

**3M**

**Cuрос™**

Disinfecting Port  
Protectors



**When their access points  
are protected, so is your  
peace of mind.**

**3M™ Cuрос™ Disinfecting Products**

# CLABSI

## is a serious threat

Every I.V. catheter presents potential for central line-associated bloodstream infections (CLABSI).



UP TO  
**1 IN 4 PATIENTS**  
WHO CONTRACT CLABSI DIE.<sup>1</sup>

**EVEN WHEN NOT FATAL, CLABSIs CAN PROGRESS TO OTHER SERIOUS CONDITIONS, WHICH CAN LEAD TO EXTENDED HOSPITAL STAYS.<sup>2</sup>**

**71,900**  
PREVENTABLE CENTRAL LINE INFECTIONS ANNUALLY.<sup>3</sup>

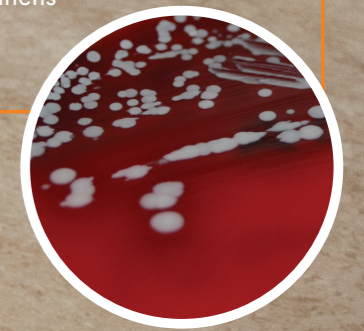
Nationwide, the annual cost to treat CLABSI exceeds  
**\$2.3 BILLION.<sup>4</sup>**

\$\$\$

Average cost to treat CLABSI  
**\$45,000**  
PER INFECTION<sup>5</sup>

### Are all of your needleless connectors protected?

This is a picture of a culture taken from an unprotected needleless connector. Unprotected needleless connectors can touch floors, armpits, bed linens and other unsterile surfaces, adding to their bioburden.



1. [www.vdh.virginia.gov/epidemiology/surveillance/hai/documents/pdf/CDC\\_VitalSignsReportMarch2011.pdf](http://www.vdh.virginia.gov/epidemiology/surveillance/hai/documents/pdf/CDC_VitalSignsReportMarch2011.pdf)

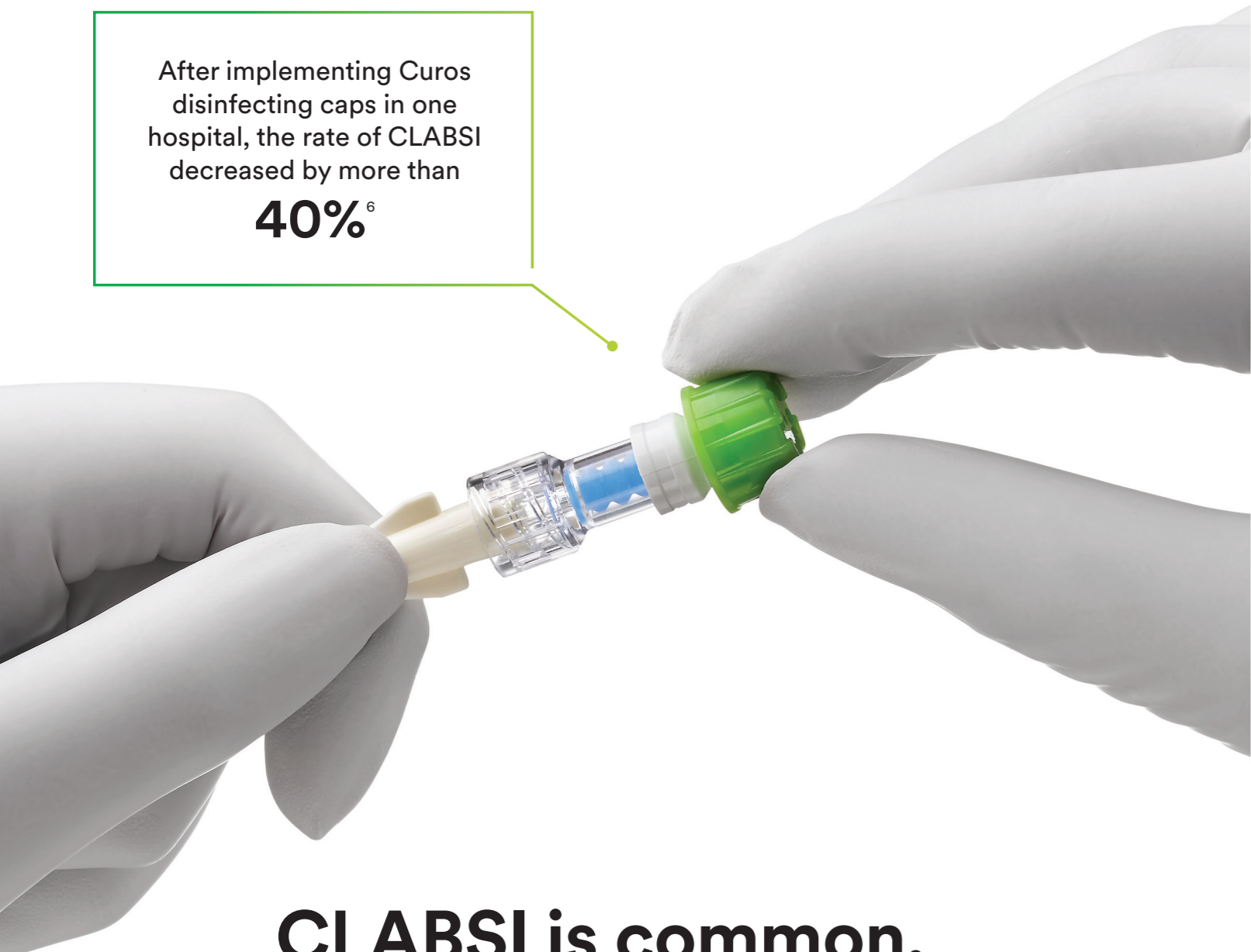
2. Maki DG, Kluger DM, Crnich CJ. The risk of bloodstream infection in adults with different intravascular devices: a systematic review of 200 published prospective studies. *Mayo Clin Proc.* 2006;81(9):1159-1171

3. [www.cdc.gov/hai/surveillance/](http://www.cdc.gov/hai/surveillance/)

4. Provonost P, Needham D, Berenholtz S, et al. An intervention to decrease catheter-related bloodstream infections in the ICU. *N Engl J Med.* 2006; 355(26): 2725.

5. Zimlichman, E; Henderson, D et al. Health Care-Associated Infections: A Meta-analysis of Costs and Financial Impact on the US Health Care System. *JAMA Intern Med.* Published online September 02, 2013

After implementing Curoc disinfecting caps in one hospital, the rate of CLABSI decreased by more than **40%**<sup>6</sup>



# CLABSI is common, but it doesn't have to be.

Consistent use of Curoc disinfecting caps on needleless connectors is associated with decreased CLABSI. Curoc disinfecting caps are alcohol-impregnated caps that twist onto needleless connectors for disinfection and protection. They disinfect prior to line access and act as a physical barrier to contamination between accesses.

Each Curoc disinfecting cap contains 70% isopropyl alcohol (IPA). The IPA bathes the surface of the needleless connector and disinfects it in 1 minute.

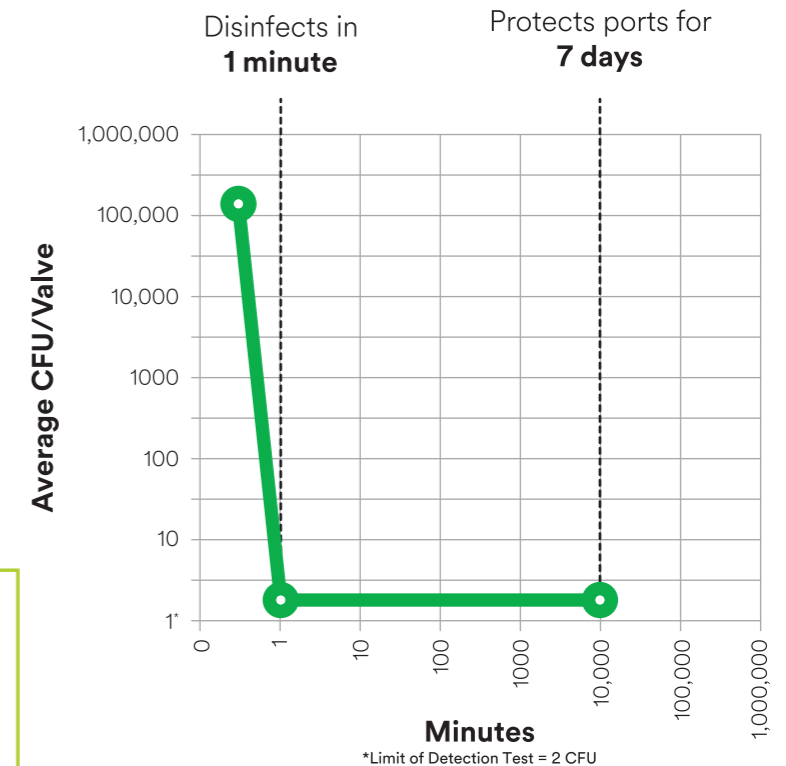
## 3M™ Curoc™ Disinfecting Caps achieved a 99.99% reduction in 6 microbes commonly associated with CLABSI

The effectiveness of Curoc products was tested *in vitro* against<sup>7,8</sup>:



**STUDY CONCLUSION:**  
All test samples exceeded the minimum 4-log reduction after one minute.

*Studies were conducted at independent laboratories. 3M data on file.*



### ? How do Curoc disinfecting caps compare with the “scrub the hub” method?

For more than a decade, the standard of care in needleless connector disinfection has been a thorough 15-30 second (plus drying time) manual scrub of the needleless connector with an alcohol pad, often referred to as “scrubbing the hub”. Curoc disinfecting caps provide several advantages over the “scrub the hub” protocol.

- 1 Save time**  
Curoc alcohol-impregnated caps provide fast passive disinfection, saving nurses valuable time compared to most “scrub the hub” protocols. In addition, no drying time is required to achieve disinfection.
- 2 Provide a physical barrier**  
They provide a physical barrier to contamination between accesses, for up to 7 days.
- 3 Remove user technique variation**  
They remove the user technique variation found in manual “scrubbing the hub” procedure.
- 4 Provide visual compliance confirmation**  
Their bright color also provides quick visual confirmation that an access point is clean, giving nurses peace of mind and empowering facilities to audit and improve disinfection compliance.

6. Merrill KC, Sumner S, Linford L, Taylor C, and Macintosh C. Impact of universal disinfectant cap implementation on central line-associated bloodstream infections. American Journal of Infection Control 42 (2014) 1274-7.

7. Data reflects in vitro findings on Curoc™ Disinfecting Port Protectors conducted by an independent laboratory

8. For more information regarding organisms associated with catheter-related bloodstream infections, refer to Wenzel RP and Edmond MB. The Impact of Hospital-Acquired Bloodstream Infections. Emerg Infect Dis. 2001 Mar Apr;7(2):174-7.

# All patients, all access points, all the time.

Use the entire family of Curos disinfecting products to reduce risks across intraluminal access points.



3M™ Curo™ Disinfecting Cap for Needleless Connectors



3M™ Curo Tips™ Disinfecting Cap For Male-Luers



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

## Where you need them, when you need them.

Curo products can be dispensed as individual caps or on strips. Strips of Curo products can be hung from I.V. poles for easy access, greater compliance and reduced waste.

### Powerful 1 minute disinfection

Curo disinfecting caps contain 70% isopropyl alcohol (IPA). The IPA disinfects the surface of the port in 1 minute. They're proven effective disinfecting against *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Candida glabrata*, and *Candida albicans*<sup>7,8</sup>.

### Protects for up to 7 days

Curo disinfecting caps can also be left in place to keep ports clean and protected for up to 7 days. Passive disinfection removes human technique variance, providing consistent disinfection every time.

### Colored bright to disinfect right

Brightly colored Curo products verify that a connector is clean at a glance and disinfection compliance can be easily and reliably measured.

### Protection that stays put

Curo disinfecting caps twist on easily and stay securely in place on commonly used connectors — meeting INS guidelines for add-on devices.



STRIPS ARE CONSISTENT WITH THE INS GUIDELINE:

“Ensure disinfecting supplies are readily available at bedside to facilitate staff compliance with access point disinfection.”<sup>9</sup>

7. Data reflects in vitro findings on Curo™ Disinfecting Port Protectors conducted by an independent laboratory  
8. For more information regarding organisms associated with catheter-related bloodstream infections, refer to Wenzel RP and Edmond MB. The Impact of Hospital-Acquired Bloodstream Infections. *Emerg Infect Dis.* 2001 Mar Apr;7(2):174-7.  
9. *Journal of Infusion, Nursing* Jan/Feb 2016 (39), 15



## Clinical studies back us up

### PEER-REVIEWED ARTICLES

According to the 2016 Infusion Nurses Society Standards of Practice, "Use of passive disinfecting caps containing disinfecting agent (IPA) have been shown to reduce intraluminal microbial contamination and reduce rates of CLABSIs." (Level II)

Several hospitals have implemented the use of Curos disinfecting caps and achieved impressive results.

10% increase in nurse compliance resulted in a statistically significant

**7%  
DECREASE IN  
INFECTION  
RATES**

*American Journal of Infection Control: Volume 40 Number 12; December 2014*

### Impact of Universal Disinfectant Cap Implementation on Central Line-Associated Bloodstream Infections

*Katreena Collette Merrill RN, PhD, Sharon Sumner RN, BS, Lorraine Linford RN, BS, CNSC, Carrie Taylor RN, MS, CIC, Christopher Macintosh RN, BS.*

- The rate of CLABSI infections decreased by >40% following implementation of the 3M™ Curos™ Disinfecting Strip for Needleless Connectors (IRR = .557, P = .004).
- Curos Cap use was associated with an estimated savings of almost \$300,000 per year in the hospital studied.
- Weekly audits of compliance demonstrated that a 10% increase in nurse compliance resulted in a statistically significant 7% drop in infection rate.

*The Journal of the Association for Vascular Access: Volume 17 Number 4; December 2012*

### Central Venous Catheter Protective Connector Caps Reduce Intraluminal Catheter-Related Infection

*Chuck Ramirez, BA, RRT, VA-BC, Antonina M. Lee, MEd, MPH, RN, CIC, Ken Welch, MD Banner Estrella Medical Center, Phoenix, AZ*

- During 2010, the CLABSI rate reduced from 1.9 in 2010 to 0.5 during the one-year trial period.
- The implementation of 3M™ Curos™ Disinfecting Strip for Needleless Connectors during month five of the trial increased compliance rates from 63% to 80%.

9. Journal of Infusion, Nursing Jan/Feb 2016 (39), 15

This infection reduction could translate to an annual savings of approximately  
**\$3.7 MILLION**

*American Journal of Critical Care, Vol. 25, No. 2: 165-172, March 2016*

### Use of a Central Catheter Maintenance Bundle in Long-term Care Hospitals

*Anthony M. Grigonis, PhD, Amanda M. Dawson, PhD, Mary Burkett, DNP, CNS, Arthur Dylag, MA, MBA, Matthew Sears, BS, Betty Helber, RN, MS, ANE-BC, and Lisa K. Snyder, MN, MPH*

- A central catheter maintenance bundle was implemented in 30 LTACHs, and compliance with the bundle was tracked for six months. CLABSI rates were monitored for 14 months before and 14 months after the bundle was implemented.
- In addition to the CDC guidelines, the bundle protocol included education on the protocol, mandatory use of alcohol-based central catheter caps, chlorhexidine gluconate dressings, and formation of a central catheter team of nurses.
- A mean reduction of 4.5 CLABSIs per LTACH occurred for the LTACHs studied for 14 months after the bundle was implemented. This infection reduction could translate to a savings of approximately \$3.7 million annually for the 30 LTACHs studied and could have potentially saved 20 patients' lives, assuming a 15% mortality rate from CLABSIs.

*American Journal of Infection Control: Volume 40 Number 10; December 2012*

### Impact of Alcohol Impregnated Port Protectors and Needleless Neutral Pressure Connectors on Central Line-Associated Bloodstream Infections and Contamination of Blood Cultures in an Inpatient Oncology Unit

*Michael A. Sweet, PharmD; Aaron Cumpston, PharmD; Frank Briggs, PharmD; MPH, Michael Craig MD and Mehdi Hamadani, MD*

- A total of 6,851 central line-days and 16 CLABSIs (2.3 infections/1,000 central line days) were documented during the control period, compared with 3,005 central line days and one CLABSI (a rate of 0.3 infections/1,000 central line days) during the intervention period (relative risk, 0.14; 95% confidence interval [CI], 0.02-1.07; P = .03).
- This 32-bed study showed \$500,000 in annualized savings (Sweet MA, et al. SHEA Product Evaluation 2011).
- The rate of contaminated blood cultures from central lines was 2.5% (17 of 692) during the control period, but only 0.2% (1 of 470) during the intervention period (relative risk, 0.09; 95% CI, 0.01-0.65; P = .002).
- The rate of adherence to the intervention was 85.2% (228 of 269 patients with catheter protectors).

32-bed study showed annual savings of  
**\$500,000**

*British Journal of Nursing: (IV Therapy Supplement) Vol 25, No 8, 2016*

### Disinfecting Caps in Clinical Practice: an Audit

*Corinne Cameron-Watson. Barking Havering and RedBridge NHS Trust*

- The study measured the effect on compliance and incidence of vascular access device (VAD)-related bacteremia following the introduction of a passive disinfection device (Curos) for 6 months.
- As compared to data collected in a benchmark "scrub the hub" audit, data post Curos cap implementation showed VAD-related bacteremia rates reduced by 69% when staff compliance with Curos cap placement onto VADs was 80% or more.
- The use of Curos caps was estimated to provide a potential clinical-time saving of 659.4 hours per year, which equates to 82.4 working days per year (based on an 8-hour day).
- Of the 86 staff trained to use a disinfecting cap, 70% returned completed questionnaire, and of these 100% preferred the disinfecting caps to manual scrubbing.

Curos Caps were estimated to provide a potential clinical time savings of  
**82.4  
WORKING  
DAYS PER YEAR**

# The entire family of Curos Disinfecting Products

Disinfects in 1 minute

Protects I.V. access points for up to 7 days

Twists on, stays on

Brightly colored for visual verification and auditing

Single use only



## 3M™ Curos™ Disinfecting Cap for Needleless Connectors

**Disinfects**  
Disinfects needleless connectors in 1 minute.

**Protects**  
Acts as a barrier to contamination while in place.

**Where you need them, when you need them**  
Strips of Curos products can be hung from I.V. poles for easy access, greater compliance and reduced waste.

**Dispensing options**

- Individual caps
- Strips (10 count)



## 3M™ Curos™ Disinfecting Cap For Tego® Hemodialysis Connectors

**Compatible**  
This specially designed Curos disinfecting cap has been tested to fit and maintain the integrity of the Tego® Hemodialysis Connector.  
*\*ICU Medical. "Tego Swab Recommendations and Compatibility with Disinfecting Caps," October, 2012.*

**Custom colored**  
White Curos caps for Tego hemodialysis connectors are easily distinguished from green caps for dedicated use on the Tego connectors.

**Dispensing options**

- Individual caps



## 3M™ Curos Tips™ Disinfecting Cap For Male Luers

**Protection where it's needed**  
Curos Tips disinfecting caps contain 70% IPA within their inner cavity to disinfect and protect the distal end of I.V. tubing and other male luer devices.

**Optimal alcohol placement**  
A unique design shields excess alcohol from entering while providing sufficient flow of alcohol precisely where it is needed — on the exposed exterior male luer.

**Dispensing options**

- Strips (5 count)

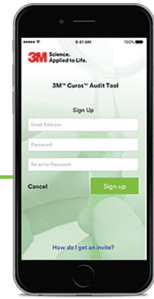
# Need help incorporating Curos products into your hospital processes?



We want everyone who uses Curos products to be successful. We offer the services that can help hospitals implement the use of Curos products to achieve and sustain high compliance.

## Areas we can assist with:

- Planning resources and guidance.
- Sharing proprietary processes that spur adoption and measure your success.
- Grant you access to our Curos Audit Tool that will reduce your workload significantly during an audit and allows instant reporting and point prevalence of compliance with just a few swipes and clicks.
- Grant you access to our 3M Health Care Academy to ensure your staff receives the continuous education that they need.
- Providing tools and on-site education to maintain compliance to your infection prevention protocols.
- Clinical expertise regarding standards, guidelines, and how 3M products can help you achieve successful outcomes.



## 3M™ Curos™ Audit Tool

Try out the Curos cap audit tool to help increase your compliance. The app is available for Android and iOS.

Please contact your local 3M sales representative to gain access.

**TO ORDER CALL:  
800-228-3957**

Product	Dispenser	3M Product Order #	Boxes Per Case	Units Per Box	Total Caps or Tips Per Case
Curos Disinfecting Caps	Individuals	CFF1-270R	10	270	2,700
	Strips (10 count)	CFF10-250R	10	25 Strips	2,500
Curos Tips Disinfecting Caps	Strips (5 count)	CM5-200R	10	40 Strips	2,000
Curos Disinfecting Caps for Tego® Hemodialysis Connectors	Individuals	CTG1-270R	8	270	2,160



**Critical & Chronic Care Solutions Division**  
3M Health Care  
2510 Conway Avenue  
St. Paul, MN 55144 USA

1800 228-3957  
www.3M.com/Medical

**3M Canada**  
P.O. Box 5757  
London, Ontario N6A 4T1  
Canada

1800 364-3577  
www.3M.ca/HealthCare

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3M™ Curos™ disinfecting caps are not affiliated with ICU Medical, Inc.  
Smartsite is a registered trademark of BD.  
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To learn more about how 3M can help you and your facility protect clinician and patient safety, prevent costly I.V. site complications, and improve patient satisfaction, contact your 3M Critical & Chronic Care Solutions representative or call the 3M Health Care Customer Helpline at 1-800-228-3957. Outside of the United States, contact the local 3M subsidiary.

For more information, go to [3M.com/C3SD](http://3M.com/C3SD)