La colla in cianoacrilato nel bambino, nel neonato e nel neonato prematuro

GAVeCeLT
Gli Accessi Venosi Centrali a Lungo Termine

GAVePed
Gruppo Accessi Venosi Pediatrici

II 2ND Convegno GAVePed Conference
3 Dicembre December 3rd

GdS Accessi Vascolari Neonatali

Giovanni Barone
Ospedale Infermi di Rimini

La colla in cianoacrilato nel bambino, nel neonato e nel neonato prematuro

I have no actual or potential conflict of interest in relation to this presentation

VAD failure rate

- 25% per i CVC; 30-40% per AVP
- Ciò è legato a:
  - Occlusione
  - Dislocazione
  - Rottura
  - Stravaso
  - Flebite
  - Trombosi
  - Leakege
  - Infezione sistemica

McGee and Gould, 2003; Bolton, 2010; Rickard et al, 2010; Chopra et al, 2013; Ullman et al, 2015

VAD failure rate

AVP	%	CVC	%
Flebite	14,7-16,1	Infezione	0,4 -4,1 per 1000 GC
Infiltrazione	15,7-33,8	Migrazione	4,2
Infezione	0,18	Trombosi	1-5
Occlusione	2,5- 32,7	Occlusioni	2,4-7,4
Dislocazione	3,7-50	Complicanze al sito di inserzione	7-24

Cyanoacrylate tissue adhesive: a new tool for the vascular access toolbox. Jackie Nicholson. British Journal of Nursing, 2019

Il fissaggio ideale:

- Ridurre i movimenti dell'accesso vascolare all'interno del vaso (pistoning; "in and out")
- Ridurre i movimenti dell'accesso vascolare all'esterno (mantenendolo nella vena)
- Fornire una barriera alla contaminazione batterica
- Facilitare la traspirazione della cute (alto MVTR specie nel neonato pretermine)
- Prevenire il sanguinamento
- Garantire una chiara e semplice valutazione del sito di inserzione
- Minimizzare il trauma sulla cute
- Essere comfortevole
- Poco costoso
- Facile da applicare

Tissue adhesive for vascular access devices: who, what, where and when? Amanda Corley. British Journal of Nursing, 2017

La colla: cianoacrilato

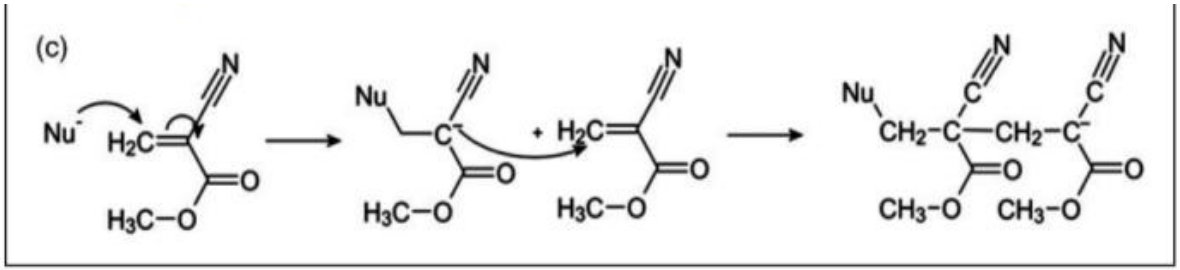


Figure 2. Molecular structure of cyanoacrylate and the polymerization process (adapted from Pollak and White[18]). (a) Monomeric cyanoacrylate $CH_2{=}C(CN){-}COOR$. The R represents an alkyl group. (b) *n*-Butyl-2-cyanoacrylate (*n*-BCA). The carboxyl ethyl ($-COOH-CH_2-CH_2$) group is the antigenic component of the molecule. (c) Polymerization process of cyanoacrylate (CA). Exposure of CA monomers to an anion, such as the hydroxyl ($-OH$) group in water initiates the polymerization process with bonding of the ethylene units.

La polimerizzazione è una reazione esotermica. Durante la formazione del polimero si genera calore con temperature che possono arrivare anche a 40-45°C

La colla: cianoacrilato

- Possiede un'alta resistensa alla trazione (tensile strength)
- Stabilizza il catetere riducendo i movimenti "in and out"
- Potenzialmente reduce il danno endoteliale e il rischio di trombosi
- Sigilla il sito di inserzione prevenendo il sanguinamento e l'ingresso dei microrganismi (colonizzazione extraluminale)
- Proprietà batteriostatica

Cyanoacrylate tissue adhesives for securement have been studied in vitro, in animals, and in small pilot trials of peripheral venous and arterial catheters. Tissue adhesive plus a standard transparent dressing have shown a slight trend toward reduction in catheter failure with these adhesives in combination with a standard transparent membrane dressing; however, larger trials are needed to confirm these findings and identify patients for whom this might not be suitable.[5,15-17] (III)

INS 2016

Tissue adhesive for vascular access devices: who, what, where and when? Amanda Corley. British Journal of Nursing, 2017

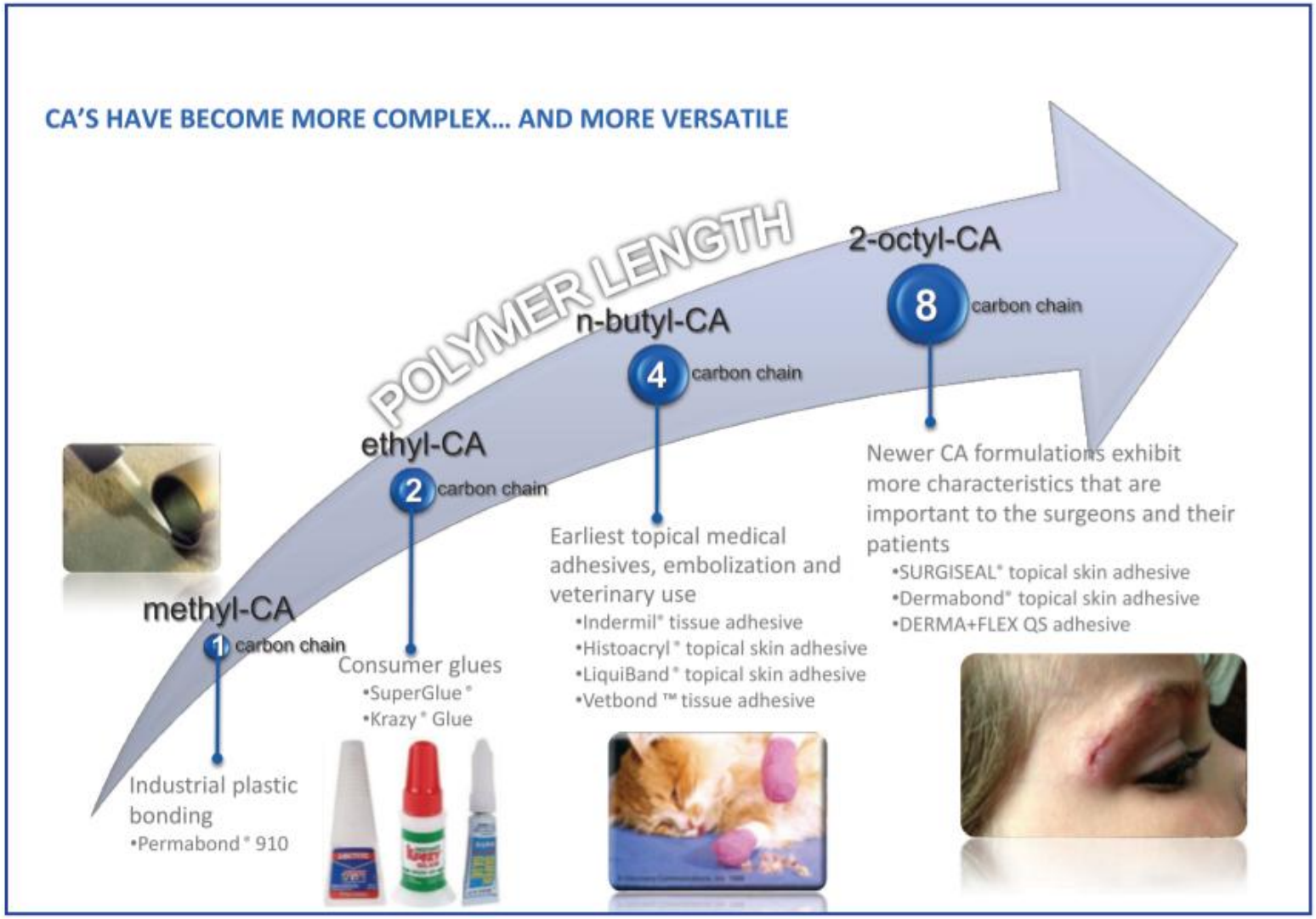


Figure 1. Cyanoacrylate development

Non tutte le colle sono uguali

Table 1. Comparison of older and newer cyanoacrylate tissue adhesives	
First generation	**Second generation**
Butyl-cyanoacrylate (BCA)	**2-octyl-cyanoacrylate (OCA)**
Quick drying	Longer drying time
Rigid/brittle	Higher tensile strength and more flexible
More cytotoxic	Less cytotoxic
Stronger thermal reaction	Reduced thermal reaction
Requires minimum 24 hours before fully water resistant	Immediately water resistant

Source: Internal testing by Adhezion Biomedical

Table 1. A selection of tissue adhesives used for skin closure or with vascular access devices*

Brand name (manufacturer)	Chemical constitution	Presentation (ml)	Storage (Celsius)	Time to degradation (days)	Properties
Histoacryl/Histoacryl Blue (B.Braun, Melsungen, Germany)	NBCA	0.5	< 22	7–10	■ High tensile strength ■ Microbial barrier ■ Quick setting time
Histoacryl Flexible (B.Braun, Melsungen, Germany)	NBCA + softener	0.5	< 25	7–10	■ High tensile strength ■ More flexible than NBCA ■ Less heat production on application ■ Microbial barrier
Dermabond (Ethicon, Somerville, NJ, USA)	OCA	0.36, 0.7	< 30	5–10	■ Higher tensile strength than NBCA ■ More flexible than NBCA ■ Microbial barrier
Surgiseal/SecurePortIV (Adhezion Biomedical, Wyomissing, PA, USA)	OCA	0.35, 0.5 (Surgiseal) 0.15 (SecurePortIV)	< 30	5–10	■ Higher tensile strength than NBCA ■ More flexible then NCBA ■ High moisture vapour transmission rate ■ Microbial barrier
Glubran Tiss2 (GEM, Viareggio, Italy)	NBCA + OCA	0.25, 0.35, 0.5	0–4	5–8	■ Improved flexibility ■ High tensile strength ■ Breathable ■ Less heat production on application ■ Microbial barrier
Indermil flexifuse (Connexicon, Dublin, Ireland)	NBCA + OCA	0.75	4–30	5–8	■ Flexibility ■ High tensile strength ■ Minimal heat produced ■ Microbial barrier

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Food and Drug Administration

Indications for Use

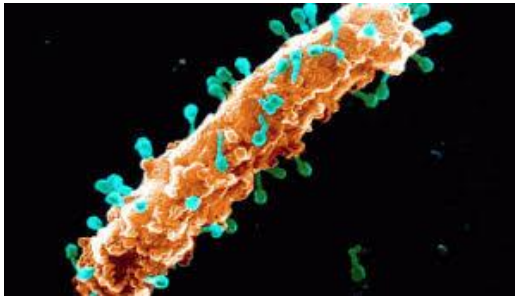
Form Approved: OMB No. 0910-0120
Expiration Date: January 31, 2017
See PRA Statement below.

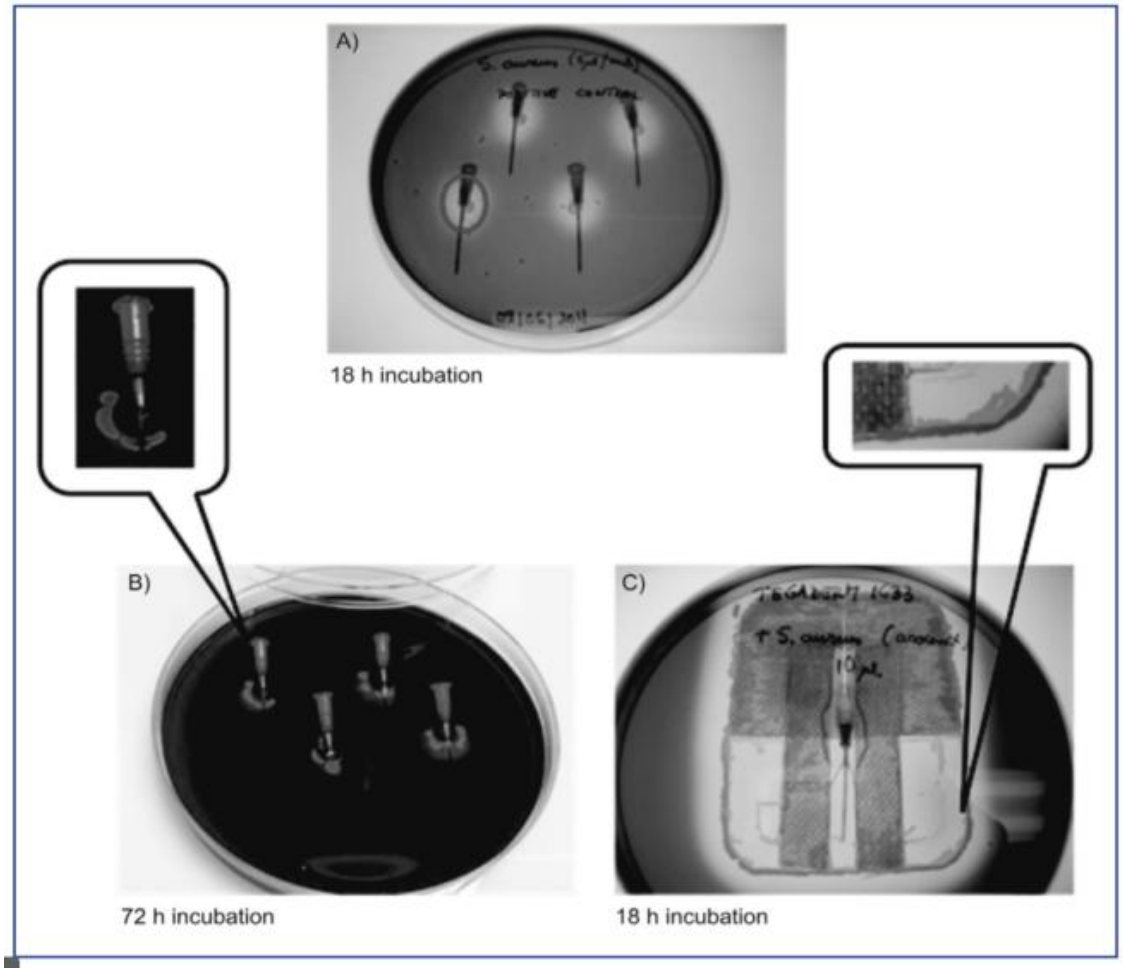
510(k) Number *(if known)*
K170505

Device Name
SecurePortIV Catheter Securement Adhesive

Indications for Use *(Describe)*
SecurePortIV™ catheter securement adhesive is to be applied as a film forming securement and sealant at the point of vascular access catheter skin entry. The film holds the catheter to the skin to reduce catheter movement, migration, and/or dislodgment. It is used to protect the catheter skin entry site by creating a sealant that immobilizes surface bacteria, preventing them from entering into the catheter skin entry site while also providing a moisture barrier. SecurePortIV™ is intended to be used with a transparent film dressing on short-term and long-term vascular access catheters including peripheral IVs, PICCs, and CVCs.

Azione antibatterica…BCA





Simonova G. Cyanoacrylate tissue adhesives—effective securement technique for intravascular catheters: in vitro testing of safety and feasibility. Anaesth Intensive Care. 2012;40(3):460–466

Azione antibatterica…BCA

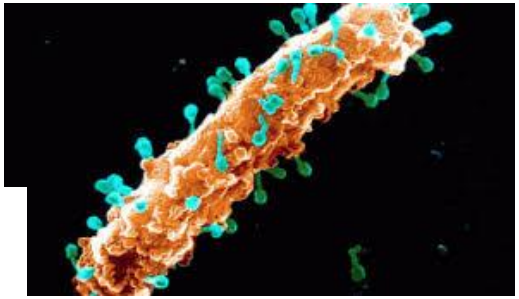
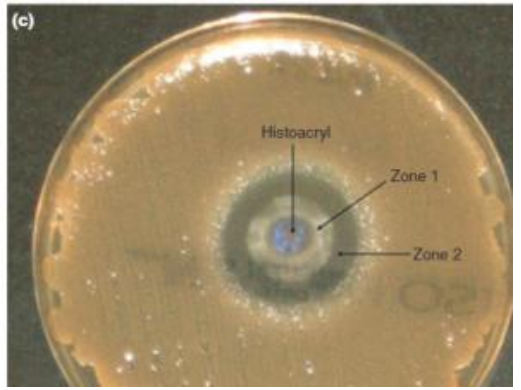


Table 1 Diameters of bacterial growth around the Histoacryl® adhesive.

Organism	Mean drop diameter: mm	Mean zone 1 diameter: mm	Mean zone 2 diameter: mm
Candida albicans	5	13	0
Enterococcus faecalis	5	14	23
Escherichia coli	5	12	0
MRSA	5	13	21
MSSA	6	14	27
Pseudomonas aeruginosa	5	11	0
Streptococcus pneumoniae	6	11	23
Coagulase negative staphylococcus	5	13	21

called zone 2 (Fig. 6b). For each organism, cultured, the actual and mean diameters of the Histoacryl® droplets were recorded, along with actual and mean diameters of zone 1 and zone 2 (Table 1). Histoacryl® showed a specific inhibitory effect on all of the Gram positive organisms, but not the Gram negative organisms or *Candida albicans*. We found that Histoacryl® skin adhesive has a specific inhibitory effect on all the gram positive organisms we tested. It is particularly encouraging that this effect is seen against MRSA (Fig. 6c), an often difficult to treat cause of hospital acquired infection.

Histoacryl® skin adhesive provides a reliable method of epidural catheter fixation, and reduces fall out rates [3]. It is encouraging to know that this substance, when applied to the skin entry site may reduce the incidence of bacterial colonisation of the catheter, potentially reducing epidural catheter related infection and abscess formation, and may allow the catheter to be used for longer. A clinical trial to demonstrate this effect would probably be unfeasible given the rarity of epidural abscess as a complication of epidural analgesia; however this would be a useful area for future research.



Wilkinson JN, Chikhani M, Mortimer K, Gill SJ. The antimicrobial effect of Histoacryl® skin adhesive. Anaesthesia. 2008;63(12):1382–1384.

Azione antibatterica…OCA

Table 1
Antibacterial effect of the uninitiated product after a 3-minute contact time: detailed results versus *Pseudomonas aeruginosa*

Replicate No.	Log 10 survivors	Log 10 reduction	Neutralization challenge
1-19	0	8 – 0 = 8	+
20	1.48 = 1	8 – 1 = 7	+
P aeruginosa versus negative control			
Dilution		Count	
10^{-4}		TNTC, TNTC	
10^{-5}		>200, >200	
10^{-6}		27, 58	
10^{-7}		5, 3	
cfu/10 mL		4.3×10^{7}	
Log 10		7.63 = 8	
Summary of kill against 7 clinically relevant organisms		Average (n = 20) log 10 reduction	
Methicillin-resistant Staphylococcus aureus		8	
Escherichia coli		8	
P aeruginosa		8	
Klebsiella pneumoniae		7	
Staphylococcus epidermidis		7	
Corynebacterium pseudodiphtheriticum		8	
Staphylococcus aureus		8	

NOTE. The filtrates were also plated and had no growth. The results for all organisms were equivalent as shown above. On challenge with <100 cfu, all dilution tubes were positive, meaning no carryover residual cyanoacrylate was present in the dilution tubes. The results for all the eight organisms tested were equivalent having ≥7 log kill.
+, positive; cfu, colony forming units; TNTC, too numerous to count.

Prince D, Solanki Z, Varughese R, Mastej J, Prince D. Antibacterial effect and proposed mechanism of action of a topical surgical adhesive. Am J Infect Control. 2017.

Azione emostatica

- Incidenza di sanguinamento nel posizionamento dei PICC: 40% ad 1 h, e 15% a 25 h.
- L'uso costante della colla in cianoacrilato abbatte l'incidenza di sanguinamento (0%) ad 1 e 25 h dal posizionamento del CVC
- Questo ha un notevole impatto logistico e sui pazienti.

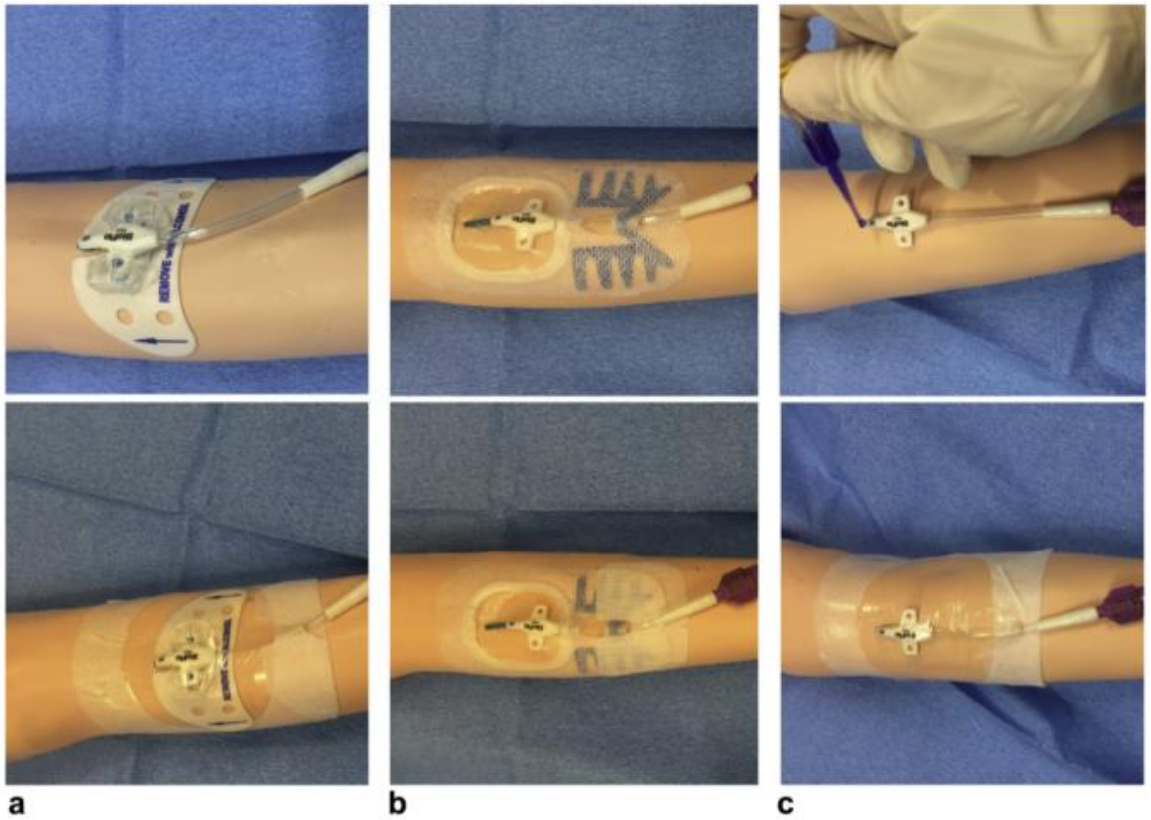
Elimination of the 24-hour dressing: a quick win

be inspected. It is, however, common practice to apply gauze over the insertion site initially to absorb any post-insertion bleeding. A 24-hour, post-insertion dressing would then be applied (Royal College of Nursing, 2016). By using tissue adhesive, it is possible to eliminate the need for this 24-hour, post-insertion dressing as haemostasis can be achieved before the transparent film dressing is applied.

Scoppettuolo. Anaesthesia 2015

Cyanoacrylate tissue adhesive: a new tool for the vascular access toolbox. Jackie Nicholson. British Journal of Nursing, 2019

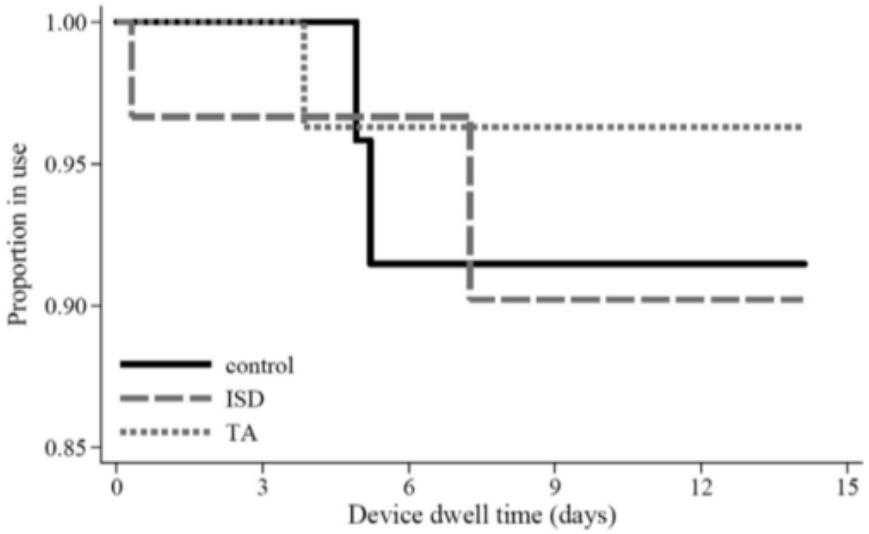
Pillole dalla letteratura…il paziente pediatrico



PICC securement methods. **(a)** Standard care. **(b)** Integrated securement dressing. **(c)** Tissue adhesive.

A Pilot Randomized Controlled Trial of Novel Dressing and Securement Techniques in 101 Pediatric Patients. Tricia M. Kleidon. J Vasc Interv Radiol 2017;

Pillole dalla letteratura…il paziente pediatrico



resolved without treatment. Although TA was removed easily from patients' skin, repeated use at each dressing replacement led to buildup on the PICC body, which was difficult to remove. Use of TA at insertion only—2 drops at the PICC insertion site—is sufficient. The average increase of 2 days

Table 4. Securement Device Outcomes (n = 95)

Variable	Control	ISD	TA
Group size	32 (34%)	31 (33%)	32 (34%)
Securement device use (n = 88)			
Total number	61 (38%)	52 (32%)	56 (33%)
Per patient*	2.0 (2.0–2.0)	2.0 (1.0–2.0)	1.5 (1.0–2.0)
Days to first change* (n = 58)	3.5 (1.5–6.5)	2.5 (1.5–6.5)	5.5 (3.5–6.5)†
Reasons for first change (n = 55)			
Bleeding	18 (75%)	11 (69%)	4 (27%)
Routine	6 (25%)	5 (31%)	8 (53%)
Lifting	7 (29%)	0 (0%)	3 (20%)
Leakage	1 (4%)	1 (6%)	0 (0%)
Other	1 (4%)	0 (0%)	2 (13%)
Number of nonroutine changes per patient*	1.0 (0.0–2.0)	1.0 (0.0–1.0)	0.0 (0.0–0.5)

A Pilot Randomized Controlled Trial of Novel Dressing and Securement Techniques in 101 Pediatric Patients. Tricia M. Kleidon. J Vasc Interv Radiol 2017;

Pillole dalla letteratura…il paziente pediatrico 2

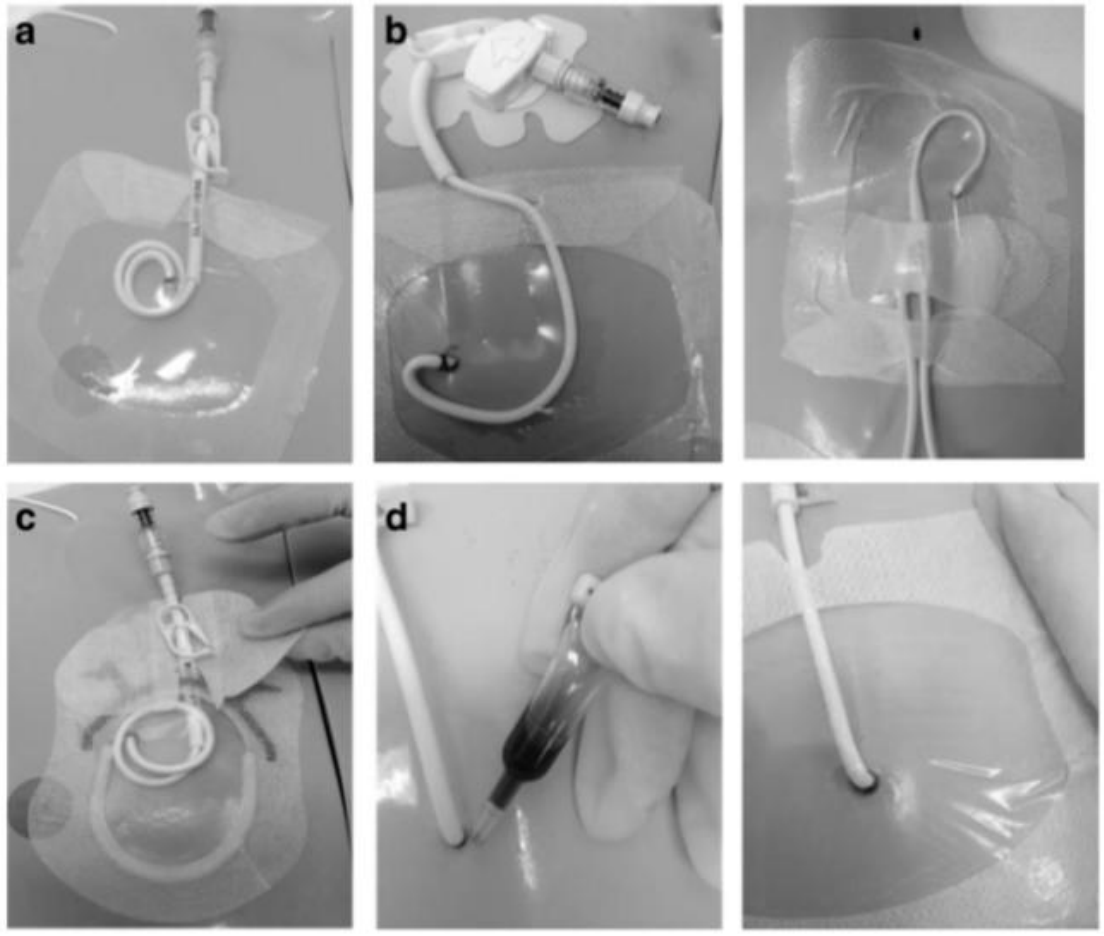


Fig. 1 Intervention products. **a** Bordered polyurethane and suture; **b** Bordered polyurethane, suture and suture-less securement device; **c** Integrated securement dressing and suture; **d** Bordered polyurethane and tissue adhesive (no suture)

Innovative dressing and securement of tunneled central venous access devices in pediatrics: a pilot randomized controlled trial. Ullman BMC Cancer (2017)

Pillole dalla letteratura…il paziente pediatrico 2

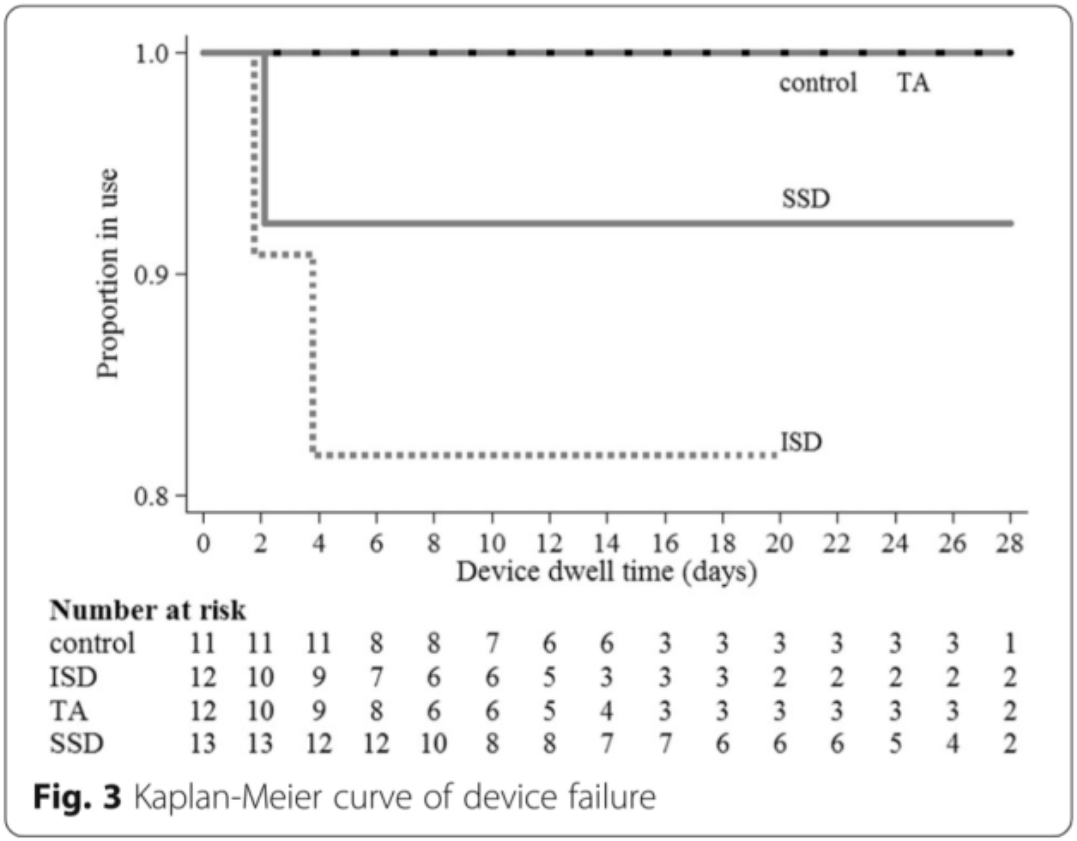


Fig. 3 Kaplan-Meier curve of device failure

(n = 2; 15%). The TA and standard care groups performed best across both of these criteria with no associated CVAD failures or complications. There were no cases of CVAD-associated thrombosis, complete dislodgement, breakage, local infection, or CVAD-related BSI in any group. CVAD failure results were consistent when failure over time was compared with the Kaplan Meier curve of device failure (Fig. 3).

Innovative dressing and securement of tunneled central venous access devices in pediatrics: a pilot randomized controlled trial. Ullman BMC Cancer (2017)

Pillole dalla letteratura…il paziente pediatrico 2

Table 2 Study outcomes (n = 48)

	Standard Care	ISD	TA	SSD	Total
Group size	11 (23%)	12 (25%)	12 (25%)	13 (27%)	48 (100%)
Skin complication [d, e]:					
rash	1 (9%)	0 (0%)	0 (0%)	1 (8%)	2 (4%)
blister	1 (9%)	1 (8%)	0 (0%)	0 (0%)	2 (4%)
itchiness	2 (18%)	1 (8%)	0 (0%)	0 (0%)	3 (6%)
Staff satisfaction [f, g]					

Tissue adhesive (TA): One-two drops of Tissue adhesive (Histoacryl®; B. Braun, Germany) at exit wound and under catheter bifurcation; and BPU dressing (Tegaderm® 1655 or 1616; 3M, St Paul

Innovative dressing and securement of tunneled central venous access devices in pediatrics: a pilot randomized controlled trial. Ullman BMC Cancer (2017)

Pillole dalla letteratura…il paziente pediatrico 3

TABLE 1. Central Venous Access Device Failure and Complications ($n = 169$)

Variables	Control	Integrated Securement Product	Tissue Adhesive	*p*
Group size[a], *n* (%)	54 (32)	56 (33)	59 (35)	
CVAD removal due to, *n* (%)				
CVAD failure	3 (6)	1 (2)	5 (8)	0.300[b]
CVAD complications[d], *n* (%)				
Dislodgement (complete)	2 (4)	0 (0)	0 (0)	
Dislodgment (partial)	1 (2)	0 (0)	3 (5)	
Suspected CVAD-associated bloodstream infection	1 (2)	1 (2)	1 (2)	
Confirmed central line-associated bloodstream infection	1 (2)	0 (0)	0 (0)	
Thrombosis	1 (2)	1 (2)	1 (2)	
Local infection	0 (0)	1 (2)	0 (0)	
Occlusion (complete)	0 (0)	1 (2)	0 (0)	

Innovation in Central Venous Access Device Security: A Pilot Randomized Controlled Trial in Pediatric Critical Care Amanda J. Ullman, PCCM 2019

Pillole dalla letteratura…il paziente pediatrico 3

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Occlusion (complete)	0 (0)	1 (2)	0 (0)	

Innovation in Central Venous Access Device Security: A Pilot Randomized Controlled Trial in Pediatric Critical Care Amanda J. Ullman, PCCM 2019


NO PAIN
BUNDLE
NO GAIN

Targeting zero catheter-related bloodstream infections in pediatric intensive care unit: a retrospective matched case-control study

The Journal of Vascular Access
2018, Vol. 19(2) 119–124

DOI: 10.5301/jva.5000797
journals.sagepub.com/home/jva

Daniele G. Biasucci[1], Mauro Pittiruti[2], Alessandra Taddei[3], Enzo Picconi[1], Alessandro Pizza[1], Davide Celentano[1], Marco Piastra[1], Giancarlo Scoppettuolo[4], Giorgio Conti[1]

TABLE I - Insertion and maintenance bundle adopted in the group of cases

Insertion and maintenance bundle	Cases	Controls
1. Hand washing and maximal barrier precautions	Yes	Yes
2. Skin antisepsis with 2% chlorhexidine	Yes	Yes
3. Ultrasound pre-puncture evaluation through RaCeVA	Yes	No
4. Ultrasound guided venipuncture	Yes	Yes
5. Tunneling of the catheter so to obtain an exit site in the infraclavicular area	Yes	No
6. Sealing of the exit site with glue	Yes	No
7. Securement with sutureless device	Always	Inconsistently
8. Coverage with transparent semipermeable dressing	Yes	No
9. Chlorhexidine-impregnated sponges	After the 1st week	Since insertion
10. Use of neutral NFC and port protectors	Yes	Yes
11. Simulation-based standardized training program	Yes	No

RaCeVA = rapid central vein assessment; NFC = needle free connectors.

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TABLE III - Punctured veins at different sites

Veins	Cases	Controls
Right internal jugular vein at mid-neck, n (%)	0 (0%)	40 (62.5%)
Low lateral right internal jugular vein, n (%)	2 (3.12%)	11 (17.2%)
Left internal jugular vein at mid-neck, n (%)	0 (0%)	13 (20.3%)
Left brachiocephalic vein, n (%)	2 (3.12%)	0 (0%)
Right brachiocephalic vein, n (%)	52 (81.25%)	0 (0%)
Right axillary vein, n (%)	4 (6.25%)	0 (0%)
Left subclavian vein, n (%)	2 (3.12%)	0 (0%)
Right external jugular vein, n (%)	2 (3.12%)	0 (0%)

TABLE IV - Complication rates from insertion to PICU discharge

		Cases	Controls
Indwelling time (d)	Total	648	503
	Mean (±SD)	9.7 ± 3.1	7.5 ± 3.5
CR-BSI	No	1	8
	per 1000 catheter days	1.5	15
CR-DVT	No	0	1
Accidental dislodgements	No	0	3

CR-BSI = catheter-related bloodstream infections; CR-DVT = catheter-related deep vein thrombosis; PICU = pediatric intensive care unit; SD = standard deviation.

....e nel neonato???

ECC

CICC/FICC

CVO

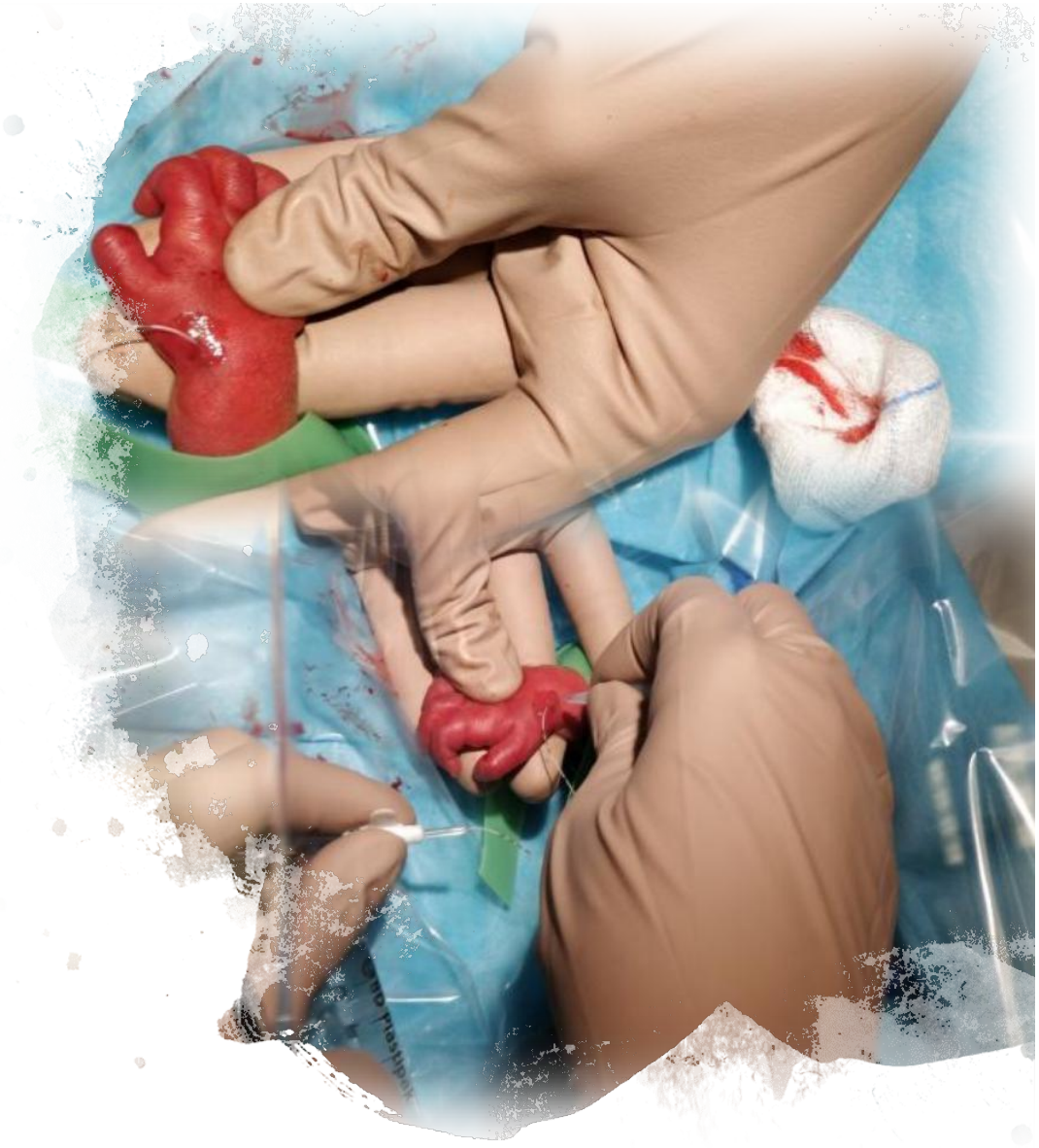
30th Annual Meeting of
THE EUROPEAN SOCIETY OF PAEDIATRIC AND NEONATAL INTENSIVE CARE
June 18-21, 2019, Salzburg, Austria

USE OF CYANOACRYLATE GLUE FOR THE SUTURELESS SECUREMENT OF EPICUTANEO-CAVAL CATHETERS IN NEONATES.

Giovanni Barone[1], Vito D'Andrea[2], Giovanni Vento[2], Lucilla Pezza[2], Mauro Pittiruti[2];

[1]Rimini/IT, [2]Rome/IT

- Popolazione: neonati a termine e pretermine ricoverati in TIN
- Periodo di studio: Gennaio 2018-Dicembre 2018
- Tipo di studio: caso controllo con Gruppo di controllo storico
- Neonati trattati: cateteri ECC fissati con BCA e membrana semipermeabile trasparante
- Gruppo di controllo: Anno 2017 cateteri ECC fissati con steri-strips e membrana semipermeabile trasparente



RISULTATI

	Casi	Controlli
Neonati	92	80
Età post mestruale	29 (0.8)	29 (1.2)
Numero di cateteri	134	124
Migrazione (US)	20%*	35%*
Cambio della medicazione (24h)	0%*	82%*
CLABSI	4/1000 catheter days	4.9/1000 catheter days
Permanenza del catetere (g)	13.5 (2)	12 (2,3)
Lesioni cutanee	0%	0%

*P <0.05

- L'uso del CA non è stato associato ad alcun effetto avverso.
- La colla si è dimostrata sicura, facile da applicare e efficace nel 100% dei casi nel prevenire sanguinamenti nel sito di venipuntura.
- La rimozione si è dimostrata semplice e senza complicanze.

OPI Brescia

Presidio Ospedale dei Bambini
Sistema Socio Sanitario Regione Lombardia
ASST Spedali Civili

Terapia Intensiva Neonatale

Direttore Prof. G. Chirico

UTILIZZO DELLA COLLA STERILE IN CIANOACRILATO PER LA GESTIONE DELL'EXIT SITE DEL CATETERE VENOSO CENTRALE EPICUTANEO CAVALE (ECC) IN TERAPIA INTENSIVA NEONATALE (TIN)

Romitti MG, Rodriguez C, Pezzotti E

DISCUSSIONE:

Trattandosi di pazienti molto delicati la nostra principale preoccupazione, ancor prima della performance della colla in ciano acrilato, è stata la sicurezza. E' ragionevole affermare che la colla sterile in cianoacrilato è sicura. E' stata applicata sugli *exit sites* dei cateteri venosi valutati indipendentemente dal peso ed età gestazionale.

Il rischio evidenziato da *Micromedex* di possibile danno cutaneo dovuto alla reazione esotermica provocata dalla colla al contatto con la cute è stato preso in seria considerazione, tuttavia, non si è valutato nessun caso di eritema o danno cutaneo nemmeno sulla cute molto fragile e delicata di neonati molto prematuri.

Editorial

JVA | The Journal of Vascular Access

Epicutaneo-caval catheters in neonates: New insights and new suggestions from the recent literature

The Journal of Vascular Access
1–5

DOI: 10.1177/1129729819891546
journals.sagepub.com/home/jva
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Use glue for securement

There is a huge heterogenicity between different NICU policies as regards the securement of ECC. Accidental dislodgement and line migration is a frequent complication and it often requires reassessment of the position of the tip and/or replacement of the catheter.[48] Recently, cyanoacrylate glue has been widely used for securing different types of venous access devices. In our institution, we applied cyanoacrylate glue with transparent semipermeable dressing and we were able to significantly reduce accidental dislodgement from 35% to 20% ($p < 0.007$; unpublished data). Cyanoacrylate glue is safe, inexpensive and easy to apply, and it yields the additional advantage of being very effective in preventing any bleeding/oozing at the puncture site. Removal of cyanoacrylate glue is also consistently easy and harmless.

In press

ECC

CICC/FICC

CVO

Securement of central venous catheters by subcutaneously anchored sutureless devices in neonates

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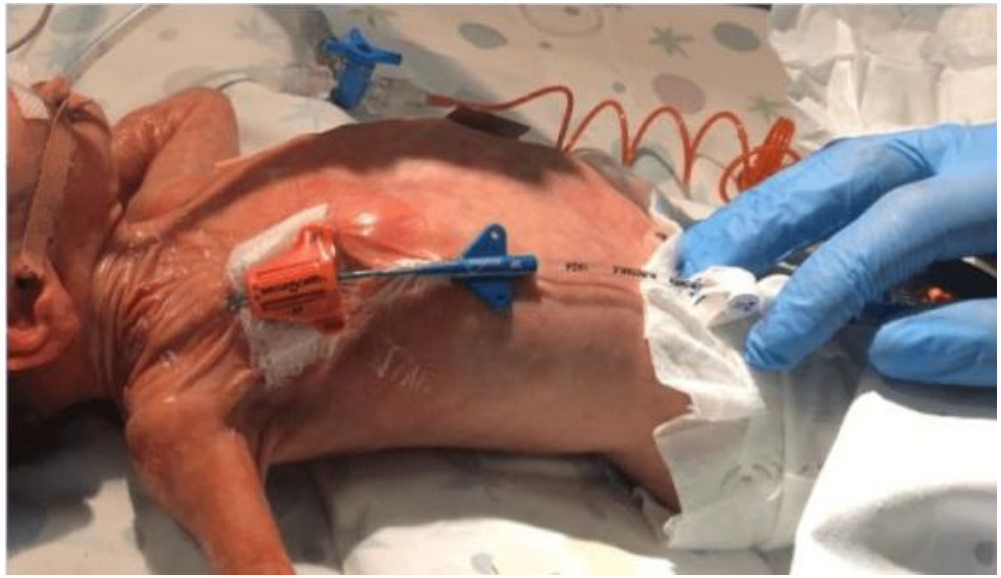
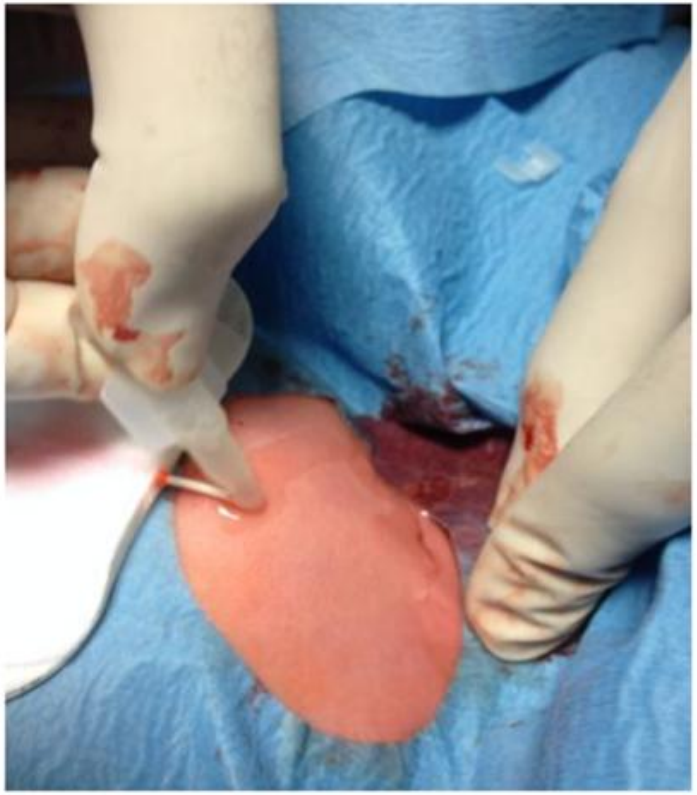
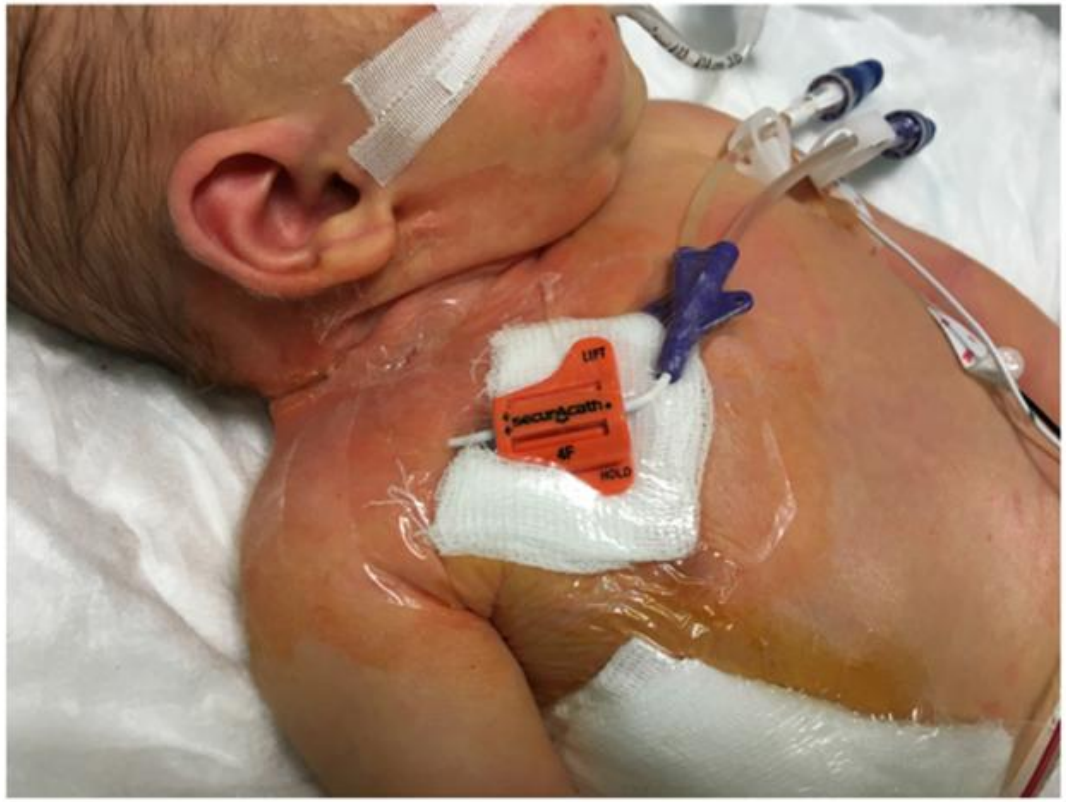
Results

72 central venous catheters were inserted in 70 preterm and term neonates (3-4Fr power injectable polyurethane catheters; 62 CICC + 10 FICC) and they were all secured with SAS. Mean postmenstrual age at the time of insertion was 31 weeks (range 25 - 41 weeks) and mean weight was 1400 grams (range 580 - 4100 grams). SAS was easy to place in all cases. The median duration of the line was 5 weeks (range 10 days - 3 months). No accidental dislodgement of CICC or FICC was recorded. All SAS but one were left in place until elective removal of the catheter; only in one patient, early removal of SAS was necessary because of a skin ulcer caused by the device. In all patients, SAS removal was easy and uneventful, and it did not require any sedation or local anesthesia.



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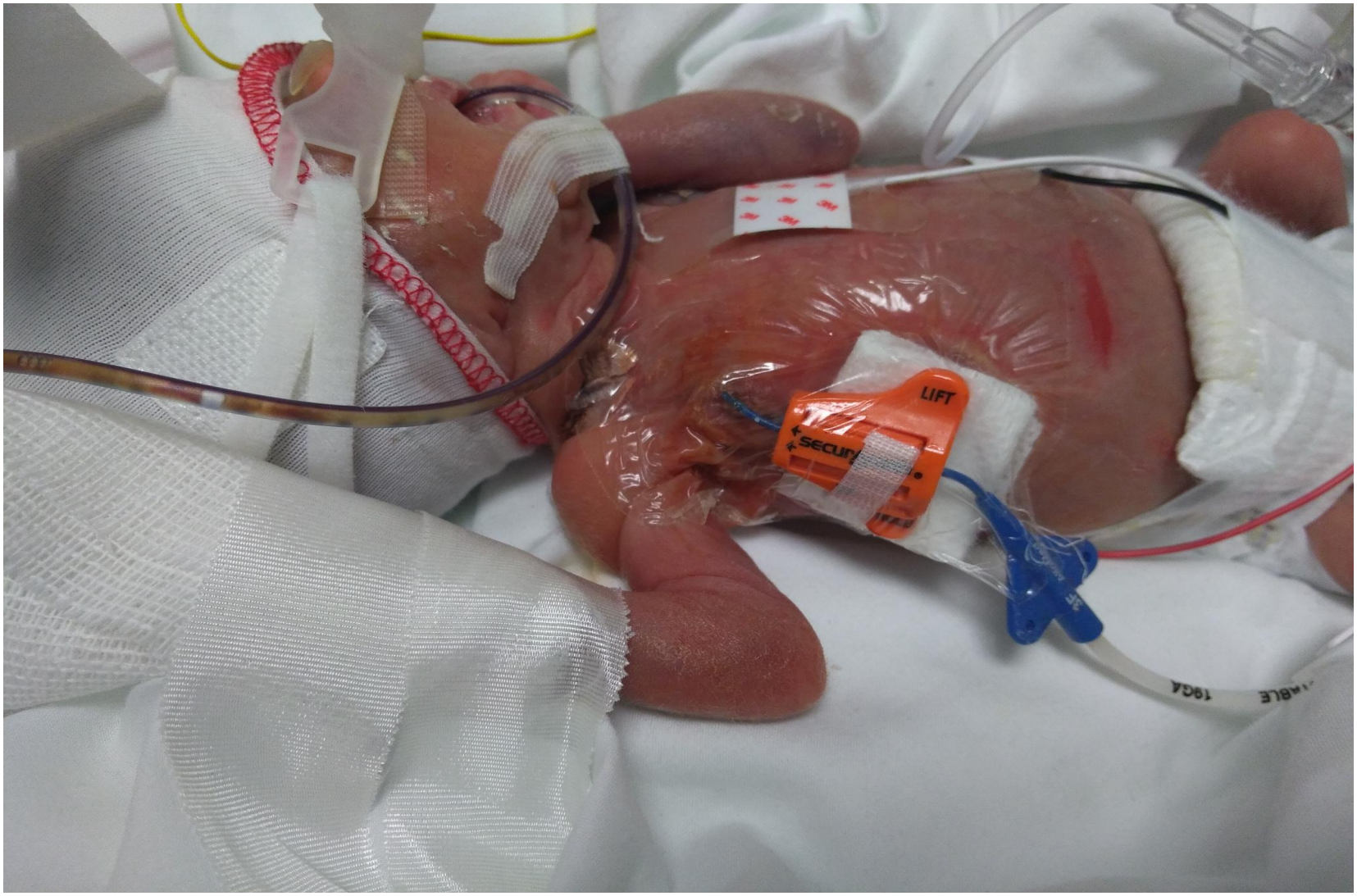
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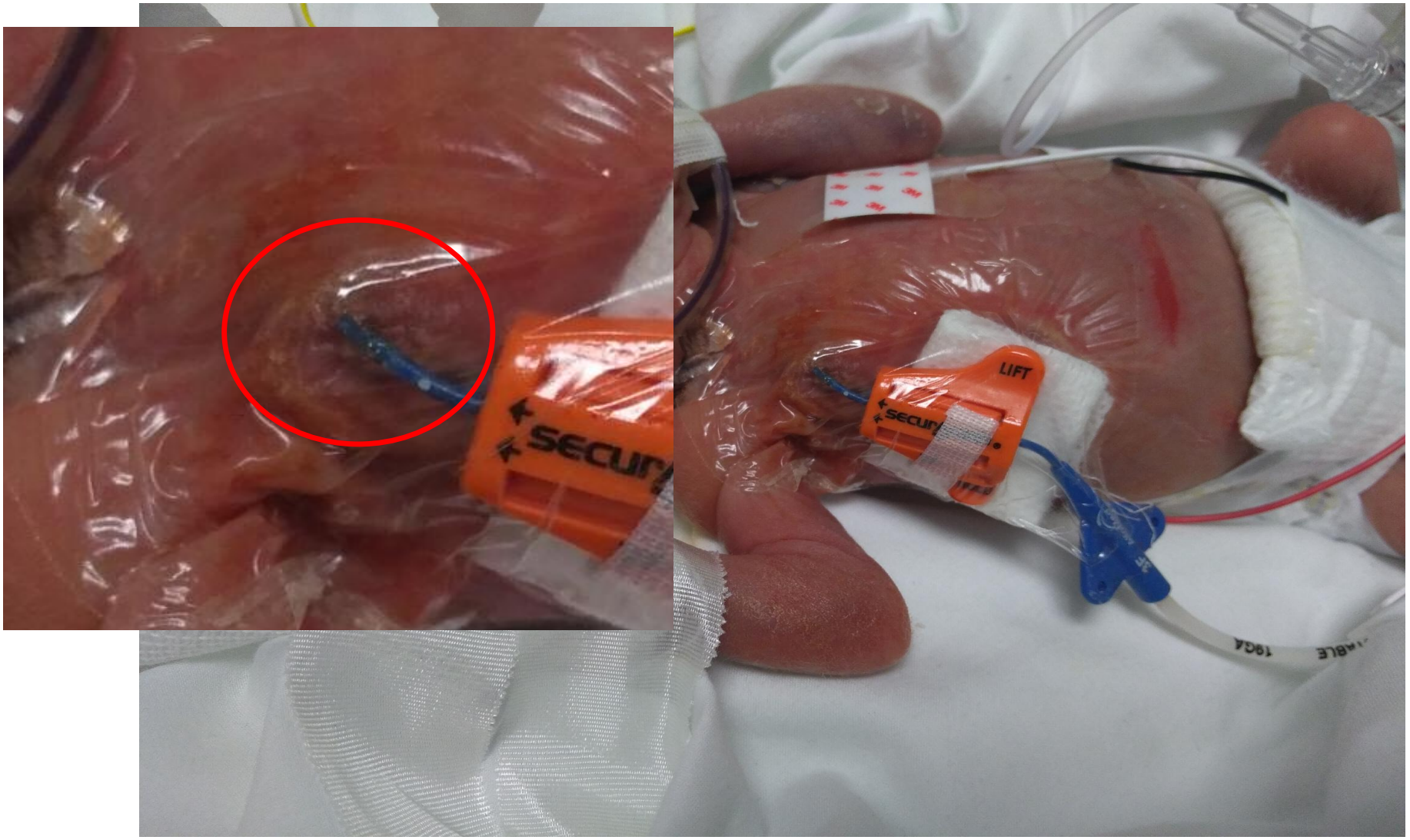
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ECC

CICC/FICC

CVO

“Can we do it better?”…fissaggio CVO

“CAN WE DO IT BETTER?”… FISSAGGIO CVO

Courtesy of V. D’Andrea

Summary.

Guidance on application

Until recently, instruction on how to apply tissue adhesive to VADs has been limited because it is used primarily on internal and external tissue (Corley et al, 2017). Now that tissue adhesive has been given European CE mark approval for use with VADs, manufacturers are providing guides to application.

One example of this is the SecurePortIV (Adhezion Biomedical LLC). The product is available in an easy-to-use applicator that allows small drops to be applied at the insertion site. This allows the adhesive to pool around the catheter and create a bond between the device and the skin at the insertion site. The remaining adhesive may be spread on the skin around the insertion site to make the dressing more secure.

Removal of adhesive occurs naturally over 5–7 days. Earlier removal may be accomplished by gently pressing any hydrocarbon-based adhesive remover pad over the insertion site for between 30 seconds and 1 minute to saturate the area where adhesive is present. This will soften the adhesive and allow the device to be removed easily. To avoid skin irritation, the skin should not be rubbed with adhesive remover.

Considerations

Reapplication of CA tissue adhesive for long-term use is not well studied and there have been some reports of the product building up on catheter tubing. More evidence is required before recommendations for application on subsequent dressings can be made (Corley et al, 2017).

The impact of CA tissue adhesive on catheter materials has been considered and tested. An experimental study (Di Puccio et

Cyanoacrylate tissue adhesive: a new tool for the vascular access toolbox. Jackie Nicholson. British Journal of Nursing, 2019

- Aiuta nella stabilizzazione dei CVC riducendo i movimenti “in and out”. Miglior sistema di fissazione dei CVC: Securacath + Colla+ MST
- Colla + MST sono mezzi di stabilizzazione sufficienti per i cateteri venosi periferici e per i CVC di tipo ECC in epoca neonatale.
- Sigilla il sito di inserzione prevenendo il sanguinamento ed eliminando la necessità di ripetere la medicazione a distanza di 24 ore.
- Sigilla il sito di inserzione con una proprietà batteriostatica intrinseca (potenzialmente ridice la colonizzazione extraluminale).
- Nessuna incidenza di lesioni cutanee riportate nel neonato, anche pretermine

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