3M curos™
Disinfecting Caps

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

## 3M™ Curos™ 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.[1]**

**EVEN WHEN NOT FATAL, CLABSIs CAN PROGRESS TO OTHER SERIOUS CONDITIONS, WHICH CAN LEAD TO EXTENDED HOSPITAL STAYS.[2]**

**71,900**

**PREVENTABLE CENTRAL LINE INFECTIONS ANNUALLY.[3]**


1. 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/
4. Provonost P. Needham D, Berenholtz S, et al. An intervention to decrease cather-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

Nationwide, the annual cost to treat CLABSI exceeds

**$2.3 BILLION.**[4]

$ $ $ $

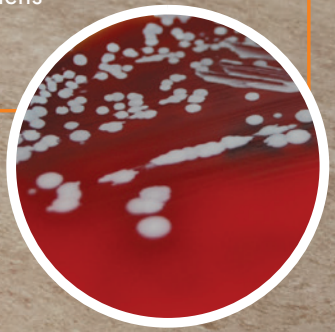
Average cost to treat CLABSI

**$45,000**

**PER INFECTION** [5]

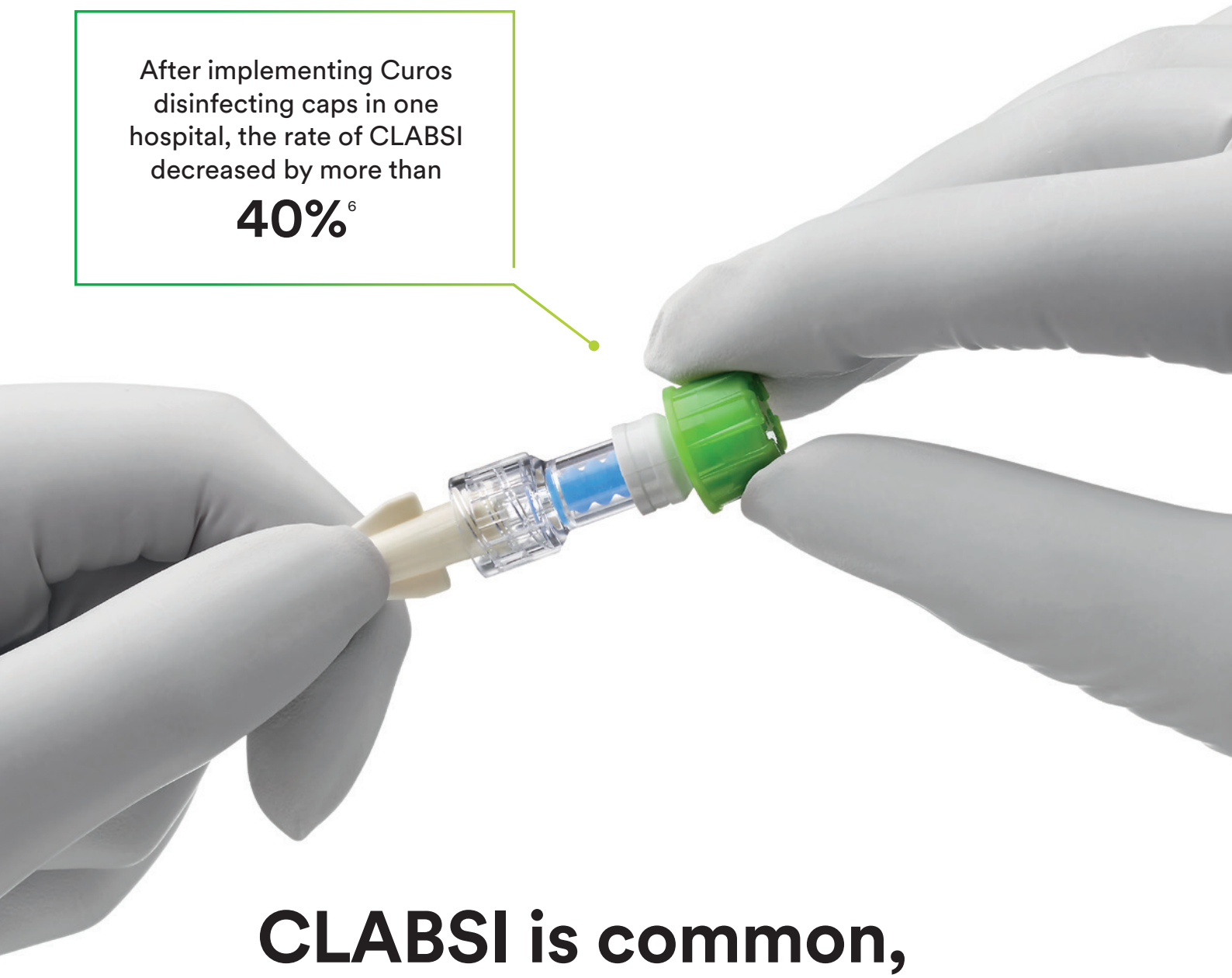
## Are all of your needleless connectors protected?

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.



After implementing Curos disinfecting caps in one hospital, the rate of CLABSI decreased by more than

**40%**[6]



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

Consistent use of Curos disinfecting caps on needleless connectors is associated with decreased CLABSI. Curos 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 Curos disinfecting cap contains 70% isopropyl alcohol (IPA). The IPA bathes the surface of the needleless connector and disinfects it in 1 minute.

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 Curos™ 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.

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

The effectiveness of Curos products was tested *in vitro* against[7,8]:


*Staphylococcus aureus*


*Staphylococcus epidermidis*


*Escherichia coli*

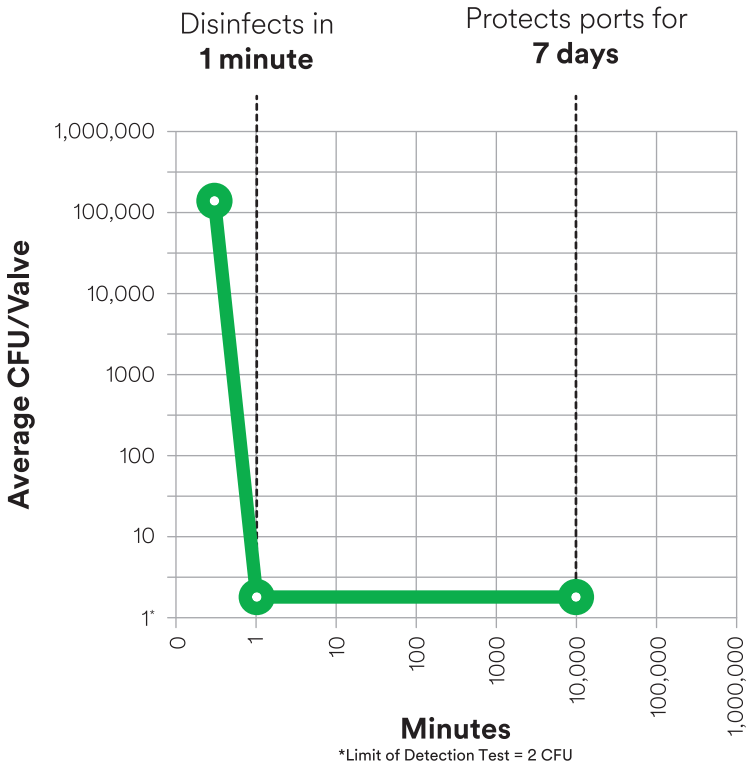

*Candida albicans*


*Pseudomonas aeruginosa*


*Candida glabrata*

**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 Curos 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”. Curos disinfecting caps provide several advantages over the “scrub the hub” protocol.

### 1 Save time

Curos 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.

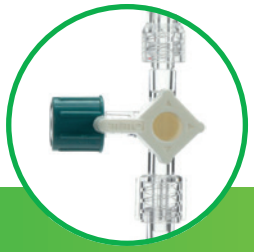
### 4 Provide visual compliance confirmation

Their bright colour 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.

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

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


3M™ Curos™ Disinfecting Cap for Needleless Connectors



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

Also available in red cap colour

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

3M™ Curos Tips™ Disinfecting Cap for Male Luers

# Where you need them, when you need them.

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

## Powerful 1 minute disinfection

Curos 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*[7,8].

## Protects for up to 7 days

Curos 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.

## Coloured bright to disinfect right

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

## Protection that stays put

Curos 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.[9]"**

7. Data reflects in vitro findings on Curos™ 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. Gorski, L. A., Hadaway, L., Hagle, M.E., Broadhurst, D., Clare, S., Kleidon, T., Meyer, B.M., Nickel, B., Rowley, S., Sharpe, E., Alexander, M. (2021). Journal of Infusion Nursing, 44(suppl 1):S1–S224

# Clinical studies back us up

**PEER-REVIEWED ARTICLES**

According to the 2021 Infusion Nurses Society Infusion Therapy Standards of Practice, passive disinfection with caps containing 70% isopropyl alcohol, were associated with lower rates of CABSI.[10]

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.

Implementation of Curos Strips during the trial increased compliance rates from

**63% to 80%**

*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%.

10. Gorski, L. A., Hadaway, L., Hagle, M.E., Broadhurst, D., Clare, S., Kleidon, T., Meyer, B.M., Nickel, B., Rowley, S., Sharpe, E., Alexander, M. (2021). Journal of Infusion Nursing, 44(suppl 1):S1S224.

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.

32-bed study showed annual savings of

**$500,000**

*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 annualised 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).

Curos Caps were estimated to provide a potential clinical time savings of

**82.4 WORKING DAYS PER YEAR**

*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.

# 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 coloured 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™

### Stopper Disinfecting Cap For Open Female Luers

**Fitment**

Fits a range of open female luers (such as stopcocks and catheter hubs). The cap design holds pressure to maintain a closed system.

**Brightly coloured**

Also available in red cap colour.

**Dispensing options**

- Individual caps
- Strips (5 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 coloured**

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 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.

| Product | Dispenser | 3M Product Order # | Boxes Per Case | Units Per Box | Total Caps or Tips Per Case |
|---|---|---|---|---|---|
| **Curos Disinfecting Caps for Needleless Connectors** | Individuals | CFF1-270R | 10 | 270 | 2,700 |
| | Strips (10 count) | CFF10-250R | 10 | 25 Strips | 2,500 |
| **Curos Tips Disinfecting Caps for Male Luers** | Strips (5 count) | CM5-200R | 10 | 40 Strips | 2,000 |
| **Curos Disinfecting Caps for Tego® Hemodialysis Connectors** | Individuals | CTG1-270R | 8 | 270 | 2,160 |
| **Curos Stopper Disinfecting Caps for Open Female Luers** | Individuals | CSV1-270R | 8 | 270 | 2,160 |
| | Strips (5 count) | CSV5-250R | 8 | 50 Strips | 2,000 |

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