# Reducing CLABSI - Dressing Disruption and Catheter Migration

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### Limited Dressing Durability

	Dressings removed for any reason, n=								
Dressing Type	Number of dressings observed	Dressing duration (hrs) median [IQR]							
Opsite IV 3000	310	43.5 [21–78]							
Tegaderm	237	46.0 [22–85]							
IV Advanced	262	40.5 [20–85]							
Sorbaview	116	68.5 [32–105]							
Unrecorded	304								

- Commercially available CVC dressings have surprisingly limited durability
- 1,229 dressings were observed in 5 critical care units over 12 months

- 75% lasted less than 48 hours
- Best dressing lasted 68.5 hours
- Only 3% lasted the full 7 days



<sup>3.</sup> Richardson A, Melling A, Straughan C. Central venous catheter dressing durability: an evaluation. *J Infect Prev.* 2015;16:256-61.



### Vascular Access Dressing Adherence Point Prevalence Assessment Date: 01/22 Unit: 100

Dressings Observed				Dressing Assessment									Skin Condition			
Dressing No.	Patient No.	Dressing Change Date	VAD Type	Insertion Site	# Lumens	(Ca	herent th. site exposed)		dherent e exposed)	Moisture Presence					Enter Value(s) for one column only. Non-intact column may have multiple values. See page 2 for numeric key.	
								Check Dry or Compromised					Non-intact (Enter all that apply)			
Use one line for each dressing observed. Use appropriate abbreviations			Check Only One			Compromised (Check All That				t Apply)	Dry, Intact					
as indicated on reverse side. See page 2 for abbreviation tables.				Intact	Edges Lifting/ Reinforced	Partially Detached	Totally Detached	Dry	Wet	Diaphoretic	Leaking at Site	Bleeding	1	2, 3a, 3b, 3c, 4, 5		
1	1	01/19	CVC	IJ	3			X				X				2
2	2	01/19	PICC	UE	2		X					×				2
3	3	01/20	CVC	IJ	3		X							X		4
4	4	01/19	PICC	UE	2		X					X				2
5	5	01/19	CVC	IJ	2			X					X			2
6	6	01/21	PICC	UE	1	X				X					1	
7	7	01/19	CVC	IJ	3			X		X					1	
8	8	01/18	CVC	SCV	2			X		X					1	
9	9	01/21	CVC	IJ	3	X						X				2
10	10	01/20	CVC	IJ	3		X			X					1	
11	11	01/19	PICC	UE	2	X				X					1	
12	12	01/20	PICC	UE	2	X				X					1	
13	13	01/21	CVC	IJ	3	X								X		2
14	14	01/21	PICC	UE	2	X				X					1	
15	15		CVC	IJ	3				X		X					4
	Subtotals			6	4	4	1	7	1	4	1	2	7	8		
	Totals			1	10		5	7	1	4	1	2	7	8		

Collection Tool Developed by RYDER SCIENCE, Inc. ....medical biofilm research

Services



#### Vascular Access Dressing Adherence Point Prevalence: General Hospital

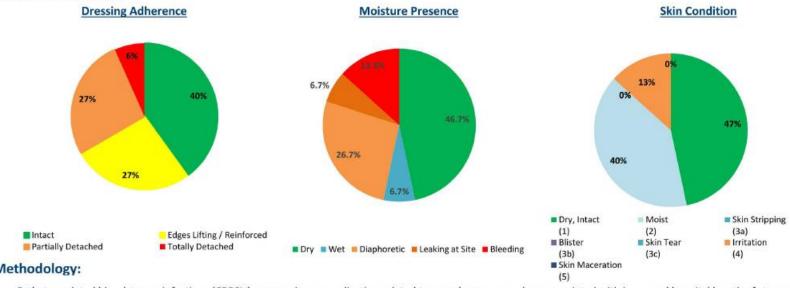
**Date Completed:** 01/22 Total VADs Assessed: 15

ICU Unit(s):

#### Summary of Infection Risk, Nurse Efficiency & Financial Analysis:

- 33% of observed dressings were Non-Adherent (Partially or Totally Detached) and are a risk factor for infection. (Timsit)
- 60% of dressings were Non-Intact and therefore should be prematurely changed resulting in material product waste. (CDC, Infusion Therapy Standards)
- 121.5 Minutes of lost productivity spent changing dressings prematurely. (Richardson; 13.5 min per average dressing change)

#### **Assessment Results:**



#### Methodology:

Catheter-related bloodstream infections (CRBSIs) are a serious complication related to vascular access and are associated with increased hospital length of stay, mortality, and costs. Recent data suggests that dressing disruptions are a major risk factor for catheter-related infections. Prevalence of dressing disruptions at the facility was unknown. As such, a Vascular Access Dressing Adherence Point Prevalence Assessment was conducted. Three key assessments were made:

- Dressing Adherence: Dressing was assessed to ensure insertion site is protected. Dressings are considered "Non-Adherent" if the dressing is missing or partially detached and the insertion site is exposed.
- Dressings Compromised by Moisture Presence: The dressing and insertion site is compromised if there is any moisture under the dressing. Strain at which skin breaks is 4X weaker with excess moisture than with dry skin.
- Skin Condition: Repeated application and removal of dressings, stabilization devices, and tape can result in skin damage. The skin under the dressing site was evaluated to determine if it was intact, moist, had skin stripping, a blister, a skin tear, irritation, or skin maceration.





# Mastisol® Liquid Adhesive

Mastisol is a non-water soluble, liquid adhesive used to secure dressings, tapes, and devices.

- Non-water soluble
- CHG-compatible
- Sterile vial
- 2024 INS Standards
- Creates occlusive barrier
- Reduces risk of infection







## Detachol® Adhesive Remover

Detachol is a non-irritating adhesive remover that makes dressing and device removal safer for your patients.

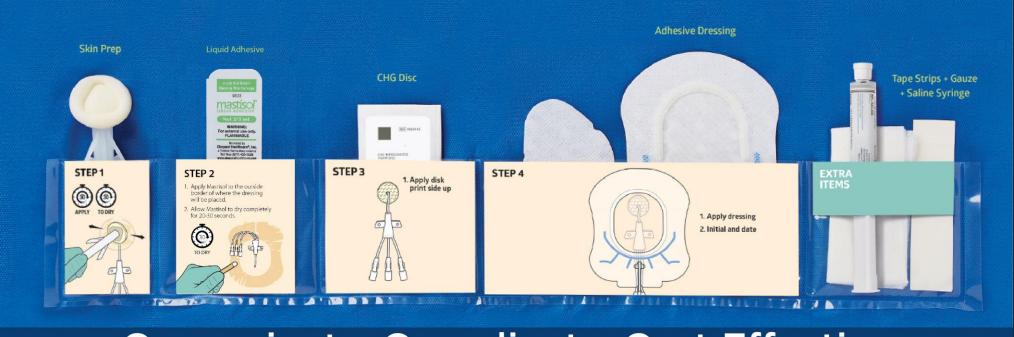
- No alcohol or acetone
- CHG-compatible
- Sterile vial
- Does not leave oily residue
- Single-use vials to reduce cross contamination
- Removes adhesive residue that may harbor bacteria





# Standardization

### Make It Easy To Do the Right Thing



Convenient • Compliant • Cost Effective





Request more information

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### **Features & Benefits**

Significantly reduces the risk of CLABSI

Dramatically decreases catheter dislodgment

Prevents catheter movement

No sutures needed

No adhesives needed

Never changed - remains in place for the life of the line

Works with venous access and general/abscess drainage catheters

Range of sizes: 3-12 French

PICC lines, central lines, midlines, drains
Improves efficiency
Allows 360 degree site cleaning
Eliminates costly suture needle stick risk

Neonates through geriatric

Lowers total cost of patient care

Recommended in 2024 INS Standards



### References

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- 3. Richardson A, Melling A, Straughan C. Central venous catheter dressing durability: an evaluation. J Infect Prev. 2015;16:256-61.
- 4. DeVries M et al. Improving Vascular Access Dressing Integrity Without Increased Skin Complications. Presented at AVA Annual Scientific Meeting, Las Vegas, NV, October 2019
- 5. Infusion Therapy Standards of Practice: Vascular Access Device Assessment, Care, and Dressing Changes. *J Infus Nurs*. 2021;44:S119-S123.
- 6. Infusion Therapy Standards of Practice: Catheter Associated Skin Injury. *J Infus Nurs*. 2021;44:S168-S170.
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- 8. Infusion Therapy Standards of Practice: Catheter Associated Skin Injury. J Infus Nurs. 2021;44:S168-S170.
- 9. Ryder M, Duley C, Evaluation of compatibility of a gum mastic liquid adhesive and liquid adhesive remover with an alcoholic chlorhexidine gluconate skin preparation. *J Infusion Nursing* 2017;40(4):245-252.
- 10. Fact Flow Research. Detachol Experience Program: Final Report. Chicago, IL: Fact Flow Research; 2013.

