

Make peripheral lines a central focus.

Reduce the risk for PIV
catheter complications.



Putting a focus on peripheral lines.

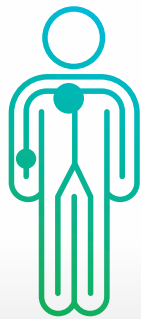


Peripheral intravenous (PIV) access is often considered a simple, low-risk procedure, when in fact:

Up to

70%

of patients receive a PIV catheter during their hospital stay.¹



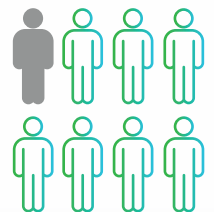
16–23%

of bacteremia originate from a peripheral catheter.^{2,3,4}



12.7%

mortality rate for patients with CRBSI originating from PIVCs.⁵



All IVs have the potential to be contaminated.

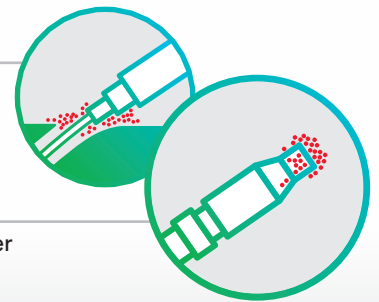
Hospital-acquired bloodstream infections resulting from vascular access can be acquired at the time of the initial insertion or throughout the duration of venous access.

Extraluminal contamination

Bacteria originates on the skin surface.

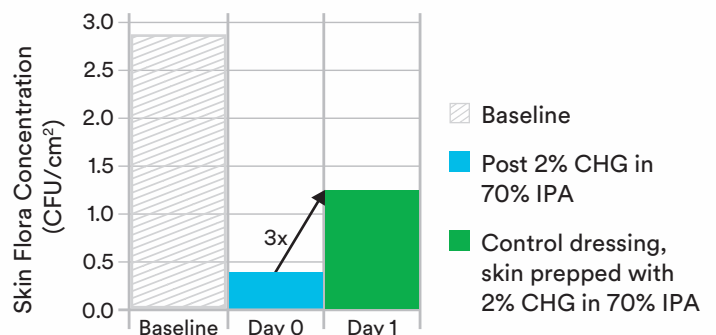
Intraluminal contamination

Bacteria enters via the catheter hub or IV access point.







There are multiple challenges to managing infection risks from PIVs.

Chlorhexidine gluconate (CHG) and isopropyl alcohol (IPA) skin preps can effectively clean the skin at the insertion site, but they cannot sterilise the skin. Microbes remain and can triple in volume as quickly as 24 hours following skin antisepsis.⁶



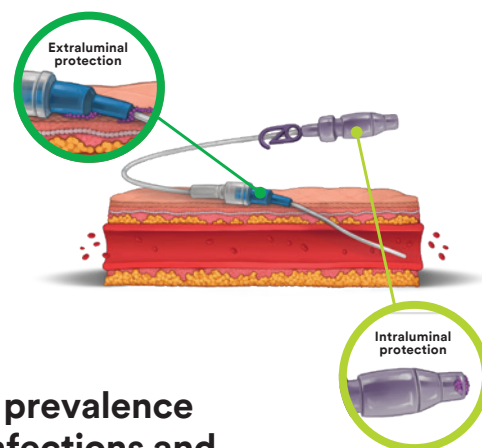
Prevention in practice: PIV care and maintenance guidelines.

We're proud to partner with you to help reduce the risk of PIV complications through evidence-based practice. We believe having the right standards of care, combined with the latest technology can help improve outcomes for every patient. Review these care and maintenance recommendations from around the world:

	Recommendation	INS 2021	RCN 2016	epic3 2014	CDC 2011
Prepare and assess 	Choose upper extremity for insertion	●	●	●	●
	Avoid areas of flexion	●	●		
	Designate personnel with IV therapy education, training and competency	●	●		●
	Smallest gauge indicated	●	●		
Insertion 	Prepare skin with antiseptic, allow site to dry	●	●	●	●
	Practice aseptic technique	●	●	●	●
Secure and protect 	Consider a securement dressing/device	●	●		●
	Use a sterile, transparent, semi-permeable polyurethane dressing	●	●	●	●
	Change dressing at least every 7 days or sooner if compromised	●	●	●	●
	Visually inspect insertion site at regular intervals	●	●	●	
	Monitor and track adverse events regularly	●	●		
	Disinfect injection port/access site before each access	●	●	●	●
	Consider use of disinfecting caps on access sites	●	●		
Remove 	Remove PIV catheters when clinically indicated	●	●	●	
	Remove emergently placed catheters asap, within 24–48 hours	●			●

See the evidence for yourself.

An often-overlooked risk: With more than 115 million⁷ peripheral venous catheters (PVCs) inserted in West Europe alone, numerous PVC complications are bound to occur annually.



22%

of bacteremia originated from peripheral catheters³

German national point prevalence study on nosocomial infections and antibiotics use – 2016 final report

NRZ – Nationales Referenzzentrum für Surveillance von nosokomialen Infektionen.

Results:

From all nosocomial infections associated with a vascular catheter, 22% were attributed to a peripheral intravenous catheter.

View abstract:

https://www.nrz-hygiene.de/fileadmin/nrz/download/pps2016/PPS_2016_Abschlussbericht_20.07.2017.pdf

Short-term PVCs accounted for

23%

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

Short-term peripheral venous catheter-related bloodstream infections: A systematic review

Mermel L. *Clinical Infectious Diseases*. 2017;65(10).

Results:

A systematic review of 63 studies determined that the incidence of PVC-related BSIs was 0.18% among 85,063 PVCs. 38% of healthcare-associated *S. aureus* CRBSIs are due to PIVs.⁴

View abstract:

<https://www.ncbi.nlm.nih.gov/pubmed/29020252>

Catheter-related Phlebitis: **15.4%**

Catheter infiltration: **23.9%**

Catheter occlusion/
Mechanical failure: **18.8%**

Catheter dislodgment: **6.9%**

Catheter-related BSI (up to): **0.2%**

PIV catheter failure rate: **46%**

Accepted but unacceptable: Peripheral I.V. catheter failure

Helm RE, Klausner JD, Klemperer JD, Flint LM, Huang E. *Journal of Infusion Nursing*. 2015;38(3).

Results:

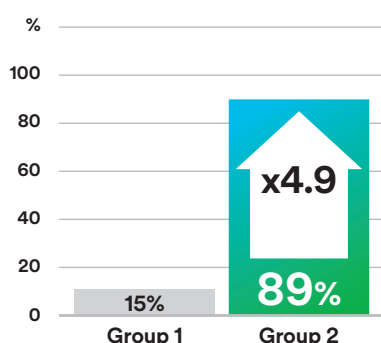
A systematic review of at least 45 randomised controlled studies from 1990 to 2014 determined that PIV insertion is associated with a variety of complications.⁸

View study:

https://www.hemocat.com.br/upload/Acesso_Venoso_Periferico_Falhas.pdf

89% PIV catheters reaching end of therapy:

($p < 0.001$)



The PIV5Rights™ Bundle

Lee Steere *et al*, JAVA 2019

Results:

Outcomes of the PIV5Rights Bundle in Group 2.





Variable	Group 1 (n=94)	Group 2 (n=113)
Success rate (therapy completed)	15%	89%
Dwell time in hours (mean ± SD, $P < 0.001$)	29.6 ± 18.0	71.4 ± 58.8
Complication rate (%; $p < 0.001$)	40%	11%
Cost/bed/year (2018 USD)	\$4,781	\$1,405

View study:

<https://doi.org/10.2309/j.java.2019.003.004>

Help reduce the risk of PIV complications at all access points.

3M solutions help to protect against both extraluminal and intraluminal contamination of PIVs.

Extraluminal protection	 3M™ Tegaderm™ Dressing 1624W/1623W	 3M™ Tegaderm™ I.V. Dressing 1633	 3M™ Tegaderm™ I.V. Advanced Securement Dressing 1681/1683	 3M™ Tegaderm™ Antimicrobial I.V. Advanced Securement Dressing 9132
Antimicrobial protection				
Suppression of regrowth of skin flora at 1, 3, and 7 days				●
Advanced catheter securement				
Meets INS definition of integrated securement device* + ANTT application + superior moisture management			●	●
Catheter fixation				
Reinforces the insertion site with a soft cloth area around the notch		●	●	●
Catheter protection and site visibility				
Provides a waterproof, sterile barrier to external contaminants and a 7 day wear time	●	●	●	●

*full border/fabric collar with built-in securement technology and additional tape strips.

Intraluminal protection

Using a peripheral line bundle that includes Curot Disinfecting Caps and 3M™ Curot Tips™ Disinfecting Caps for Male Luers provides effective disinfection. Effective disinfection of needleless connectors and male luers on peripheral lines has been associated with a significant decrease in primary peripheral line-associated bloodstream infections (PLABSI).⁹



Skin protection

Skin is the body's first line of defense against infection.

Preparation of the skin and selection of proper adhesives are the first steps to help minimise the risks of skin damage.¹⁰



3M™ Cavilon™ No Sting Barrier Film

Forms a breathable, transparent and protective coating between the skin and the adhesive of the securement dressing, device or tape.





3M™ Micropore™ S Surgical Tape

Offers reliable adhesion and removes cleanly with minimal disruption of skin layers and without causing patients undue discomfort.¹¹ Individually packaged, single-patient-use rolls help reduce cross-contamination risk.*

*Individually packaged, single-patient-use rolls help prevent tape from being exposed to environmental contaminants, minimise contact with hospital surfaces and equipment, and exposure to healthcare worker hands.

Partner with 3M to make peripherals a central focus of your IV maintenance programme.

Extraluminal protection					
		Product #	Size	Dressings/box	Boxes/case
3M™ Tegaderm™ Antimicrobial I.V. Advanced Securement Dressing		9132	7 cm x 8.5 cm	25	4
3M™ Tegaderm™ I.V. Advanced Securement Dressing		1681	7 cm x 8 cm	100	4
3M™ Tegaderm™ I.V. Advanced Securement Dressing		1683	6.5 cm x 7 cm	100	4
3M™ Tegaderm™ I.V. Advanced Securement Dressing		1682	5 cm x 5.7 cm	100	4
3M™ Tegaderm™ I.V. Advanced Securement Dressing		1680	3.8 cm x 4.5 cm	100	4
Intraluminal protection					
		Product #	Description	Each/box	Boxes/case
3M™ Curores™ Disinfecting Caps for Needleless Connectors		CFF1-270R	Individuals	270	10
		CFF10-250R	Strips (5 count)	50 Strips	10
3M™ Curores™ Disinfecting Caps for Male Luers		CM5-200R	Strips (5 count)	40 Strips	10
3M™ Curores™ Stopper Disinfecting Caps for Open Female Luers (Teal)		CSV1-270R	Individuals	270	8
		CSV5-250R	Strips (5 count)	50 Strips	8
Skin protection					
		Product #	Size	Items/box	Boxes/case
3M™ Cavilon™ No Sting Barrier Film		3343	1 ml wand	25	4
3M™ Micropore™ S Surgical Tape (individually packaged, single-patient-use roll)		2770S-1	2.5 cm x 1.3 m	100	5

Important safety information for 3M™ Tegaderm™ CHG dressings

Do not use Tegaderm CHG dressings on premature infants or infants younger than two months of age. Use of this product on premature infants may result in hypersensitivity reactions or necrosis of the skin. The safety and effectiveness of Tegaderm CHG I.V. Securement Dressings has not been established in children under 18 years of age. For full prescribing information, see the Instructions for Use (IFU). Rx Only.

To learn more or to schedule a product evaluation, visit us at **3M.co.uk/PIVCare**

- 1 Zingg W, Pittet D. Peripheral venous catheters: an under-evaluated problem. *Int J Antimicrob Agents*. 2009;39(4):S38–S42.
- 2 Van Der Mee N. Surveillance et Prévention des Infections associées aux dispositifs invasifs, SPIADI 2020. <https://www.spiadi.fr/app/files/nvdm.98a63188c9af649403416a98eb2d5dce.pdf>
- 3 Nationales Referenzzentrum für die Surveillance von nosokomialen Infektionen. Deutsche nationale Punkt-Prävalenzerhebung zu nosokomialen Infektionen und Antibiotika-Anwendung 2016 Abschlussbericht. Online im Internet unter: https://www.nrz-hygiene.de/fileadmin/nrz/download/pps2016/PPS_2016_Abschlussbericht_20.07.2017.pdf
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- 5 Saliba P, Hornero A, Cuervo G, Grau I, Jimenez E, García D, Tubau F, Martínez-Sánchez JM, Carratalà J, Pujol M. Mortality risk factors among non-ICU patients with nosocomial vascular catheter-related bloodstream infections: a prospective cohort study. *J Hosp Infect*. 2018 May;99(1):48–54.
- 6 3M data on file.
- 7 Data 2020.
- 8 Helm RE, Klausner JD, Klemperer JD, Flint LM, Huang E. Accepted but unacceptable: Peripheral IV catheter failure. *J Infus Nurs*. 2015;38(3):189–203.
- 9 Steere L, Davis M, Moureau N. Reaching One Peripheral Intravenous Catheter (PIVC) Per Patient Visit with LEAN multi-modal strategy: The PIV5Rights Bundle. *JAVA*. 2019;24(3).

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