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INDICAZIONI ALL'USO DEI FELTRINI A RILASCIO DI CLOREXIDINA

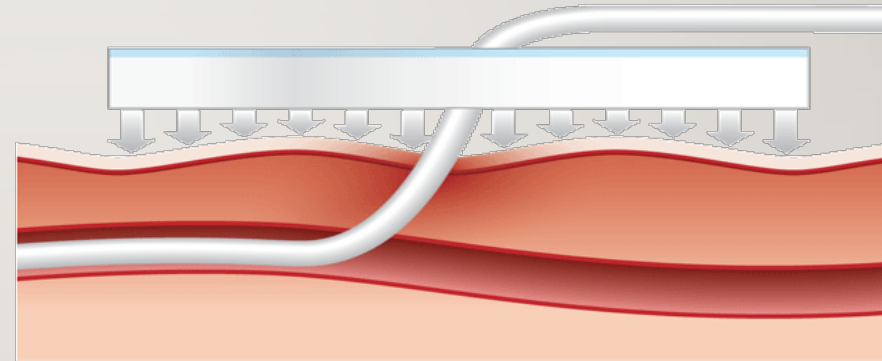
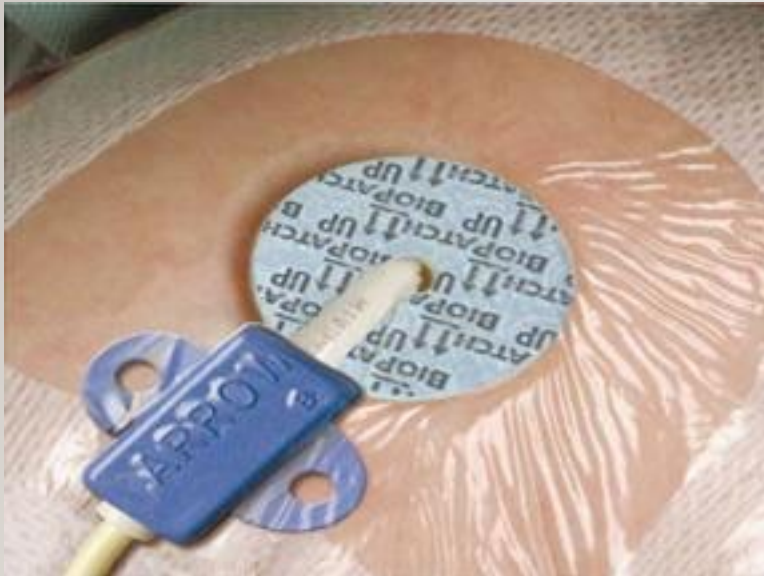
MAURO PITTIRUTI

FONDAZIONE POLICLINICO UNIVERSITARIO 'A. GEMELLI'

ROMA



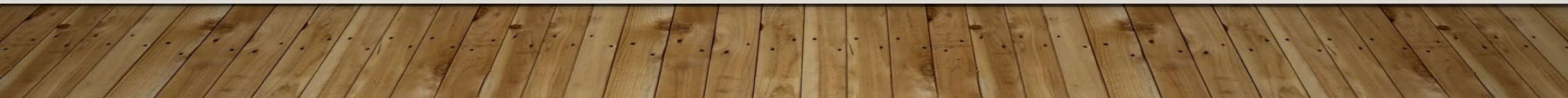
FELTRINI A RILASCIO DI CLOREXIDINA



Continuous release of CHG provides 360° protection for 7 days — for ongoing antisepsis between dressing changes

FELTRINI A RILASCIO DI CLOREXIDINA

Una storia che inizia più di 20 anni fa....



Clinical Trial

> Pediatrics. 2001 Jun;107(6):1431-6. doi: 10.1542/peds.107.6.1431.

A randomized trial comparing povidone-iodine to a chlorhexidine gluconate-impregnated dressing for prevention of central venous catheter infections in neonates

J S Garland ¹, C P Alex, C D Mueller, D Otten, C Shivpuri, M C Harris, M Naples, J Pellegrini, R K Buck, T L McAuliffe, D A Goldman, D G Maki

Affiliations — collapse

2001

Affiliation

¹ St. Joseph's Hospital, Milwaukee, WI 53210, USA. jsgarland@hotmail.com

PMID: 11389271 DOI: [10.1542/peds.107.6.1431](https://doi.org/10.1542/peds.107.6.1431)

Clinical Trial

> [Infect Control Hosp Epidemiol.](#) 2004 Aug;25(8):668-74. doi: 10.1086/502459.

Cost-benefit analysis of chlorhexidine gluconate dressing in the prevention of catheter-related bloodstream infections

Albert G Crawford ¹, Joseph P Fuhr Jr, Bhaskar Rao

2004

Affiliations + expand

PMID: 15357159 DOI: [10.1086/502459](#)

Clinical Trial > *Pediatr Infect Dis J.* 2005 Aug;24(8):676-9.

doi: 10.1097/01.inf.0000172934.98865.14.

Chlorhexidine-impregnated dressing for prevention of colonization of central venous catheters in infants and children: a randomized controlled study

Itzhak Levy ¹, Jacob Katz, Ester Solter, Zmira Samra, Bernardo Vidne, Einat Birk, Shai Ashkenazi, Ovadia Dagan

Affiliations — collapse

2005

Affiliation

- ¹ Department of Pediatric Infectious Diseases, Schneider Children's Medical Center of Israel, Petah Tiqva, Israel. lavyguy@bezeqint.net

PMID: 16094219 DOI: [10.1097/01.inf.0000172934.98865.14](https://doi.org/10.1097/01.inf.0000172934.98865.14)

Clinical Trial

> [J Hosp Infect.](#) 2005 Sep;61(1):53-61. doi: 10.1016/j.jhin.2005.01.023.

Reduction of exit-site infections of tunnelled intravascular catheters among neutropenic patients by sustained-release chlorhexidine dressings: results from a prospective randomized controlled trial

[S T Chambers](#) ¹, [J Sanders](#), [W N Patton](#), [P Ganly](#), [M Birch](#), [J A Crump](#), [R L Spearing](#)

Affiliations + expand

PMID: 16002181 DOI: [10.1016/j.jhin.2005.01.023](#)

2005

Efficacia limitata: soltanto sulle infezioni del sito di emergenza

Use of chlorhexidine-impregnated dressing to prevent vascular and epidural catheter colonization and infection: a meta-analysis

Kwok M. Ho* and Edward Litton

Department of Intensive Care, Royal Perth Hospital, Perth 6000, Western Australia, Australia

Received 3 February 2006; returned 20 April 2006; revised 2 May 2006; accepted 12 May 2006

Results: Eight studies assessing a single type of chlorhexidine-impregnated dressing were identified and subjected to meta-analysis. The chlorhexidine-impregnated dressing reduced the risk of epidural [3.6% versus 35%, odds ratio (OR) 0.07, 95% CI: 0.02–0.31, $P = 0.0005$] and intravascular catheter or exit-site bacterial colonization (14.8% versus 26.9%, OR 0.47, 95% CI: 0.34–0.65, $P < 0.00001$) (overall 14.3% versus 27.2%, OR 0.40, 95% CI: 0.26–0.61; $P < 0.0001$). The use of chlorhexidine-impregnated dressing was associated with a trend towards reduction in catheter-related bloodstream or CNS infections (2.2% versus 3.8%, OR 0.58, 95% CI: 0.29–1.14, $P = 0.11$). Local cutaneous reactions to chlorhexidine-impregnated dressing were reported in 5.6% of the patients in three studies (OR 8.17, 95% CI: 1.19–56.14, $P = 0.04$), and 96% of these reactions occurred in neonatal patients. The number needed to prevent one episode of intravascular catheter-related bloodstream infection was 142 for an average period of catheter *in situ* of 10 days and a change of dressing every 5 days. The cost of preventing one vascular catheter-related bloodstream infection was estimated to be £298 (US\$532.5).

Conclusions: Chlorhexidine-impregnated dressing is effective in reducing vascular and epidural catheter bacterial colonization and is also associated with a trend towards reduction in catheter-related bloodstream or CNS infections. A large randomized controlled trial is needed to confirm whether chlorhexidine-impregnated dressing is cost-effective in preventing bacterial infection related to vascular and epidural catheters.

2006

Randomized Controlled Trial

> Ann Hematol. 2009 Mar;88(3):267-72.

doi: 10.1007/s00277-008-0568-7. Epub 2008 Aug 5.

Prevention of central venous catheter related infections with chlorhexidine gluconate impregnated wound dressings: a randomized controlled trial

Heiner Ruschulte ¹, Matthias Franke, Petra Gastmeier, Sebastian Zenz, Karl H Mahr, Stefanie Buchholz, Bernd Hertenstein, Hartmut Hecker, Siegfried Piepenbrock

Affiliations — collapse

2009

Affiliation

- ¹ Department of Anaesthesiology, Hannover Medical School, Carl-Neuberg-Str. 1, 30625 Hannover, Germany. heiner.ruschulte@mac.com

PMID: 18679683 DOI: [10.1007/s00277-008-0568-7](https://doi.org/10.1007/s00277-008-0568-7)

Randomized Controlled Trial

> JAMA. 2009 Mar 25;301(12):1231-41.

doi: 10.1001/jama.2009.376.

Chlorhexidine-impregnated sponges and less frequent dressing changes for prevention of catheter-related infections in critically ill adults: a randomized controlled trial

Jean-François Timsit ¹, Carole Schwebel, Lila Bouadma, Arnaud Geffroy, Maité Garrouste-Orgeas, Sebastian Pease, Marie-Christine Herault, Hakim Haouache, Silvia Calvino-Gunther, Brieuc Gustin, Laurence Armand-Lefevre, Véronique Leflon, Chantal Chaplain, Adel Benali, Adrien Francais, Christophe Adrie, Jean-Ralph Zahar, Marie Thuong, Xavier Arrault, Jacques Croize, Jean-Christophe Lucet, Dressing Study Group

Collaborators, Affiliations + expand

PMID: 19318651 DOI: 10.1001/jama.2009.376

2009

CDC 2011



Guidelines for the Prevention of Intravascular Catheter-Related Infections, 2011

12. Use a chlorhexidine-impregnated sponge dressing for temporary short-term catheters in patients older than 2 months of age if the CLABSI rate is not decreasing despite adherence to basic prevention measures, including education and training, appropriate use of chlorhexidine for skin antisepsis, and MSB [93, 96–98]. Category 1B

2011

> [Am J Infect Control](#). 2011 Oct;39(8):647-654. doi: 10.1016/j.ajic.2010.11.008. Epub 2011 Jun 8.

Economic impact of use of chlorhexidine-impregnated sponge dressing for prevention of central line-associated infections in the United States

Xin Ye ¹, Marcia Rupnow ², Philippe Bastide ³, Antoine Lafuma ⁴, Liza Ovington ², William R Jarvis ⁵

Affiliations + expand

PMID: 21641681 DOI: [10.1016/j.ajic.2010.11.008](#)

2011

Costo-efficacia!

Randomized Controlled Trial > Crit Care Med. 2012 Jan;40(1):11-7.

doi: 10.1097/CCM.0b013e31822f0604.

Economic evaluation of chlorhexidine-impregnated sponges for preventing catheter-related infections in critically ill adults in the Dressing Study

Carole Schwebel ¹, Jean-Christophe Lucet, Aurélien Vesin, Xavier Arrault, Silvia Calvino-Gunther, Lila Bouadma, Jean-François Timsit

Affiliations — collapse

Affiliation

¹ Medical Intensive Care Unit, Albert Michallon University Hospital Grenoble, France.

2012

PMID: 21926570 DOI: [10.1097/CCM.0b013e31822f0604](https://doi.org/10.1097/CCM.0b013e31822f0604)

Costo-efficacia!

SHEA 2014

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY JULY 2014, VOL. 35, NO. 7

SHEA/IDSA PRACTICE RECOMMENDATION

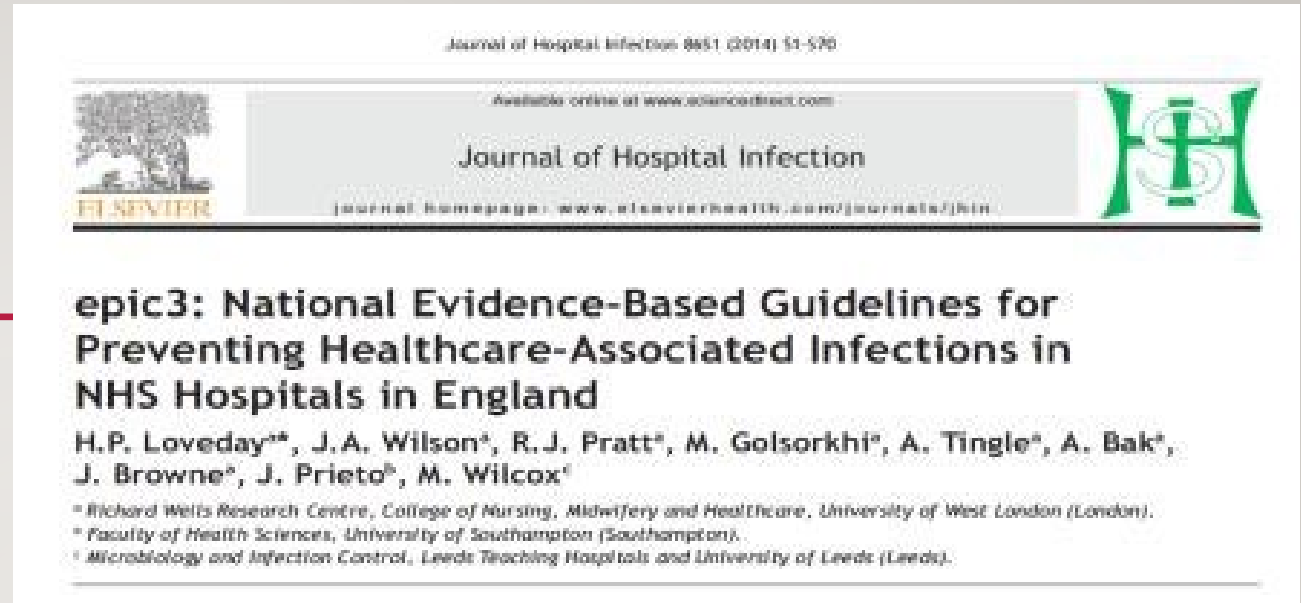
Strategies to Prevent Central Line–Associated Bloodstream Infections in Acute Care Hospitals: 2014 Update

Jonas Marschall, MD;^{1,2,*} Leonard A. Mermel, DO, ScM;^{3,*} Mohamad Fakih, MD, MPH;⁴
Lynn Hadaway, MEd, RN, BC, CRNI;⁵ Alexander Kallen, MD, MPH;⁶ Naomi P. O'Grady, MD;⁷
Ann Marie Pettis, RN, BSN, CIC;⁸ Mark E. Rupp, MD;⁹ Thomas Sandora, MD, MPH;¹⁰
Lisa L. Maragakis, MD, MPH;¹¹ Deborah S. Yokoe, MD, MPH¹²

2. Use chlorhexidine-containing dressings for CVCs in patients over 2 months of age (quality of evidence: I).^{80,155-160}

2014

EPIC 2014



IVAD20 Consider the use of a chlorhexidine-impregnated sponge dressing in adult patients with a central venous catheter as a strategy to reduce catheter-related bloodstream infection.

New recommendation Class B

2014

Case Reports

> [J Crit Care](#). 2014 Dec;29(6):1130.e1-4. doi: 10.1016/j.jcrc.2014.06.001.

Epub 2014 Jun 6.

Chlorhexidine gluconate-impregnated central-line dressings and necrosis in complicated skin disorder patients

Jennifer B Wall ¹, Sherrie J Divito ², Simon G Talbot ²

Affiliations + expand

PMID: 25035049 DOI: [10.1016/j.jcrc.2014.06.001](#)

2014

Da non utilizzare nei pazienti con gravi dermopatie croniche



NIH Public Access

Author Manuscript

Crit Care Med. Author manuscript; available in PMC 2014 December 08.

Published in final edited form as:

Crit Care Med. 2014 July ; 42(7): 1703–1713. doi:10.1097/CCM.0000000000000319.

CHLORHEXIDINE-IMPREGNATED DRESSING FOR PREVENTION OF CATHETER-RELATED BLOODSTREAM INFECTION: A META-ANALYSIS

Nasia Safdar, MD, PhD^{*}, John C. O'Horo, MD, Aiman Ghufuran, MD, Allison Bearden, MD, MPH, Maria Eugenia Didier, MD, Dan Chateau, PhD, and Dennis G. Maki, MD

Section of Infectious Diseases, Department of Medicine, University of Wisconsin School of Medicine and Public Health, Madison, WI (NS, AB, MD, DGM, AG), Department of Pulmonary and Critical Care Medicine, Mayo Clinic, Rochester MN (JCO) and the Biostatistical Consulting Unit (DC), Department of Community Health Sciences, University of Manitoba, Winnipeg, MB. (DC)

2014

Metanalisi su 9 RCT – 8 su feltrino, 1 su gel

Use chlorhexidine-impregnated dressings over CVADs to reduce infection risk when the extraluminal route is the primary source of infection. Even when organizations show a low baseline central line-associated bloodstream infection (CLABSI) rate, further reduction in CLABSI rate has been demonstrated with use of chlorhexidine-impregnated dressings. The efficacy of chlorhexidine dressings in long-term CVAD use, beyond 14 days when intraluminal sources of infection are the primary source, has not been shown.¹⁸ (I)

1. Do not use if any history of reactions to chlorhexidine.⁵ (V)

2. Use chlorhexidine-impregnated dressings with caution in premature neonates and among patients with fragile skin and/or complicated skin pathologies; contact dermatitis and pressure necrosis have occurred.^{5,18-20} (V)
3. Monitor for erythema and dermatitis at the dressing site.^{5,18-20} (V)

RESEARCH ARTICLE

Open Access

Chlorhexidine-impregnated dressing for the prophylaxis of central venous catheter-related complications: a systematic review and meta-analysis



Li Wei[†], Yan Li[†], Xiaoyan Li[†], Lanzheng Bian, Zunjia Wen^{*} and Mei Li^{*}

Metanalisi su 12 RCT – 8 su feltrino, 4 su gel

2019

REVIEW

Open Access



Expert consensus-based clinical practice guidelines management of intravascular catheters in the intensive care unit

Jean-François Timsit^{1,2}, Julien Baleine³, Louis Bernard⁴, Silvia Calvino-Gunther⁵, Michael Darmon⁶, Jean Dellamonica⁷, Eric Desruennes^{8,9}, Marc Leone¹⁰, Alain Lepape^{11,12}, Olivier Leroy^{13,14}, Jean-Christophe Lucet^{15,16}, Zied Merchaoui¹⁷, Olivier Mimoz^{18,19,20}, Benoit Misset²¹, Jean-Jacques Parienti^{22,23}, Jean-Pierre Quenot^{24,25,26}, Antoine Roch^{27,28}, Matthieu Schmidt^{29,30}, Michel Slama³¹, Bertrand Souweine³², Jean-Ralph Zahar^{33,34}, Walter Zingg³⁵, Laetitia Bodet-Contentin³⁶ and Virginie Maxime^{37*}

R1.7—Chlorhexidine-impregnated dressings should probably be used to decrease arterial or central venous catheter-related infection rates.

GRADE 2+ STRONG CONSENSUS

2020

INS 2021

Use chlorhexidine-impregnated dressings for all patients 18 years and older with short-term, nontunneled CVADs. Use for arterial catheters and other CVADs when all other CABS prevention strategies have proven ineffective. Use with caution among patients with fragile skin and/or complicated skin pathologies; monitor for erythema and dermatitis at the dressing site.¹⁷⁻²⁷ (I)

1. For premature neonates, chlorhexidine-impregnated dressings are not recommended to protect the site of short-term, nontunneled CVADs due to the risk of serious adverse skin reactions.
2. For pediatric patients less than 18 years of age and nonpremature neonates, no recommendation can be made about the use of chlorhexidine-impregnated dressings to protect the site of short-term, nontunneled CVADs due to the lack of enough evidence. More large clinical trials are needed to confirm the clinical efficacy and safety in this patient population.^{20,28,29} (III)

2021

RACCOMANDAZIONI GAVECELT 2021

I feltrini in poliuretano a rilascio continuo di clorexidina per la protezione del sito di emergenza di un catetere venoso centrale a breve e medio termine o periferico a medio termine (tipo Midline) sono indicati dalle linee guida come una strategia efficace per la prevenzione delle infezioni catetere-correlate. Essi devono essere utilizzati in tutti i pazienti in cui sia stato impiantato un catetere venoso centrale (CICC, PICC, FICC) non tunnellizzato. Il feltrino va posizionato a partire dalla prima medicazione, e non al momento dell'impianto; al momento dell'impianto, infatti, come sopra descritto nelle raccomandazioni per la tecnica di inserzione, si raccomanda invece di sigillare il sito di emergenza con una piccola quantità di colla in cianoacrilato.

2021

SHEA 2022

The use of chlorhexidine-containing dressings is now considered an “essential practice”; in the past, it was listed under special approaches that should only be employed if CLABSI rates remain high despite the implementation of basic practices.

Use chlorhexidine-containing dressings for CVCs in patients over 2 months of age (Quality of Evidence: HIGH)^{45,135-142}

- a. It is unclear whether there is additional benefit with use of a chlorhexidine-containing dressing if daily chlorhexidine bathing is already established and vice-versa.
- b. For long-term catheters (eg, hemodialysis catheters) in well-healed access sites, it is unclear whether use of a chlorhexidine dressing reduces risk of infectious complications.^{140,143,144}
- c. For children under 2 months of age, use of chlorhexidine dressings remains unclear, particularly in very preterm or low birthweight infants.⁹⁸

2022

European recommendations on the proper indication and use of peripheral venous access devices (the ERPIUP consensus): A WoCoVA project

Mauro Pittiruti¹ , Ton Van Boxtel² , Giancarlo Scoppettuolo¹, Peter Carr³, Evangelos Konstantinou⁴, Gloria Ortiz Miluy⁵, Massimo Lamperti⁶, Godelieve Alice Goossens⁷, Liz Simcock⁸, Christian Dupont⁹, Sheila Inwood¹⁰, Sergio Bertoglio¹¹ , Jackie Nicholson¹², Fulvio Pinelli¹³  and Gilda Pepe¹

The Journal of Vascular Access
1–18
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2023

Cover the exit site with a sterile semipermeable transparent dressing and change it at least every 5–7 days or sooner if no longer intact.^{8,9,22,98} For long dwell PVADs such as MC, consider using a chlorhexidine-impregnated sponge dressing (to be changed weekly, simultaneously with the dressing change).

A GAVeCeLT consensus on the indication, insertion, and management of central venous access devices in the critically ill

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Sage

Fulvio Pinelli¹ , Mauro Pittiruti² , Maria Giuseppina Annetta³ ,
Francesco Barbani¹, Sergio Bertoglio⁴ , Daniele G Biasucci⁵ , Denise Bolis⁶,
Fabrizio Brescia⁷ , Giuseppe Capozzoli⁸, Sonia D'Arrigo³ , Elisa Deganello⁹ ,
Stefano Elli¹⁰ , Adam Fabiani¹¹ , Fabio Fabiani⁷, Antonio Gidaro¹² ,
Davide Giustivi¹³ , Emanuele Iacobone¹⁴ , Antonio La Greca²,
Ferdinando Longo¹⁵ , Alberto Lucchini¹⁶, Bruno Marche¹⁷, Stefano Romagnoli¹,
Giancarlo Scoppettuolo¹⁸, Valentina Selmi¹⁹, Davide Vailati²⁰, Gianluca Villa¹
and Gilda Pepe²

2024

Panel recommendation. The risk of catheter-related infections can be reduced by adopting basic post-procedural strategies such as: (a) staff education, (b) adequate nurse/patient ratio, (c) hand hygiene, (d) scheduled dressing change every 7 days, with skin antiseptics using 2% chlorhexidine in 70% isopropyl alcohol, weekly replacement of the sutureless device (unless the catheter is anchored subcutaneously), and weekly replacement of the semipermeable transparent dressing, (e) adoption of chlorhexidine releasing sponge dressing for non-tunneled central VADs; (f) disinfection of catheter hubs and of needle-free connectors (NFC) at each use, preferably using disinfecting caps (port-protectors), (g) scheduled replacement of infusion lines and NFC, at different intervals, depending on the type of infusion, and (h) early removal of central lines that are not strictly necessary or that have been placed in emergency. *(Strong agreement: 26 agree, 0 uncertain, 0 disagree)*

Infusion Therapy Standards of Practice

Barbara Nickel, APRN-CNS, CCRN, CRNI®

Lisa Gorski, MS, RN, HHCNS-BC, CRNI®, FAAN

Tricia Kleidon, PhD(c), MNsc, RN

Amy Kyes, MSN, APRN, AG-CNS, CV-BC™, CRNI®

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Mary E. Hagle, PhD, RN-RB, FAAN

9TH EDITION

REVISED 2024



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2024

Use chlorhexidine gluconate (CHG)-containing dressings unless contraindicated (eg, sensitivity or allergy to CHG) to prevent central line-associated bloodstream infections (CLABSI) in patients greater than 2 months of age with short-term CVADs.

I feltrini in poliuretano a rilascio continuo di clorexidina al 2% per la protezione del sito di emergenza di un catetere venoso centrale a breve e medio termine o periferico a medio termine (tipo Midline) sono indicati dalle linee guida come una strategia efficace per la prevenzione delle infezioni catetere-correlate. Essi devono essere utilizzati in tutti i pazienti in cui sia stato impiantato un catetere venoso centrale (CICC, PICC, FICC) non tunnellizzato. Il feltrino va posizionato a partire dalla prima medicazione, e non al momento dell'impianto; al momento dell'impianto, infatti, come sopra descritto nelle raccomandazioni per la tecnica di inserzione, si raccomanda invece di sigillare il sito di emergenza con una piccola quantità di colla in cianoacrilato (preferibilmente, butil-cianoacrilato oppure butil-octil-cianoacrilato).

**RACCOMANDAZIONI GAVeCeLT 2024
PER LA INDICAZIONE, L'IMPIANTO E LA GESTIONE
DEI DISPOSITIVI PER ACCESSO VENOSO**

2024

FELTRINO A RILASCIO DI CLOREXIDINA

- Comprovata efficacia nella **protezione del sito di emergenza** dalla contaminazione batterica
- Utile per assorbire liquidi e secrezioni, ma non utile come emostatico: per questo motivo, al momento dell'impianto preferire la colla in cianoacrilato
- Attenzione al posizionamento corretto
- Da sostituire ogni settimana (come la MTS e i sistemi adesivi di fissaggio)
- Da non utilizzare simultaneamente alla colla
- Dubbia utilità quando il catetere è tunnellizzato

FELTRINO A RILASCIO DI CLOREXIDINA

- Comprovata efficacia nella **protezione del sito di emergenza** dalla contaminazione batterica
- Utile per assorbire liquidi e secrezioni, ma non utile come emostatico: per questo motivo, **al momento dell'impianto preferire la colla in cianoacrilato**
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- Da sostituire ogni settimana (come la MTS e i sistemi adesivi di fissaggio)
- Da non utilizzare simultaneamente alla colla
- Dubbia utilità quando il catetere è tunnellizzato

Reduction of bacterial colonization at the exit site of peripherally inserted central catheters: A comparison between chlorhexidine-releasing sponge dressings and cyano-acrylate

**Emanuele Gilardi¹ , Alfonso Piano¹, Pietro Chellini¹,
Barbara Fiori², Laura Dolcetti³, Mauro Pittiruti⁴ ,
and Giancarlo Scoppettuolo³**

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 SAGE

2020

Reduction of bacterial colonization at the exit site of peripherally inserted central catheters: A comparison between chlorhexidine-releasing sponge dressings and cyano-acrylate

Emanuele Gilardi¹, Alfonso Piano¹, Pietro Chellini¹,
Barbara Fiori², Laura Dolcetti³, Mauro Pittiruti⁴
and Giancarlo Scoppettuolo³

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2020

Methods: After PICC placement, a skin swab of the exit site was taken and cultured. In group A the exit site was sealed with N-butyl-cyanoacrylate glue, while in group B a chlorhexidine-releasing sponge dressing was applied. A second skin culture was taken at day 7.

Results: A total of 51 patients were enrolled in each group. In 42 patients the second skin culture was not performed because of 20 patients were lost at follow-up or deceased and in 22 patients the dressing needed to be changed early, because of local bleeding (13 cases, in group B) or because of dressing detachment (four in group A and five in group B). The microbiological study was completed in 36 patients in group A and 24 in group B. No microorganisms were isolated in any patient.

Reduction of bacterial colonization at the exit site of peripherally inserted central catheters: A comparison between chlorhexidine-releasing sponge dressings and cyano-acrylate

Emanuele Gilardi¹ , Alfonso Piano¹, Pietro Chellini¹,
Barbara Fiori², Laura Dolcetti³, Mauro Pittiruti⁴ ,
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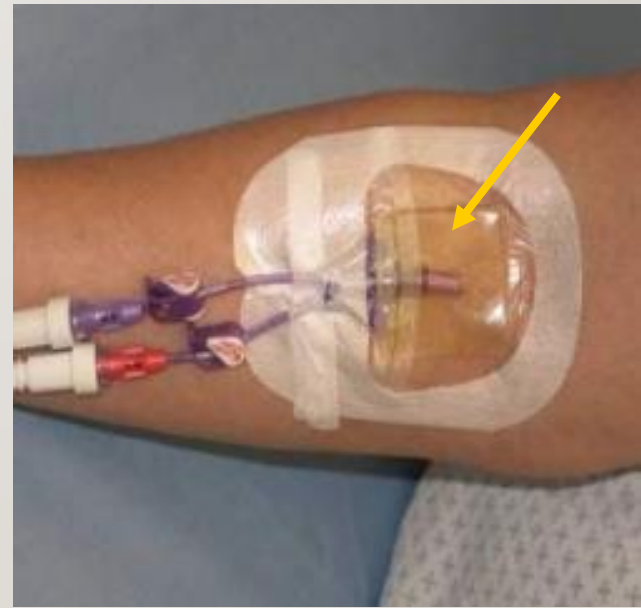
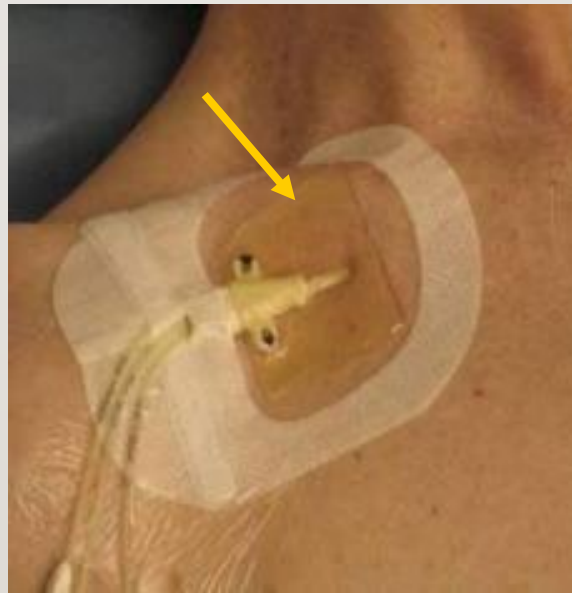
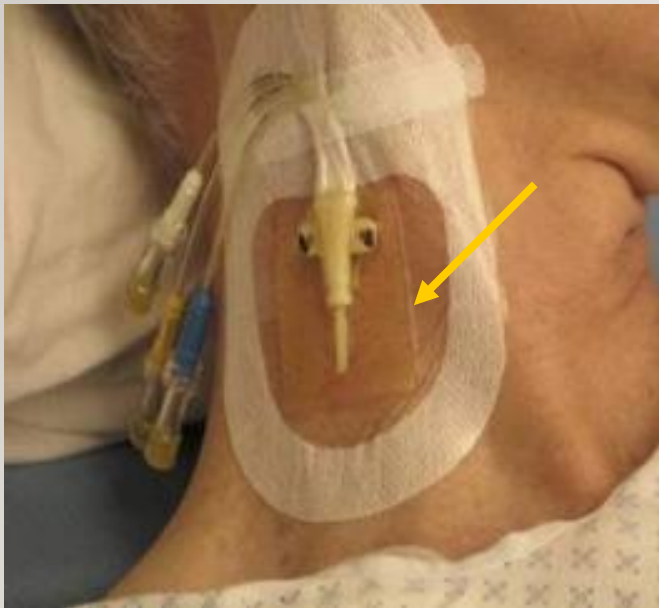
2020

Conclusions: Both strategies were effective in controlling bacterial colonization. Glue was effective in reducing local bleeding, and it was more cost-effective than sponge dressing. During the first week, when local bleeding and bacterial colonization must be prevented, glue might be more appropriate than chlorhexidine-releasing dressing; after the first week chlorhexidine-releasing dressing might be preferable, considering that the safety of glue application on the skin for prolonged periods is still questionable.

E LE MEDICAZIONI TRASPARENTI CON GEL A RILASCIO DI CLOREXIDINA?



GEL A RILASCIO DI CLOREXIDINA



MEDICAZIONI CON GEL A RILASCIO DI CLOREXIDINA:
FUNZIONANO QUANTO IL FELTRINO ?



Randomized Controlled Trial > Am J Respir Crit Care Med. 2012 Dec 15;186(12):1272-8.

doi: 10.1164/rccm.201206-1038OC. Epub 2012 Oct 4.

Randomized controlled trial of chlorhexidine dressing and highly adhesive dressing for preventing catheter-related infections in critically ill adults

Jean-François Timsit ¹, Olivier Mimos, Bruno Mourvillier, Bertrand Souweine, Maïté Garrouste-Orgeas, Serge Alfandari, Gaétan Planteffeve, Régis Bronchard, Gilles Troche, Remy Gauzit, Marion Antona, Emmanuel Canet, Julien Bohe, Alain Lepape, Aurélien Vesin, Xavier Arrault, Carole Schwebel, Christophe Adrie, Jean-Ralph Zahar, Stéphane Ruckly, Caroline Tournegros, Jean-Christophe Lucet

Affiliations + expand

PMID: 23043083 DOI: 10.1164/rccm.201206-1038OC

Evidenza di efficacia

2012

A MULTICENTRE RANDOMIZED TRIAL ON THE EFFICACY OF CHLORHEXIDINE-RELEASING TRANSPARENT DRESSING IN REDUCING CATHETER RELATED BLOOD STREAM INFECTIONS

Giancarlo Scoppettuolo, Mauro Pittiruti and the GAVeCeLT Multicentre Study Group on CHG-releasing dressings.

Oral Presentation
AVA conference 2013

Purpose: Catheter-related bloodstream infections (CRBSI) are often secondary to extraluminal contamination of non-tunneled central catheters. Chlorhexidine (CHG) impregnated sponges are known to be effective against this route of contamination. The Italian Group for Venous Access Devices (GAVeCeLT) has carried out a multicenter randomized study to verify the effectiveness of CHG-releasing transparent dressings in this regard.

Methods: We enrolled 648 adult patients (male/female 407/241), hospitalized in ICU (n=203) or non-ICU wards (n=445) in seven different Italian hospitals, candidate to non-tunneled central venous catheters (PICC or CVC) for different indications (chemotherapy, nutrition, fluid therapy, etc.). After insertion, patients were randomized in two groups, one treated with a CHG-releasing transparent dressing (study group) and the other with standard transparent dressing (controls). Dressing was changed weekly, in absence of complications. Each patient was studied until removal of the catheter or discharge from the hospital. Primary endpoint was to compare the incidence of CRBSI between the groups.

Results: 12205 catheter-days were evaluated. We detected 11 CRBSI in controls vs. 4 CRBSI in the study group (1.78/1000 vs. 0.65/1000 catheter-days; $p=0.11$; $OR=0.36$). Unscheduled catheter removals occurred in 29 cases in controls vs. 19 cases in the study group ($p=0.17$; $OR=0.64$). Local reaction to the dressing were also more frequent in controls vs. the study group (5 vs. 1; $p=0.45$; $OR=0.40$).

Non evidenza di efficacia

2013

Rev. Latino-Am. Enfermagem

2014 Sept.-Oct.;22(5):764-71

DOI: 10.1590/0104-1169.3443.2478

www.eerp.usp.br/rlae

Original Article

2014

Chlorhexidine and gauze and tape dressings for central venous catheters: a randomized clinical trial¹

Edivane Pedrolo²

Mitzy Tannia Reichembach Danski³

Stela Adami Vayego³

Non evidenza di efficacia

RESEARCH ARTICLE

Cost-Effectiveness Analysis of a Transparent Antimicrobial Dressing for Managing Central Venous and Arterial Catheters in Intensive Care Units

Franck Maunoury¹*, Anastasiia Motrunich¹, Maria Palka-Santini², Stéphanie F. Bernatchez³, Stéphane Ruckly⁴, Jean-François Timsit^{4,5,6}

1 Statesia, Le Mans, France, **2** 3M Company, Neuss, Germany, **3** 3M Company, St. Paul, United States of America, **4** Grenoble University Hospital, Grenoble, France, **5** IAME UMR1137-Team 5 Decision Sciences in Infectious Disease Prevention, Control and Care, Paris Diderot University-Inserm, Sorbonne Paris Cité, Paris, France, **6** Paris Diderot University—Bichat University hospital—Medical and Infectious Diseases Intensive care unit, Paris, France

✉ These authors contributed equally to this work.

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CrossMark
click for updates

2015

Simulazione ‘a tavolino’ basata esclusivamente sul lavoro di Timsit del 2012.....

REVIEW ARTICLE

Tegaderm CHG IV Securement Dressing for Central Venous and Arterial Catheter Insertion Sites: A NICE Medical Technology Guidance

Michelle Jenks¹ · Joyce Craig¹ · William Green¹ · Neil Hewitt² · Mick Arber¹ · Andrew Sims³

2016

«Supported by evidence» ??

Esclusivamente basato sul lavoro di Timsit del 2012.....!



Economic impact of Tegaderm chlorhexidine gluconate (CHG) dressing in critically ill patients

**Praveen Thokala¹, Martin Arrowsmith², Edith Poku¹,
Marissa Martyn-St James¹, Jeff Anderson³, Steve Foster²,
Tom Elliott⁴ and Tony Whitehouse⁴**

Journal of Infection Prevention

2016, Vol. 17(5) 216–223

DOI: 10.1177/1757177416657162

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2016

Simulazione ‘a tavolino’ basata esclusivamente sul lavoro di Timsit del 2012.....

A randomized trial on chlorhexidine dressings for the prevention of catheter-related bloodstream infections in neutropenic patients

2016

L. M. Biehl^{1,2}, A. Huth¹, J. Panse³, C. Krämer³, M. Hentrich⁴, M. Engelhardt⁵, K. Schäfer-Eckart⁶, G. Kofla⁷, M. Kiehl⁸, C.-M. Wendtner⁹, M. Karthaus¹⁰, A. J. Ullmann¹¹, M. Hellmich¹², H. Christ¹² & M. J. G. T. Vehreschild^{1,2*}

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⁹Department of Hematology, Oncology, Immunology, Palliative Care, Infectious Diseases and Tropical Medicine, Klinikum Schwabing, Munich; ¹⁰Department of Hematology and Oncology, Klinikum Neuperlach and Klinikum Harlaching, Munich; ¹¹Division of Infectious Diseases, Department of Internal Medicine II, University Hospital Wuerzburg, Wuerzburg; ¹²Institute of Medical Statistics, Informatics and Epidemiology, University of Cologne, Cologne, Germany

Non evidenza di efficacia



Contents lists available at [ScienceDirect](#)

Australian Critical Care

journal homepage: www.elsevier.com/locate/aucc



Research paper

Chlorhexidine-impregnated gel dressing compared with transparent polyurethane dressing in the prevention of catheter-related infections in critically ill adult patients: A pilot randomised controlled trial

Amanda S. Margatho, RN, PhD ^{a, *}

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Jeanne M. Hoffman, PhD ^b

Paula E.D. dos Reis, RN, PhD ^c

Rejane K. Furuya, RN, PhD ^d

Dennisani A.F.S. Lima, PhD ^e

Anibal Basile-Filho, MD, PhD ^f

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^f Division of Intensive Care, Department of Surgery and Anatomy, Ribeirão Preto Medical School, University of São Paulo, Ribeirão Preto, SP, Brazil

2018

Non evidenza di efficacia

ORIGINAL RESEARCH PAPER

WILEY **I**NTERNATIONAL JOURNAL
of NURSING PRACTICE

Chlorhexidine gluconate transparent dressing does not decrease central line-associated bloodstream infection in critically ill patients: A randomized controlled trial

Kunrong Yu RN, MSN, Chief Nursing¹ | Meishan Lu RN, Chief Nursing²  |
Yanling Meng RN, Chief Nursing³ | Yanwei Zhao RN, Professor Nursing⁴ |
Zheng Li PhD, Professor⁵

2018

Non evidenza di efficacia

RESEARCH ARTICLE

Open Access

Chlorhexidine-impregnated dressing for the prophylaxis of central venous catheter-related complications: a systematic review and meta-analysis



Li Wei[†], Yan Li[†], Xiaoyan Li[†], Lanzheng Bian, Zunjia Wen^{*} and Mei Li^{*}

Metanalisi su 12 RCT

8 su feltrino (tutti positivi)

4 su gel (1 positivo, 3 negativi)

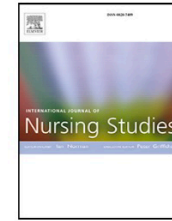
2019



Contents lists available at ScienceDirect

International Journal of Nursing Studies

journal homepage: www.elsevier.com/locate/ns



The effectiveness of dressings and securement devices to prevent central venous catheter-associated complications: A systematic review and meta-analysis



Hui Xu (Grace)^{a,b,c,d,*}, Areum Hyun^e, Gabor Mihala^f, Claire M. Rickard^{a,c,d,e,g}, Marie L. Cooke^d, Frances Lin^{h,i}, Marion Mitchell^j, Amanda J. Ullman^{a,d,e,k}

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2024

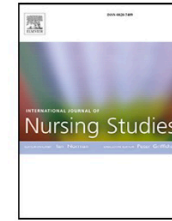
Metanalisi su 11 RCT (qualunque tipo di medicazione a rilascio di clorexidina, argento, etc.)
«antimicrobial dressing may reduce catheter-related infections...»



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International Journal of Nursing Studies

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The effectiveness of dressings and securement devices to prevent central venous catheter-associated complications: A systematic review and meta-analysis



Hui Xu (Grace)^{a,b,c,d,*}, Areum Hyun^e, Gabor Mihala^f, Claire M. Rickard^{a,c,d,e,g}, Marie L. Cooke^d, Frances Lin^{h,i}, Marion Mitchell^j, Amanda J. Ullman^{a,d,e,k}

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2024

**METANALISI
INUTILE...!!!**

Metanalisi su 11 RCT (qualunque tipo di medicazione a rilascio di clorexidina, argento, etc.)
«antimicrobial dressing may reduce catheter-related infections...»

RISCHIO DI DERMATITE DA CONTATTO



Chlorhexidine gluconate–impregnated central access catheter dressings as a cause of erosive contact dermatitis: a report of 7 cases

Nicole A Weitz¹, Christine T Lauren, Jessica A Weiser, Nicole R LeBoeuf, Marc E Grossman, Katherine Biagas, Maria C Garzon, Kimberly D Morel

Affiliations — collapse

Affiliation

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2013

PMID: 23560299 DOI: [10.1001/jamadermatol.2013.903](https://doi.org/10.1001/jamadermatol.2013.903)

RESEARCH

Open Access

Chlorhexidine-impregnated sponge versus chlorhexidine gel dressing for short-term intravascular catheters: which one is better?



Niccolò Buetti^{1*} , Stéphane Ruckly¹, Carole Schwebel^{2,3}, Olivier Mimoz^{4,5,6}, Bertrand Souweine⁷, Jean-Christophe Lucet^{1,8} and Jean-François Timsit^{1,9}

2020

Gel = più lesioni cutanee rispetto al feltrino

L'UTILIZZO DI MEDICAZIONI CON GEL A RILASCIO DI CLOREXIDINA NON È DA RACCOMANDARE

Il rilascio di clorexidina tramite gel si associa a zero traspirabilità, con accumulo di liquido e macerazione della cute con conseguente rischio di dermatite da contatto..



LESIONE (LIEVE) DA GEL A RILASCIO DI CLOREXIDINA



LESIONE (GRAVE) DA GEL A RILASCIO DI CLOREXIDINA



ALTERNATIVE AL BIOPATCH?

- Feltrini con octenidina
- Feltrini con ioni argento
- Feltrini con poliesametilene biguanide (PHMB)
- Membrane a rilascio diffuso di clorexidina
- Membrane con hydrogel a rilascio di clorexidina (Oper film CHG)
- Medicazioni con di-alchil-carbamoil-cloruro (DACC)
-

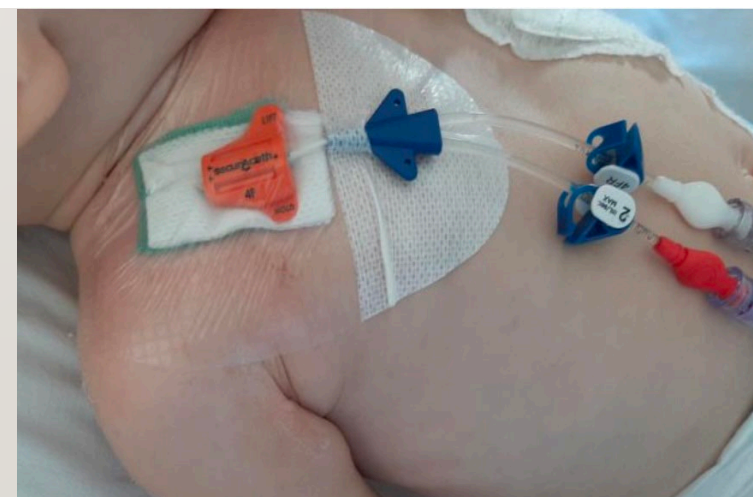
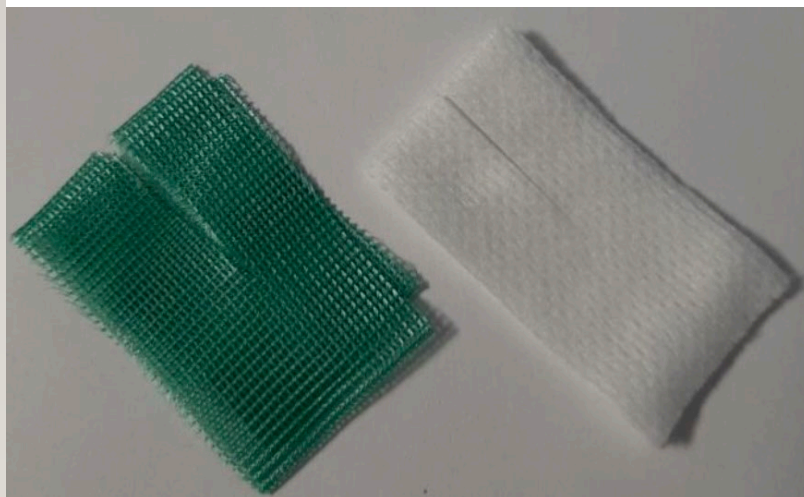
**NESSUNA SICURA EVIDENZA DI EFFICACIA
CLINICA**



Article

Use of the Dialkylcarbamoylechloride Dressing in the Care of Central Venous Access Exit Site in a Pediatric and Neonatal Population

Giorgio Lamberti ¹, Vincenzo Domenichelli ^{1,*}, Simona Straziuso ¹, Gabriella Pelusi ¹, Miria Natile ², Gina Ancora ² and Giovanni Barone ²





OPEN ACCESS

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controlled trial on healthy volunteers of
pharmacokinetic and antimicrobial activity of
a novel hydrogel-containing chlorhexidine
dressing to prevent catheter-related
bloodstream infection.
Front. Med. 10:1335364.
doi: 10.3389/fmed.2023.1335364

Randomized controlled trial on healthy volunteers of pharmacokinetic and antimicrobial activity of a novel hydrogel-containing chlorhexidine dressing to prevent catheter-related bloodstream infection

Emili Masferrer^{1*}, Laura Riera-Rodríguez¹, Víctor Farré-Alins²,
Sandra Vilà de Muga², Francisco-Javier Arroyo-Muñoz³ and
María-Dolores González-Caro³

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IN CONCLUSIONE, QUALI INDICAZIONI PER IL
FELTRINO A RILASCIO DI CLOREXIDINA NEGLI
ACCESSI VENOSI CENTRALI?



IN CONCLUSIONE, QUALI INDICAZIONI PER IL FELTRINO A RILASCIO DI CLOREXIDINA NEGLI ACCESSI VENOSI CENTRALI?

- Tutti i cateteri Midline e tutti i cateteri venosi centrali (PICC, CICC, FICC) non tunnellizzati in pazienti adulti e pediatrici
 - A prescindere dal tipo di fissaggio (adesività cutanea, ancoraggio sottocutaneo, MST con sistema integrato di fissaggio)

IN CONCLUSIONE, QUALI INDICAZIONI PER IL FELTRINO A RILASCIO DI CLOREXIDINA NEGLI ACCESSI VENOSI CENTRALI?

Scarsa indicazione nei cateteri venosi centrali dei **neonati**:

- Controindicato nei neonati prematuri
- ECC = soltanto colla in cianoacrilato (che occorre come stabilizzazione)
- CVO = non applicabile
- CICC e FICC = non indicato (sempre tunnellizzati)

IN CONCLUSIONE, QUALI INDICAZIONI PER IL FELTRINO A RILASCIO DI CLOREXIDINA NEGLI ACCESSI VENOSI CENTRALI?

ATTENZIONE!

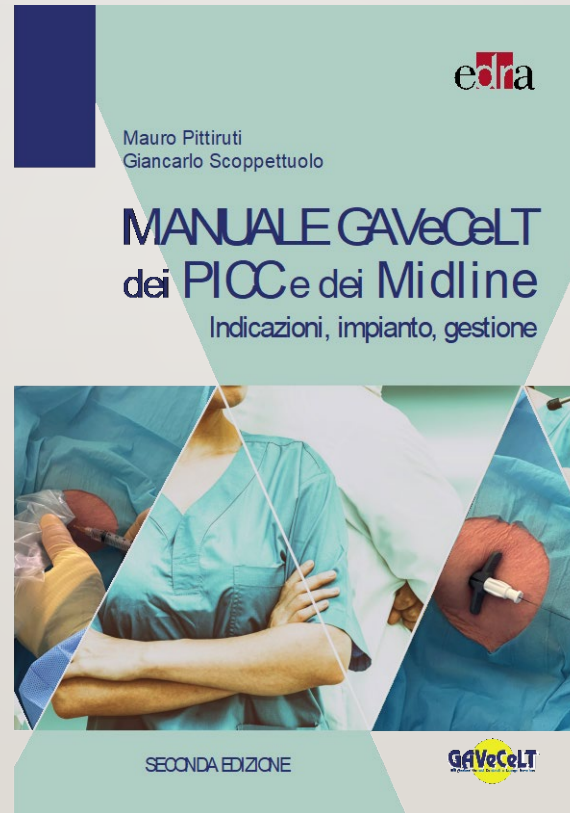
- Posizionare il biopatch alla prima medicazione (al momento della inserzione preferire la colla in cianoacrilato, che ha anche attività emostatica)
- Attenzione al posizionamento corretto del feltrino!
- Da utilizzare sempre in combinazione con una membrana trasparente semipermeabile ad alto MVTR (>1500)
- Sostituzione settimanale (insieme a sostituzione membrana trasparente e Statlock)



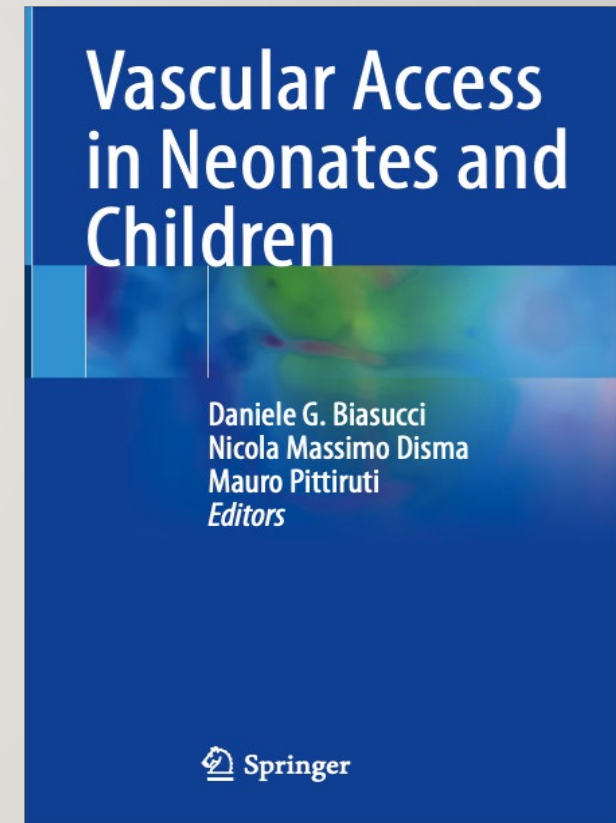
TESTI DI RIFERIMENTO



2022

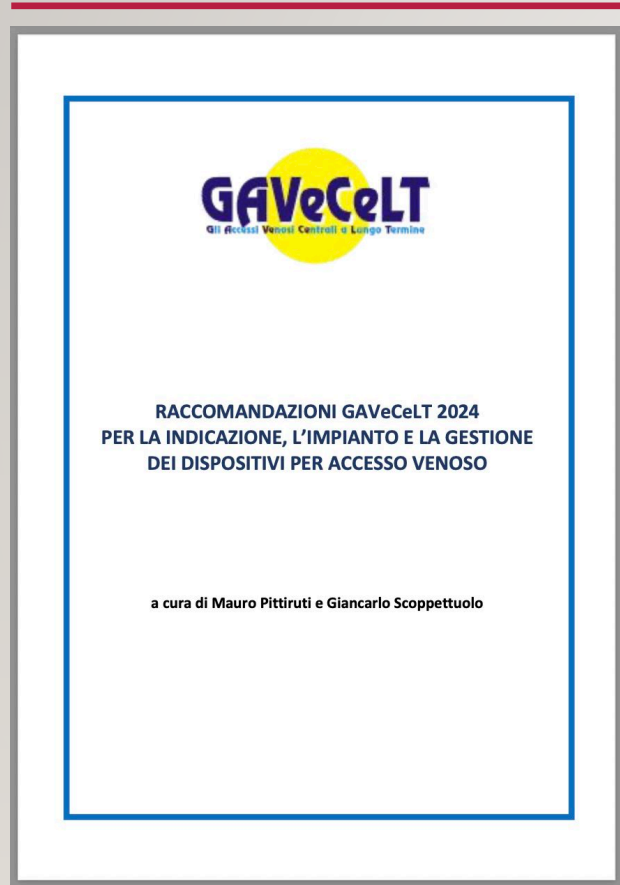


2022

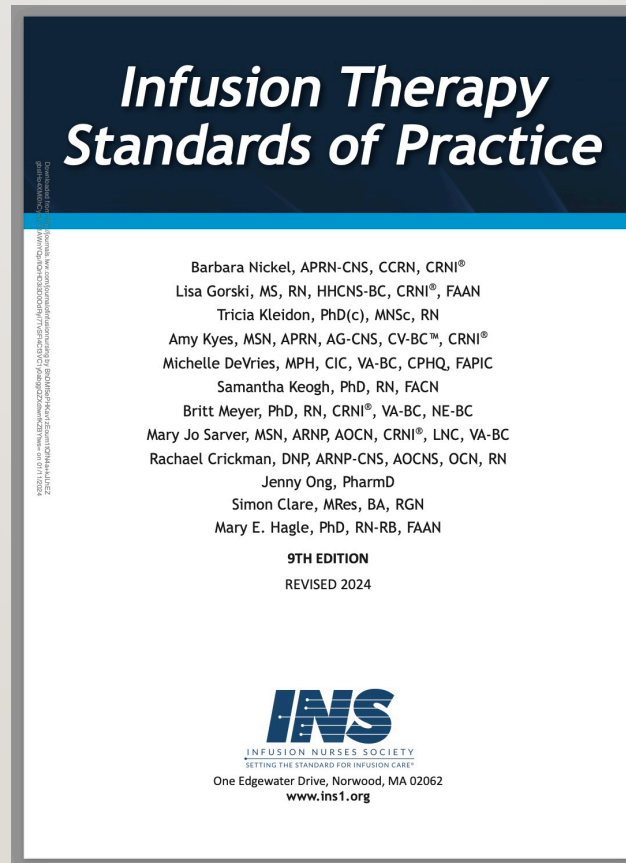


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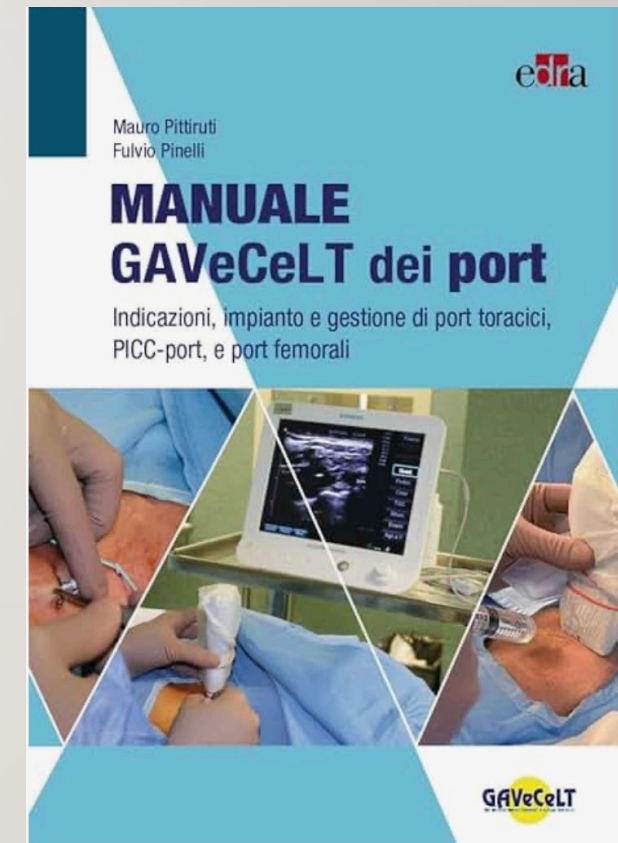
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2024



2024



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Area Video



GAVeCeLT - posizionamento di FICC port

GAVeCeLT - Posizionamento di CICC mediante ECG intracavitario wireless

GAVeCeLT - Posizionamento di Bioflo FICC

GAVeCeLT - Posizionamento di Bioflo PICC tunnellizzato

GAVeCeLT - Tip location di FI mediante finestra transeptali

Gli Accessi Venosi Centrali a Lungo Termine

GAVeCeLT

è il sito web del Gruppo Aperto di Studio 'Gli Accessi Venosi Centrali a Lungo Termine', un sito dedicato a tutti gli operatori sanitari interessati alle problematiche connesse con le indicazioni, l'impianto e la gestione degli accessi venosi a breve, medio e lungo termine.

E' un sito multidisciplinare e multiprofessionale, coordinato da un gruppo di esperti, ma aperto ai contributi di ognuno.

RegistrandoVi potrete avere accesso a tutte le sezioni del sito, essere informati sui prossimi eventi formativi nel campo degli accessi vascolari, e scaricare gratuitamente linee guida, protocolli, documenti, tecniche e 'link' utili.

RACCOMANDAZIONI GAVeCeLT 2021
PER LA INDICAZIONE, L'IMPIANTO E LA GESTIONE DEI DISPOSITIVI PER ACCESSO VENOSO

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