistic studies addressing microbial tolerance, biofilm effects and potential cross-resistance were integrated to contextualize clinical outcomes.

Results

- CHG dressings associated with lower catheter-related bloodstream infections (CRBSIs) with gel dressings showing fewer dressing disruptions
- CHG-impregnated barrier cap significantly reduced catheter-associated bloodstream infection (CABSI) rates compared to needleless connectors + alcohol-based disinfecting caps for hemodialysis patients
- Majority of severe reactions related to high-risk applications such as mucosal application or impregnated line intravascular use — CHG directly put into sensitive tissue
- Most CHG-related skin reactions were attributed by the authors to indications for use (IFU) noncompliance, including use on wet, weeping or injured skin and lack of monitoring for oversaturation
- According to the authors, CHG showed broad antimicrobial efficacy, including activity against gram-negative organisms
- CHG is an effective, generally well-tolerated infection prevention antiseptic

Low level of reported incidents:

- 1969–June 2015: 43 global reports of CHG-related anaphylaxis received by the Food and Drug Administration (FDA)
- 1971–2015: Additional eight cases documented in medical literature
- 2004–2013: One case identified through the National Electronic Injury Surveillance System – Cooperative Adverse Drug Event Surveillance Project (NEISS-CADES) database

CHG remains vital for infection prevention, with unmatched efficacy in reducing healthcare-associated infections (HAIs)

Danish dermatology clinic: **1% of 8,497 patients positive for CHG allergy via patch test:** majority presenting as mild contact dermatitis

Systematic review of CHG-induced anaphylaxis in perioperative settings: **<1 per 100,000 exposures**



“This large real-world study shows that adding CHG dressings to a catheter care bundle was associated with sustained reductions in CRBSI rates in ICU patients”

Philippe Eggimann, Jean-Luc Pagani, Elise Dupuis-Lozeron, Bruce Ekholm, Marie-Josèphe Thévenin, Christine Joseph, Jean-Pierre Revelly, and Yok-Ai Que, “Sustained reduction of catheter-associated bloodstream infections with enhancement of catheter bundle by chlorhexidine dressings over 11 years,” *Intensive Care Medicine* 45 (2019): 823-833, <https://doi.org/10.1007/s00134-019-05617-x>.

Design

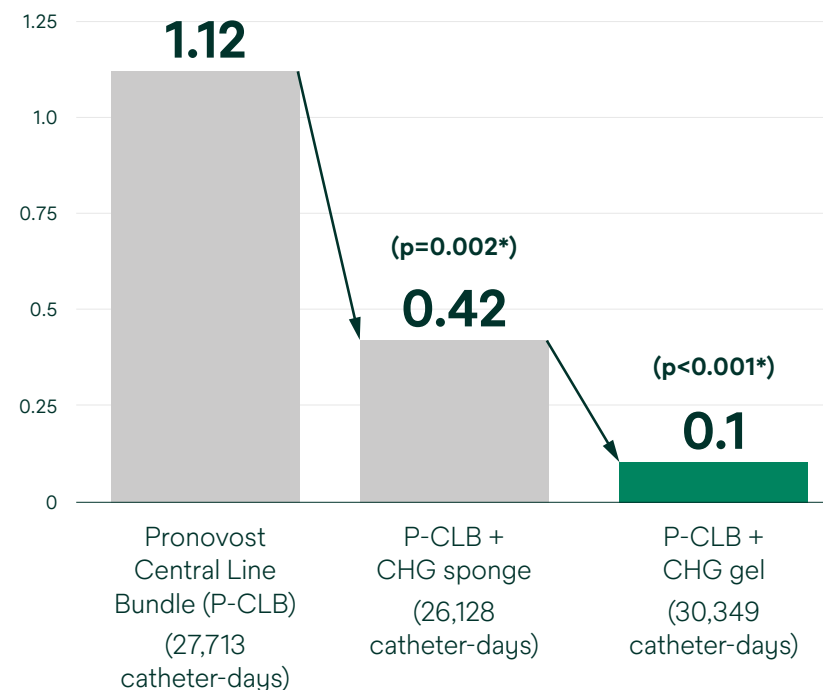
Real-world data study from 2006 to 2014 at a 35-bed mixed adult intensive care unit (ICU) in the Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland, a primary and referral hospital for a population of 250,000 and 1,500,000, respectively.

Methods

Eleven-year study evaluated the impact of incrementally introducing chlorhexidine gluconate (CHG) dressings (sponge or gel) to an ongoing catheter bundle on the rates of catheter-related bloodstream infections (CRBSIs). This was measured as part of a surveillance program and expressed as incidence density rates per 1,000 catheter-days for every central venous catheter (CVC), including dialysis catheters and introducer sheaths for pulmonary artery (PA) catheters, and arterial catheters.

Results

CRBSI rates (per 1,000 CVC and arterial catheter-days) — 18,286 patients



*p-values represent comparisons to standalone P-CLB (Pronovost Central Line Bundle). P-CLB represents a standardized set of evidence-based infection prevention practices, including hand hygiene, sterile insertion techniques and chlorhexidine skin antisepsis.

Chlorhexidine dressings were associated with a

**sustained
11-year
reduction
of CRBSIs**



Data indicates the skin reaction rates for

**CHG gel
and CHG
sponge were
equivalent**

at 0.3/1,000 device days



Higher CHG bathing adherence was associated with lower BSI and CLABSI rates in inpatient hematopoietic cell transplant patients

Vinay K. Giri, Kristin G. Kegerreis, Yi Ren, et al, "Chlorhexidine gluconate bathing reduces the incidence of BSI in adults undergoing inpatient hematopoietic cell transplantation," *Transplantation and Cellular Therapy* 27, no. 3 (2021): 262.e1-262.e11, <https://doi.org/10.1016/j.jtct.2021.01.004>.

Design

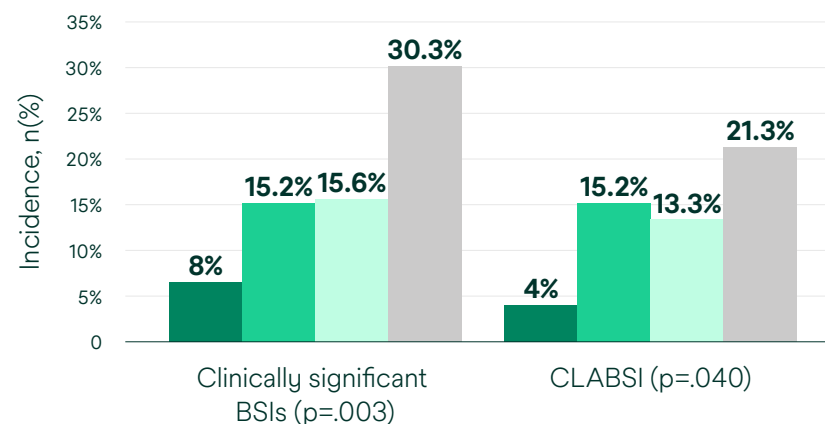
Prospective, single-center cohort study with historical controls evaluating daily chlorhexidine gluconate (CHG) bathing on a hematopoietic cell transplant unit where Tegaderm CHG was part of the existing protocol. Adult autologous and allogeneic transplant recipients were followed across one pre-implementation year and two post-implementation years, with patients stratified by bathing adherence. Bloodstream infection (BSI) incidence per hospitalization day, including clinically significant BSI and National Healthcare Safety Network (NHSN)-defined categories, was assessed.

Methods

Unit-wide CHG bathing using 2% CHG-impregnated cloths was implemented, with each bath documented in the electronic medical record and patient education provided by nursing staff. Patients were categorized by CHG adherence based on the proportion of hospitalization days with recorded CHG bathing. Patients with fever or known infection on admission and those admitted for indications other than conditioning, infusion or count recovery were excluded. Bloodstream infection outcomes were defined using Centers for Disease Control and Prevention (CDC) NHSN criteria for laboratory-confirmed bloodstream infection and central line-associated bloodstream infection (CLABSI). An investigator-defined category of clinically significant bloodstream infection captured treated episodes that did not meet strict surveillance definitions.

Results

Hospital-acquired BSIs by CHG bathing usage



CHG bathing usage: ● High (>75%) ● Med (50-75%) ● Low (<50%) ● None (0%)

Incidence rate, n per 1,000 patient-days

	High (>75%)	Med (50-75%)	Low (<50%)	None (0%)
Clinically significant BSIs	3.58	6.44	6.67	12.70
CLABSI	1.79	6.44	5.72	9.28

"Daily CHG bathing associated with

significantly lower incidence

of clinically significant BSIs, CLABSIs, mucosal barrier injury and new vancomycin-resistant enterococci rectal colonization"



No reports

of CHG-related rash



CHG-impregnated dressings were comparable to PI ointment for dialysis catheter VAI in a QI project

Nichole Harward, Sharon Sumner, and Katreena Merrill, "Nephrology nurses and infection preventionists: Working together to improve quality outcomes," *Nephrology Nursing Journal* 50, no. 6 (2023): 479-482, <https://doi.org/10.37526/1526-744X.2023.50.6.479>.

Design

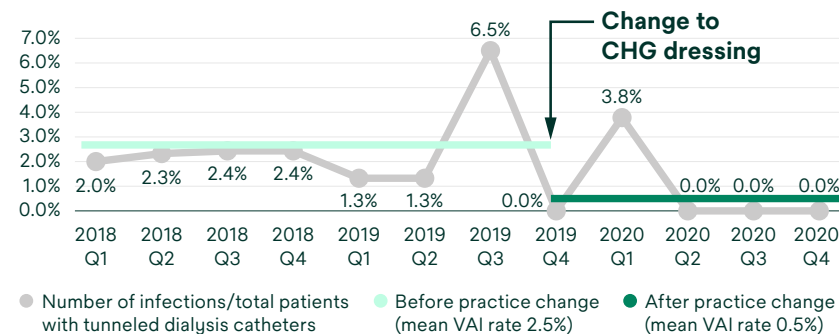
Quality improvement project using a before-and-after design to evaluate whether replacing povidone-iodine (PI) ointment with a chlorhexidine gluconate (CHG)-impregnated dressing for tunneled hemodialysis catheters was equivalent for preventing vascular access infections (VAIs). The project was conducted across four outpatient dialysis centers starting in 2019, with infection rates tracked for seven quarters before and five quarters after implementation using the Centers for Disease Control and Prevention (CDC) Dialysis Event Surveillance definitions.

Methods

This study describes a multidisciplinary practice change standardizing use of chlorhexidine gluconate dressings for tunneled hemodialysis catheters. Dialysis nurses and technicians received hands-on training on site preparation, application, monitoring and criteria for early dressing changes. Routine gauze with povidone-iodine ointment was replaced with a CHG-impregnated dressing. Vascular access infections were prospectively tracked for one year using CDC surveillance definitions, with quarterly rates compared across pre- and post-implementation periods.

Results

Total VAI rate before and after the improvement project



VAI rates decreased from 2.5% (14/568) to 0.5% (2/438) after replacing PI ointment with CHG gel pad dressings.

Because the project was designed to assess equivalence, not superiority, the authors concluded the two approaches were equivalent in preventing VAI in tunneled dialysis catheters

The number of VAIs, patients and VAI rate by hospital before and after change

Site	Type of outpatient dialysis facility	Before standard of care (PI ointment)			After CHG-impregnated dressing		
		Number of VAI	Number of patients	VAI rate	Number of VAI	Number of patients	VAI rate
1	Small critical access hospital	1	60	1.7%	1	39	2.6%
2	Medium sized hospital	3	215	1.4%	0	202	0%
3	Small critical access hospital	0	77	0%	0	49	0%
4	Large level IV trauma center	10	216	4.6%	1	148	0.7%
Total		14	568	2.5%	2	438	0.5%



Transparent CHG gel dressings demonstrate significant reductions in CLABSI and hospital costs compared with CHG sponge dressings

Yuefeng Hou, Leah Griffin, Stéphanie F. Bernatchez, Joseph Hommes, Tarja Kärpänen, and Maria Palka-Santini, "Comparative effectiveness of two chlorhexidine gluconate-containing dressings in reducing central line-associated bloodstream infections, hospital stay, and costs," *INQUIRY: The Journal of Health Care Organization, Provision, and Financing* 60 (2023), <https://doi.org/10.1177/00469580231214751>.

Design

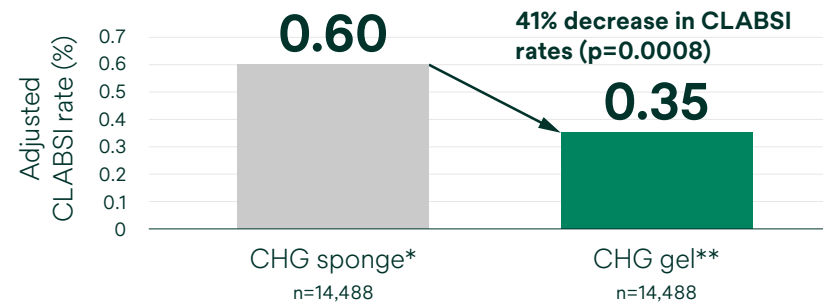
Retrospective comparative effectiveness study using the Premier Healthcare Database to evaluate two chlorhexidine gluconate (CHG)-containing dressings among hospitalized patients with central venous catheters (CVCs) between January 2019 and September 2020. Outcomes compared between transparent CHG gel and CHG sponge dressings included central line-associated bloodstream infection (CLABSI) rates, contact dermatitis, hospital length of stay and hospitalization costs.

Methods

Investigators identified inpatient central venous catheter cases using predefined codes and grouped patients by use of chlorhexidine gluconate gel or sponge dressings. Propensity score matching was applied to create balanced cohorts based on demographics, comorbidities, intensive care unit (ICU) admission and facility characteristics. CLABSI and contact dermatitis were identified using post-admission International Classification of Diseases (ICD)-10 codes, while length of stay and hospitalization costs were derived from billing and utilization data.

Results

CLABSI incidence rates



CLABSI incidence comparison

*ETHICON™ BIOPATCH® Disk

**3M™ Tegaderm™ CHG Chlorhexidine Gluconate I.V. Securement Dressing

	CHG sponge	CHG gel pad	p-value
CLABSI rate	0.60%	0.35%	0.0008
Hospital length of stay (LOS) (days)	9.90	9.53	0.0001
Hospital cost (US \$)	\$43,774	\$40,197	0.0179
Contact dermatitis incidence	0.18%	0.20%	0.7854

CHG gel cohort had
41% fewer incidences of CLABSI
(p=0.0008)

CHG gel cohort showed
0.4-day reduction in hospital stay
(p=0.0001)

CHG gel cohort cost
\$3,576 less per hospital stay
(p=0.0179)

No significant difference
between CHG gel and CHG sponge in contact dermatitis per hospital stay (p=0.7854)



Tegaderm™ CHG Dressing showed lower colonization, higher patient satisfaction and lower daily cost vs. other CVC dressings post stem cell transplant

Olga Ivanova, Julia Simakina, Marina Ermolova, et al, "Comparative analysis of different CVC dressing types convenience and economic effectiveness in allogeneic hemopoietic stem cell transplant recipients," *Cellular Therapy and Transplantation* 5, no. 3 (2016): 37-38, <https://doi.org/10.18620/ctt-1866-8836-2016-5-3-37-38>.

Design

Comparative clinical analysis of 112 allogeneic hematopoietic stem cell transplant recipients evaluating three central venous catheter dressing types: non-woven pads, transparent film dressings and transparent chlorhexidine gluconate (CHG) gel pad dressings. Outcomes included exit-site colonization, patient-reported symptoms, nurse-assessed handling and dressing-change convenience and estimated daily costs, with descriptive comparisons across groups of similar size.

Methods

All patients received central venous access via right internal jugular placement and were assigned to groups based on dressing type used. A dedicated catheter nursing team monitored patient-reported symptoms and assessed exit sites for inflammation, allergic reactions and catheter displacement, documenting dressing performance issues requiring replacement. Catheter-site cultures were collected to assess bacterial colonization. Nursing feedback on dressing convenience and site visibility was gathered, and estimated daily costs were compared using observed dressing change frequency.

Results

Catheter exit site bacterial colonization

CHG gel pad dressings	3.4% of patients
Transparent film dressing	5.3% of patients
Non-woven pads	5.7% of patients

CHG gel pad dressing

Patient satisfaction	92% of patients
Itching	2% of patients
Discomfort	6% of patients

Transparent film dressing

Discomfort	23% of patients
Dressing disruption	22% of patients
Itching	18% of patients
No issues	37% of patients

Non-woven pad

Dressing disruption	100%*
Skin discomfort	Noted
Adhesive residue	Noted

*"All 1st group (non-woven pads) patients reported frequent dressing deformation requiring its replacement and skin discomfort due to residual adhesive material"

Use of CHG gel pad dressings resulted in **low levels of discomfort and itching compared to transparent film dressings**

Clinicians said they were most convenient as they **required changing only once in 5-7 days and provided good catheter fixation**

Daily cost:
CHG gel pad dressing (€1.72) vs. transparent film dressing (€2.67) vs. non-woven pads (€4.35)

The catheter exit site bacterial colonization was lower in patients with Tegaderm™ CHG Dressing (3.4%), than in patients with non-woven pads (5.7%) or Tegaderm Transparent Film Dressing (5.3%)



Adoption of transparent CHG gel dressings supports sustained reduction in CRBSI in hemodialysis patients

Khalill Juhoor and Annabelle Magdael, "Adoption of CHG impregnated transparent gel pad dressing on haemodialysis patient population with long-term central venous access," *Journal of Kidney Care* 7, no. 1 (2022), <https://doi.org/10.12968/jokc.2022.7.1.6>.

Design

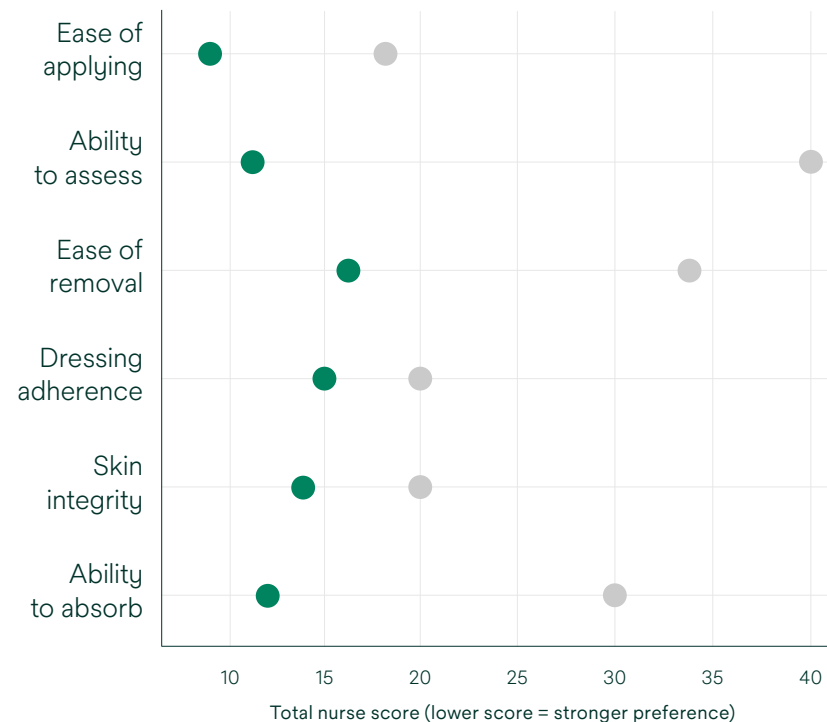
Comparative evaluation describing adoption of a chlorhexidine gluconate (CHG)-impregnated transparent gel pad dressing for long-term central venous access in a hemodialysis population. The study summarized local surveillance data and implementation experience across hospital and satellite units and included a short internal comparison in which dialysis nurses evaluated two CHG dressing approaches, reporting infection trends, adherence considerations and qualitative feedback on wear time, visibility, comfort and change frequency.

Methods

Local bacteremia and line prevalence data were collected over defined baseline periods before implementation of a CHG dressing program supported by staff training, routine audits and standardized exit-site assessments. A two-week evaluation compared two CHG dressing options, with nine dialysis nurses completing structured usability assessments. Proper skin preparation and drying were emphasized, with weekly dressing changes recommended when sites remained clean, dry and intact. Infection outcomes and operational observations were reported descriptively across hospital and satellite dialysis units.

Results

Nurse-reported evaluation of CHG dressing performance



● Johnson and Johnson (ETHICON™) BIOPATCH® ● 3M™ Tegaderm™ CHG I.V. Securement Dressing

49/72 individual scores

showed a preference for CHG gel dressing



Reduction of catheter-related bloodstream infection (CRBSI)

cases reported from 2017 to 2021





Around 99% of clinical staff surveyed recommended continuing the use of Tegaderm™ CHG Dressing

Tarja J. Karpanen, Anna L. Casey, Ira Das, Tony Whitehouse, Peter Nightingale, and Thomas S. J. Elliot, "Transparent film intravenous line dressing incorporating a chlorhexidine gluconate gel pad: A clinical staff evaluation," *The Journal of the Association for Vascular Access* 21, no. 3 (2016): 133-138, <https://doi.org/10.1016/j.java.2016.03.008>.

Design

Clinical staff evaluation of a Tegaderm™ CHG Dressing compared to a standard dressing (n=81).

Methods

The study group was from the critical care unit and followed patients (>14,200) with short-term central venous catheter (CVC) or vascular access catheter (VAC) for dialysis. Study was divided into two phases: Nine months of Tegaderm™ CHG Dressing use was compared to 12 months of standard dressing use. Staff completed evaluation following implementation of Tegaderm™ CHG Dressing.

Results

Tegaderm™ CHG Dressing ratings relative to a standard dressing



86%

of the clinical staff surveyed rated the performance of the Tegaderm™ CHG Dressing as

better or much better than the standard dressing



Tegaderm™ CHG Dressing performed well in a **diverse group**

of critical care patients



98.7%

of clinicians recommended **continued use** of Tegaderm™ CHG Dressing





Tegaderm™ CHG Dressing group saw a significant reduction in the number of microorganisms recovered from the CVC insertion site compared to non-antimicrobial dressings

Tarja J. Karpanen, Anna L. Casey, Tony Whitehouse, Peter Nightingale, Ira Das, and Thomas S. J. Elliott, "Clinical evaluation of a chlorhexidine intravascular catheter gel dressing on short-term central venous catheters," *American Journal of Infection Control* 44, no. 1 (2016): 54-60, <https://doi.org/10.1016/j.ajic.2015.08.022>.

Design

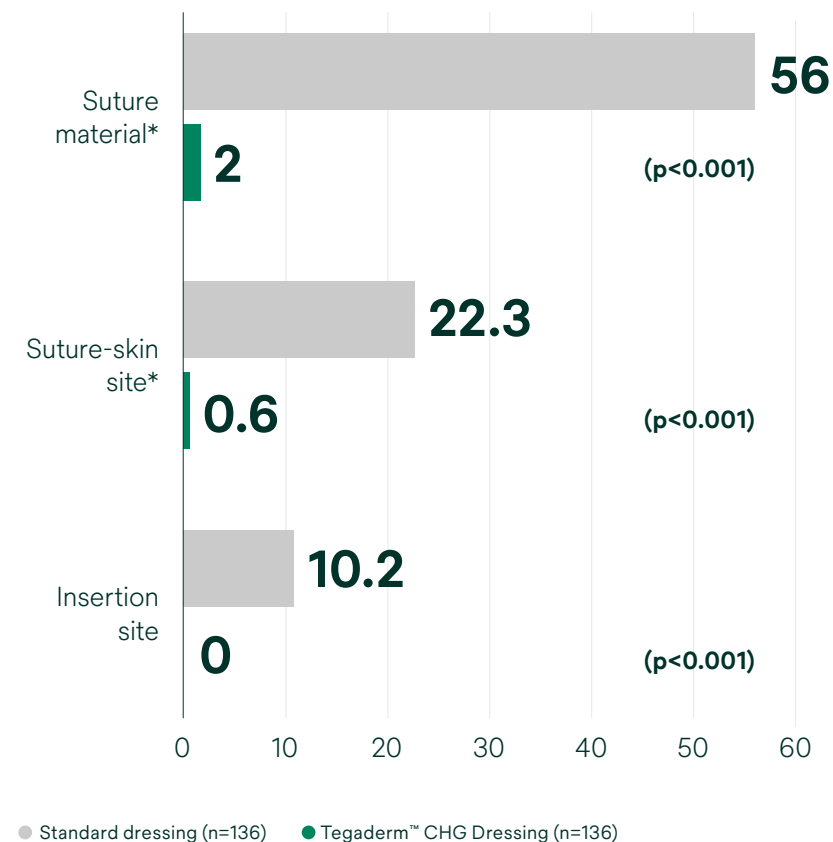
Prospective, cross-over, comparative, non-blinded, single-center clinical study.

Methods

Study assessed the antimicrobial efficacy of Tegaderm™ CHG Dressing in patients with an antimicrobial central venous catheter (CVC). Comparator was a standard dressing with an antimicrobial CVC. All patients except two had an antimicrobial CVC inserted. CVCs were secured with braided silk sutures.*

Results

CVC microbes median CFU/cm²



Tegaderm™ CHG Dressing **significantly reduced the number of microorganisms** on the catheter insertion site and catheter device insertion site

Microbes collected from underneath Tegaderm™ CHG Dressing **did not exhibit resistance** or susceptibility to chlorhexidine gluconate (CHG)

*Tegaderm™ CHG Dressing is not indicated to reduce bacterial colonization of sutures and suture sites.



ICU catheter bundle maintained low CRBSI rates in a retrospective cohort study

Alberto Lucchini, Marco Giani, Emanuele Rezoagli, et al, "Impact of a 'catheter bundle' on infection rates and economic costs in the intensive care unit: A retrospective cohort study," *Nursing Reports* 14, no. 3 (2024): 1948-1960, <https://doi.org/10.3390/nursrep14030145>.

Design

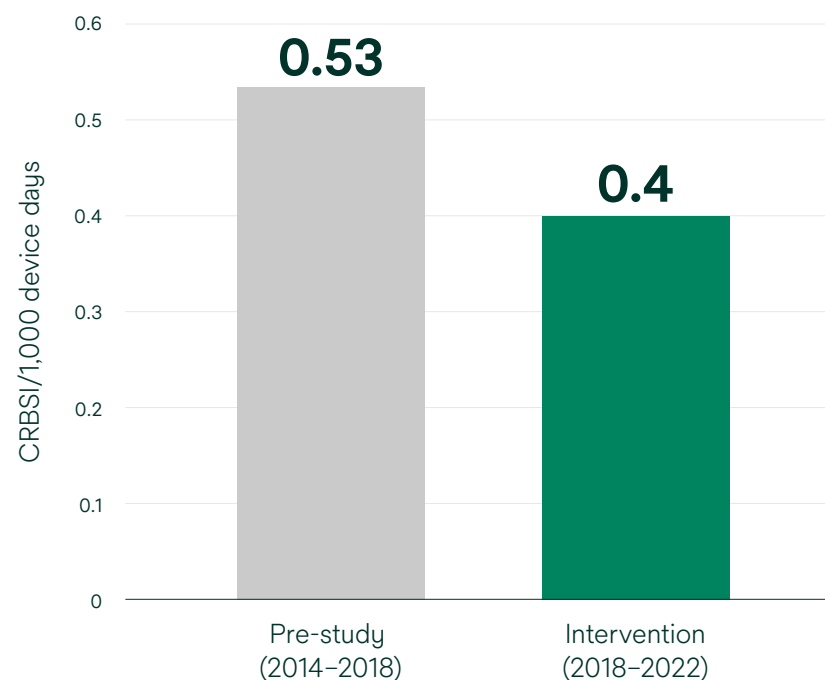
Single-center retrospective observational cohort study evaluating catheter-related bloodstream infection (CRBSI) prevalence and associated economic costs following implementation of a vascular line management bundle in an Italian intensive care unit (ICU). All eligible patients older than one year admitted between 2018 and 2022 were included. 80% of patients were mechanically ventilated. CRBSI rates were reported per 1,000 catheter-days by catheter type, with multivariable analyses assessing associations and per-patient and daily bundle costs calculated.

Methods

Electronic medical records were reviewed to identify catheter-related bloodstream infections, catheter characteristics and vascular line care practices. The management bundle included chlorhexidine gluconate (CHG) skin preparation and CHG gel pad dressings, needle-free connectors, Curox™ Disinfecting Port Protectors, standardized closed infusion systems and scheduled device replacement. CRBSI was defined using guideline-based blood culture criteria or catheter tip cultures when indicated, with rates reported per 1,000 catheter-days. Comparative and multivariable analyses evaluated associations with CRBSI, and implementation costs were calculated per patient and per day.

Results

CRBSI reduction following integration of CHG gel pad dressings into a catheter care bundle in ICU patients



Updated protocol (UP) highlights:

Transparent CHG gel pad dressing for patients > six months of age, closed IV set, admin set change every seven days, sutureless securement, neutral needle-free connectors, Curox™ Disinfecting Port Protectors and compliance to insertion bundle

0.7% (9/1,240)

of patients had CRBSI

Updated protocol average daily cost for vascular line management devices, excluding catheter cost, was

€15.20

per patient



The Tegaderm™ CHG Dressing is more cost-effective than a non-chlorhexidine dressing in this base case scenario

Franck Maunoury, Anastasiia Motrunich, Maria Palka-Santini, Stéphanie F. Bernatchez, Stéphane Ruckly, and Jean-François Timsit, "Cost-effectiveness analysis of a transparent antimicrobial dressing for managing central venous and arterial catheters in intensive care units," *PLOS ONE* 10, no. 6 (2015): e0130439, <https://doi.org/10.1371/journal.pone.0130439>.

Design

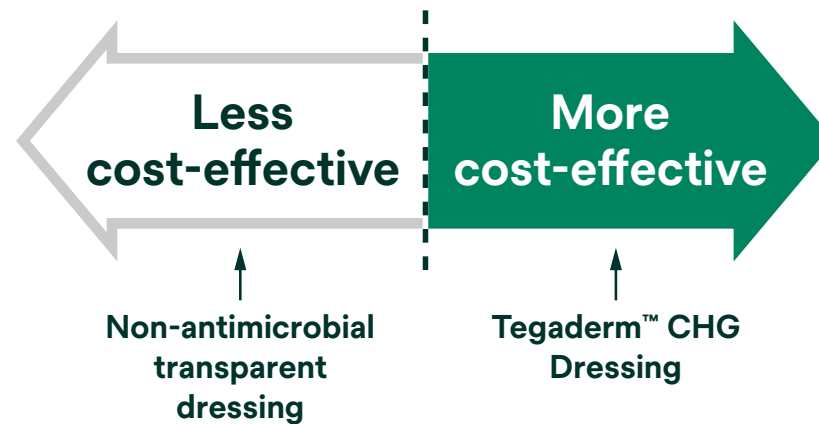
A novel health economic model (30-day time non-homogeneous Markov model).

Methods

Study used to estimate cost-effectiveness of using Tegaderm™ CHG Dressing compared to non-chlorhexidine dressings in a multi-center French intensive care unit (ICU) scenario (12) based on the number of catheter-related bloodstream infections (CRBSIs) avoided.

Results

Using a Tegaderm™ CHG Dressing is more cost-effective than using a non-antimicrobial transparent dressing



Tegaderm™ CHG Dressing was associated with

11.8 fewer infections
per 1,000 patients



The incremental cost-effectiveness ratio is

€12,046 per CRBSI reduction



The incremental net monetary benefit per patient is

€344.88





Clinically indicated PIV replacement with a CHG securement dressing reported zero CRBSI plus high nurse satisfaction and cost savings

Rosemary Catherine Olivier, Mary Wickman, Claudia Skinner, and Lilian Ablir, "The impact of replacing peripheral intravenous catheters when clinically indicated on infection rate, nurse satisfaction, and costs in CCU, step-down, and oncology units," *American Journal of Infection Control* 49, no. 3 (2021): 327-332, <https://doi.org/10.1016/j.ajic.2020.07.036>.

Design

Retrospective evaluation of a practice change replacing peripheral IV catheters (PIVs) based on clinical indication, implemented with a new chlorhexidine gluconate securement dressing and an existing IV care bundle in critical care unit (CCU), step-down and oncology units. Post-implementation outcomes were assessed across 473 adult patients and 737 PIV sites, including dwell time, complications, nursing satisfaction and supply costs.

Methods

Following institutional review board approval, retrospective chart reviews were conducted during a defined post-implementation period. Eligible patients had peripheral intravenous catheters placed per institutional policy, received a chlorhexidine gluconate securement dressing and had no baseline catheter-related bloodstream infection (CRBSI), phlebitis or central line-associated bloodstream infection (CLABSI). Phlebitis was assessed using an Infusion Nurses Society (INS)-validated scale documented in the electronic medical record. Blood cultures and routine nursing assessments were reviewed to identify CRBSI and skin tears. Cost and nursing perception outcomes were compared before and after implementation.

Prior bundle:

Flat film and PIV StatLock™ routine PIV replacement every 96 hours.

New PIV bundle:

3M™ Tegaderm™ CHG I.V. Securement Dressing 1660, hand hygiene, tubing change every Tuesday and Sunday, scrub the hub, needleless connector maintenance, site assessment, flushing protocol and removal of unnecessary PIVs.

Results

Post-implementation results reported after the practice change:



PIV average dwell time was seven days (3–28 days)



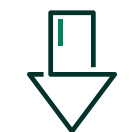
Phlebitis rate was 3% (<5% is acceptable according to INS)



No PIV-related bloodstream infection (BSI)



Two skin tears (0.27%) out of 737 PIVs



3,622 less PIV needles used reported one year post implementation (15% decrease and savings of \$5,542). Supports culture of needle-safety

94.2%

nurse satisfaction with the new dressing, Tegaderm™ CHG I.V. Securement Dressing. This satisfaction was sustained over 17 months



Cost savings:

\$17,000/year

in PIV supplies





“A low rate of catheter-related bloodstream infections can be maintained, nurses’ satisfaction achieved, and cost savings realized with the dressing”

Barbara Pfaff, Teresa Heithaus, and Madeline Emanuelson, “Use of a 1-piece chlorhexidine gluconate transparent dressing on critically ill patients,” *Critical Care Nurse* 32, no. 4 (2012): 35-40, <https://doi.org/10.4037/ccn2012956>.

Design

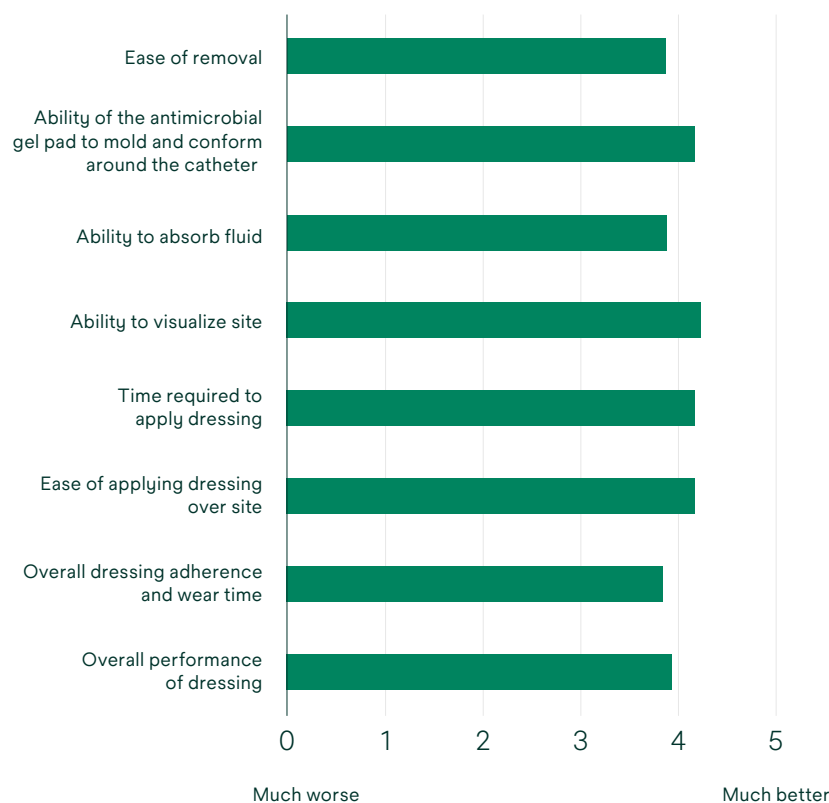
Quality improvement observation study completed in an adult medical-surgical intensive care unit (ICU) in a 714-bed tertiary care facility during a period of 1,881 device days.

Methods

Comparison of the effectiveness of a one-piece Tegaderm™ CHG Dressing versus a dressing plus a BIOPATCH® Disk on patients with a central venous catheter in the ICU. Patients were monitored for catheter-related bloodstream infections (CRBSIs). Evaluation of cost and nurses’ satisfaction (n=30) with the new dressing.

Results

Performance ratings for a one-piece Tegaderm™ Dressing with chlorhexidine gluconate



Estimated savings in the

ICU

for a similar six month period would be

\$1,463.76

and estimated savings

hospital-wide

would be

\$19,511.91



Nurses prefer Tegaderm™ CHG Dressing

over BIOPATCH® Disks





Updated EVD care bundle reduced EVDRI incidence in a consecutive patient cohort study

Mariel Rojas-Lora, Luisa Corral, Ivan Zabaleta-Carvajal, et al, "External ventriculostomy-associated infection reduction after updating a care bundle," *Annals of Clinical Microbiology and Antimicrobials* 22, no. 59 (2023), <https://doi.org/10.1186/s12941-023-00612-z>.

Design

Cohort study evaluating the impact of an updated external ventricular drain (EVD) insertion and maintenance protocol on external ventriculostomy-related infection rates. Adult patients requiring EVDs between 2015 and 2018 were compared before and after protocol updates introduced in 2017, with EVD-related infection (EVDRI) incidence assessed per 1,000 catheter-days across 198 patients.

Methods

An updated external ventricular drain care protocol was implemented at a 700-bed university hospital in Spain. Adult intensive care unit (ICU) and intermediate neurocritical care patients requiring EVD placement were included, excluding those younger than 18 years, with prior EVDRI or declining consent. EVDRI was defined using cerebrospinal fluid culture and clinical criteria. Protocol updates emphasized staff training, checklists, reduced catheter access and antiseptic measures, including alcoholic chlorhexidine gluconate (CHG) skin preparation, CHG gel pad dressings, connector disinfection and increased use of tunneled catheters.

Results

External EVDRI per 1,000 days of EVD catheter use

	Pre-UP		Post-UP	
Year	2015	2016	2017	2018
Patients	44	43	56	55
EVDRI	10 (23%)	8 (19%)	3 (5%)	2 (4%)
Catheter-days	745	711	696	780
Episodes/1,000 days of catheter	13.4	11.2	4.3	2.5
23/2,932=7.8				

Table summarizes information for before and after introduction of an updated protocol (UP) for EVD insertion and maintenance.

Updated protocol (UP) highlights:

CHG prep with alcohol, silk sutures, hair clippers, skin barrier prep, CHG gel pad dressing, 70% isopropyl alcohol (IPA) disinfectant swab for connectors, reduced accesses, more tunneled catheters (pre UP 59% vs. post-UP 97%)

72.6% reduction

EVDRI/1,000 catheter-days

EVDRI incidence decreased from 21% (18/87) to 4% (5/111),
with chi-square <0.001



Tegaderm™ CHG Dressing helps reduce the risk of CLABSI

S. Scheithauer, K. Lewalter, J. Schröder, A. Koch, H. Häfner, V. Krizanovic, K. Nowicki, R-D. Hilgers, and S. W. Lemmen, "Reduction of central venous line-associated bloodstream infection rates by using a chlorhexidine-containing dressing," *Infection* 42, no. 1 (2014): 155-159, <https://doi.org/10.1007/s15010-013-0519-7>.

Design

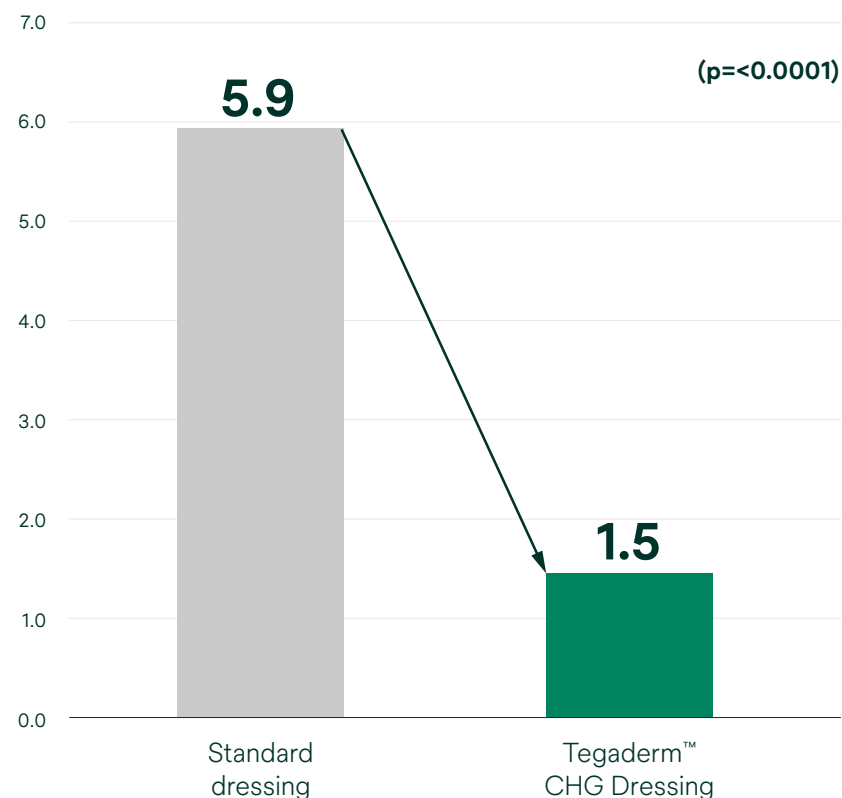
Before and after historical central line-associated bloodstream infection (CLABSI) study of 1,298 patients at two intensive care units (ICUs) from November 2010 to May 2012.

Methods

Studies compared the number of CLABSIs and infection rates between patients with standard dressings and Tegaderm™ CHG Dressing. The results were also compared to historical data.

Results

CLABSI rate (per 1,000 catheter-days)



74% reduction

in CLABSIs using Tegaderm™ CHG Dressing compared to standard dressings in the observation phase

The low rate of adverse events

associated with Tegaderm™ CHG Dressing was a positive result

The durability of Tegaderm™ CHG Dressing was confirmed to be

seven days



Use of Tegaderm™ CHG Dressing helps reduce the risk of EVD-associated MV rates without increasing costs or workloads

Simone Scheithauer, Henna Schulze-Steinen, Anja Höllig, Luis Lopez-Gonzalez, Ralf-Dieter Hilgers, Marcus H. T. Reinges, Gernot Marx, and Sebastian Lemmen, "Significant reduction of external ventricular drainage-associated meningoventriculitis by chlorhexidine-containing dressings: A before-after trial," *Clinical Infectious Diseases* 62, no. 3 (2016): 404-405, <https://doi.org/10.1093/cid/civ887>.

Design

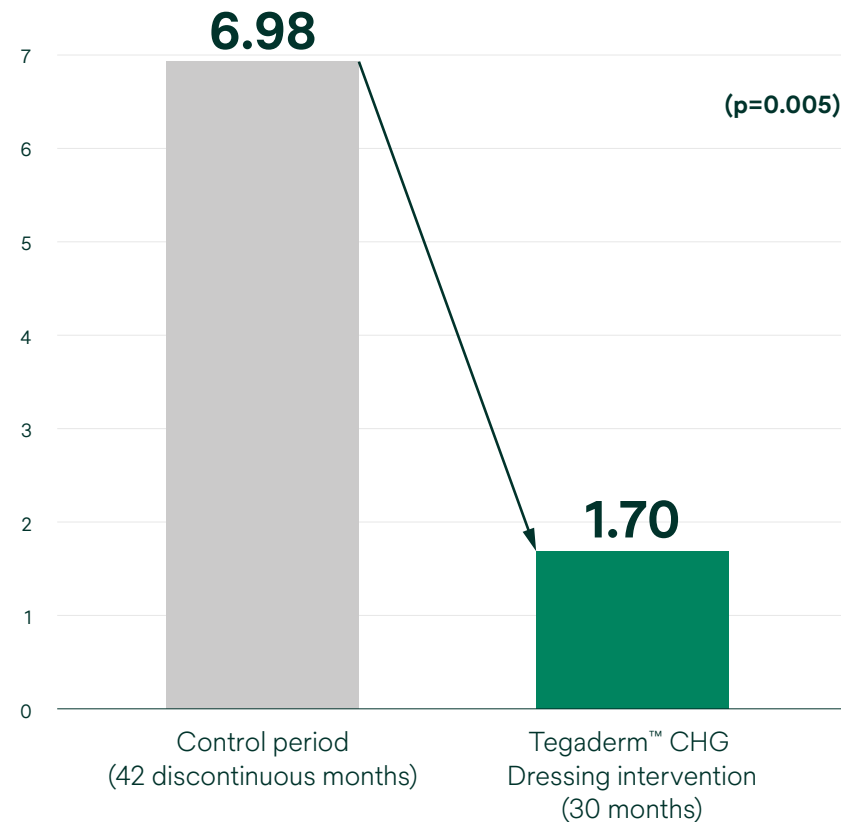
Before and after intervention study comparing external ventricular drainage (EVD)-associated meningoventriculitis (MV).

Methods

Study replaced standard gauze dressings with Tegaderm™ CHG Dressing. Evaluation and calculation of the EVD-associated MV rates were performed by an interdisciplinary and interprofessional health team twice weekly during infectious disease rounds.

Results

EVD-associated MV rate (per 1,000 EVD days)



The intervention

significantly reduced rates

without increasing costs or workloads



There was a

76% reduction

in MV rates
(from 6.98 to 1.7)



No adverse events

(e.g., skin reactions)
occurred



The use of Tegaderm™ CHG Dressing results in an overall cost savings of £77,427 per 1,000 adult patients compared to standard care

Praveen Thokala, Martin Arrowsmith, Edith Poku, Marissa Martyn-St James, Jeff Anderson, Steve Foster, Tom Elliott, and Tony Whitehouse, "Economic impact of Tegaderm chlorhexidine gluconate (CHG) dressing in critically ill patients," *Journal of Infection Prevention* 17, no. 5 (2016): 216-223, <https://doi.org/10.1177/1757177416657162>.

Design

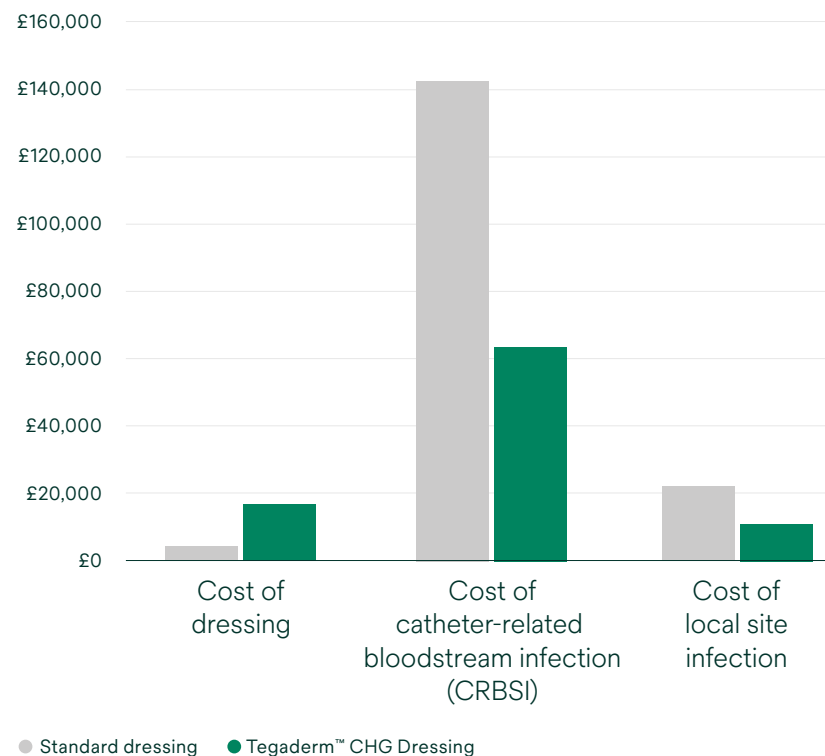
Analytical cost-consequence model populated with data from published sources.

Methods

Estimation of the economic impact of a Tegaderm™ CHG Dressing compared with a standard dressing.

Results

Breakdown of different costs for standard dressing and Tegaderm™ CHG Dressing (for a cohort of 10,000 patients)



Tegaderm™ CHG Dressing has a

98.5% probability of saving £77,000

per year per 1,000 patients



CRBSI risk with Tegaderm™ CHG Dressing was

0.6 per 1,000 catheter-days, versus 1.48 per 1,000

catheter-days with a standard dressing





BIOPATCH® was replaced with Tegaderm™ CHG for all central venous catheters and arterial lines for all ICU patients because healthcare workers reported significant improvement in fitness of use

P. Eggimann, C. Joseph, and M. J. Thévenin, "Fitness of use of Biopatch® and Tegaderm™ CHG for protecting central venous catheters and arterial lines in critically ill patients," oral presentation, 3rd International Conference on Prevention and Infection Control, Geneva, Switzerland, June 2015 and published in *Antimicrobial Resistance and Infection Control* 4, Suppl. 1, no. O26 (2015), <https://doi.org/10.1186/2047-2994-4-S1-O26>.

Design

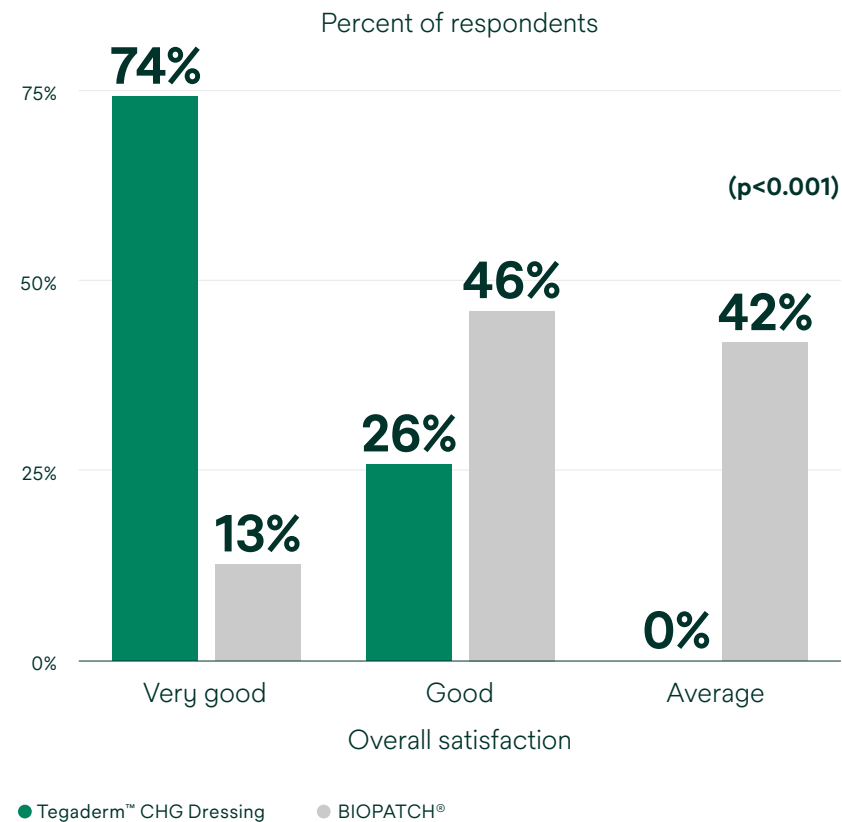
Clinical staff evaluation at five intensive care units (ICUs) (2,000 admissions and 11,000 patient-days annually).

Methods

Study compared the fitness of use of BIOPATCH® Disks (n=24) and Tegaderm™ CHG Dressings (n=42) in a mixed ICU based on a questionnaire given to healthcare workers.

Results

Comparison of staff satisfaction evaluation



There was significant improvement of the

ease of installation

reported for Tegaderm™ CHG Dressing compared to BIOPATCH® Disks



In most cases, staff reported that Tegaderm™ CHG Dressing

improved coverage

of the insertion and suture sites





The Tegaderm™ CHG Dressing demonstrated broad-spectrum antimicrobial activity against all 37 strains of microorganisms tested

J. P. Hensler, D. L. Schwab, L. K. Olson, and M. Palka-Santini, "Growth inhibition of microorganisms involved in CRBSIs by an antimicrobial transparent I.V. dressing containing chlorhexidine gluconate (CHG)," poster session presentation, 19th Annual Conference of the European Society of Clinical Microbiology and Infectious Diseases 2009, Helsinki, Finland, May 16-19, 2009.

Design

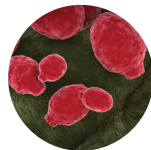
In vitro study to assess zone of inhibition and aged zone of inhibition (22 months aged dressings).*

Methods

The antimicrobial activity of the Tegaderm™ CHG Dressing gel pad was tested against a panel of 37 microorganism strains, comprised of 21 gram-positive and 14 gram-negative bacteria and two yeasts. The antimicrobial activity of Tegaderm™ CHG Dressing was evaluated against these microorganisms commonly associated with catheter-related bloodstream infections using *in vitro* zone of inhibition.*

Results

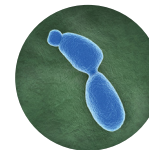
Tegaderm™ CHG Dressing demonstrates *in vitro* efficacy against 37 strains of microorganisms including gram-positive and gram-negative bacteria and yeast



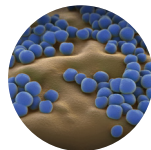
Enterococcus
(Five strains)



Pseudomonas aeruginosa
(Five strains)



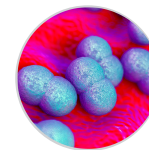
Candida
(Two strains)



Staphylococcus aureus
(Eight strains)



Escherichia coli
(One strain)



Coag Neg Staph
(Seven strains)



Klebsiella
(Two strains)



Enterobacter
(One strain)



Other
(Six strains)

Many of the 37 strains tested were resistant organisms, including

**MRSA,
MRSE, VRE
and MDR
strains**



Tegaderm™ CHG Dressing
**retains its
antimicrobial
properties**

as demonstrated by the aged dressing's ability to produce similar zones of inhibition* compared to unaged dressings



*No clinical correlations intended.



Tegaderm™ CHG Dressing is designed to ensure consistently correct placement with the CHG gel pad completely covering the catheter insertion site in 100% of tested applications

Cynthia A. Kohan and John M. Boyce, "A different experience with two different chlorhexidine gluconate dressings for use on central venous devices," (poster presentation, Association for Professionals in Infection Control and Epidemiology (APIC), Ft Lauderdale, Florida, 2013) and published in *American Journal of Infection Control* 41, no. 6 (2013): S142–S143, <https://doi.org/10.1016/j.ajic.2013.03.283>.

Design

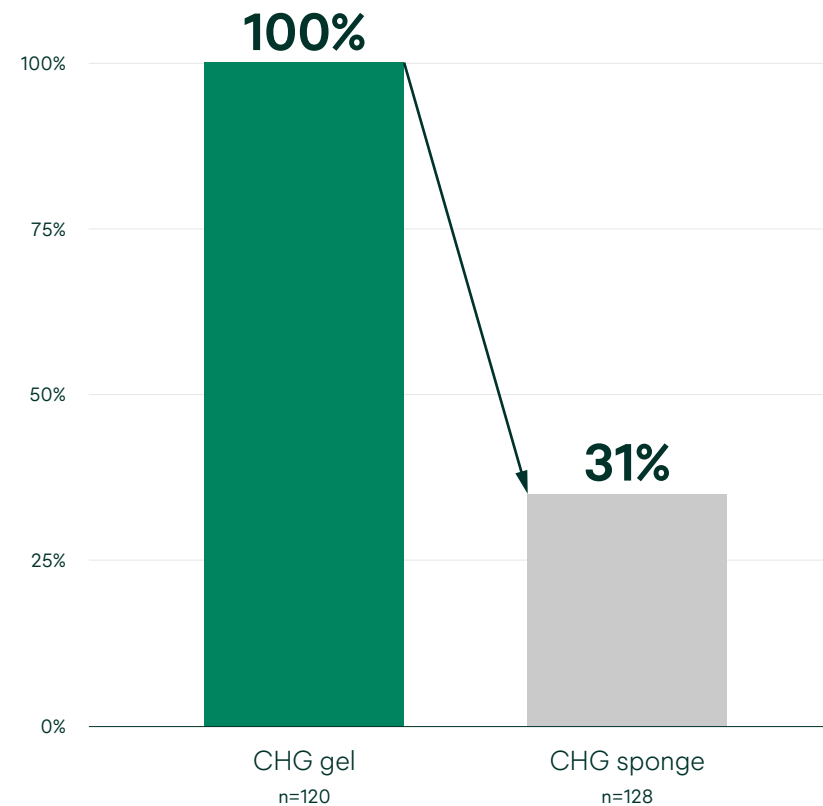
Clinical audits of dressing application and occlusiveness conducted in 2009 while using a BIOPATCH® Disk and in 2012 while using a Tegaderm™ CHG Dressing.

Methods

Audit evaluated the frequency of correct application for BIOPATCH® Disks and Tegaderm™ CHG Dressing in 248 dressing applications.

Results

Percentage of dressings correctly placed at the insertion site



BIOPATCH® Disks were

placed incorrectly

at the insertion site

69% of the time

despite repeated educational sessions



Inappropriate placement

of the BIOPATCH® Disks included the disk placed on top of the catheter, disk upside down, radial slit not approximated or disk too small for catheter size





Tegaderm™ CHG Dressing provides continuous antimicrobial activity

D. Maki et al, "A novel integrated chlorhexidine-impregnated transparent dressing for prevention of vascular catheter-related bloodstream infection: A prospective comparative study in healthy volunteers," poster presentation, the Society for Healthcare Epidemiology of America annual conference, 2008.

Design

In vivo trials in healthy volunteers of immediate and long-term cutaneous antimicrobial activity to analyze prevention of skin flora regrowth on alcohol prepped subclavian sites and cumulative kill of skin flora on unprepped sites over 10 days of exposure.

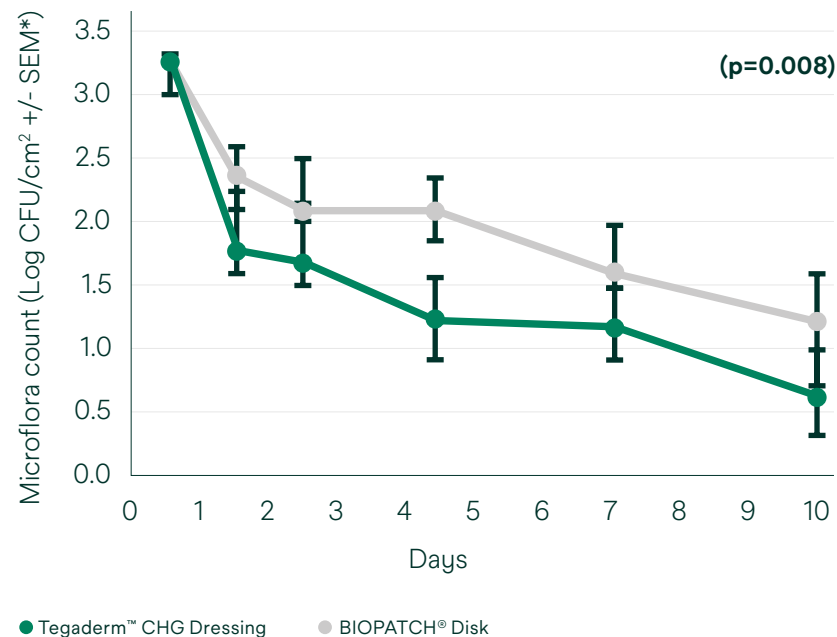
Methods

Study compared the antimicrobial effectiveness of Tegaderm™ CHG Dressing to BIOPATCH® Disks on healthy adult volunteers.

Results

Provides immediate and persistent reduction of microbes

In vivo kill time of normal flora on unprepped skin on healthy adult volunteers



*SEM: Scanned electron microscopy

Tegaderm™ CHG Dressing is proven to be

as effective as or better than

BIOPATCH® Disks at persistently reducing microbes at each time point





Tegaderm™ CHG Dressing provides antimicrobial protection under the catheter

D. Schwab et al, "Antimicrobial activity of a CHG-impregnated gel pad for I.V. site protection," poster presentation, the conference of Infusion Nursing Society, Phoenix, Arizona, May 4, 2008.

Design

In vitro study to assess the zones of inhibition generated from surface chlorhexidine gluconate (CHG) and diffused CHG.*

Methods

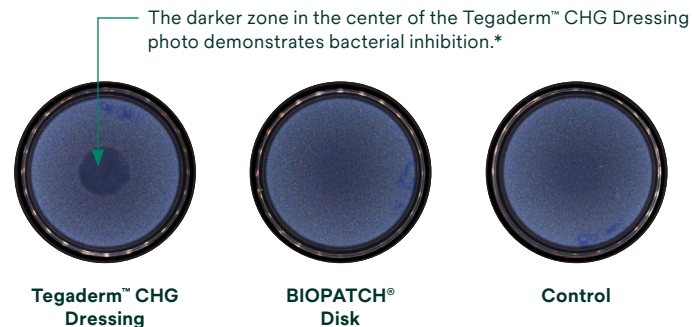
Multiple *in vitro* methodologies were used in this study:

- 1. Surface availability:** Evaluated the presence of CHG on the surface of Tegaderm™ CHG Dressing and BIOPATCH® in the absence of additional moisture.
- 2. CHG diffusion:** Evaluated the diffusion of CHG from Tegaderm™ CHG Dressing through an agar plate to areas not in direct contact.

Results

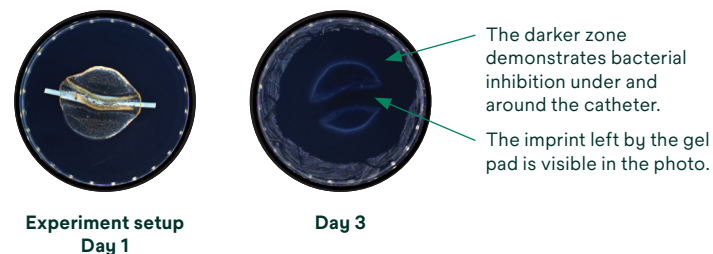
Method 1: Provides antimicrobial protection without moisture

Images of agar plates inoculated with *S. epidermidis* at 24 hours



Method 2: Provides antimicrobial protection under the catheter

Images of agar plates inoculated with *S. epidermidis*



Tegaderm™ CHG Dressing provides antimicrobial protection

without any additional moisture



CHG from the Tegaderm™ CHG Dressing is

diffused

under the catheter

*No clinical correlations intended.

Description

3M™ Tegaderm™ CHG Chlorhexidine Gluconate I.V. Securement Dressing is used to cover and protect catheter sites and to secure devices to the skin. It is available in a variety of shapes and sizes.

Tegaderm™ CHG I.V. Securement Dressing consists of a transparent adhesive dressing and an integrated gel pad containing 2% w/w Chlorhexidine Gluconate (CHG), a well known antiseptic agent with broad spectrum antimicrobial and antifungal activity.

The transparent film provides an effective barrier against external contamination including fluids (waterproof), bacteria, viruses* and yeast, and protects the I.V. site.

In vitro testing (log reduction and barrier testing) demonstrates that the Tegaderm™ CHG gel pad in the Tegaderm™ CHG I.V. Securement Dressing has an antimicrobial effect against, and is a barrier to, a variety of gram-positive and gram-negative bacteria, and yeast in the dressing. The gel pad absorbs fluid.

**In vitro* testing shows that the transparent film of the Tegaderm™ CHG dressing provides a viral barrier from viruses 27 nm in diameter or larger while the dressing remains intact without leakage.

Tegaderm™ CHG I.V. Securement Dressing is transparent, allowing continual site observation, and is breathable, allowing good moisture vapor exchange.

Indications

3M™ Tegaderm™ CHG Chlorhexidine Gluconate I.V. Securement Dressing can be used to cover and protect catheter sites and to secure devices to skin. Common applications include securing and covering IV catheters, other intravascular catheters and percutaneous devices.

Tegaderm™ CHG I.V. Securement Dressing is intended to reduce vascular catheter colonization and catheter-related bloodstream infections (CRBSI) in patients with central venous or arterial catheters.

Warnings

- DO NOT USE TEGADERM™ CHG I.V. SECUREMENT DRESSING ON PREMATURE INFANTS OR INFANTS YOUNGER THAN 2 MONTHS OF AGE. USE OF THIS PRODUCT ON PREMATURE INFANTS MAY RESULT IN HYPERSENSITIVITY REACTIONS OR NECROSIS OF THE SKIN.
- FOR EXTERNAL USE ONLY. DO NOT ALLOW THIS PRODUCT TO CONTACT EARS, EYES, MOUTH OR MUCOUS MEMBRANES.
- THE SAFETY AND EFFECTIVENESS OF TEGADERM™ CHG I.V. SECUREMENT DRESSING HAS NOT BEEN ESTABLISHED IN CHILDREN UNDER 18 YEARS OF AGE.
- DO NOT USE TEGADERM™ CHG I.V. SECUREMENT DRESSING DIRECTLY OVER BURN INJURY.
- DO NOT USE THIS PRODUCT ON PATIENTS WITH KNOWN HYPERSENSITIVITY TO CHLORHEXIDINE GLUCONATE. THE USE OF CHLORHEXIDINE GLUCONATE CONTAINING PRODUCTS HAS BEEN REPORTED TO CAUSE IRRITATIONS, SENSITIZATION, AND GENERALIZED ALLERGIC REACTIONS.

Hypersensitivity reactions associated with topical use of Chlorhexidine Gluconate have been reported in several countries. The most serious reactions (including anaphylaxis) have occurred in patients treated with lubricants containing Chlorhexidine Gluconate, which were used during urinary tract procedures. Preparations of this type are not approved for sale in the U.S. under any circumstances. Caution should be taken when using Chlorhexidine Gluconate containing preparations, and the patient should be observed for the possibility of hypersensitivity reactions.

- IF ALLERGIC REACTIONS OCCUR, DISCONTINUE USE IMMEDIATELY, AND IF SEVERE, CONTACT A PHYSICIAN.

Caution: Federal Law restricts the device to sale by or on the order of a licensed health care professional.

Precautions

3M™ Tegaderm™ CHG I.V. Securement Dressing should not be placed over infected wounds. This device is not intended to treat catheter-related bloodstream infections (CRBSI) or other percutaneous device-related infection.

Any active bleeding at the insertion site should be stabilized before applying the dressing. Do not stretch the dressing during application. Mechanical skin trauma may result if dressing is applied with tension.

The skin should be clean, dry and free of detergent residue. Allow all preps and protectants to dry completely before applying the dressing to prevent skin irritation and to ensure good adhesion.

To learn more about 3M™ Tegaderm™ CHG Dressing or to schedule a product evaluation, visit us at Go.Solventum.com/TegadermCHG



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