



LE GRANDI INNOVAZIONI TECNICHE DEGLI ULTIMI ANNI (3): L'ANCORAGGIO SOTTOCUTANEO

FABRIZIO BRESCIA

SOC ANESTESIA E RIANIMAZIONE

VASCULAR ACCESS TEAM



Centro di Riferimento Oncologico
Istituto di ricovero e cura a carattere scientifico
Servizio Sanitario Regionale FVG

ADEGUATA STABILIZZAZIONE

OBIETTIVI

- Preservare l'integrità del dispositivo
- Minimizzare il movimento del catetere all'exit-site
- Prevenire la dislocazione del catetere
- Prevenire la perdita dell'accesso venoso



ADEGUATA STABILIZZAZIONE

OBIETTIVI

Nessuna interferenza con la valutazione ed il controllo dell'exit site

Nessun impatto sul flusso ematico o sull'infusione della terapia

Parte integrante del percorso clinico-terapeutico



BUNDLE PROCEDURALE

RIDUZIONE DEL RISCHIO DI COMPLICANZE



DISLOCAZIONE DEFINIZIONE E INCIDENZA

Perdita del dispositivo o comunque perdita della funzione e della
posizione centrale della punta del catetere

Support Care Cancer
DOI 10.1007/s00520-012-1554-0

ORIGINAL ARTICLE

Peripherally inserted central catheters (PICCs) in the management of oncohematological patients submitted to autologous stem cell transplantation

Silvia Bellesi • Patrizia Chiusolo • Gennaro De Pascale •
Mauro Pittiruti • Giancarlo Scoppettuno •
Elisabetta Metafani • Sabrina Giannarone •
Federica Sorà • Luca Laurenti • Giuseppe Leone •
Simona Sica

Received: 29 March 2012 / Accepted: 23 July 2012
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www.sciencedirect.com

Elsevier Masson France
EM|consulte
www.em-consulte.com

Médecine et maladies infectieuses 43 (2013) 556–559

Original article

Prospective follow-up of complications related to peripherally inserted central catheters^{☆,☆☆}

*Suivi prospectif des complications associées aux cathéters veineux centraux insérés par voie
périphérique*

C. Leroyer^{☆,☆}, A. Lashéras[☆], V. Marie[☆], Y. Le Bras[☆], T. Catejeat[☆], M. Dupon[☆], A.-M. Rogues[☆]

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Received 5 October 2012; accepted 10 November 2012; accepted 18 June 2013
Available online 19 July 2013

CLINICAL STUDY

Peripherally Inserted Central Catheters: Use at a Tertiary Care Pediatric Center

Craig Gibson, MBBS, Bairbre L. Connolly, MD, FRCPC, Rahim Moineddin, PhD,
Sanjay Mahant, MD, Doina Filipescu, BS, and Joao G. Amaral, MD

JVA
ISSN 1129-7298

J Vasc Access 2017; 18 (5): 408-414
DOI: 10.5301/jva.5000738

ORIGINAL RESEARCH ARTICLE

Impact of arm selection on the incidence of PICC complications: results of a randomized controlled trial

France Paquet^{1,2}, Louis-Martin Boucher^{1,2}, David Valenti^{1,2}, Richard Lindsay¹

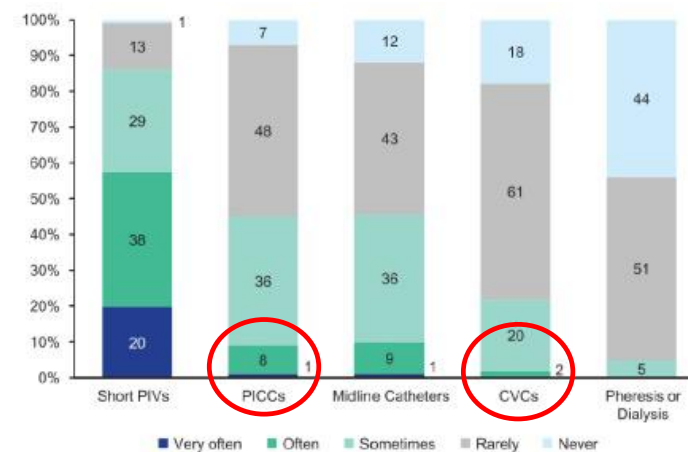
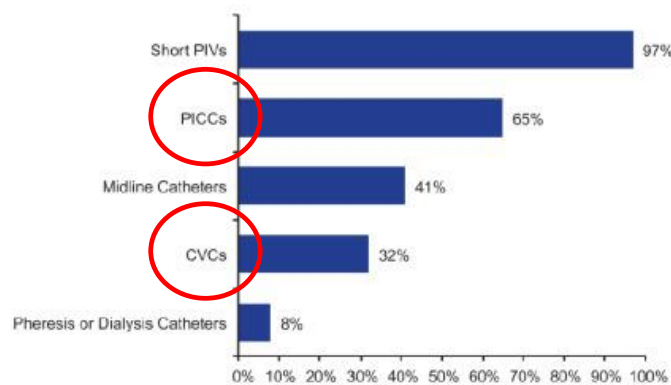
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³Belfast Health and Social Care Trust, Knockbracken Healthcare, Belfast - UK

5-15%

DISLOCAZIONE QUALE VAD E CON QUALE INCIDENZA?



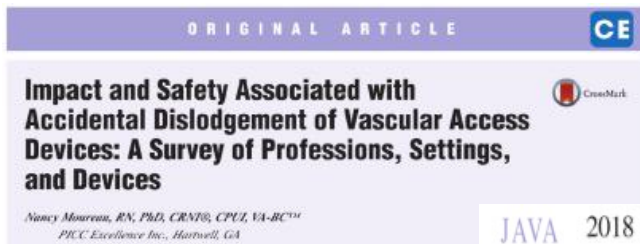
ORIGINAL ARTICLE **CE**

Impact and Safety Associated with Accidental Dislodgement of Vascular Access Devices: A Survey of Professions, Settings, and Devices

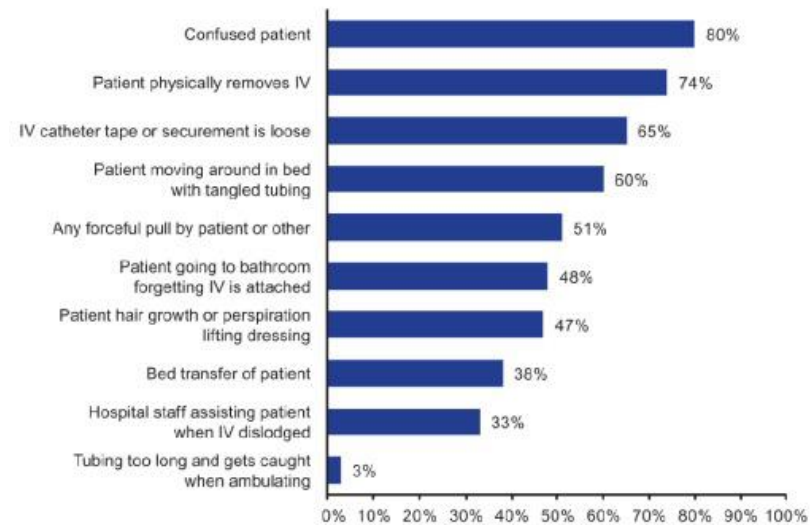
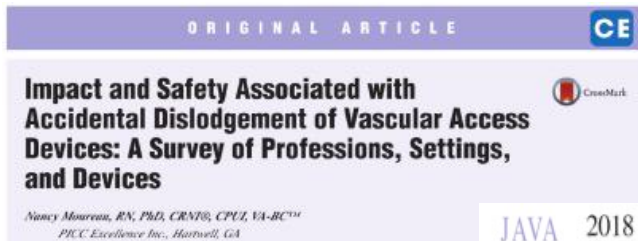
Nancy Mourou, RN, PhD, CRNI®, CPUI, VA-BC™
PICC Excellence Inc., Hartwell, GA

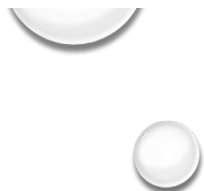
JAVA 2018

DISLOCAZIONE



DISLOCAZIONE CAUSE





DISLOCAZIONE IMPATTO CLINICO

Interruzione del trattamento

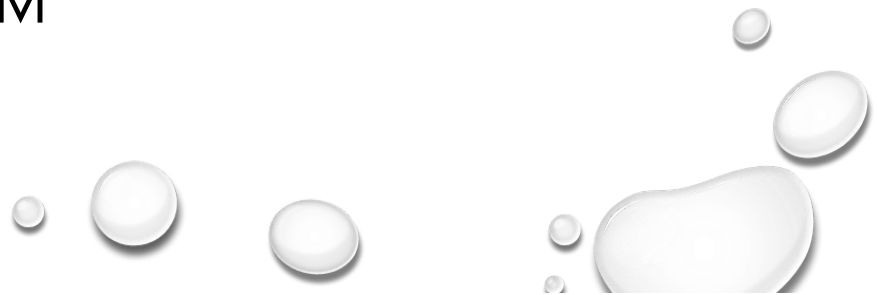
Perdita dell'accesso

Necessità di riposizionamento del VAD

Discomfort del paziente

Tempi di lavoro

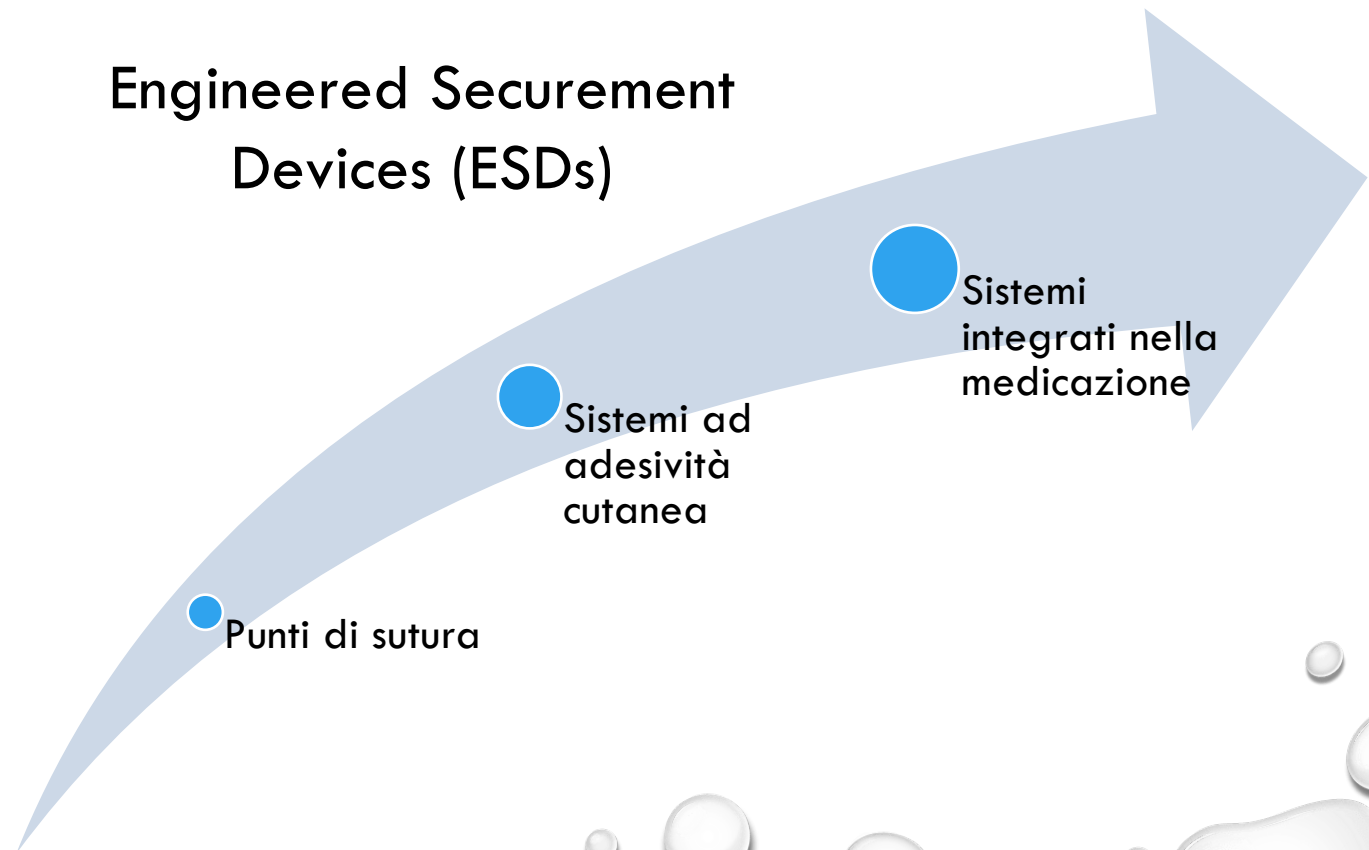
Costi aggiuntivi



SISTEMI DI STABILIZZAZIONE DEI VAD

Engineered Securement Devices (ESDs)

Adhesive
Engineered
Securement Devices
(AESDs)



Sutureless Securement Device Reduces Complications of Peripherally Inserted Central Venous Catheters

Alvin J. Yamamoto, MD, Jeffrey A. Solomon, MD, Michael C. Soulen, MD, James Tang, MD, Kim Parkinson, RN, Richard Lin, MD, and Gregory J. Schears, MD

J Vasc Interv Radiol 2002; 13:77-81

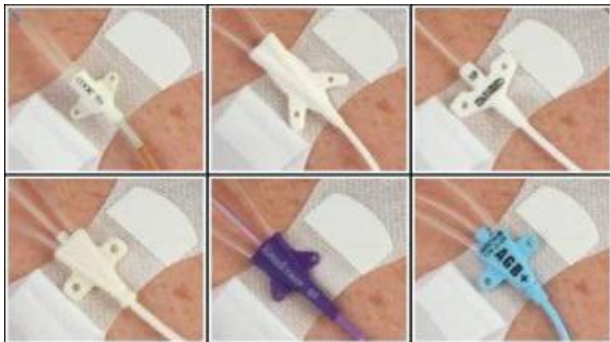
PUNTI DI SUTURA

- Elevato rischio infettivo
- Elevato rischio di dislocazione
- Problema di sicurezza del personale – needle-stick injury

Evitare in qualunque situazione



SISTEMI AD ADESIVITÀ CUTANEA E SISTEMI INTEGRATI NELLA MEDICAZIONE



Superare la scarsa
performance delle
suture...



SISTEMI AD ADESIVITÀ CUTANEA E SISTEMI INTEGRATI NELLA MEDICAZIONE

- Cambio settimanale della sistema di fissaggio
- Mobilizzazione del dispositivo dal ridotta di adesività
- Adesivi forti possono richiede l'uso di solventi specifici per la rimozione dei residui
- Movimento «a pistone» in and out
- Durante il cambio della medicazione e del AESD rischio di dislocazione parziale
- Irritazione cutanea locale durante i cambi, riposizionamento in una zona differente: dislocazione



Original research article

Intravascular catheter migration: A cross-sectional and health-economic comparison of adhesive and subcutaneous engineered stabilisation devices for intravascular device securement

Dympna McParlan, L Edgar, M Gault, S Gillespie, R Menelly and M Reid

JVA The Journal of Vascular Access

The Journal of Vascular Access
1-4
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Results

In the 2013 period, 1111 PICCs were placed. During this period, 66 (5.94%) PICCs had migration or dislodgment issues that required replacement of the catheter. Data collection did not include small migratory incidences that did not require device replacement. Additional costs associated with PICC migration such as confirmatory radiography and complication interventions for occlusion management were not recorded. PICC migration is often underreported and was difficult to capture through standard documentation methods despite observation from the IST.

SISTEMI AD ADESIVITÀ CUTANEA E SISTEMI INTEGRATI NELLA MEDICAZIONE

Strati superficiali della pelle vengono rimossi dalla medicazione adesiva, in cui l'eritema e/o altre manifestazioni di trauma o reazione cutanea tra cui formazione di **vescicole**, **bolle**, **erosione** cutanea e **lacerazioni** cutanee, persistono **più a lungo di 30 minuti** dopo la rimozione dell'adesivo. MARSI non influisce solo sull'integrità della pelle, ma provoca anche **dolore**, aumenta il **rischio di infezione**.

Medical Adhesive Related Skin Injury

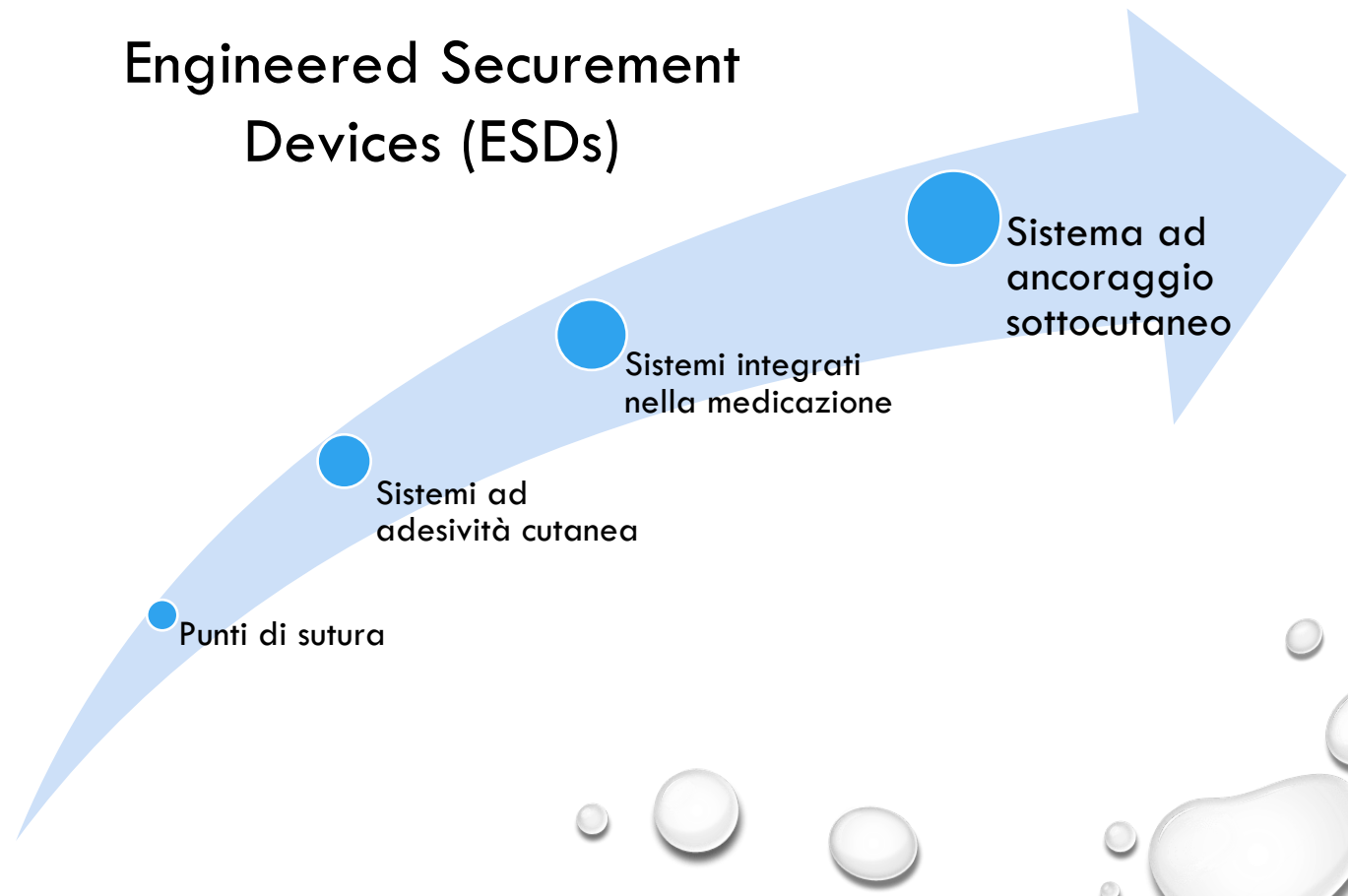
MARSI



SISTEMI DI STABILIZZAZIONE DEI VAD

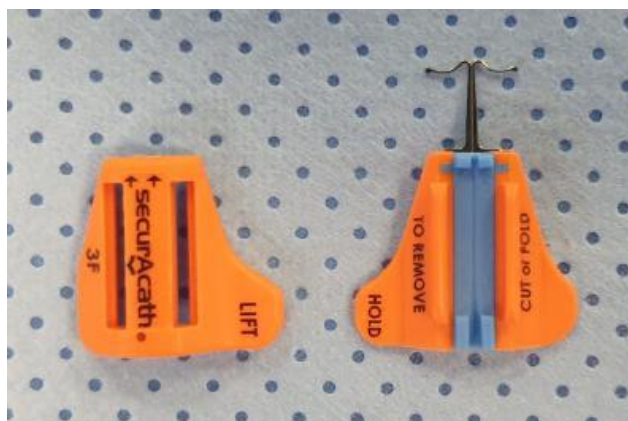
Engineered Securement Devices (ESDs)

Subcutaneous
Engineered
Securement Device
(SESD)



SISTEMA AD ANCORAGGIO SOTTOCUTANEO

Fissaggio è ottenuto mediante ancoraggio metallico nel sottocute con ancore in nitilon



Unico dispositivo
...dall'impianto alla rimozione

1



2



3

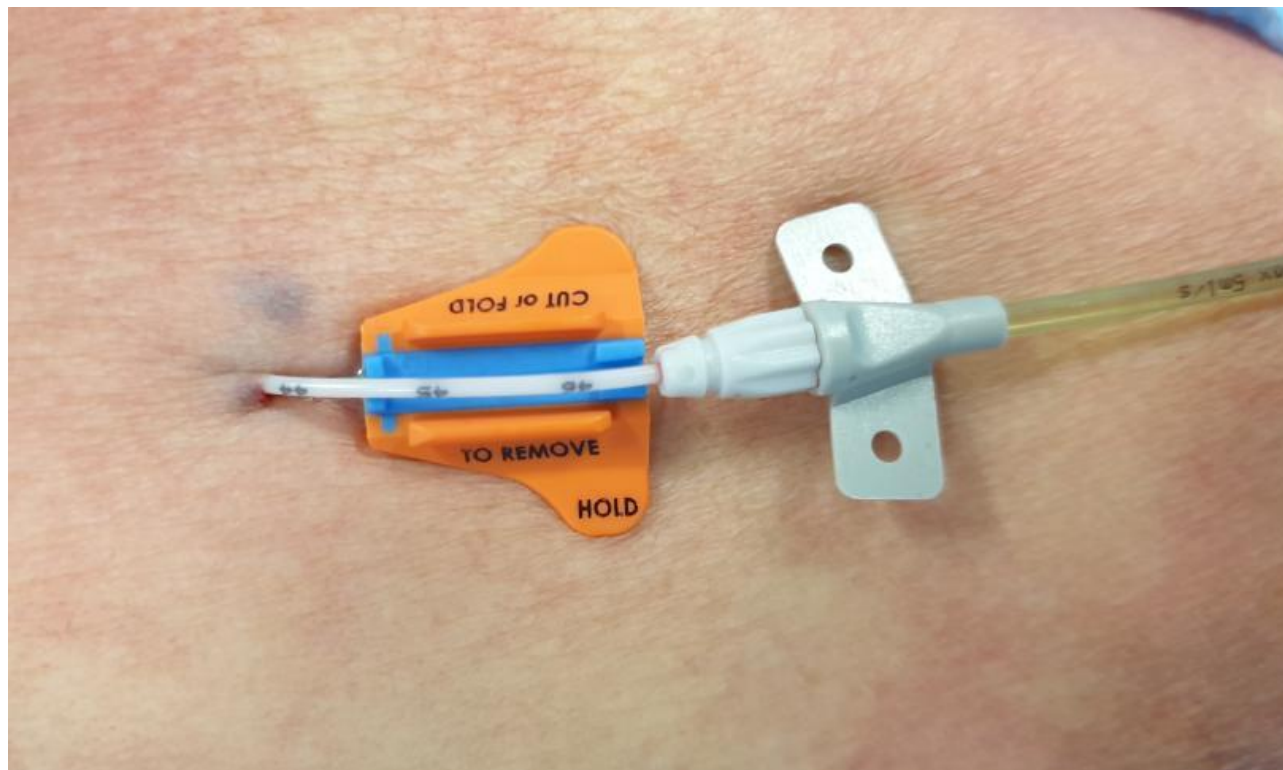


4



SAS

COME SI
POSIZIONA



SAS

COME SI
POSIZIONA

SAS - VANTAGGI

1. Non necessita di sostituzioni periodiche
2. Movimento «a pistone» in and out azzerato
3. Ancoraggio sottocutaneo, non influenzato dalle caratteristiche della cute
4. Medicazione più sicura, più efficace...a 360°



SAS - DISLOCAZIONE

Original research article

GAVeCeLT-WoCoVA Consensus on subcutaneously anchored securement devices for the securement of venous catheters: Current evidence and recommendations for future research

Fulvio Pinelli¹, Mauro Pittiruti², Ton Van Boxtel³, Giovanni Barone⁴, Roberto Biffi⁵, Giuseppe Capozzoli⁶, Alessandro Crocoli⁷, Stefano Elli⁸, Daniele Elisei⁹, Adam Fabiani¹⁰, Cristina Garrino¹¹, Ugo Graziano¹², Luca Montagnani¹³, Alessio Pini Prato¹⁴, Giancarlo Scoppettuolo¹⁵, Nicola Zadra¹⁶, Clelia Zanaboni¹⁷, Pietro Zerla¹⁸, Evangelos Konstantinou¹⁹, Matt Jones²⁰, Hervé Rosay²¹, Liz Simcock²², Marguerite Stas²³ and Gilda Pepe¹⁵

JVA The Journal of Vascular Access
The Journal of Vascular Access
1-42
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Study	Design	Population/ no. of patients	Catheter type	Primary outcome	Results	Dislodgment N (%)	Success rate	Adverse events	Cost analysis
Cordovani and Cooper ³	Multicentre Prospective Observational	Adult/74	CICC 7 Fr	Successful securement	72(97%)	2(2.7%)	100%	None	No
Egan et al. ²	Multicentre Prospective Observational	Adult/68	PICC 5 Fr	Successful securement	62(91.2%)	None	100%	6(8.8%)	No
Hughes ⁴	Observational	Adult/31	PICC	Successful securement	30(96.7%)	One moved out of 1 cm (3.3%) 2(1.1%)	100%	25% difficult removal; 22.5% other	Yes
Dolcino et al. ⁶	Prospective Observational retrospectively controlled	Pediatric/ 51	Tunneled- cuffed CICC	Incidence of dislodgment within first 30 days	2(1.1%)	2(1.1%)	NR	NR	No
Zerla et al. ⁵	Prospective Observational	Adult/30	PICC 4 Fr	Incidence of dislodgment	None	None	NR	NR	Yes
Goossens et al. ⁷	RCT (StatLock™ vs Securacath™)	Adult/105	PICC 4-5 Fr	Nursing time for dressing change	7.3 vs 4.3 min (p < 0.0001)	2(4.3%) vs 3(5.9%) p = 1			No
Pittiruti et al. ⁸	Prospective Observational	Neonatal; Pediatric; Adult/190	PICC; CICC; FICC Tunneled/ untunneled	Successful securement	187(98.4%)	3(1.6%)	99%	5(2.6%) Local inflammation	Yes

SAS: subcutaneously anchored securement; NR: not reported; CICC: centrally inserted central catheters; PICC: peripherally inserted central catheters; FICC: femorally inserted central catheters.

SAS - DISLOCAZIONE

Original research article

GAVeCeLT-WoCoVA Consensus on subcutaneously anchored securement devices for the securement of venous catheters: Current evidence and recommendations for future research

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Attenzione a...

- scelta adeguata della misura del SAS...mezze misure!

SAS - DISLOCAZIONE

Original research article

GAVeCeLT-WoCoVA Consensus on subcutaneously anchored securement devices for the securement of venous catheters: Current evidence and recommendations for future research

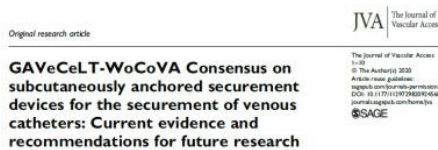
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Attenzione a...

- scelta adeguata della misura del SAS...mezze misure!
- posizionamento sottocutaneo e non cutaneo



SAS - DISLOCAZIONE



Attenzione a...

- scelta adeguata della misura del SAS...mezze misure!
- posizionamento sottocutaneo e non cutaneo
- adeguato training per posizionamento



Method

A before and after analysis was performed comparing all PICCs placed in 2013 to the post-device implementation period, beginning in 2015, providing 2 years of data. The subcutaneous ESD was introduced to staff during June 2014, allowing the IST to provide 6 months of dedicated education before device implementation and data collection started. During 2014, the currently used AESD was maintained for device securement. All patients were monitored for catheter migration and dislodgement using the PICC History Sheet (See Supplemental Material) and results were kept in an electronic patient database.

Results

In the 2013 period, 1111 PICCs were placed. During this period, 66 (5.94%) PICCs had migration or dislodgment issues that required replacement of the catheter. Data collection did not include small migratory incidences that did not require device replacement. Additional costs associated with PICC migration such as confirmatory radiography and complication interventions for occlusion management were not recorded. PICC migration is often underreported and was difficult to capture through standard documentation methods despite observation from the IST.

By the end of the subcutaneous device implementation period (January–December 2015), 1139 PICCs were successfully inserted with zero (0.0%) catheter migrations requiring replacement reported.

1139 pz: nessuna dislocazione

SAS - DISLOCAZIONE

Original research article

GAVeCeLT-WoCoVA Consensus on subcutaneously anchored securement devices for the securement of venous catheters: Current evidence and recommendations for future research

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Attenzione a...

- scelta adeguata della misura del SAS...mezze misure!
- posizionamento sottocutaneo e non cutaneo
- adeguato training per posizionamento
- pazienti non collaboranti con disordini cognitivi e pazienti ad alto rischio di dislocazione involontaria

SAS - TUNNELIZZAZIONE

Table 1. RAVESTO—Rapid Assessment of Vascular Exit Site and Tunneling Options.

Central venous access device	Type and path of tunnel	Indications for tunneling
PICC	Tunnel to Dawson's green area	Puncture site in Dawson's yellow area; non-hospitalized patients with expected long intravenous treatment
CICC (supraclavicular puncture)	Tunnel to infraclavicular area	Long term intravenous treatment in non-hospitalized patients (antibiotics, parenteral nutrition, chemotherapy); expected difficulties in management of the exit site in hospitalized patients (beard, humidity, tracheostomy, instability, etc.)
	Tunnel to arm	Compromised skin integrity of the chest area; oral or endotracheal secretions over chest; implanted device on ipsilateral chest; chest surgery; contracted shoulder; etc.
	Tunnel to back	Cognitive disorder resulting in device removal; contraindication to chest or arm exit site
CICC (infraclavicular puncture)	Tunnel to lower chest	Long term intravenous treatment in non-hospitalized patients (antibiotics, parenteral nutrition, chemotherapy); expected problems in management of the exit site in hospitalized patients (tracheostomy, etc.)
	Tunnel to arm	Compromised skin integrity of the chest area; oral or endotracheal secretions over chest; implanted device on ipsilateral chest; chest surgery; contracted shoulder; etc.
	Tunnel to back	Cognitive disorder resulting in device removal; contraindication to chest or arm exit site
FICC (puncture at the groin)	Tunnel to the abdomen	Non-emergency line in walking patients with contraindication to PICC/CICC
	Tunnel to mid-thigh	Non-emergency line in bedridden patients with contraindication to PICC/CICC
FICC (puncture at mid-thigh)	Tunnel to the abdomen	Non-emergency line in walking patients with contraindication to PICC/CICC
	Tunnel to distal thigh	Long term intravenous treatment in bedridden patients with contraindication to PICC/CICC

Techniques in vascular access

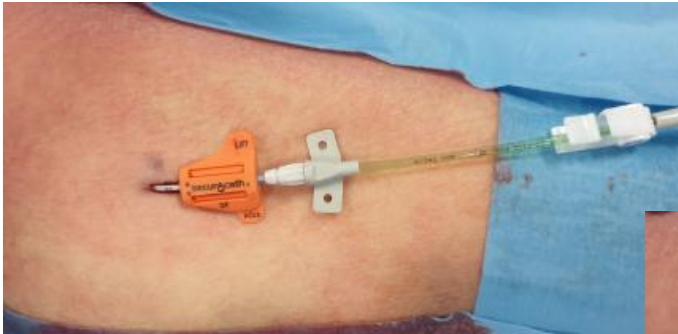
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Rapid Assessment of Vascular Exit Site and Tunneling Options (RAVESTO): A new decision tool in the management of the complex vascular access patients

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Matthew D Ostroff¹, Nancy Moureau² and Mauro Pittiruti³

SAS & COLLA



Blocca il
sanguinamento



Effetto sinergico

Riduzione rischio infettivo

Riduzione rischio di dislocazione

SAS - PAZIENTI COVID-19

Pittiruti and Pinelli Critical Care (2020) 24:269
https://doi.org/10.1186/s13054-020-02997-1

Critical Care

COMMENTARY

Open Access

Recommendations for the use of vascular access in the COVID-19 patients: an Italian perspective

Mauro Pittiruti^{1*}, Fulvio Pinelli² on behalf of the GAVECeT Working Group for Vascular Access in COVID-19

As the risk of central venous catheter dislodgment is particularly high in the COVID-19 patient, particularly during the maneuvers of pronation-supination, consider the use of sub-cutaneously anchored securement.

- stabilizzazione
- protezione dell'exit-site
- rischio di contagio

Editorial

Vascular access in COVID-19 patients: Smart decisions for maximal safety

Giancarlo Scoppettuolo¹, Daniele Guerino Biasucci² and Mauro Pittiruti³

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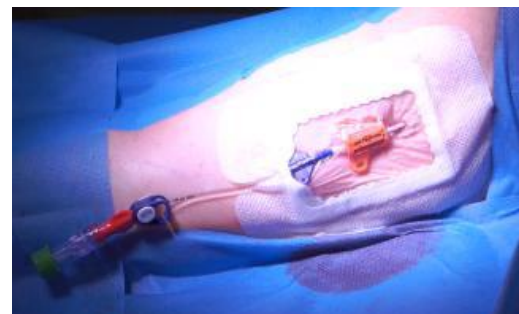
Editorial

Choice and management of vascular access in the context of COVID-19 outbreak in Italy: Recommendations from clinical practice

Davide Vailati¹, Giorgia Montrucchio², Vittorio Cerotto³, Giuseppe Capozzoli⁴, Fabio Gori⁵, Flavia Petrin^{6,7} and Luca Brazzi^{1,8}, on behalf of the Italian Society of Anesthesia and Intensive Care (Società Italiana di Anestesia, Analgesia, Rianimazione e Terapia Intensiva, SIAARTI)

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Subcutaneously anchored securement for peripherally inserted central catheters: Immediate, early, and late complications

Fabrizio Brescia¹ , Mauro Pittiruti² , Laura Roveredo¹, Chiara Zanier¹, Antonietta Morabito¹, Elisabetta Santarossa¹, Valentina Da Ros³, Marcella Montico⁴ and Fabio Fabiani[†]

¹Unit of Anesthesia and Intensive Care Medicine, Vascular Access Team, Centro di Riferimento Oncologico di Aviano, IRCCS, Aviano, Italy

²Department of Surgery, Fondazione Policlinico Universitario "A.Gemelli" IRCCS, Rome, Italy

³Clinical Oncology Department, Centro di Riferimento Oncologico di Aviano, IRCCS, Aviano, Italy

⁴Clinical Trial Office, Centro di Riferimento Oncologico di Aviano, IRCCS, Aviano, Italy

Methods

Study design and setting

This is a retrospective cohort study conducted in the Unit of Anesthesia, Intensive Care Medicine and Vascular Access Team of CRO National Cancer Institute, a Clinical and Research Cancer Institute located in Aviano (PN), Italy. We analyzed all PICCs secured with SAS in cancer patients, during the last 3 years (2018–2020). The SAS device used was the only currently available for clinical use, Securacath (Interrad Medical).

Subcutaneously anchored securement for peripherally inserted central catheters: Immediate, early, and late complications



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Servizio Sanitario Regionale FVG

Fabrizio Brescia¹, Mauro Pittiruti², Laura Roveredo¹, Chiara Zanier¹, Antonietta Morabito¹, Elisabetta Santarossa¹, Valentina Da Ros², Marcella Montico⁴ and Fabio Fabiani¹



Technique of PICC insertion

PICC insertion was performed by experienced practitioners of our Vascular Access Team. In all patients, the procedure was performed according to our local insertion bundle for PICC insertion, which includes: pre-procedural ultrasound vascular assessment following the RaPeVA protocol (RaPeVA = Rapid Peripheral Vein Assessment),¹¹ measurement of vein diameter and respect for a catheter/vein ratio less than or equal to 1:3, skin antisepsis with 2% chlorhexidine, maximal barrier precautions, ultrasound-guided venipuncture, use of intracavitary electrocardiography method to verify the correct position of the tip of the catheter at the cavo-atrial junction, location of the exit site in Dawson's green zone (adopting tunneling from the yellow to the green zone, if necessary),¹² catheter securement with SAS, and sealing of the exit site with cyanoacrylate glue. Subsequent dressings and saline flushing of the PICC were performed weekly. The care and maintenance of the devices was entrusted to specialized nurses of our Access Vascular Team, according to institutional protocols.

Outcomes

Primary endpoints were (a) the efficacy of SAS, in terms of reducing the risk of dislocation and the need to reposition the vascular access device, (b) as well as its safety, evaluated investigating the incidence of immediate complications during SAS placement (difficulty, pain, etc.), early complications, that is, within 48 h (pain, local bleeding, etc.) and late complications (pain, malfunction, local or systemic infection, reversible or irreversible occlusion, catheter-related venous thrombosis, skin lesions due to the nitinol anchors, pressure ulcer of the device on the skin, etc.).

Subcutaneously anchored securement for peripherally inserted central catheters: Immediate, early, and late complications

Fabrizio Brescia¹, Mauro Pittiruti², Laura Roveredo¹, Chiara Zanier¹, Antonietta Morabito¹, Elisabetta Santarossa¹, Valentina Da Ros², Marcella Montico⁴ and Fabio Fabiani¹



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Results

A total of 639 patients had a PICC inserted and secured with SAS in the last 3 years (2018–2020) (Table 1).

PICCs of different brands and calibers were inserted: 254 Lifecath PICC Easy 4 Fr (Vygon), 114 Lifecath PICC Easy 5 Fr (Vygon), 97 HealthPICC 4 Fr single-lumen (Plan-1-Health), 153 HealthPICC 5 Fr single-lumen (Plan-1-Health), 21 HealthPICC 5 Fr double-lumen (Plan-1-Health). Indications for PICC insertion was chemotherapy in 120 patients, parenteral nutrition and chemotherapy in 410 patients, and parenteral nutrition in 109 patients.

As regards the effectiveness of securement with SAS, we recorded dislodgment only in seven patients (1.1%): three of these patients were non-collaborative patients with psychomotor agitation. In the remaining four cases, dislodgment occurred due to a mismatch between the size of the catheter and the size of the SAS. This was not related to an error of the operator but to an actual inconsistency of the caliber of the catheter as stated by the manufacturer. In fact, all four cases of dislodgment occurred with 4 Fr LifeCath PICC Easy (Vygon) secured with 4 Fr SAS or with 5 Fr LifeCath PICC Easy (Vygon) secured with 5 Fr SAS. In the early phase of our experience, noting this issue, we understood that the actual size of these catheters is slightly smaller than that the figure declared by the manufacturer. After these unexpected dislodgments, we have been using 3 Fr SAS for 4 Fr Lifecath PICC Easy and 4 Fr SAS for 5 Fr Lifecath PICC Easy, thus eliminating the risk of dislodgment.

No significant immediate complication during SAS placement was reported.

DISLODGMET: 3 patients with psychomotor agitation
4 mismatch between the size of the catheter and the size of the SAS



Subcutaneously anchored securement for peripherally inserted central catheters: Immediate, early, and late complications



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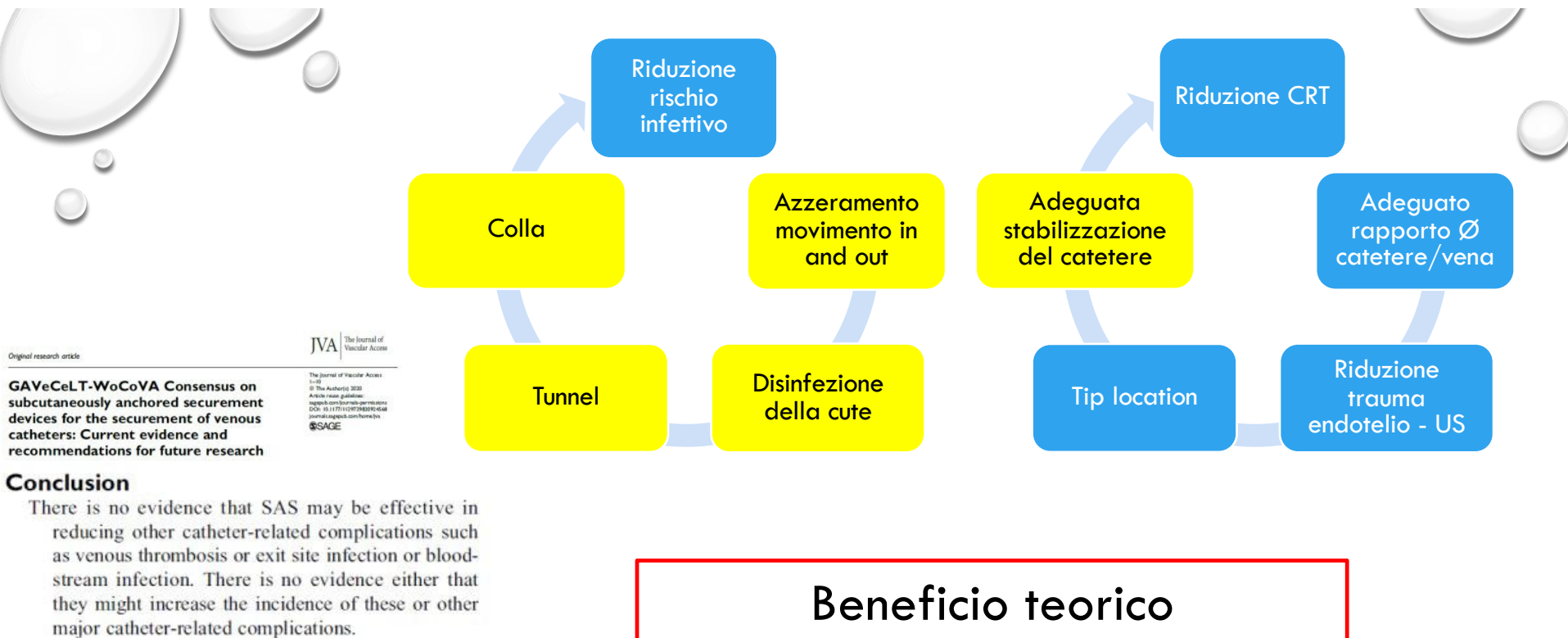
Table 2. Early complications (within 48h).

	N (%)	95% CI
PICC malfunction	0 (0.00)	—
Bleeding or hematoma at the exit-site	0 (0.00)	—
Skin ecchymosis	24 (3.8%)	2.4–5.5%
Local pain at the exit-site	0 (0.00)	—
Early infection	0 (0.00)	—

Table 3. Late complications (analysis of 93,078 catheter days).

	N (%)	95% CI
Catheter-related bloodstream infection (CRBSI)	16 (2.5)	1.4–4.0
Symptomatic catheter-related venous thrombosis	12 (1.9)	1.0–3.3
Reversible lumen occlusion	15 (2.3)	1.3–3.8
Irreversible lumen occlusion	0 (0.00)	—
Pressure ulcers and painful inflammation	17 (2.66)	1.6–4.2
Incidence/1000 catheter days		
Catheter-related bloodstream infection (CRBSI)	0.17	0.10–0.28





SAS

INFEZIONE E TROMBOSI CR

SAS - INFEZIONE

> Am J Infect Control. 2020 Jun 17;S0196-6553(20)30560-5. doi: 10.1016/j.ajic.2020.06.178.
Online ahead of print.

Catheter Securement Impact on PICC-related CLABSI: A University Hospital Perspective

M S Rowe ¹, K Arnold ², T R Spencer ³



Studio retrospettivo osservazionale: 7779 PICC 2015-2018

Device	CLABSI (n=47)	No CLABSI (n=7732)	Total	Cumulative Incidence
AESD	15	823	838	1.79%
SESD	32	6909	6941	0.46%
Risk Ratio				3.88
Percent Relative Effect				288%

Table 3. CLABSI by stabilization device.

SAS - COSTO-EFFICACIA

JVA
ISSN 1129-7298

J Vasc Access 2017; 18 (3): 238-242
DOI: 10.5301/jva.5000655

ORIGINAL RESEARCH ARTICLE

Evaluating safety, efficacy, and cost-effectiveness of PICC securement by subcutaneously anchored stabilization device

Pietro Antonio Zerla¹, Antonio Canelli¹, Lidia Cerne¹, Giuseppe Caravella¹, Alessandra Gilardini², Giuseppe De Luca³, Ana Maria Aricisteanu⁴, Raffaele Venezia⁴

TABLE II - Cost comparison between adhesive stabilization and subcutaneously anchored sutureless device (SAS)

	SAS	Adhesive stabilization device
Maintenance performed	709	709
No. devices used	30	709
Device cost (€)	30	6
Stabilization total cost (€)	900	4.254
SAS savings (€)	3.354	

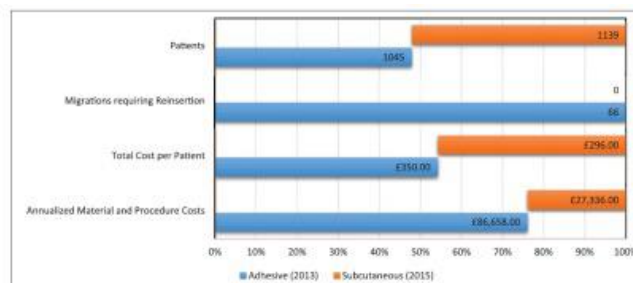
Original research article

Intravascular catheter migration: A cross-sectional and health-economic comparison of adhesive and subcutaneous engineered stabilisation devices for intravascular device securement

Dympna McParlan, L Edgar, M Gault, S Gillespie, R Menelly and M Reid

JVA | The Journal of Vascular Access

The Journal of Vascular Access
1-4
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DOI: 10.1177/1129729819851059
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SAGE



Graph 1. Comparison between adhesive and subcutaneous devices groups, highlighting costs per patient, reinsertions and material costs.

In alcuni specifici gruppi di pazienti...

CONCLUSIONI



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SICUREZZA E PROTEZIONE

- Pazienti ad elevato rischio di dislocazione indipendentemente dalla durata (TI, pronosupinazioni, storia di pregressa dislocazione)
- Pazienti con disordini cognitivi: SAS è altamente raccomandato, anche se dovrebbe essere abbinato ad altre strategie - tunnellizzazione - RAVESTO
- Permanenza per più di 5-6 settimane
- Pazienti a rischio di MARSI o con problematiche cutanee (allergie, ustioni, iperidrosi)
- Gestione domiciliare problematiche

CONCLUSIONI



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SICUREZZA E PROTEZIONE

- Scelta del SAS della misura adeguata
- Le barrette di nitinol devono essere posizionate sotto la cute, se superficiali possono provocare infiammazione locale, dolore e rischio di ulcerazione e dislocazione
- Training adeguato prima dell'utilizzo clinico del SAS, conoscenza della corretta tecnica di posizionamento e management
- Utilizzo in associazione con la colla per ottenere contemporaneamente un'adeguata messa in sicurezza del catetere e una protezione ottimale dell'exit site



GAVeCeLT **GAVeCeLT 2021**
Bari, 30 novembre - 1° dicembre

*I Convegno Nazionale sul PICC-port
XIV PICC Day - Convegno Nazionale Annuale sul PICC*

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