3M

Tegaderm™

CHG Chlorhexidine Gluconate
I.V. Securement Dressing

The choice is clear.

Reduce risks across extraluminal access points.

Bloodstream infections: A critical issue for every health care facility.

All IVs are at risk for microbial contamination. Bloodstream infections are associated with significant increases in care and costs. They are more common than you think and, in some cases, they can be deadly.

The cost of a CLABSI is

$25,000.[1]

CRBSIs are associated with

1.57x

higher risk of mortality in critically ill adults.[2]

Short-term PVCs accounted for

23%

of hospital-acquired CRBSIs.[3]

Sources of Infection

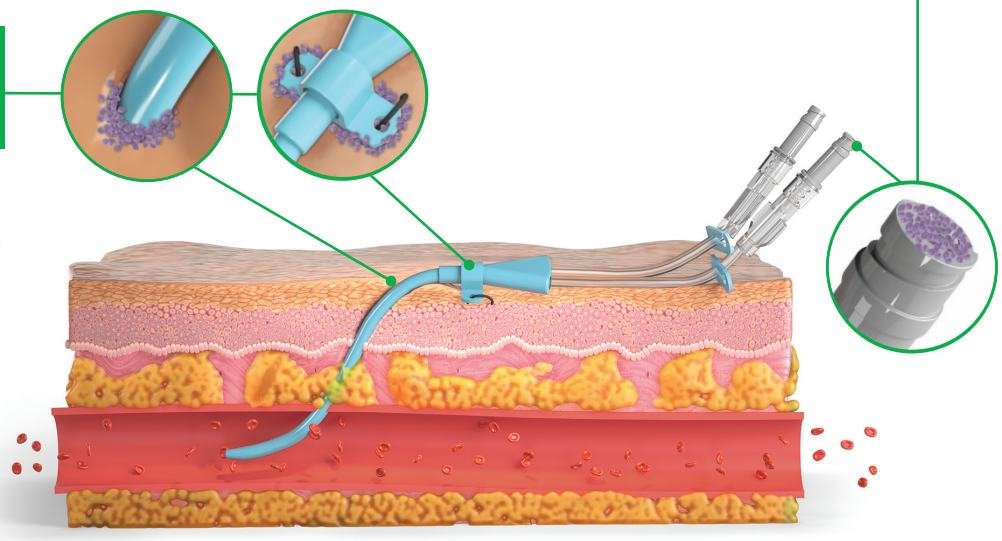
While vascular catheters provide the advantage of prolonged venous access, they present a risk of infectious complications. In fact, 60% of all hospital-acquired bloodstream infections originate from some form of vascular access.[4] These infections can be acquired at the time of the initial insertion or anytime throughout the duration of the venous access.[5]

Intraluminal contamination

Results when bacteria migrate through the catheter post insertion, typically via contamination of the lumen through the catheter port.

Extraluminal contamination

Results when bacteria originating on the surface of the skin migrate along the outside of the catheter and enter through the insertion site.



[1] Laupland, K.B.; Lee, H.; Gregson, D.B. and Manns, B.J. Cost of intensive care unit-acquired bloodstream infections. J. Hosp. Infect. 2006; 63(2): 124-32.

[2] Siempos. II.; Kopterides, P. Tsangaris, I.; Dimopoulou, I.; Armaganidis, AE. Impact of catheter-related bloodstream infections on the mortality of critically ill patients: A meta-analysis. *Crit Care Med.* 2009; 37(7): 2283-2289.

[3] Mermel, L. Short-term Peripheral Venous Catheter-Related Bloodstream Infections: A Systematic Review. *Clin Infect Dis.* 2017:65(10):1757-1762.

[4] Scheithauer, S.; Lewalter, K.; Schröder, J.; et al. Reduction of central venous line-associated bloodstream infection rates by using a chlorhexidine-containing dressing. *Infection.* 2014; 42(1): 155-159.

[5] Association for Professionals in Infection Control and Epidemiology, Inc. APIC Implementation Guide: Guide to Preventing Central Line-Associated Bloodstream Infections, 2015. https://apic.org/Resource_/TinyMceFileManager/2015/APIC_CLABSI_WEB.pdf.

All you need. All in one.

3M™ Tegaderm™ CHG Chlorhexidine Gluconate IV Securement Dressing is the *only* transparent dressing cleared by the Food and Drug Administration (FDA) to reduce catheter-related bloodstream infections and vascular catheter colonization that aligns with evidence-based guidelines and practice standards.

The chlorhexidine gluconate (CHG) gel pad provides immediate and continuous antimicrobial protection.

Aligns to standards and guidelines.

Recommendations for use of chlorhexidine-impregnated dressings.

FDA
The Food and Drug Administration

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

Tegaderm™ CHG IV Securement Dressing is the only transparent dressing cleared and proven to reduce CRBSI.[6]

CVAA
Canadian Vascular Access Association

Use a chlorhexidine impregnated dressing for all short term non-tunneled CVADS.[11]

Consider using a chlorhexidine impregnated dressing for patients with arterial and epidurals. [11]

CDC
The Centers for Disease Control and Prevention

For patients aged 18 years and older: Chlorhexidine-impregnated dressings with an FDA-cleared label that specifies a clinical indication for CRBSI or CABSI are recommended to protect the insertion site of short-term, non-tunneled CVCs. *(Category IA)*[7]

INS
Infusion Nurses Society

Use chlorhexidine-impregnated dressings over CVADs to reduce infection risk when extraluminal route is primary source of infection. (Level I)

Assess the catheter-skin junction site and surrounding area for redness, tenderness, swelling, drainage by visual inspection and palpation through the intact dressing.[8]

ONS
Oncology Nursing Society

Use a CHG-impregnated sponge dressing for all catheters, including specialty catheters in patients older than 2 months of age.

Following CHG skin preparation, it is recommended to use a CHG-impregnated dressing for any long-term infusion (defined as exceeding 4–6 hours) or if the port remains accessed for intermittent long-term infusions.[9]

SHEA
Society for Healthcare Epidemiology of America

Use chlorhexidine-containing dressings for CVCs in patients over 2 months of age. (quality of evidence: I)[10]

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[6] U.S. Food and Drug Administration, Department of Health & Human Services. 3M™ Tegaderm™ CHG Chlorhexidine Gluconate I.V. Securement Dressing 510(k) K153410 approval letter, May 15, 2017. Retrieved June 18, 2020 from https://www.accessdata.fda.gov/cdrh_docs/pdf15/K153410.pdf.

[7] Centers for Disease Control and Prevention (CDC): O'Grady, N.P.; Alexander, M.; Burns, L.A.; et al. Guidelines for the prevention of intravascular catheter-related infections. *Clin Infect Dis.* 2011;52(9):e162-e193.

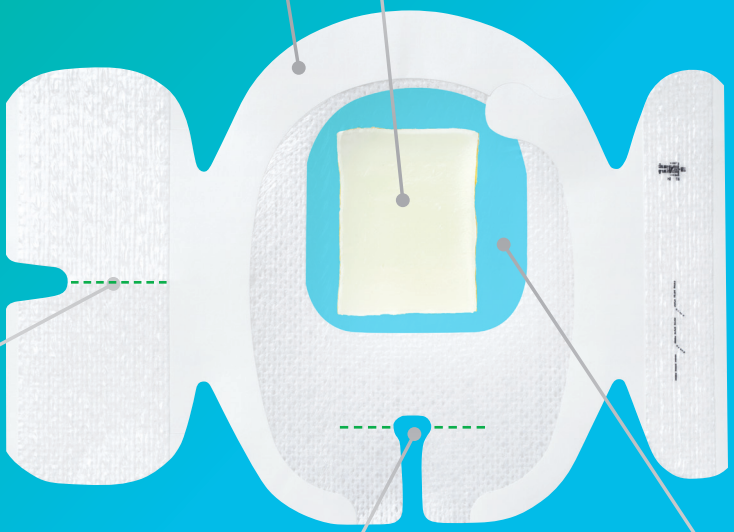
[8] Infusion Nurses Society (INS): Gorski, L.; Hadaway, L.; Hagle, M.E.; McGoldrick, M.; Orr, M.; Doellman, D.; Infusion Therapy Standards of Practice. *J. Infus. Nurs.* 2016; 39 (suppl 1): S1-S59.

[9] Oncology Nursing Society. Access device standards of practice for oncology nursing. 2017. https://www.ons.org/books/access-device-standards-practice-oncology-nursing.

[10] Marschall, J.; Mermel, L.A.; Fakih, M.; et al. Strategies to Prevent Central Line-Associated Bloodstream Infections in Acute Care Hospitals: 2014 Update. *Infect Control Hosp Epidemiol.* 2014; 35(7)753-771.

[11] Canadian Vascular Access Association. (2019). Canadian Vascular Access and Infusion Therapy Guidelines. Pembroke, ON: Pappin Communications.

Backed by 35 years of IV care science and innovation.



Conforming edge border

Uses technology designed to reduce edge-lift.

Antimicrobial protection

A chlorhexidine gluconate (CHG) gel pad provides antimicrobial protection for up to 7 days.

Large securement tape strip with notch

Promotes consistent application and enhances stabilization. Perforations aid with dressing removal.*

Conforming keyhole notch

A notch allows catheter lumens to fit better and stay in place. Perforations allow notch to conform around a wide variety of catheter sizes and types.*

A waterproof, sterile barrier protects against external contaminants**

Highly breathable, transparent film.

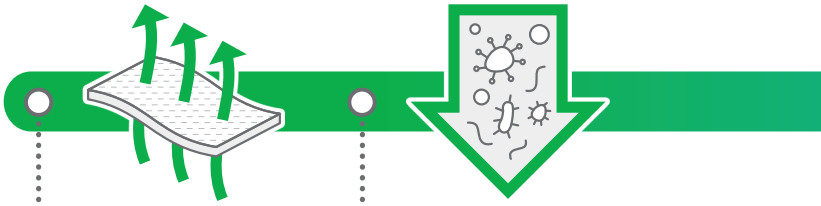
*Tegaderm™ CHG IV Securement Dressing 1657 only.

***In vitro* testing shows that the film provides a barrier against viruses 27 nm in diameter or larger while the dressing remains intact without leakage.

Continuous innovation inspired by you.

Over the last 10+ years, clinicians have come to rely on 3M™ Tegaderm™ CHG Chlorhexidine Gluconate IV Securement Dressings.

Explore milestones that have helped transform patient care.



2010

The breathability of the dressing was improved to manage moisture better.

2012

Randomized controlled trial documents lower catheter-related bloodstream infection (CRBSI) rates and catheter colonization with Tegaderm™ CHG Dressing versus non-chlorhexidine dressings.[12]

[12] Timsit, J.F.; Mimoz, O.; Mourvillier, B.; et al. Randomized controlled trial of chlorhexidine dressing and highly adhesive dressing for preventing catheter-related infections in critically ill adults. *Am. J. Respir. Crit. Care Med.* 2012; 186(12): 1272-1278.

Infection Reduction

Cleared and clinically proven to reduce catheter-related bloodstream infections (CRBSI).

Meets standards and guidelines including CDC Guidelines recommendation for use of chlorhexidine-impregnated dressing with FDA indication to reduce CRBSI.

60% reduction of CRBSIs

in a randomized controlled trial (RCT) of 1,879 subjects with 4,163 catheters.[12]

Site Visibility

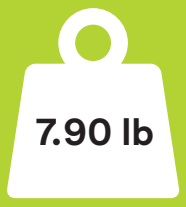
Transparent dressing and gel pad enable early identification of potential complications at IV site and meet Infusion Nurses Society (INS) recommendation to assess the IV site and surrounding area by visual inspection.[8]

Tegaderm™ CHG I.V. Securement Dressing

BIOPATCH® Disk with CHG

Catheter Securement

Designed to minimize catheter movement and dislodgement and meets the INS definition of an Engineered Stabilization Device (ESD).[8]



pull force

Tegaderm™ CHG IV Securement Dressing 1657 can withstand 7.90 lb pull force on average, which is an average 1.09 lb greater pull force vs. SorbaView® SHIELD + BIOPATCH® 7 days after application.[13]

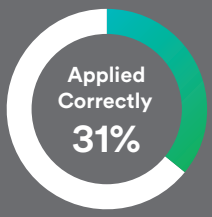
Ease of Use

Integrated CHG gel pad and dressing design ensures standardized, correct application.[14]

Tegaderm™ CHG IV Securement Dressing

n=120

BIOPATCH® Disk with CHG



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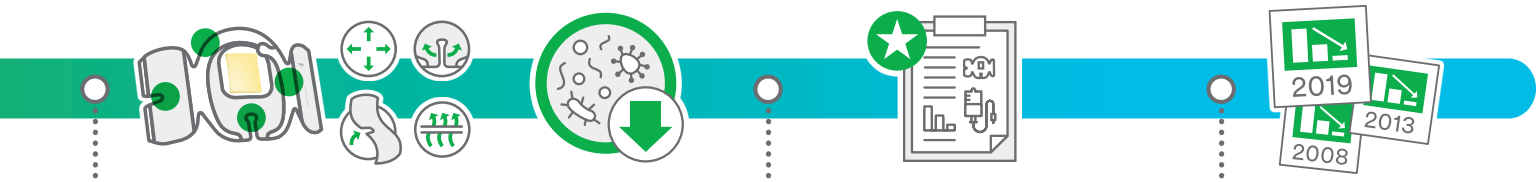


2016

Dressing was redesigned with:

- improved breathability for moisture management
- conforming keyhole notch to allow catheter lumens to fit better and stay in place
- securement tape strip with notch for consistent application and stabilization
- conforming edge border to reduce edge lift

2017

Tegaderm™ CHG Dressing receives U.S. Food & Drug Administration (FDA) 510(k) clearance for expanded indication to reduce CRBSIs.[6]

2017

Tegaderm™ CHG Dressing is the only transparent dressing to meet new Centers for Disease Control and Prevention (CDC) recommendation for reducing CRBSIs (Category 1A).[7]

2019

11-year, real-world study shows sustained reduction of CRBSIs with CHG gel dressings.[15]

[13] 3M data on file: EM-05-014359.
[14] Kohan, C.A.; Boyce, J.M. A Different Experience with Two Different Chlorhexidine Gluconate Dressings for Use on Central Venous Devices. *Am. J. Infect. Control.* 2013; 41(6): S142-S143.
[15] Eggimann, P.; Pagani, J.L.; Dupuis-Lozeron, E.; et al. Sustained reduction of catheter-associated bloodstream infections with enhancement of catheter bundle by chlorhexidine dressings over 11 years. *Intensive Care Med.* 2019; 45: 823-833.

The difference is clear.

3M™ Tegaderm™ CHG Chlorhexidine Gluconate IV Securement Dressing

VS

BIOPATCH® Disk with CHG

Efficacy	Tegaderm™ CHG Dressing	BIOPATCH® Disk with CHG
Superior skin flora kill rate Tegaderm™ CHG Dressing is proven to be more effective than BIOPATCH® Disk with CHG at each time point tested over the course of 10 days.[16]	✓	✗
Superior skin flora regrowth suppression at 7 days Tegaderm™ CHG Dressing is more effective at suppressing the regrowth of normal skin flora on prepped skin than BIOPATCH® Disk with CHG.[17]	✓	✗
Suture site protection Tegaderm™ CHG Dressing has been shown to reduce the number of microorganisms at the catheter insertion site, suture site, sutures and catheter surface.*[18]	✓	✗

Safety and Ease of Use	Tegaderm™ CHG Dressing	BIOPATCH® Disk with CHG
Allows for constant site monitoring The *2019 Canadian Vascular Access Guidelines published by CVAA,* recommend assessing the VAD (Vascular Access Device)-skin junction site and surrounding area for redness, tenderness, swelling, and drainage by visual inspection and palpation through the intact dressing.[11]	✓	✗
Superior placement accuracy rate Multiple studies have shown an improved CHG placement accuracy rate with the integrated Tegaderm™ CHG Dressing compared to the placement of a BIOPATCH® Disk with CHG plus a dressing.[14,19]	✓	✗
CHG gel pad is integral to a transparent dressing Since the CHG gel pad is integral to the Tegaderm™ CHG Dressing, it cannot be put on upside down or forgotten and eliminates the need for extra steps to apply CHG separately from the cover dressing.	✓	✗

*Tegaderm CHG IV Securement Dressings are not indicated to reduce bacterial colonization of sutures or suture sites.

[16] 3M Data on File: #09535.
[17] Bashir, M.H.; Olson, L.K.; Walters, S.A. Suppression of regrowth of normal skin flora under chlorhexidine gluconate dressings applied to chlorhexidine gluconate-prepped skin. *Am. J. Infect. Control.* 2012; 40(4): 344-348.
[18] Karpanen, T.J.; Casey, A.L.; Das, I.; Whitehouse, T.; Nightingale, P.; Elliott, T.S.J. Transparent film intravenous line dressing incorporating a chlorhexidine gluconate gel pad: A clinical staff evaluation. *J. Assoc. Vasc. Access.* 2016; 21(3): 133-138.
[19] Eyberg, C.; Pyrek, J. A Controlled Randomized Prospective Comparative Pilot Study to Evaluate the Ease of Use of a Transparent Chlorhexidine Gel Dressing Versus A Chlorhexidine Disk in Healthy Volunteers. *J. Vasc Access.* 2008; 13(3): 112-117.

The evidence is clear.

3M is proud to have a robust body of evidence supporting 3M™ Tegaderm™ CHG Chlorhexidine Gluconate IV Securement Dressing.

22 Studies to date including meta-analysis, randomized controlled trials, peer-reviewed studies and posters

Over 45% published within the last five years (2015–2020)

Over 30,000 patients studied

Catheter Types Studied

- CVC (long-term & short-term)
- Arterial
- External ventricular drain
- Dialysis
- Epidural

Topics Covered

Infection Reduction
Measurable decrease in catheter-related bloodstream infection (CRBSI) rate.

Ease of Use
Product usability and clinician preference.

Antimicrobial Protection
Microbial colonization and *in vitro* zone of inhibition.*

*No clinical correlation intended.

Health Economics
Cost savings and overall economic impact.

View full clinical evidence summary

Featured Studies

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

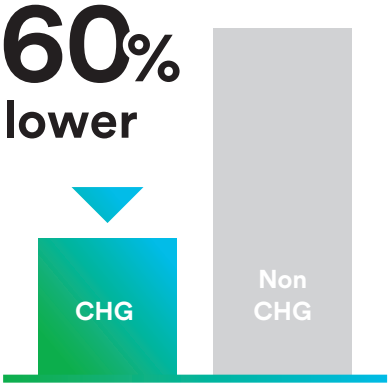
Timsit, J.F.; Mimoz, O.; Mourvillier, B.; et al. *Am. J. Respir. Crit. Care Med.* 2012; 186(12): 1272-1278.

Results:
A multi-center randomized controlled trial in 12 French ICUs, with a total of 1,879 patients evaluated, compared chlorhexidine to non-chlorhexidine dressings and determined the Tegaderm™ CHG Dressing decreases catheter colonization and CRBSI rates in CVC and arterial catheters.

View study:
https://www.atsjournals.org/doi/full/10.1164/rccm.201206-1038OC

CRBSI rate was

60% lower



with Tegaderm™ CHG Dressing versus non-chlorhexidine dressing.

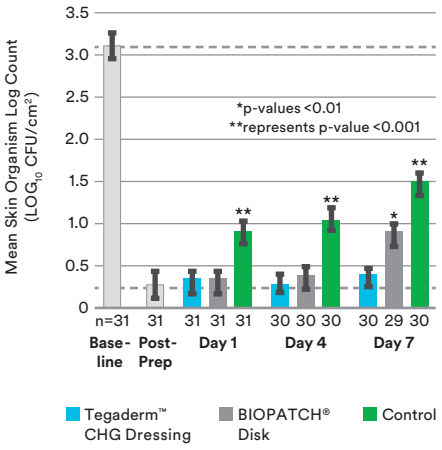
Suppression of regrowth of normal skin flora under chlorhexidine gluconate dressings applied to chlorhexidine gluconate-prepped skin

Bashir, M.H.; Olson, L.K.; Walters, S.A. *Am. J. Infect. Control.* 2012; 40: 344-348.

Results:
Randomized controlled trial on the backs of 30 healthy subjects compared suppression of microbe regrowth on CHG-prepped skin between control, CHG gel dressings and CHG disks. CHG dressings helped reduce the bacterial count on the skin. CHG gel maintained organism suppression to a greater extent than the CHG disk at 7 days.

View study:
https://www.ajicjournal.org/article/S0196-6553(11)00319-1/fulltext

Maintains lower skin organism counts than BIOPATCH® Disk



Sustained reduction of catheter-associated bloodstream infections with enhancement of catheter bundle by chlorhexidine dressings over 11 years

Eggimann, P.; Pagani, J.L.; Dupuis-Lozeron, E.; et al. *Intensive Care Med.* 2019; 45: 823-833.

Results:
Real-world data study of 18,286 patients from 2006 to 2014 at a 35-bed mixed adult ICU evaluated the impact of incrementally introducing CHG dressings (sponge or gel) to an ongoing catheter bundle. The incidence density showed a progressive but significant decrease of CRBSI rates when CHG sponge and CHG gel dressings were used. Data indicates the skin reaction rates for CHG gel and CHG sponge were equivalent at 0.3 /1,000 device days.

View study:
https://link.springer.com/article/10.1007%2Fs00134-019-05617-x

Chlorhexidine dressings were associated with

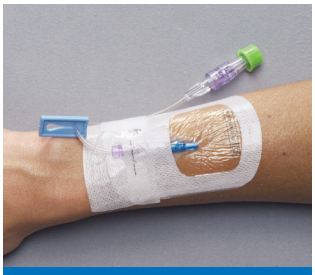
a sustained 11-year reduction of CRBSIs.

All lines.
All the time.

Use the entire family of antimicrobial CHG Tegaderm™ Dressings to help reduce risks across extraluminal access points.

Subclavian

Large Bore/Dialysis

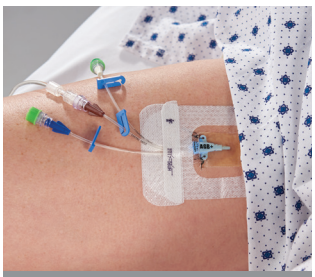


Peripheral

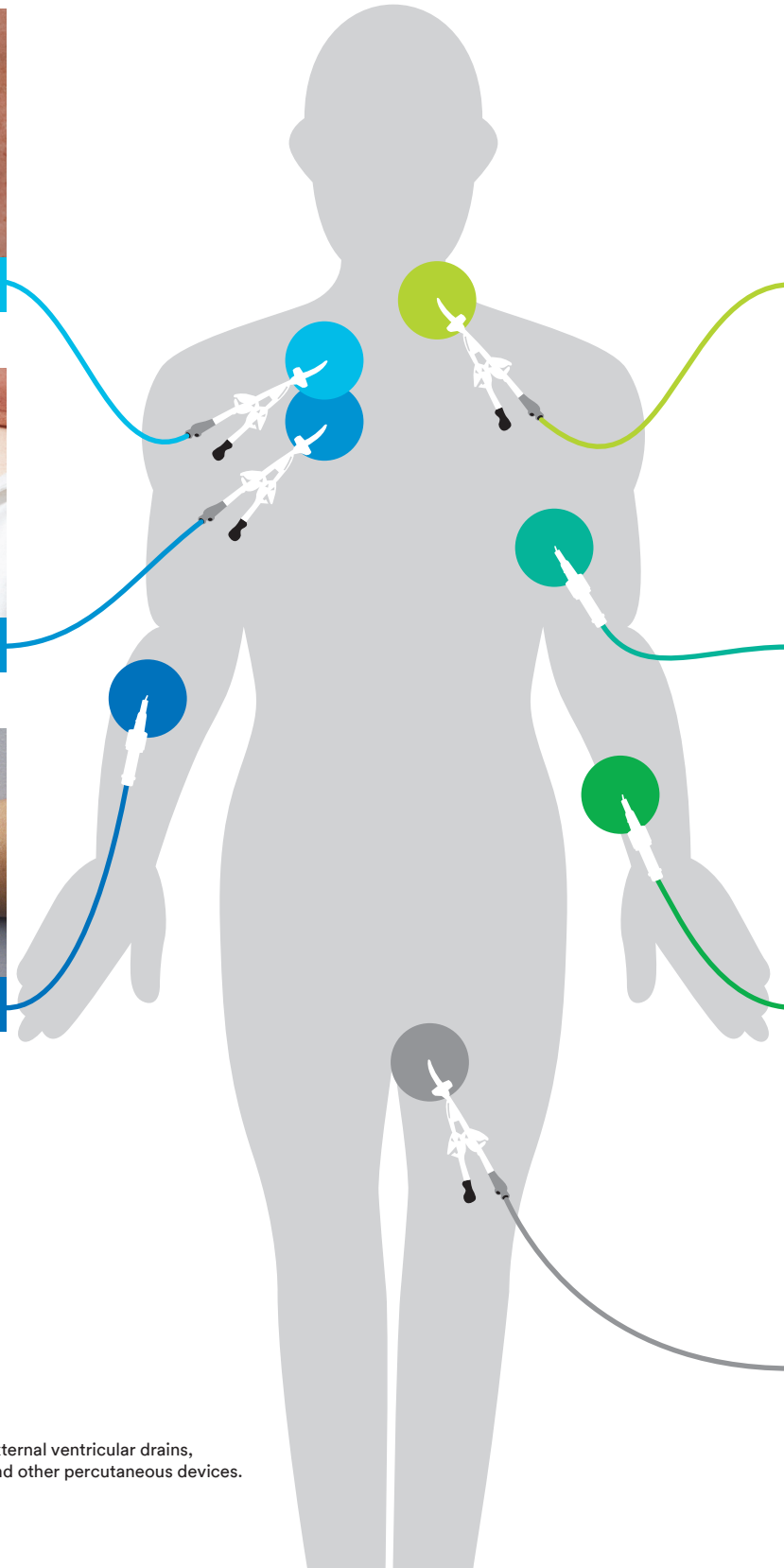
Jugular

PICC

Arterial



Femoral



Additional applications: Midlines, external ventricular drains, ECMO, bone pins, surgical drains and other percutaneous devices.

The clinical resources and education provided by 3M are designed to support you in each of the following areas, with a focus on your unique needs and challenges.

Identify
Identify the areas where you have the biggest opportunity to drive impact at your facility.

Improve
Improve or implement new work processes and protocols through a variety of tools and approaches.

Learn
Learn about industry best practices, clinical evidence and new ways to improve outcomes.

Maintain
Maintain the progress you've made and continue to keep staff well educated and engaged.

3M Solutions

We understand every journey toward zero complications is unique. That's why our program includes customized assessment tools that:

- Empower you to drive compliance
- Streamline the auditing process
- Provide customized guidance and feedback
- Help define success

Tools Include:
IV Care and Maintenance
Temperature Management
Perioperative Care
Sterilization Monitoring

You're not alone – 3M stands behind you with science-based products and evidence-based protocols to help you win the fight against infection. Learn how we can help support your infection protection initiatives at 3M.ca/InfectionPrevention.

[20] Scheithauer, S.; Lewalter, K.; Schröder, J.; Koch, A.; Häfner, H.; Krizanovic, V.; Nowicki, K.; Hilgers, R.D.; Lemmen, S.W. Reduction of central venous line-associated bloodstream infection rates by using a chlorhexidine-containing dressing. Infection. 2014; 42(1): 155-159.

[21] McMullen, K.; Smith, A.; Rebmann, T.; Impact of SARS-CoV-2 on Hospital Acquired Infection Rates in the United States: Predictions and Early Results. American Journal of Infection Control. Available online July 2, 2020.

[22] CDC Vitalsignsmaking health care safer: Reducing bloodstream infections. Centers for Disease Control and Prevention Web site. https://www.cdc.gov/vitalsigns/pdf/2011-03-vitalsigns.pdf Published March, 2011. Accessed June 18, 2017.

[23] Allegranzi, B.; Sax, H.; Pittet, D. Hand hygiene and healthcare system change within multi-modal promotion: a narrative review. J. Hosp. Infect. 2013; 83:S3-S10.

[24] Perl, T.M.; Cullen, J.J.; Wenzel, R.P. et al. Intranasal mup. to prevent postoperative Staphylococcus aureus infections. N Engl J Med. 2002;346:1871-1877.

[25] Kalmeijer, M.D.; van Nieuwland-Bollen, E.; Bogaers-Hofman, D.; deBaere, G.A.J.; Kluytmans, J.A.J.W. Nasal carriage of Staphylococcus aureus is a major risk factor for surgical-site infections in orthopedic surgery. Infect. Control. Hosp. Epidemiol. 2000; 21: 319-323.

[26] Kluytmans, J.A.J.W.; Mouton, J.W.; Ijzerman, E.P.F; et al. Nasal carriage of Staphylococcus aureus as a major risk factor for wound infections after cardiac surgery. J. Infect. Dis. 1995; 171: 216-219.

Product	Product Number	CHG Gel Pad Size	Dressing Size	Suggested Devices
3M™ Tegaderm™ CHG Chlorhexidine Gluconate IV Securement Dressing				
	1657R	1 3/16 in x 1 1/2 in 3 cm x 4 cm	3 1/2 in x 4 1/2 in 8,5 cm x 11,5 cm	All CVCs, Arterial, Dialysis, Midline and other percutaneous devices
	1659R	1 3/16 in x 2 3/4 in 3 cm x 7 cm	4 in x 6 1/8 in 10 cm x 15,5 cm	All CVCs and PICCs
	1660R	4/5 in x 4/5 in 2 cm x 2 cm	2 3/4 in x 3 3/8 in 7 cm x 8,5 cm	PIVs, Midline, Arterial, CVCs and other percutaneous devices
3M™ PICC/CVC Securement Device + Tegaderm™ CHG Chlorhexidine Gluconate IV Securement Dressing				
	1877R-2100	1 1/2 in x 1 3/8 in 3 cm x 4 cm	3 1/2 in x 4 1/2 in 8,5 cm x 11,5 cm	PICCs, CVCs and other vascular access devices
	1879R-2100	1 1/2 in x 2 4/5 in 3 cm x 7 cm	4 in x 6 1/8 in 10 cm x 15,5 cm	PICCs, CVCs and other vascular access devices

Visit 3M.ca/VascularAccess to learn more.

Available in Canada from

3M Canada Company
Medical Solutions Division
300 Tartan Drive
London, Ontario N5V 4M9
Canada
1-800-364-3577
3M.ca

3M Company
2510 Conway Avenue
St. Paul, MN 55144
USA
1-800-228-3957

Important Safety Information for 3M™ Tegaderm™ CHG Chlorhexidine Gluconate I.V. Securement Dressings and 3M™ Tegaderm™ CHG Chlorhexidine Gluconate Gel Pad. Do not use Tegaderm™ CHG IV Securement Dressings or Tegaderm™ CHG Gel Pad on premature infants or infants younger than two months of age. Use of these products on premature infants may result in hypersensitivity reactions or necrosis of the skin. The safety and effectiveness of Tegaderm™ CHG IV Securement Dressings and Tegaderm™ CHG Gel Pad has not been established in children under 18 years of age. For full prescribing information, see the Instructions for Use (IFU).