solventum

Tough treatments made easier

Reducing complications with proven technology in oncology care settings

Protecting your most vulnerable patients

Oncology patients frequently require some form of vascular access for cancer treatment, blood transfusion or parenteral nutrition. As a result, these patients are at particular risk for catheter-related infections (CRIs) and skin damage due to disease and treatment-related immunosuppression.[1]

CRIs prolong hospitalization, cause an excess in resource utilization and treatment cost, delay anti-cancer treatment and are associated with a significant increase in mortality in cancer patients.[1]

The good news is that with consistent application of IV care best practices, 70% of all CRIs may be preventable[1] and the incidence of skin damage can also be greatly reduced.

Bloodstream infections: A critical issue for oncology patients

All IVs are at risk for microbial contamination and bloodstream infections are more common than you think. In fact, patients diagnosed with aggressive haematological malignancies are associated with the highest risk of CRI.[2]

Up to

70%

of all catheter-related infections (CRIs) can be prevented[3]

CLABSI rates in cancer patients are estimated to be between

0.5-10

per 1,000 CVC days[1]

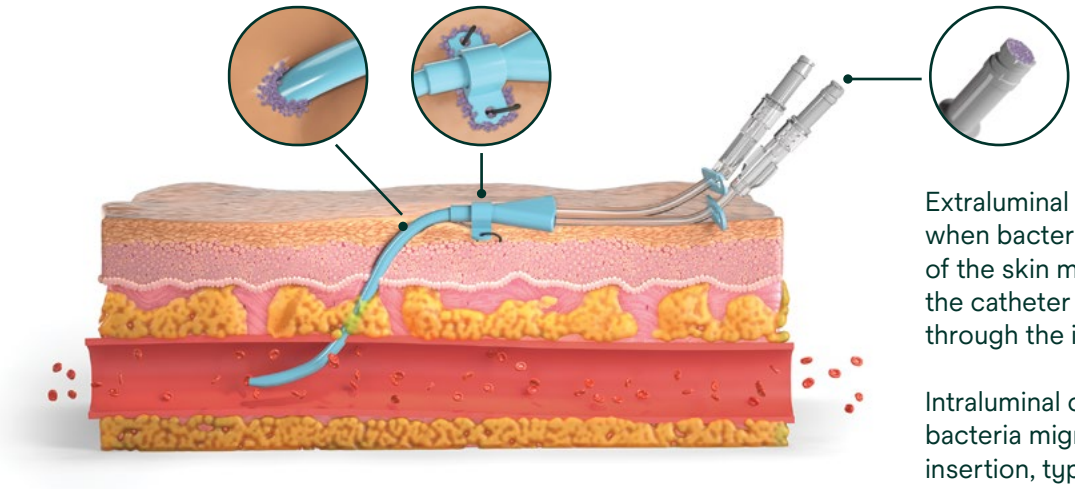
Neutropenic oncology patients have **up to**

36%

mortality rate with CRBSI[4]

Understanding the sources of infection

Research shows 60% of all hospital-acquired bloodstream infections originate from some form of vascular access.[5] These infections can be acquired at the time of the initial insertion or anytime throughout the duration of the venous access.[6]



Extraluminal contamination results when bacteria originating on the surface of the skin migrate along the outside of the catheter and enter the bloodstream through the insertion site.

Intraluminal contamination results when bacteria migrate through the catheter post insertion, typically via contamination of the lumen through the catheter port.

Catheter-associated skin injury (CASI)

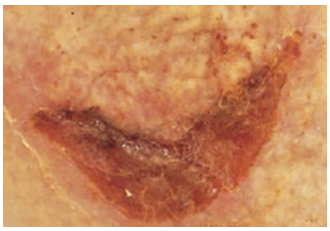
CASI is an abnormality including, but not limited to, erythema, vesicle, bulla, erosion or tear, at a peripheral or central vascular access device (VAD) site that is noted in the area of the device dressing and/or securement device and that is observable for 30 minutes or more after dressing/securement removal. CASI is associated with increased patient discomfort (e.g., pain, pruritis), increased cost, delays in treatment and a potential for VAD removal and replacement. Skin conditions from other sources (e.g., eczema, autoimmune disorders, medication adverse events) are not included.[7]

Medical adhesive-related skin injury (MARSI)

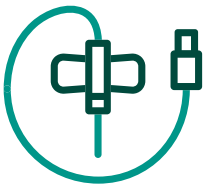
MARSI is damage to the skin that may occur when medical adhesives are not selected, applied and/or removed properly. MARSI is an erythema or cutaneous abnormality (including occurrence of, but not limited to, vesicle, bulla, erosion, skin tear or vesicle) that continues to be observable 30 minutes or more post adhesive removal.[7]

Critical cancer patients undergoing multiple drug therapies experience deleterious effects. When chemotherapy is combined with the specific characteristics of the cancer, it can increase susceptibility to MARSIs.[8]






Prevalence and incidence of CASI in adult cancer patients (n=168)



27% **of oncology patients**

had a catheter-related skin complication[9]

Prevalence of MARSI at PICC sites – study in oncology population (n=419)

30% **of oncology patients**

developed MARSI at their PICC insertion site over the course of two weeks[10]

Catheter failure

Catheter failure is costly to patients, caregivers, and the healthcare system. An average of 1.7 catheters are required per patient during a 3.5-day period for reasons related to catheter failure,[11] increasing the risk of complications.

Up to 1/3 of vascular access devices become dislodged[12]

Recommendations to help prevent bloodstream infections in cancer patients

Many well-regarded organizations have studied how to help prevent bloodstream infections. Following the evidence-based standards and best practice guidelines they have established can help you protect patients from bloodstream infections in oncology care settings. Here are some of the recommendations:

From the German Society for Hematology and Medical Oncology:

Chlorhexidine-containing dressings, preferably transparent chlorhexidine-impregnated gel dressings, might reduce the risk of CRIs. As CRIs are often preceded by hub colonization, disinfectant caps might be a promising approach to reduce the incidence of CRIs in cancer patients.[1]

From the National Institute for Health and Care Excellence (Great Britain):

Tegaderm CHG securement dressings are recommended for intravenous chemotherapy.[13]

From the Italian Association of Medical Oncology:

Use port protectors with 70% isopropyl alcohol which can be applied to all IV access points.[14]

From the Spanish Society of Oncology Nursing:

For short-term peripheral catheters, chlorhexidine dressings are recommended to reduce infection rates.[15]

From the Infusion Nurses Society (United States):

Use chlorhexidine gluconate-containing dressings to prevent CLABSIs in patients greater than two months of age with short-term central venous access devices (CVADs), including patients with oncohematological disease. (Level I) CHG-containing dressings also recommended for implanted ports, dialysis and epidurals. Use a transparent dressing to allow for site visualization; consider a CHG-impregnated dressing. Consider passive disinfection by applying a cap or covering containing a disinfectant agent over the needleless connector.[7]

From the Oncology Nurses Society (United States):

Use a CHG dressing for all catheters including ports accessed for more than 4-6 hours. Passive alcohol disinfecting caps are recognized by ONS as an infection reduction strategy for ST-CVCs, PICCs, Tunneled CVCs and apheresis.[16]

From The Joint Commission (United States):

Securing the CVC to stabilize and minimize mechanical trauma at the CVC entry site is believed to reduce phlebitis, reduce movement or dislodging of the CVC and help prevent CLABSI by decreasing the level of bacterial colonization at the site.[17]

Vascular access devices commonly used in oncology care

Central venous catheters (CVC)

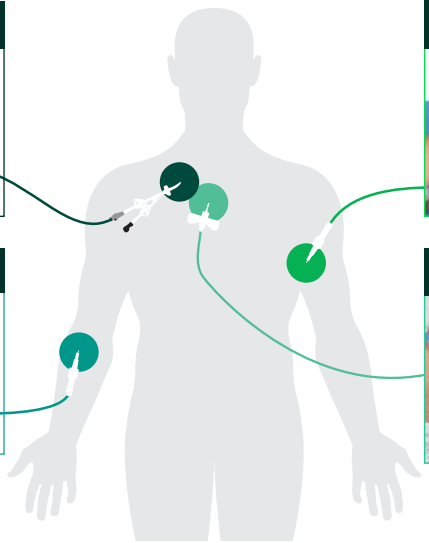
Used for short term acute critical care, typically remaining in place for days or weeks.

Peripherally inserted central catheters (PICCs)

Used for long term treatment lasting for months.

Peripheral intravenous catheter (PIVC)

Used for the short term, typically remaining in place for days.



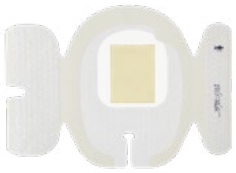
Implanted ports

Used for long term treatment that can last months or years.

The right dressing matters

Select the right dressing for the right catheter commonly used with oncology patients.

Scan the QR code to view options and details for each product



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

This dressing's integrated all-in-one design ensures consistent application, aligning with evidence-based guidelines and practice standards.

Recommended for **CVC**

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

This adhesive securement device (ASD) plus antimicrobial (CHG) dressing is designed to secure IVs quickly and effectively — without sutures.

Recommended for **PICC**

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

This integrated antimicrobial (CHG) gel pad plus I.V. port dressing is specifically designed to protect single or double-implanted venous ports and non-coring needles.

Recommended for **PORT**

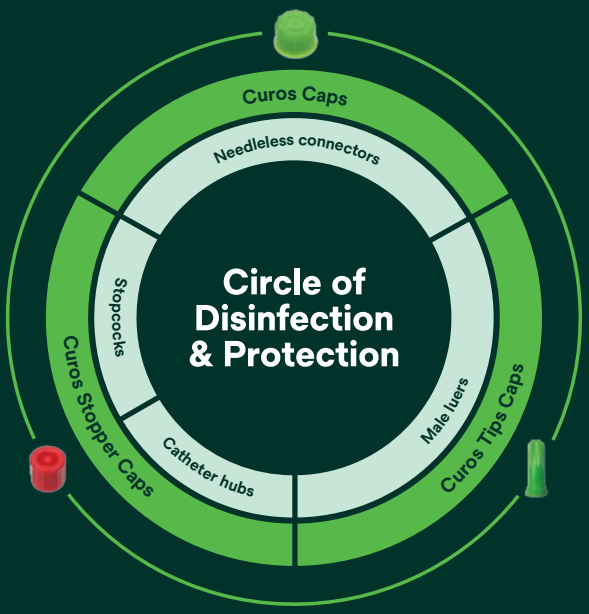
3M™ Tegaderm™ Antimicrobial I.V. Advanced Securement Dressing

This dressing features an integrated design with CHG formulated into the dressing adhesive. It combines antimicrobial protection with site visibility, catheter securement and consistent application for peripheral IVs.

Recommended for **PIV**

Circle of disinfection and protection

3M™ Curos™ Disinfecting Port Protectors is the only brand that has a disinfecting cap offering for all intraluminal access points including needleless connectors, male luers and open female luers.



3M™ Curos Jet™ Disinfecting Cap for Needleless Connectors

Improved fit
Curos Jet disinfecting caps twist on easily and stay securely in place on commonly used needleless connectors, including the uniquely threaded Smartsite® needle-free valve.

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 were designed to increase patient comfort.

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

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 IV tubing and other male luer devices.

Optimal alcohol placement
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.

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 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.

Scan the QR code to view options and details for each product

Gentle-to-skin solutions

Cancer and cancer treatment disrupt the skin's normal process of rejuvenation. Preparation of the skin and selection of proper adhesive products are important steps to help minimize the risk of skin damage.[1]

Scan the QR codes to view options and details for each product

3M™ Cavilon™ No Sting Barrier Film

A sterile CHG-compatible* alcohol-free skin barrier proven to help protect skin from adhesive skin damage. Cavilon No Sting Barrier Film can help ensure the skin around the insertion site is protected.

3M™ Micropore™ S Surgical Tape

An effective yet gentle multi-purpose tape that is suitable for secondary securement on all patients, including those with at-risk skin. Available in individually packaged single-use rolls, which can help reduce cross-contamination risk.

3M™ Tube Securement Device

Delivers strong securement and skin performance in an easy-to-use solution. Designed to support medical adhesive-related skin injury (MARSI) and pressure injury prevention practices, it is gentle to skin and is indicated for non-critical tube securement or in conjunction with sutures, primary securement dressings or urinary catheter balloons per facility protocol.

*Solventum data on file: EM-05-005732 and EM-05-002049.

Skin performance: The feather designates products that deliver the securement power you need while minimizing damage to skin.

Peak Clinical Outcomes Program

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1. Boris Böll et al., "Central venous catheter-related infections in hematology and oncology: 2020 updated guidelines on diagnosis, management, and prevention by the Infectious Diseases Working Party (AGIHO) of the German Society of Hematology and Medical Oncology (DGHO)," *Annals of Hematology* 100, no. 1 (January 2021): 239-259, https://doi.org/10.1007/s00277-020-04286-x.
2. P. Mollee et al., "Catheter-associated bloodstream infection incidence and risk factors in adults with cancer: A prospective cohort study," *Journal of Hospital Infection* 78, no. 1 (May 2011): 26–30, https://doi.org/10.1016/j.jhin.2011.01.018.
3. Craig A. Umscheid et al. "Estimating the Proportion of Healthcare-Associated Infections That Are Reasonably Preventable and the Related Mortality and Costs," I*nfection Control & Hospital Epidemiology* 32, no. 2 (February 2011): 101-114, https://doi.org/10.1086/657912.
4. L.M. Biehl et al., "A randomized trial on chlorhexidine dressings for the prevention of catheter-related bloodstream infections in neutropenic patients," *Annals of Oncology* 27, no. 10 (October 2016): 1916–22, https://doi.org/10.1093/annonc/mdw275.
5. S. Scheithauer et al. "Reduction of central venous line-associated bloodstream infection rates by using a chlorhexidine-containing dressing," *Infection* 42, no. 1 (February 2014): 155-159.
6. "APIC Implementation Guide: Guide to Preventing Central Line-Associated Bloodstream Infections," Association for Professionals in Infection Control and Epidemiology, Inc. ,2015, apic.org/Resource_/TinyMceFileManager/2015/APIC_CLABSI_WEB.pdf.
7. Barbara Nickel et al., "Infusion Therapy Standards of Practice, 9th Edition," *Journal of Infusion Nursing* 47, no. 1S (January/February 2024): S1-S285, https://doi.org/10.1097/nan.0000000000000532.
8. José Ferreira Pires-Júnior et al., "Medical adhesive-related skin injury in cancer patients: A prospective cohort study," *Revista Latino-Americana De Enfermagem* 29 (2021), https://doi.org/10.1590/1518-8345.5227.3500.
9. Nicole C. Gavin et al., "Central Venous Access Device–Associated Skin Complications in Adults With Cancer: A Prospective Observational Study," *Seminars in Oncology Nursing* 40, 3 (June 2024): 151618, https://doi.org/10.1016/j.soncn.2024.151618.
10. Dennis G. Maki and Leonard A. Mermel, "Infections Due to Infusion Therapy," in *Hospital Infections*, eds. John V. Bennett , Philip S. Brachman (Philadelphia: Lippincott-Raven, 1998), 689-724.
11. Robert E. Helm, "Accepted but Unacceptable: Peripheral IV Catheter Failure: 2019 Follow-up." *Journal of Infusion Nursing* 42, no. 3 (2019): 149-150, https://doi.org/10.1097/nan.0000000000000324
12. Andrew Jackson, "Retrospective comparative audit of two peripheral IV securement dressings." *British Journal of Nursing* 21, no. 2 (2012).
13. Anuradha Jayanti, Andrew Barton, Jackie Nicholson. "Tegaderm CHG securement dressing for vascular access sites: a Medtech innovation briefing, " *National Institute of Health and Care Excellence* (October 2020) nice.org.uk/advice/mib231
14. Working Group Nursing, "Gestione Infermieristica Degli Accessi Vascolari Centrali a Medio E Lungo Termine Nel Paziente Oncologico," 2021, https://www.aiom.it/wp-content/uploads/2021/09/2021_Gestione_infermieristica_AV_WGNAIOM.pdf.
15. Isabel Magallón-Pedrera et al., "ECO-SEOM-SEEO safety recommendations guideline for cancer patients receiving intravenous therapy," *Clinical and Translational Oncology* 22, no. 11 (November 2020): 2049-2060, https://doi.org/10.1007/s12094-020-02347-1.
16. Dawn Camp-Sorrell, and Laurl Matey, eds. *Access device standards of practice for oncology nursing*. Oncology Nursing Society, 2017.
17. The Joint Commission, "Preventing Central Line–Associated Bloodstream Infections: A Global Challenge, A Global Perspective," 2012, https://www.jointcommission.org/-/media/tjc/documents/resources/hai/clabsi_monographpdf.pdf.

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