3M curos™
Disinfecting Port Protectors

When their ports are protected, so is your peace of mind.

3M™ Curos™ Disinfecting Port Protectors

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. Mermel LA. Prevention of Intravascular Catheter-Related Infections. Ann Intern Med. 2000; 132:391-402.

Nationwide, the annual cost to treat CLABSI exceeds

$2.3 BILLION.[4]

$ $ $ $

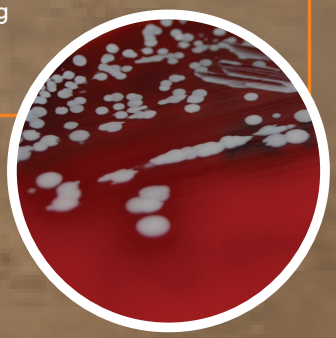
Average cost to treat CLABSI

$45,000

PER INFECTION [5]

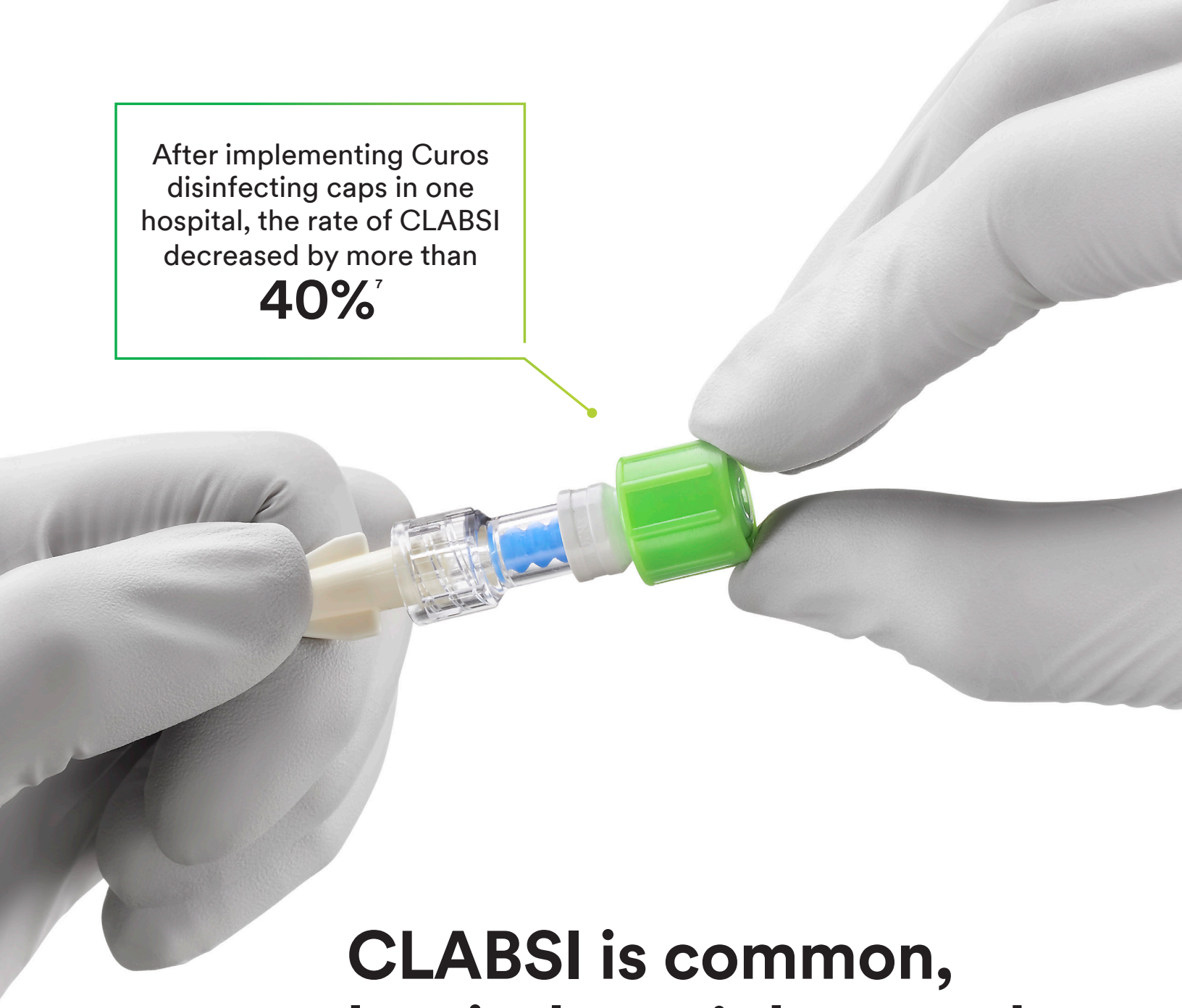
Are all of your ports protected?

This is a picture of a culture taken from an unprotected port. Unprotected ports can touch floors, armpits, bed linens and other unsterile surfaces adding to their bioburden.[6]



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
6. Kaler, W. Making it easy for nurses to reduce the risk of CLABSI. Patient Safety & Quality Healthcare. 2014; 11(6), 46–49.

After implementing Curos disinfecting caps in one hospital, the rate of CLABSI decreased by more than **40%**[7]



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

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

Each Curos disinfecting port protector contains 70% isopropyl alcohol (IPA). The IPA bathes the surface of the port and disinfects it in 1 minute.

7. 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.
*See clinical evidence on pages 6-7

3M™ Curos™ Disinfecting Port Protectors achieved a 99.99% reduction in 6 microbes commonly associated with CLABSI[8, 9]

The effectiveness of Curos disinfecting port protectors was tested *in vitro* against[9]:


Staphylococcus aureus


Staphylococcus epidermidis


Escherichia coli

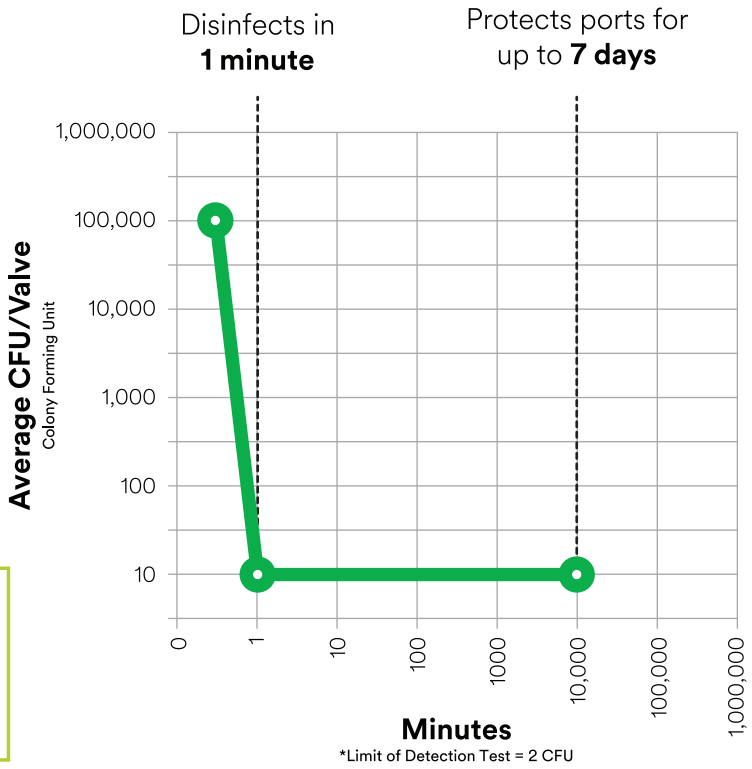

Candida albicans


Pseudomonas aeruginosa


Candida glabrata

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

3M data on file.



How do Curos disinfecting port protectors compare with the "scrub the hub" method?

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

A U.S. HOSPITAL OBSERVATIONAL STUDY SHOWED LESS THAN 10% COMPLIANCE WITH THE DISINFECTION PROTOCOL FOR CATHETER HUBS.[10]

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 color also provides quick visual confirmation that a port is clean, giving nurses peace of mind and empowering facilities to audit and improve disinfection compliance.

8. For more information regarding organisms associated with central line–associated bloodstream infections, refer to: Sievert, D. M., Ricks, P., Edwards, J. R., Schneider, A., Patel, J., Srinivasan, A., . . . Fridkin, S. (2013). Antimicrobial-Resistant Pathogens Associated with Healthcare-Associated Infections: Summary of Data Reported to the National Healthcare Safety Network at the Centers for Disease Control and Prevention, 2009–2010. Infection Control & Hospital Epidemiology, 34(01), 1-14. doi:10.1086/668770.

9. Data reflects *in vitro* findings on Curos™ Disinfecting Port Protectors

10. J. Lee, "Disinfection cap makes critical difference in central line bundle for reducing CLABSIs," in Proceedings of the APIC Annual Conference, vol. 39, p. E64, Fort Lauderdale, Fla, USA,2013.

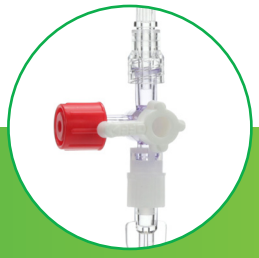
All patients, all access points, all the time.

Use the entire family of Curos disinfecting port protectors to reduce risks across all intraluminal access points.

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.[11]" (Level II)

3M™ Curos™ Disinfecting Cap for Needleless Connectors

3M™ Curos Jet™ Disinfecting Cap for Needleless Connectors



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

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 disinfecting port protectors can be dispensed as individual caps or on strips. Strips of Curos disinfecting port protectors can be hung from I.V. poles for easy access and greater compliance.

Powerful 1 minute disinfection

Curos disinfecting port protectors 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*[8,9].

Protects for up to 7 days

Curos disinfecting port protectors protect the hub for up to 7 days if not removed. Passive disinfection removes human technique variance, providing consistent disinfection every time.

Colored bright to disinfect right

Brightly colored Curos disinfecting port protectors verify that a port is clean at a glance and disinfection compliance can be easily and reliably measured.

Protection that stays put

Curos disinfecting port protectors twist on easily and stay securely in place on commonly used ports — meeting Infusion Therapy Standards of Practice (ITSP) for add-on devices.

STRIPS ARE CONSISTENT WITH WITH THE ITSP STANDARDS:

"Ensure disinfecting supplies are readily available at bedside to facilitate staff compliance with port disinfection."[11]

11. Gorski L, Hadaway L, Hagle ME, McGoldrick M, Orr M, Doellman D. Infusion Therapy Standards of Practice. Journal of Infusion Nursing. 2016; 39(suppl 1):S1-S159.

PEER-REVIEWED ARTICLES

Clinical studies back us up

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 Cap 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 the strip version of Curos caps 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 Cap Strip for Needleless Connectors during month five of the trial increased compliance rates from 63% to 80%.

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 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).

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

Port Protectors 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 Caps) 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 port protector, 70% returned completed questionnaire, and of these 100% preferred the Curos disinfecting caps to manual scrubbing.

The entire family of Curos Disinfecting Port Protectors

Disinfects in 1 minute

Protects ports 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

Use as a disinfecting device for needleless connectors.

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 and greater compliance.

Dispensing options

- Individual caps
- Strips (10 count)

3M™ Curos Jet™

Disinfecting Cap for Needleless Connectors

Easy to handle

A high profile makes the Curos Jet disinfecting cap easy to handle when wearing gloves.

Designed for patient comfort

The Curos Jet disinfecting cap's rounded edges may increase patient comfort.

Dispensing options

- Individual caps
- Strips (5 count)

3M™ Curos™ Stopper

Disinfecting Cap for Open Female Luers

Thoughtful design

Curos Stopper disinfecting caps are designed to luer lock onto a wide range of stopcocks and catheter hubs. They utilize 70% isopropyl alcohol (IPA) to disinfect the critical surfaces of open female luers, prior to line access.

The unique cap design will hold pressure to maintain a closed system.

Dispensing options

- Individual caps
- Strips (5 count)

3M™ Curos™

Disinfecting Cap For Tego® Hemodialysis Connectors

Compatible

This specially designed Curos disinfecting cap is compatible* with Tego® Needlefree 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 disinfect critical surfaces and protect the distal end of I.V. tubing and other male luer devices.

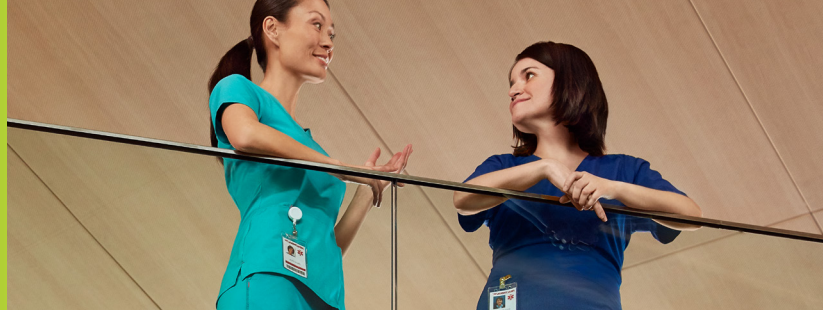
Optimal alcohol placement

A unique design shields excess alcohol from entering lumen 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 disinfecting port protectors into your hospital processes?



We want everyone who uses Curos disinfecting port protectors to be successful. We offer the services of a Clinical Outcomes Team that can help hospitals implement the use of Curos disinfecting port protectors to achieve and sustain high compliance. Our team consists of full-time nurses dedicated to supporting your efforts.

Areas we can assist with:

- Planning resources and guidance.
- Sharing proprietary processes and tools that spur adoption and measure your success.
- Implementation and large trial support.
- Compliance tools for training, motivating and auditing.
- On-going consulting and support.
- Assistance in study creation and results reporting.
- 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.

Continuing Education

Our 3M℠ Health Care Academy is an online site that contains over 50 free CE credit courses.

FOR MORE INFORMATION VISIT:
www.3M.com/learningconnection

Try our other antimicrobial protection products

We offer a range of vascular care products to help you achieve better patient outcomes. For more information, visit *3M.com/IVcare*

TO ORDER CALL: 800-228-3957

Product	Dispenser	3M Product Order #	Boxes Per Case	Units Per Box	Total Caps or Tips Per Case
3M™ Curos™ Disinfecting Caps for Needleless Connectors	Individuals	CFF1-270	20	270	5,400
	Strips (10 count)	CFF10-250	20	25 Strips	5,000
3M™ Curos Jet™ Disinfecting Caps for Needleless Connectors	Individuals	CFJ1-270	20	270	5,400
	Strips (5 count)	CFJ5-250	20	50 Strips	5,000
3M™ Curos Tips™ Disinfecting Caps for Male Luers	Strips (5 count)	CM5-200	10	40 Strips	2,000
3M™ Curos™ Disinfecting Caps for Tego Hemodialysis Connectors®	Individuals	CTG1-270	8	270	2,160
3M™ Curos™ Stopper Disinfecting Caps for Open Female Luers	Individuals	CSA1-270	8	270	2,160
	Strips (5 count)	CSA5-250	8	50 Strips	2,000

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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*