# Solventum



Protect your patient's IV access points and your peace of mind

3M™ Curos™ Disinfecting Port Protectors





Every IV catheter presents potential for catheter-associated bloodstream infections (CABSIs)



Up to

# 1 in 4 patients

who contract a central line-associated bloodstream infection (CLABSI) die<sup>2</sup>



Average cost to treat a CLABSI

\$45,000 per infection<sup>3</sup>



A literature review found short-term peripheral intravenous catheters (PIVCs)

### accounted for 22%

of hospital-acquired catheter-related bloodstream infections (CRBSIs).4







# When staff decreased, healthcare-associated infections increased

Staffing shortages have had startling effects on healthcare-associated infections (HAIs). Despite years of progress in lowering the rate of HAIs, rising patient caseloads and poor staffing have made it difficult for dedicated clinicians to uphold infection control policies. Significant increases were seen in national infection rates in 2020; CLABSIs had the largest increase.<sup>5</sup>

The average medical-surgical patient-to-nurse staffing ratio among 116 surveyed hospitals was **6.3 patients per nurse.** If a vascular access device (VAD) is accessed 3x/shift/patient, that would equate to almost **10 minutes per shift** scrubbing the hub and does not include scrubbing for sequential accesses.<sup>6</sup>



The World Health Organization estimates a shortage of

# 4.5 million nurses

by the year 20307

### Challenges with scrub the hub

For more than two decades, the standard of care in IV access point disinfection has been a thorough 15-30 second (plus drying time) manual scrub of the IV access point with 70% isopropyl alcohol (IPA), often referred to as "scrubbing the hub." This method's effectiveness is compromised by its lack of intuitiveness, 10 low compliance, inconsistent results and absence of a clear visual signal that the access point has been properly disinfected.

### Did you know?



#### Scrub the hub effectiveness varies with technique

Laboratory simulation demonstrated greatest bacterial elimination rates associated with scrubbing in a straight line (compared with rotational scrubbing), using a force equal to that when applying arterial compression, and when the connector is scrubbed twice with a new swab each time.<sup>8</sup>



#### Scrub the hub effectiveness varies with scrub time

Recent studies showed varied effectiveness of scrub times between five and fifteen seconds. If clinicians aren't scrubbing long enough, it may not be effective.<sup>9</sup>



Compliance to "scrub the hub" protocol can be as low as:

only 10%-27%<sup>10, 11</sup>



31% of clinicians

didn't attempt to disinfect needleless connectors at all, even under active observation<sup>10</sup>



# A simple solution that provides protection and peace of mind

The family of 3M™ Curos™ Disinfecting Port Protectors consists of caps that twist onto IV access points. These caps enable effective passive disinfection and protection — a method of decontamination that is simple, intuitive and quick. IPA bathes the surface of the IV access point and disinfects it in just one minute.



Consistent use of 3M<sup>™</sup> Curos<sup>™</sup> Disinfecting Caps for Needleless Connectors is associated with decreased CLABSI.\*

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

Studies identified passive disinfection with an antiseptic barrier cap as a solution to lower the occurrence of CLABSIs.<sup>12, 13, 14</sup> Curos disinfecting port protectors provide several advantages over the "scrub the hub" protocol.



#### Save time

Curos disinfecting port protectors are alcohol-impregnated, providing fast passive disinfection, saving nurses valuable time compared with most "scrub the hub" protocols. In addition, no drying time is required to achieve disinfection.



#### Provide a physical barrier

They provide a physical barrier to contamination between accesses, for up to seven days.



#### Remove user-technique variation

They remove the user-technique variation found in manual "scrub the hub" procedures.



#### Provide visual compliance confirmation

Their bright color also provides quick visual confirmation that an IV access point is clean, giving nurses peace of mind and empowering facilities to audit and improve disinfection compliance.

3M™ Curos™ Disinfecting Port Protectors can be dispensed as individual caps or on strips.\* Strips can be hung from IV poles for easy access, greater compliance and reduced waste.





# Every line, every time

# The Curos disinfecting port protector difference

Use the entire family of 3M<sup>™</sup> Curos<sup>™</sup> Disinfecting Port Protectors to simplify disinfection, standardize protocols and help reduce risks across all intraluminal access points.

Curos disinfecting port protectors are the only disinfection solution that has offerings to help reduce risks across all IV access points.



### Compliance is critical

One study showed a significant reduction in CLABSIs when compliance rates reached 85% with use of disinfecting caps.<sup>15</sup>



# Curos disinfecting port protectors achieved a 99.99% reduction in six microbes commonly associated with CLABSI<sup>16, 17</sup>

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



Staphylococcus aureus



Escherichia coli



Pseudomonas aeruginosa



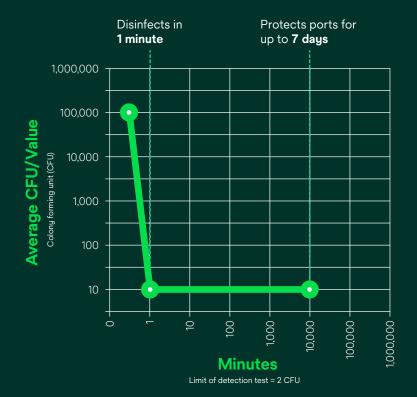
Staphylococcus epidermidis



Candida albicans



Candida glabrata



#### Study conclusion

All test samples exceeded the minimum four-log reduction after one minute.\*

\*Solventum data on file

# The 3M<sup>™</sup> Curos<sup>™</sup> Disinfecting Port Protectors family

#### Protect every line, every time

Because there is only one bloodstream, every vascular access device can put the patient at risk for developing an infection. Curos disinfecting port protectors are the only solution on the market that has offerings to help reduce risks across all IV access points.



See how Curos compares to the competition:

Download competitive comparison



### 3M<sup>™</sup> Curos Jet<sup>™</sup> Disinfecting Cap for Needleless Connectors

#### Optimized fit

Curos Jet disinfecting caps twist on easily and remain securely in place.

#### Ease of use

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

#### Patient-friendly design

Rounded edges may improve patient comfort.

Dispensing options: Individual caps, Strips (5 count)



#### 3M<sup>™</sup> Curos<sup>™</sup> Disinfecting Cap for Needleless Connectors

#### **Effective disinfection**

Curos disinfecting caps are used as a disinfecting device for needleless connectors.

#### Reliable protection

The caps acts as a barrier to contamination while in place.

#### Convenience and availability

Curos disinfecting cap strips can be hung from IV poles for easy access, greater compliance and reduced waste.

Dispensing options: Individual caps, Strips (5 count)



### 3M<sup>™</sup> Curos Tips<sup>™</sup> Disinfecting Cap for Male Luers

#### Targeted protection

Curos Tips disinfecting caps disinfect critical surfaces and protect the distal end of IV tubing and other male luer devices.

#### Precise alcohol application

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

Dispensing options: Strips (5 count)





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

#### **Functional design**

Curos stopper disinfecting caps are designed to luer lock onto a wide range of stopcocks and catheter hubs. They utilize 70% 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<sup>™</sup> Curos<sup>™</sup> Disinfecting Cap for Tego<sup>®</sup> Hemodialysis Connectors

#### Compatible

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

- \* "Tego Swab Recommendations and Compatibility with Disinfecting Caps," October 2012.
- \*\* ICU Medical Tego® Hemodialysis Connector catalog code D1000.

#### **Custom color**

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

Dispensing options: Individual caps

# Protocol for successful IV access point disinfection

The use of Curos Disinfecting Port Protectors aligns with the *Infusion Nurses Society 2024 Infusion Therapy Standards of Practice*.<sup>18</sup> Following their guideline recommendations can help reduce the risk of contamination and support a safer, more effective IV disinfection process.



1

Consider passive disinfection by applying a cap or covering containing a disinfection agent. A systematic review (of randomized and nonrandomized studies) has demonstrated high level of decontamination compliance and reductions in CLABSI rates and related healthcare costs associated with avoided harm. (II)<sup>18</sup>



2

Ensure that disinfecting supplies are readily available at the bedside to facilitate staff compliance with needleless connector disinfection.<sup>18</sup>



3

Monitor clinician compliance to ensure that the chosen method for disinfection is applied consistently for needleless connectors on all peripheral VADs and central venous access devices (CVADs), as this is a critical element for reduction of intraluminal contamination and subsequent bloodstream infection (sBSI). (V)<sup>18</sup>

# Curos disinfecting port protectors are backed by research





ClinicoEconomics and Outcomes Research (no. 15) 2023

Effectiveness of disinfecting caps for intravenous access points in reducing central line-associated bloodstream infections, clinical utilization and cost of care during COVID-19<sup>19</sup>

Compared with patients who received the "scrub the hub" protocol, patients with a disinfecting cap experienced:



73% fewer incidences of CLABS



1/2 day reduction in hospital stay



\$6,703 less in cost per hospital stay

The Journal of the Association for Vascular Access (vol. 23, no. 1) 2018

A bundled approach to decrease the rate of primary bloodstream infections related to peripheral intravenous catheters<sup>20</sup>

Compared with patients who received the "scrub the hub" protocol, patients with a disinfecting cap experienced:



Compliance protecting all needleless connectors was near

90%



Compliance protecting male ends of disconnected IV tubing was near

90%

Burns (vol. 43, no. 5) 2017

Efforts of a unit practice council to implement practice change utilizing alcohol-impregnated port protectors in a burn ICU<sup>21</sup>

Compared with patients who received the "scrub the hub" protocol, patients with a disinfecting cap experienced:



CLABSI rates were reduced by

68%

"... ease of use with the caps simplified daily tasks, leading to higher compliance."

# Improving outcomes together

Our Peak Clinical Outcomes Program is an evidence-based, multidisciplinary and collaborative approach for successful change implementation and sustaining clinical outcomes.



On-site training and education (including the 21-Day Challenge)



Digital auditing tools and apps



Robust training and compliance tools



#### Here's how the program works:

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

**)** Learn

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

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

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

# Visit <u>Go.Solventum.com/IVTraining</u> to access resources and videos on how to use Curos<sup>™</sup> Disinfecting Caps →

- Wendy Kaler, "Making It Easy for Nurses to Reduce the Risk of CLABSI," Patient Safety & Quality Healthcare 11, no. 6 (2014): 46-49, https://www.psqh.com/analysis/making-it-easy-for-nurses-to-reduce-the-risk-of-clabsi/.
- Centers for Disease Control and Prevention, "Making Health Care Safer: Reducing Bloodstream Infections," CDC Vital Signs, March 2011, https://www.cdc.gov/vitalsigns/pdf/2011-03-vitalsigns.pdf.
- 3. Eyal Zimlichman et al., "Health Care-Associated Infections: A Meta-Analysis of Costs and Financial Impact on the US Health Care System," *JAMA Internal Medicine* 173, no. 22 (2013): 2039-2046, <a href="https://doi.org/10.1001/jamainternmed.2013.9763">https://doi.org/10.1001/jamainternmed.2013.9763</a>.
- 4. Leonard A. Mermel, "Short-term Peripheral Venous Catheter-Related Bloodstream Infections: A Systematic Review," Clinical Infectious Diseases 65, no. 10 (November 2017): 1757-62, https://doi.org/10.1093/cid/cix562.
- 5. Jacqueline Ross, "Nursing Shortage Creating Patient Safety Concerns," *Journal of Perianesthesia Nursing* 37, no. 4 (August 2022): 565-67, https://doi.org/10.1016/j.jopan.2022.05.078.
- 6. Karen B Lasater., et al. "Evaluation of hospital nurse-to-patient staffing ratios and sepsis bundles on patient outcomes," *American Journal of Infection Control* 49.7 (2021): 868-873.
- 7. "Nursing and Midwifery." World Health Organization. Accessed October 28, 2024. <a href="https://www.who.int/news-room/fact-sheets/detail/nursing-and-midwifery#:~:text=There%20are%20an%20estimated%2029%20million%20nurses%20worldwide,0.31%20million%20midwives%20by%20the%20year%202030%20%281%29.</a>
- 8. Kenichi Satou et al., "Scrubbing technique for needleless connectors to minimize contamination risk," *Journal of Hospital Infection 100*, no. 3 (2018): e200-e203, https://doi.org/10.1016/j.jhin.2018.03.015.
- 9. Barbara Nickel et al., "Infusion Therapy Standards of Practice, 9th Edition," *Journal of Infusion Nursing* 47, no. 1S (January/February 2024): S28-S32, <a href="https://doi.org/10.1097/nan.000000000000532">https://doi.org/10.1097/nan.00000000000000532</a>.
- 10. Nancy L. Moureau and Julie Flynn, "Disinfection of Needleless Connector Hubs: Clinical Evidence Systematic Review," Nursing Research and Practice 2015, no. 1 (January 2015): 1-20, https://doi.org/10.1155/2015/796762.
- 11. Corinne Cameron-Watson, "Port Protectors in Clinical Practice: An Audit," British Journal of Nursing 25, no. 8 (2016): \$25-\$31, https://doi.org/10.12968/bjon.2016.25.8.s25.
- 12. Sofía Tejada et al., "Antiseptic Barrier Caps in Central Line-Associated Bloodstream Infections: A Systematic Review and Meta-analysis," European Journal of Internal Medicine 99 (2022): 70-81, https://doi.org/10.1016/j.ejim.2022.01.040.
- 13. Veerle E.L.M. Gillis et al., "Antiseptic Barrier Caps to Prevent Central Line-Associated Bloodstream Infections: A Systematic Review and Meta-analysis," American Journal of Infection Control 51, no. 7 (2023): 827-835, https://doi.org/10.1016/j.ajic.2022.09.005.
- 14. Anne F. Voor In 't Holt et al., "Antiseptic Barrier Cap Effective in Reducing Central Line-Associated Bloodstream Infections: A Systematic Review and Meta-analysis," International Journal of Nursing Studies 69 (2017): 34-40, https://doi.org/10.1016/j.ijnurstu.2017.01.007.
- 15. Michael A. Sweet et al., "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," *American Journal of Infection Control* 40, no. 10 (2012): 931-934, https://doi.org/10.1016/j.ajic.2012.01.025.
- 16. Lindsey M. Weiner et al., "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, 2011-2014," Infection Control & Hospital Epidemiology 37, no. 11 (2016): 1288-1301, https://doi.org/10.1017/ice.2016.174.
- 17. Jayne Lee, "Disinfection Cap Makes Critical Difference in Central Line Bundle for Reducing CLABSIs," American Journal of Infection Control, 39, no. 5, (2011): E64, https://doi.org/10.1016/j.ajic.2011.04.124.
- 18. Lisa A. Gorski et al., "Infusion Therapy Standards of Practice, 8th Edition," *Journal of Infusion Nursing* 44, no. 1S (2021): S1-S224, <a href="https://doi.org/10.1097/nan.000000000000000396">https://doi.org/10.1097/nan.00000000000000000396</a>.
- 19. Yuefeng Hou et al., "Effectiveness of Disinfecting Caps for Intravenous Access Points in Reducing Central Line-Associated Bloodstream Infections, Clinical Utilization, and Cost of Care During COVID-19," ClinicoEconomics and Outcomes Research 2023, no. 15 (2023): 477-486, https://doi.org/10.2147/ceor.s404823.
- 20. Mary Duncan et al., "A Bundled Approach to Decrease the Rate of Primary Bloodstream Infections Related to Peripheral Intravenous Catheters," The Journal of the Association for Vascular Access 23, no. 1 (2018): 15-22, https://doi.org/10.1016/j.java.2017.07.004.
- 21. Amy Martino et al., "Efforts of a Unit Practice Council to Implement Practice Change Utilizing Alcohol Impregnated Port Protectors in a Burn ICU," Burns 43, no. 5 (2017): 956-964, https://doi.org/10.1016/j.burns.2017.01.010.

# Ordering information

Product		Dispenser	Product order #	Boxes per case	Units per box	Total caps or tips per case
	3M <sup>™</sup> Curos <sup>™</sup> Disinfecting Cap for Needleless Connectors	Individuals	CFF1-270	20	270	5,400
		Strips (5 count)	CFF10-250	20	50 strips	5,000
	3M <sup>™</sup> Curos Jet <sup>™</sup> Disinfecting Cap for Needleless Connectors	Individuals	CJF1-270	20	270	5,400
		Strips (5 count)	CFJ5-250	20	50 strips	5,000
	3M <sup>™</sup> Curos Tips <sup>™</sup> Disinfecting Cap for Male Luers	Strips (5 count)	CM5-200	10	40 strips	2,000
	3M <sup>™</sup> Curos <sup>™</sup> Stopper Disinfecting Cap for Open Female Luers	Individuals	CSA1-270	8	270	2,160
		Strips (5 count)	CSA5-250	8	50 strips	2,000
	3M <sup>™</sup> Curos <sup>™</sup> Disinfecting Cap for Tego <sup>®</sup> Hemodialysis Connectors	Individuals	CTG1-270	8	270	2,160

### Go.Solventum.com/Curos

Rx only. For full prescribing information, see the instructions for use (IFU). Refer to product IFU for other important information. Device is single use only. Once device is opened per instructions, it cannot be reclosed.



 Solventum
 Phone: 1-855-423-6725

 2510 Conway Ave E
 Phone: 1-855-423-6725

 Maplewood, MN 55144 USA
 Web: Solventum.com

NOTE: Specific indications, contraindications, warnings, precautions and safety information exist for these products and therapies. Please consult a clinician and product instructions for use prior to application.

© Solventum 2025. Solventum, the S logo and other trademarks are trademarks of Solventum or its affiliates. 3M, the 3M logo and Curos are trademarks of 3M. Other trademarks are the property of their respective owners. 70-2011-5723-0\_EN