X Congresso GAVeCeLT

ACCESSI VENOSI IN PEDIATRIA

Firenze, 5 dicembre 2017

Subcutaneously anchored securement devices: zeroing the risk of dislodgement

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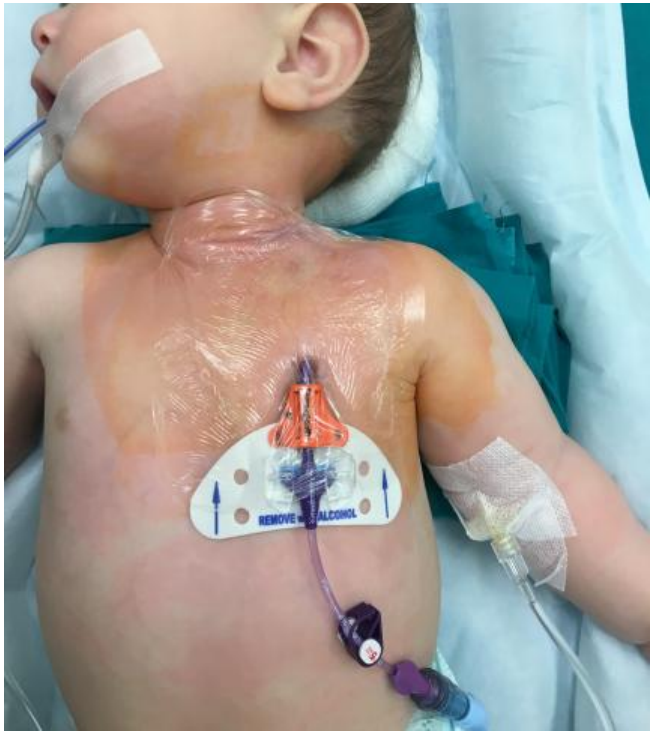
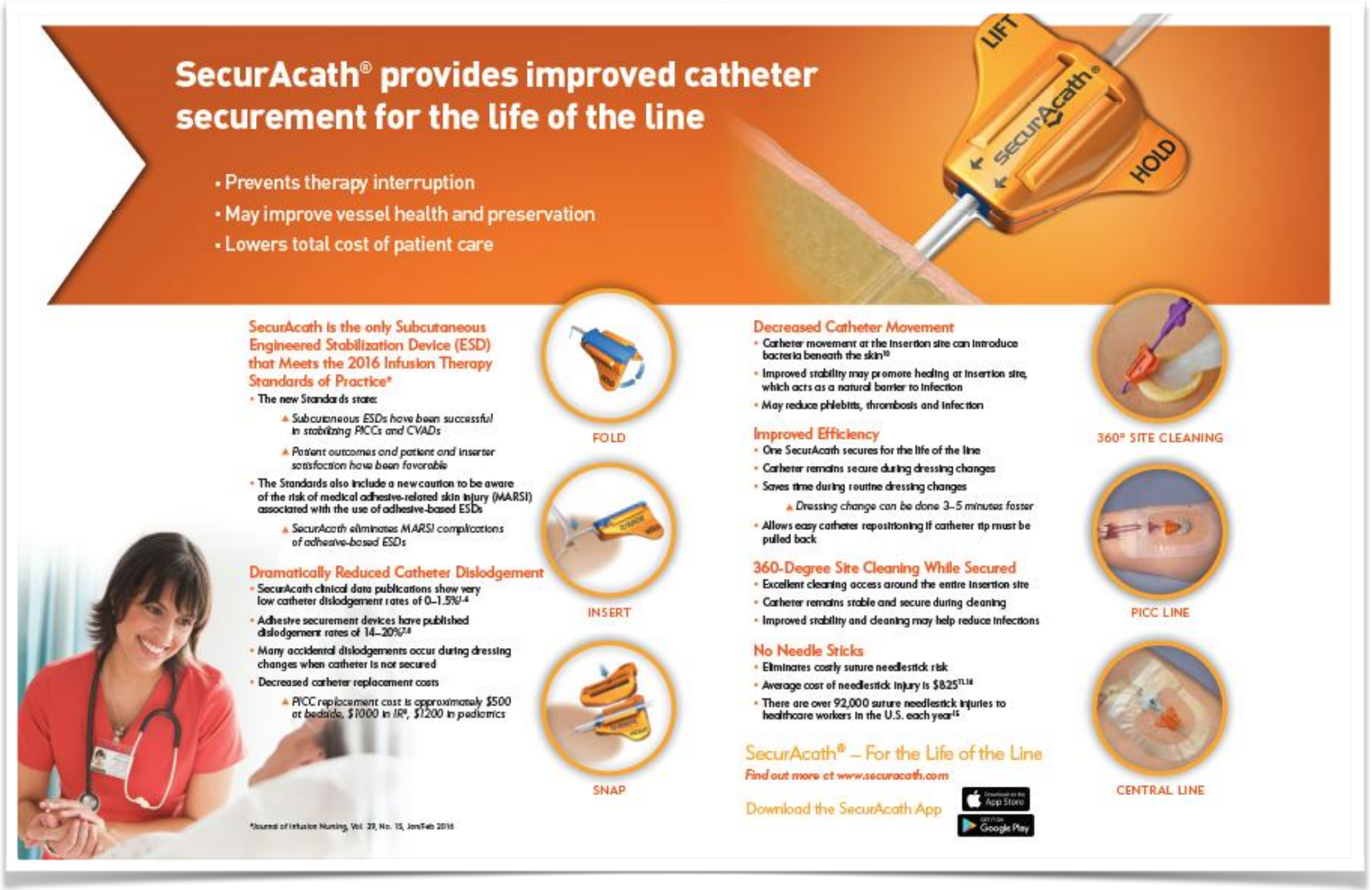
[IRCCS Gaslini Genova]



conflict of interest

Seda SpA



- elderly
- restless children
- patients with skin lesions/disease

www.securacath.com
www.seda-spa.it

what we already know [1]

- Use a sutureless securement device to reduce the risk of infection for intravascular catheters.
- Catheter stabilization is recognized as an intervention to decrease the risk for phlebitis, catheter migration and dislodgement.

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

what we already know [2]

- Consider use of an engineered stabilization device (ESD) to stabilize and secure VADs as inadequate stabilization and securement can cause unintentional dislodgment and complications requiring premature VAD removal.
- Avoid use of tape or sutures, as they are not effective alternatives to an ESD. Sutures […] increase the risk of catheter-related bloodstream infection.
- Sutures were associated with fewer complications when compared to use of tape with PICCs in pediatric patients in a randomized, controlled trial that excluded use of stabilization devices.

INFUSION THERAPY
STANDARDS OF PRACTICE
REVISED 2016

what we don't [really] know

- Reliable data about dislodgement

EVENT & CVAD TYPE	Proportion of Complications			
	Studies	CVADs	Outcomes	Pooled %
Dislodgement/migration				
All	39	9784	686	4.7
PICC	14	5389	389	5.4
Umbilical	1	140	4	2.9
Nontunnelled	2	1126	91	3.5
HD	3	264	14	8.8
Tunnelled	8	963	89	7.0
Totally implanted	11	1902	99	2.0

PEDIATRICS
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

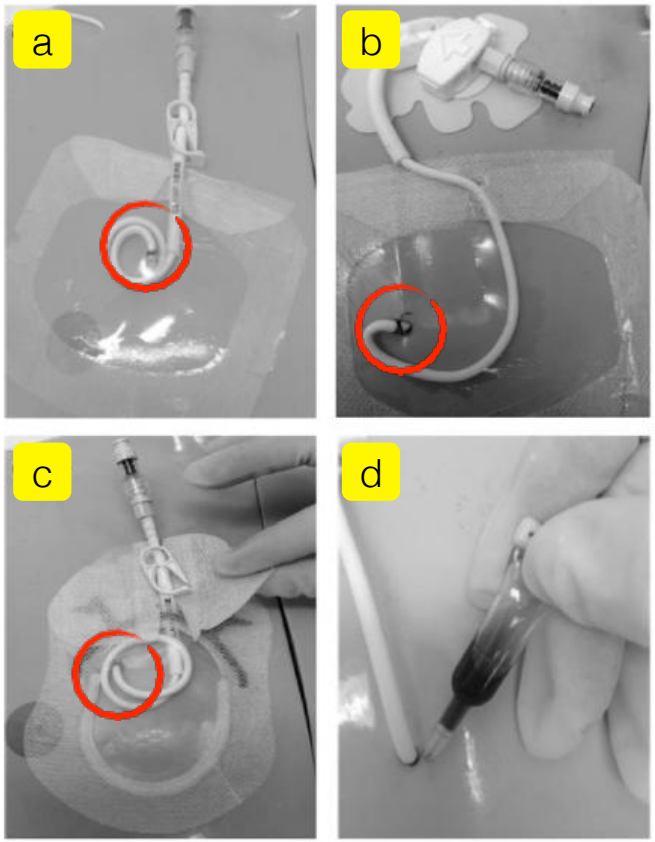
Complications of Central Venous Access Devices: A Systematic Review, 2015

Ullman et al. *BMC Cancer,* 2017 BMC Cancer

RESEARCH ARTICLE Open Access

Innovative dressing and securement of tunnelled central venous access devices in paediatrics: a pilot randomised controlled trial

Amanda J. Ullman[1,2*], Tricia Kleidon[2,3], Victoria Gibson[2,3], Craig A. McBride[2,4,5], Gabor Mihala[2,5,6], Marie Cooke[1,2] and Claire M. Rickard[1,2]



a. Suture + polyurethane dressing
b. Sutureless device + polyurethane dressing + suture
c. Suture + SorbaView
d. Tissue adhesive + polyurethane dressing

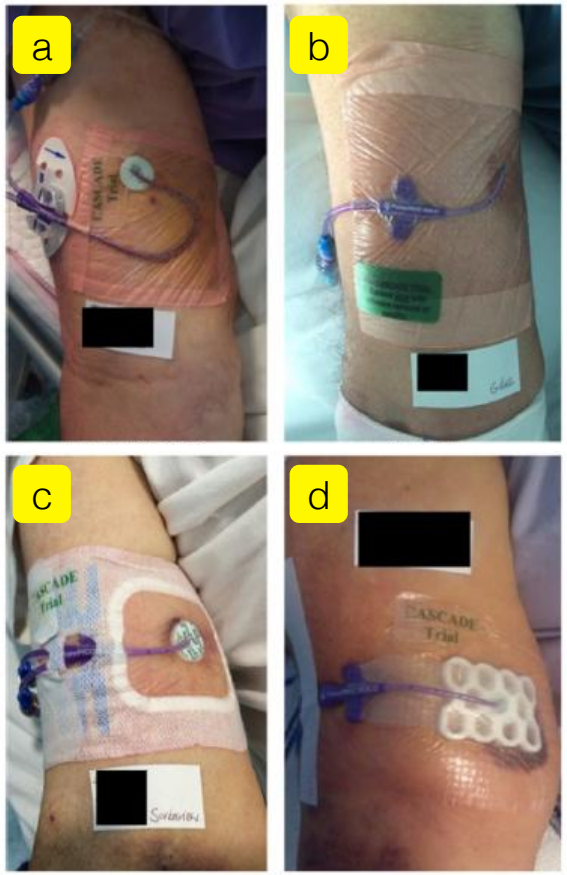
n = 48, dislodgement 4-9%

Chan et al. *Trials,* 2017 Trials

RESEARCH Open Access

Central venous Access device SeCurement And Dressing Effectiveness for peripherally inserted central catheters in adult acute hospital patients (CASCADE): a pilot randomised controlled trial

Raymond J. Chan[1,2,3*], Sarah Northfield[1,2,3], Emily Larsen[1,3], Gabor Mihala[2,3], Amanda Ullman[1,3], Peter Hancock[1], Nicole Marsh[1,3], Nicole Gavin[1,3], David Wyld[1,2,4], Anthony Allworth[1], Emily Russell[1], Md Abu Choudhury[3], Julie Flynn[1,3] and Claire M. Rickard[1,3]



a. Polyurethane dressing + sutureless device
b. Polyurethane dressing + tissue adhesive
c. SorbaView
d. Polyurethane with absorbent lattice pad adhesive + non-woven tape

n = 121, dislodgement 4-20%

SecurAcath for securing percutaneous catheters. NICE Medical technologies guidance, 2017

- The case for adopting SecurAcath for securing peripherally inserted central catheters (PICCs) is supported by the evidence.
- SecurAcath is easy to insert, well tolerated, associated with a low incidence of catheter-related complications and does not usually need removing while the catheter is in place.
- Cost modelling shows that SecurAcath is cost saving compared with adhesive securement devices if the PICC remains in place for 15 days or longer.
- Annual savings across the NHS in England from using SecurAcath are estimated to be a minimum of £4.2 million.

NICE guidance

NICE National Institute for Health and Care Excellence

@ Gaslini

Year	Catheters	N° / month	Dislodgement	%
2015 *	196	24.5	27	13.7
2016	225	18.8	11	4.8
2017 **	137	22.8	4	2.9

*8 months **6 months

Catheter Type	Total	Dislodgement	%
Broviac	99	24	24.2
Proline	190	7	3.6

L'Azienda Ospedaliera "San Antonio degli Sbadati"
presenta *Samuele Vivace* in

"Dottore, ho perso il CVC"

basato su una storia vera

con la partecipazione di

Samuele	un bambino agitato
Luigi	un anestesista poco accorto
Gloria	un'infermiera sbadata
Mario & Pina	due genitori molto, ma molto, esasperati…

- Pronto, anestesista.
- Dottore buongiorno, sono Gloria della pediatria.
- Buongiorno, mi dica.
- La chiamo per Samuele Vivace, non so se lo conosce...
- Altroché, quello con le vene impossibili, gli ho messo un femorale ieri.
- Appunto, dottore, la chiamo proprio per questo, ha perso il CVC...
- 💩😡😤🐖🍌💣☠️💩 !

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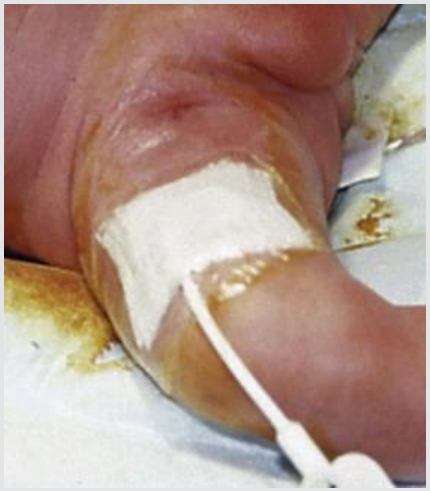
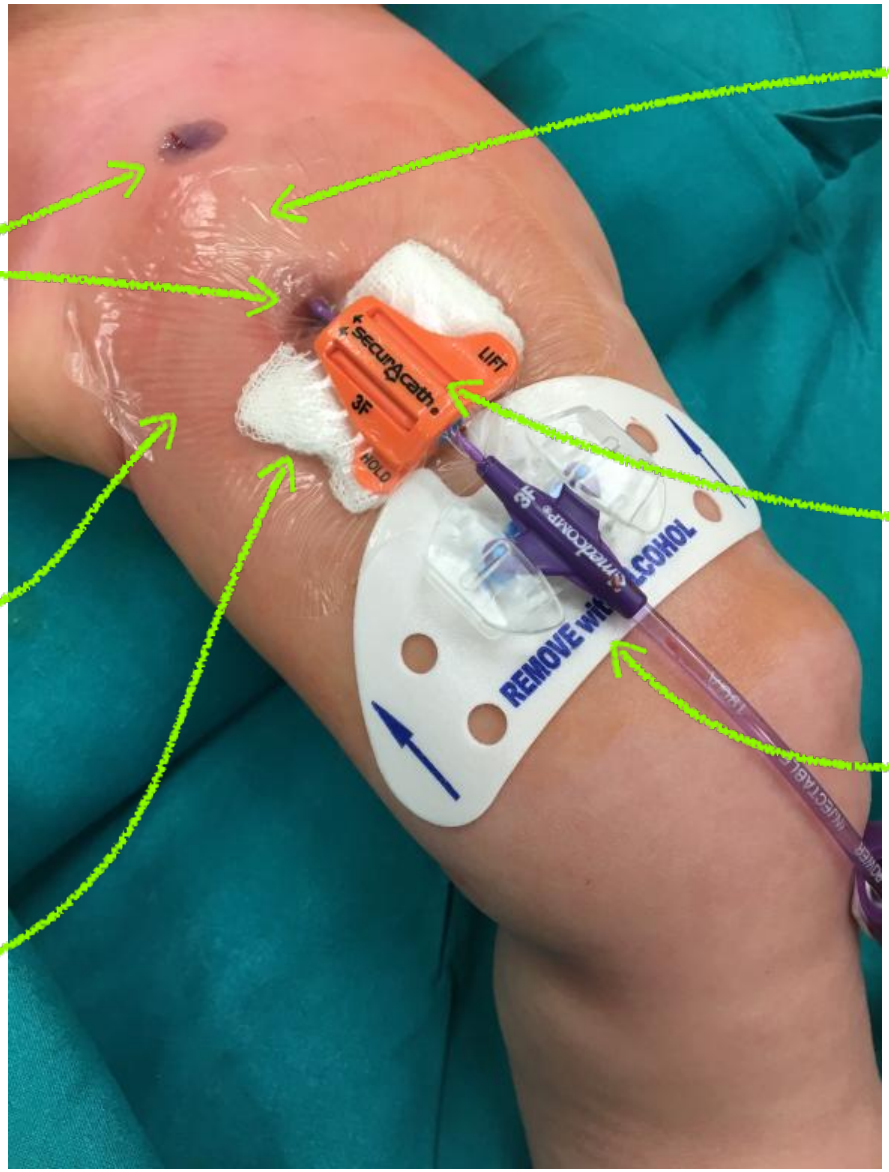
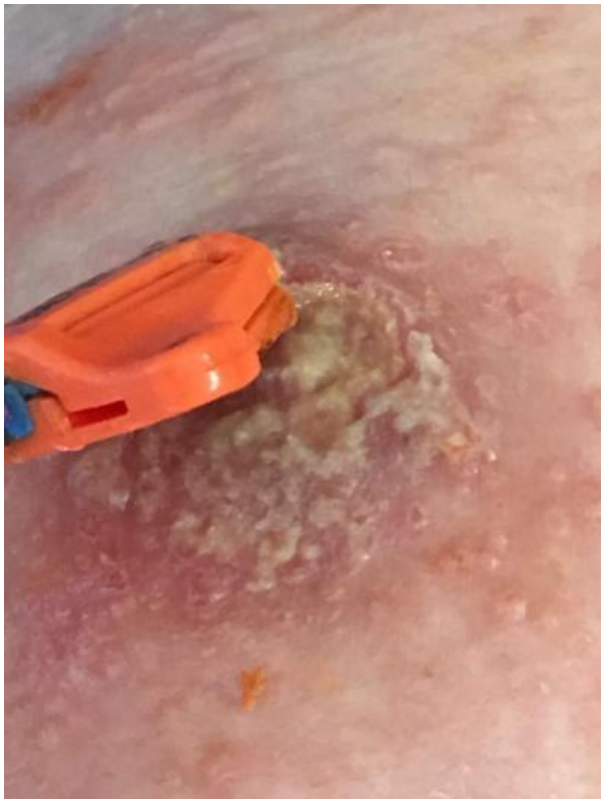



tissue adhesive
tunnel
subcutaneously anchored device
transparent dressing
ESD
pressure protection
securaCath
LIFT
3F
HOLD
REMOVE WITH ALCOHOL

what do we need to better understand?

- Is it worth to adopt SecurAcath for every patient?
- Is SecurAcath attributed pain an actual problem?
- Is nitinol truly guiltless?



conclusion

- Is catheter dislodgement an avoidable problem?
- Is it possibile to reduce catheter dislodgement to zero?