Stop bloodstream infections before they start
A critical issue for every health care facility

The bad news: Catheter-related bloodstream infections are a critical issue. The estimated incidence rate in adult inpatients in the US is 1.27 cases per 1000 device days.1

The good news: There are ways to prevent these complications and expenses.

Understanding the terminology

CRBSI – Catheter-Related Bloodstream Infection (CRBSI requires laboratory confirmation that identifies the catheter as the source of the infection.)

CLABSI – Central Line-Associated Bloodstream Infection (Surveillance methods track the possibility of a central venous catheter infection and record it as a CLABSI. And while CLABSI may also include secondary bloodstream infection, almost all of these patients will be recognized as having an infection specifically due to the presence of the catheter.)

Reduction in vascular-associated infections of central lines will be reflected in reduced rates of CLABSI, CRBSI or both.

Please note: For purposes of this brochure, the term bloodstream infections (BSI) includes, but is not limited to, CRBSI and CLABSI.

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.2 These infections can be acquired at the time of the initial insertion or anytime throughout the duration of the venous access, with the majority of infections happening after insertion.3

Mortality
1.57 times
CRBSIs are associated with 1.57 times higher risk of mortality in critically ill adults.

12-24 more days of hospitalization
Evidence has demonstrated an increase in hospital resources and associated costs required to treat morbidities due to CRBSIs.

1 in 4 people who contract a CLABSI will die.

Average cost to treat CLABSI: $45,000 per patient.

71,900 annual preventable central line infections.

Nationwide, the annual cost to treat CLABSI exceeds $2.3 Billion.

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The three keys to reducing infection risk

Eliminating bloodstream infections cannot be achieved with a single initiative, process or technology. All avenues of infection protection must be explored and implemented. Whether it is the antimicrobial technology found in 3M products or the strict adherence by everyone involved in patient care to consensus recommendations, there are many facets to reducing vascular access infections.

Trained & committed People
Proper training and personal accountability in following protocols for every patient, every time.

Current best practice Standards
Following evidence-based standards and best practice guidelines for preventing bloodstream infections.

Effective & proven Technology
Using the right technology can be associated with decreased risk of bloodstream infections.
3M solutions align with current best practice standards

Many well-regarded organizations have studied how to best prevent bloodstream infections. While each group comes at the problem from a different perspective, there is a consensus around the best practices as they relate to technology. Specifically, there is agreement on the efficacy of disinfecting port protectors and chlorhexidine gluconate (CHG) dressings.

**INS Infusion Therapy Standards of Practice (2016)**

**Standard 41: Vascular Access Device (VAD) Care & Dressing Change**

Practice Criteria C
- Assess the vascular access device/skin junction site and surrounding area for redness, tenderness, swelling and drainage by visual inspection and palpation through the intact dressing.

Practice Criteria J
- Use chlorhexidine-impregnated dressings over CVADs to reduce infection risk when extraluminal route is primary source of infection.

**Standard 34: Needleless Connectors**

Practice Criteria G
- Use of passive disinfecting caps containing disinfecting agent (IPA) shown to reduce intraluminal microbial contamination and reduce rates of CLABSIs. Use of disinfection caps on peripheral catheters has limited evidence but should be considered.

Practice Criterion I
- Ensure that disinfecting supplies are readily available at the bedside to facilitate staff compliance with needleless connector disinfection.


**Society for Healthcare Epidemiology of America (SHEA) Strategies to Prevent CLABSI in Acute Care Hospitals (2014)**

- Use chlorhexidine-containing dressings for CVCs in patients over 2 months of age.
- Use an antiseptic-containing hub/connector cap/port protector to cover connectors.


**Centers for Disease Control Checklist for Prevention of CLABSI**

- Handle and maintain central lines appropriately: For patients 18 years of age or older, use a chlorhexidine impregnated dressing with an FDA cleared label that specifies a clinical indication for reducing CLABSI for short-term non-tunneled catheters unless the facility is demonstrating success at preventing CLABSI with baseline prevention practices.
- Supplemental strategies for consideration: Antiseptic impregnated caps for access ports.

Using 3M antimicrobial technology can help prevent bloodstream infections

The right technology plays an integral role as part of an overall infection protection plan. Even when strictly following best practices for hygiene, aseptic technique and insertion practices, there still remains a risk for infection. Properly deployed antimicrobial solutions offer another line of defense against bloodstream infections. 3M offers products that protect against both extraluminal and intraluminal contamination.

Reduce risk at all access points

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

Cleared and proven to reduce CRBSI through immediate and consistent antimicrobial activity while providing continuous site visibility, consistent application and catheter securement.

3M™ Curos™ Disinfecting Port Protectors
Consistent use of Curos Disinfecting Caps on IV needleless connectors is associated with decreased CLABSI. Disinfect and protect needleless connectors, open female luer and male luer devices to help reduce the risk of contaminants from the entering the catheter post-insertion.
Preventing bloodstream infections takes training and commitment

Technology alone cannot improve the quality of care. Achieving the intended benefits of 3M products relies on the informed and consistent use of new innovations as well as adherence to consensus best practices — all of which requires on-going training and support.

3M™ Health Care Academy:

3M Health Care Academy offers online continuing education for healthcare professionals and contains over 50 free courses. This professional training and education resource is dedicated to helping you focus on deepening your expertise and improving patient care.

For more information visit: www.3M.com/medicaleducation

3M Clinical Specialists:

The 3M Clinical Specialists can help facilities implement the use of 3M products to achieve and sustain high compliance. Our team consists of nurses dedicated to supporting your efforts. Areas we can assist with include:

- Planning resources and guidance
- Sharing proprietary processes and tools to accelerate adoption and measure your success
- Implementation and large trial support
- Compliance tools for training, motivating and auditing
- On-going training and support
- Point prevalence reviews to help you reduce risk at all access points
- Clinical expertise regarding standards, guidelines and how 3M products can help you achieve successful outcomes

3M™ Peak™ Clinical Outcomes Program:

1. Prepare
   3M Clinical Outcomes Specialists and 3M Sales Representatives collaborate with hospital leadership to design site-specific implementation plans that set the stage for long-term success.

2. Educate
   We offer highly effective, in-depth training plans and work to develop unit-specific champions to lead ongoing education efforts that maximize knowledge retention.

3. Assess
   We offer customizable tools and metrics for you to monitor, analyze and improve progress, because if you can measure it, you can improve it.

4. Keep it up
   Working as your partner in achieving positive outcomes, we stay engaged as you follow your program's path to success — providing access to compliance tools, reference materials and continuing education opportunities.
3M™ Tegaderm™ CHG Chlorhexidine Gluconate I.V. Securement Dressing reduces risk of extraluminal contaminants

In use for over 50 years, CHG has proven to be an effective antimicrobial. CHG skin preps are often used to minimize contamination of the insertion site, but microbes penetrate the skin deeper than the skin preps and regrowth can occur within 24 hours.\(^\text{12}\) Tegaderm CHG I.V. Securement Dressing is the only transparent dressing cleared and proven to reduce CRBSI, providing immediate\(^\text{13,14}\) and consistent\(^\text{15}\) antimicrobial activity and continuous site visibility.

The integrated gel pad and dressing design also supports standardized, correct application and powerful catheter securement.

Cleared and proven to reduce CRBSI

Tegaderm CHG I.V. Securement Dressing reduced the rate of CRBSI by 60% from 1.29 to 0.52 per 1000 catheter days in a randomized controlled trial of 1,879 subjects with 4,163 central venous and arterial lines.\(^\text{16}\) The CHG gel pad is active immediately and maintains consistent levels of antimicrobial protection for up to 7 days.\(^\text{12}\)

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**Tegaderm CHG I.V. Securement Dressing suppresses skin flora regrowth on prepped skin better than BIOPATCH® Disks with CHG**

All pairwise testing done against Tegaderm CHG I.V. Securement Dressings using a paired t-test with Holm stepwise adjustment for multiple comparisons.

*\(p\)-value <0.01
**represents \(p\)-value <0.001

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**Infection reduction**

Clinically proven to reduce CRBSIs by 60% in patients with central and arterial lines;\(^\text{16}\) is active immediately and maintains consistent levels of antimicrobial activity for 7 days.\(^\text{12}\)

**Site visibility**

Transparent dressing and gel pad enable early identification of complications at the insertion site.

**Consistent application**

The integrated CHG gel pad and dressing are designed to ensure standardized, correct application.\(^\text{17}\)

**Catheter securement**

Designed to minimize catheter movement and dislodgement.

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Comprehensive antimicrobial protection you can count on

The full line of Tegaderm™ CHG dressings may be worn up to 7 days and provide:

- CHG antimicrobial protection
- Secure adhesion
- Gentle removal
- IV site visibility
- Breathability
- Patient comfort*

Tegaderm™ CHG Chlorhexidine Gluconate I.V. Securement Dressing

The only transparent dressing cleared and proven to reduce CRBSI. The gel pad provides 2% CHG to the skin surface immediately, without requiring moisture to activate. The integrated design ensures consistent application, aligning with evidence-based guidelines and practice standards.

The 1657 dressing also has perforations that allow the tape strip and keyhole notch to conform around large catheters and other devices.

3M™ PICC/CVC Securement Device + Tegaderm™ CHG Chlorhexidine Gluconate I.V. Securement Dressing

An engineered stabilization device (ESD) plus antimicrobial (CHG) dressing cleared and proven to reduce CRBSI.

3M™ Tegaderm™ CHG Chlorhexidine Gluconate I.V. Port Dressing

Antimicrobial (CHG) gel pad plus I.V. port dressing specifically designed to protect single or double implanted venous ports and non-coring needles from pathogens most commonly found in CRBSIs.*

*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.

Important Safety Information for Tegaderm™ CHG dressings

Do not use Tegaderm™ CHG dressings on premature infants or infants younger than two months of age. Use of this product on premature infants may result in hypersensitivity reactions or necrosis of the skin.

The safety and effectiveness of Tegaderm™ CHG dressings has not been established in children under 18 years of age. For full prescribing information, see the Instructions for Use (IFU). Rx Only.
**3M™ Curos™ Disinfecting Port Protectors reduce risk across all intraluminal access points**

Curos disinfecting port protectors are alcohol-containing caps that twist onto IV access points for disinfection and protection. Consistent use of Curos disinfecting caps on IV needleless connectors is associated with decreased CLABSIs. Each Curos disinfecting port protector contains 70% isopropyl alcohol (IPA). The IPA bathes the surfaces of the port and disinfects it in 1 minute and protects it for up to 7 days if not removed.

Curos disinfecting port protectors is the only brand on the market that has offerings to help reduce risks across all intraluminal access points providing protection for all patients, all access points, all the time.

**Curos disinfecting port protectors achieved a >99.99% reduction in 6 microbes commonly associated with CLABSI.**

The effectiveness of Curos disinfecting port protectors was tested *in vitro* against:

- *Staphylococcus aureus*
- *Staphylococcus epidermidis*
- *Pseudomonas aeruginosa*
- *Escherichia coli*
- *Candida albicans*
- *Candida glabrata*

**The entire family of Curos disinfecting port protectors**

- Disinfects in 1 minute
- Protects IV access points for up to 7 days if not removed
- Twists on, stays on
- Brightly colored for visual verification & auditing
- Single use only

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18. See various studies listed in 3M™ Curos™ Clinical Evidence Summary (70-2011-5695-0), available at 3m.com/Curos.
20. 3M study data reflects *in vitro* findings on Curos™ Disinfecting Port Protectors.
Protect IV access points or intraluminal access points and ensure peace of mind

Consistent use of Curos disinfecting caps on IV needleless connectors is associated with decreased CLABSIs.

3M™ Curos™ Disinfecting Cap for Needleless Connectors

Provides quick and verifiable disinfection of needleless connectors.

3M™ Curos Jet™ Disinfecting Cap for Needleless Connectors

The next-generation solution for needleless connector disinfection.

3M™ Curos™ Disinfecting Cap for Tego® Hemodialysis Connectors

This specially designed Curos disinfecting cap is compatible* with Tego® Needlefree Hemodialysis Connector.

3M™ Curos Tips™ Disinfecting Cap for Male Luers

Disinfects and protects the distal end of IV tubing.

3M™ Curos™ Stopper Disinfecting Cap for Open Female Luers

Designed to fit on a wide range of stopcocks and catheter hubs. Their unique design maintains pressure and disinfects the critical areas with 70% isopropyl alcohol.

Standards. People. Technology.
The protection trifecta

Reducing the risk of bloodstream infection is not a one-time event. It is an ongoing effort that requires exacting standards of care, a commitment from the care team to methodically adhere to those standards, and technology that adds an additional layer of antimicrobial protection. Together, we can help defeat bloodstream infections.

To learn more visit www.3m.com/IVProtect

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<td>3⅞ in x 4 ⅜ in in 8,5 cm x 11,5 cm</td>
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<td>2 ⅝ in x 1⅜ in in 6,2 cm x 4,9 cm</td>
<td>4 ⅝ x 4 ⅞ in in 12 cm x 12 cm</td>
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