



Appendix: Table 4

UPDATED RECOMMENDATIONS ON CHLORHEXIDINE-IMPREGNATED (C-I) DRESSINGS PAGE 12 of 18 $\,\,$ ALL PAGES $\,\,$

Updated Recommendations on the Use of Chlorhexidine-Impregnated Dressings for Prevention of Intravascular Catheter-Related Infections (2017)

AT A GLANCE

Appendix: Table 4 from the Updated Recommendations on the Use of Chlorhexidine-Impregnated Dressings for Prevention of Intravascular Catheter-Related Infections (2017).

ON THIS PAGE

Strength of Evidence for Using C-I Gel Dressings or C-I Sponge under Standard Dressings vs. Using Highly Adhesive Dressing or Standard Dressing Alone among Patients Aged ...

Strength of Evidence for Using C-I Gel Dressings or C-I Sponge under Standard Dressings vs. Using Highly Adhesive Dressing or Standard Dressing Alone among Patients Aged ≥ 18 Years with Short-term, Non-tunneled Central Venous Catheters A

Outcome	Findings	Quantity and Type of Evidence (Sample Size)	GRADE of Evidence for Outcome (Limitations of the Evidence)
CRBSI B	 3 RCTs found that C-I dressings decreased rates of CRBSI. 1 multicenter RCT¹ (N=1,879) of ICU patients with CVCs, arterial catheters, or both compared transparent C-I gel dressing with either highly adhesive transparent dressing alone or standard, breathable, hypoallergenic dressing alone; HR for CVCs and arterial catheters combined: 0.40 (Cl: 0.19–0.87); p=0.02; HR for CVC only: 0.30 (Cl: 0.10–0.92); p=0.04. The study found no difference in CRBSI rates by dressing type among patients with arterial catheters: HR: 0.51 (Cl: 0.15–1.74); p=0.28. Patients in these 3 analyses may have concurrently used multiple CVCs, multiple arterial catheters, or both. 1 multicenter RCT² (N=1,636) of ICU patients with CVCs, arterial catheters, or both, compared C-I sponge under semipermeable, transparent dressing with semipermeable, transparent dressing alone; HR: 0.24 (Cl: 0.09–0.65); p<0.01. This study did not stratify results by catheter type. 1 single-center RCT³ (N=601) of hematology-oncology unit patients with chlorhexidine and silver sulfadiazine-impregnated CVC compared C-I sponge under standard, sterile, transparent wound dressing with standard, sterile, transparent wound dressing alone; RR: 0.54 (Cl: 0.31–0.94); p=0.02. 1 multicenter RCT⁴ (N=306) of ICU patients with CVCs compared C-I sponge under transparent, semipermeable, polyurethane, occlusive dressing with transparent, 	4 RCTs ¹⁻⁴ (N=4,422)	High (None)

	Findings	\otimes	Your account has be contact the super ac faddy@clearpol.com		
Outcome			(Sample Size)	(Limitations of the Evidence)	
	semipermeable, polyurethane, occlusive dressing alone; found no difference in CRBSI rates by dressing type: HR: 1.65 (CI: $0.27-10.01$); p=0.59.	tes			
CRI ^B	2 large multicenter RCTs in ICUs found that use of C-I dressings decreased rates of CRI.		4 RCTs ^{1,2,4,5} (N=3,853)	Moderate (Imprecise ^C)	
	 1 multicenter RCT¹ (N=1,879) of ICU patients with CVCs, arterial catheters, or both compared transparent C-I gel dressing with highly adhesive transparent dressing alo or standard, breathable, hypoallergenic dressing alone; HR (arterial catheters and CV 0.33 (CI: 0.17–0.62); p< 0.01; HR (for CVCs): 0.27 (CI: 0.11–0.66); p=<0.01. The study found no difference in CRI rates by dressing type among patients with arterial catheter HR: 0.39 (CI: 0.15–1.03); p=0.06. Patients in these 3 analyses may have concurrently used multiple CVCs, multiple arterial catheters, or both. 	/Cs): y ers:			
	 1 multicenter RCT² (N=1,636) of ICU patients with CVCs, arterial catheters, or both, compared C-I sponge under semipermeable, transparent dressing with semipermeab transparent dressing alone; HR: 0.39 (0.16–0.93); p=0.03. This study did not stratify results by catheter type. 	le,			
	 2 smaller RCTs found no difference in CRI rates by dressing type. 				
	• 1 multicenter RCT ⁴ (N=306) of ICU patients with CVCs compared C-I sponge under transparent, semipermeable, polyurethane, occlusive dressing with transparent, semipermeable, polyurethane, occlusive dressing alone; HR: 0.65 (CI: 0.23–1.85); p=0.42	2.			
	• 1 single-center RCT ⁵ (N=32) of ICU patients with CVCs compared C-I sponge under occlusive dressing with occlusive dressing alone; incidence (per catheter): 1/17 vs. 0/16; p=NS.				
Product-related adverse events	 2 RCTs^{1,2} of ICU patients with CVCs, arterial catheters, or both, found no systemic adver reactions to chlorhexidine. 	rse	4 RCTs ¹⁻⁴ (N=4,311)	Moderate (Imprecise ^D)	
	• 1 multicenter RCT ¹ (N=1,879) of ICU patients with CVCs, arterial catheters, or both, compared transparent C-I gel dressing with highly adhesive transparent dressing or standard, breathable, hypoallergenic dressing; incidence (per patient) of severe contact dermatitis: 22/938 (2.3%) vs. 5/941 (0.5%); p<0.01. Rate of abnormal ICDRG score: 2.39 vs. 1%; p<0.01	%			
	• 1 multicenter RCT ² (N=1,525) of ICU patients with CVCs, arterial catheters, or both compared C-I sponge under semipermeable, transparent dressing with semipermeable, transparent dressing alone. Severe contact dermatitis occurred in 8 patients (10.4/patien 5.3/1000 catheters) that required permanent removal of the C-I dressing. (Severe contact dermatitis in patients with standard dressings not reported.) Rate of abnormal ICDRG so (events/catheter): 100/6,720 (1.49%) vs. 63/5,875 (1.02%); p=0.02	ct			
	• 1 multicenter RCT ⁴ (N=306) of ICU patients with CVCs compared C-I sponge under transparent, semipermeable, polyurethane, occlusive dressing with transparent, semipermeable, polyurethane, occlusive dressing alone; suggested all patients tolerated sponge well; none were excluded due to allergy to C-I sponge.	l C-I			
	• 1 single-center RCT ³ (N=601) of hematology-oncology unit patients with chlorhexidine silver sulfadiazine-impregnated triple-lumen CVC compared C-I sponge under standard.				

Outcome	Findings		ERROR X Your account has been disabled. Please r contact the super admin (faddy@clearpol.com).		
			(Sample Size)	(Limitations of the Evidence)	
	sterile, transparent wound dressing with the standard, sterile, transparent wound dressin alone; found no product-related adverse events associated with either dressing type.	g			
Chlorhexidine resistance	 1 multicenter RCT² (N=1,525) of ICU patients with CVCs, arterial catheters, or both compared C-I sponge under semipermeable, transparent dressing with semipermeable, transparent dressing alone; found no difference by dressing type in median minimum bactericidal concentration (MBC): 4 (IQR 4–16) vs. 4 (IQR 4–8). 1 single-center RCT³ (N=601) of hematology-oncology unit patients in which all patients received chlorhexidine and silver sulfadiazine impregnated CVCs compared C-I sponge under standard, sterile, transparent wound dressing with standard, sterile, transparent wound dressing alone; suggested no differences in bacterial resistance by dressing type. 		2 RCTs ^{2,3} (N=2,126)	Low (Imprecise ^E)	

Outcome type, findings, quantity and type of evidence for patients 18 or over.

Footnotes

A. The overall strength of evidence for this comparison is Moderate. The overall strength of evidence for a comparison is determined by the lowest GRADE of Evidence for a Critical Outcome in that comparison.

- B. A critical outcome.
- C. Inconsistent results and inconsistent outcome definitions.
- D. Low number of events.
- E. Low number of events; no difference between study group.

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Appendix: Table 5

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Appendix 1.0 Search Strategies

Appendix: 2.0 Summary of Evidence

Appendix: Table 5
Appendix: Table 6