



2019
Verona
2-3-4 Dicembre
December 2nd-3rd-4th

XI 11TH Congresso GAVeCeLT Congress

2-3 Dicembre December 2nd-3rd

II 2ND Convegno GAVePed Conference

3 Dicembre December 3rd

XIII 13TH PICC Day

4 Dicembre December 4th



Storia naturale delle trombosi catetere correlate: implicazioni diagnostiche e terapeutiche

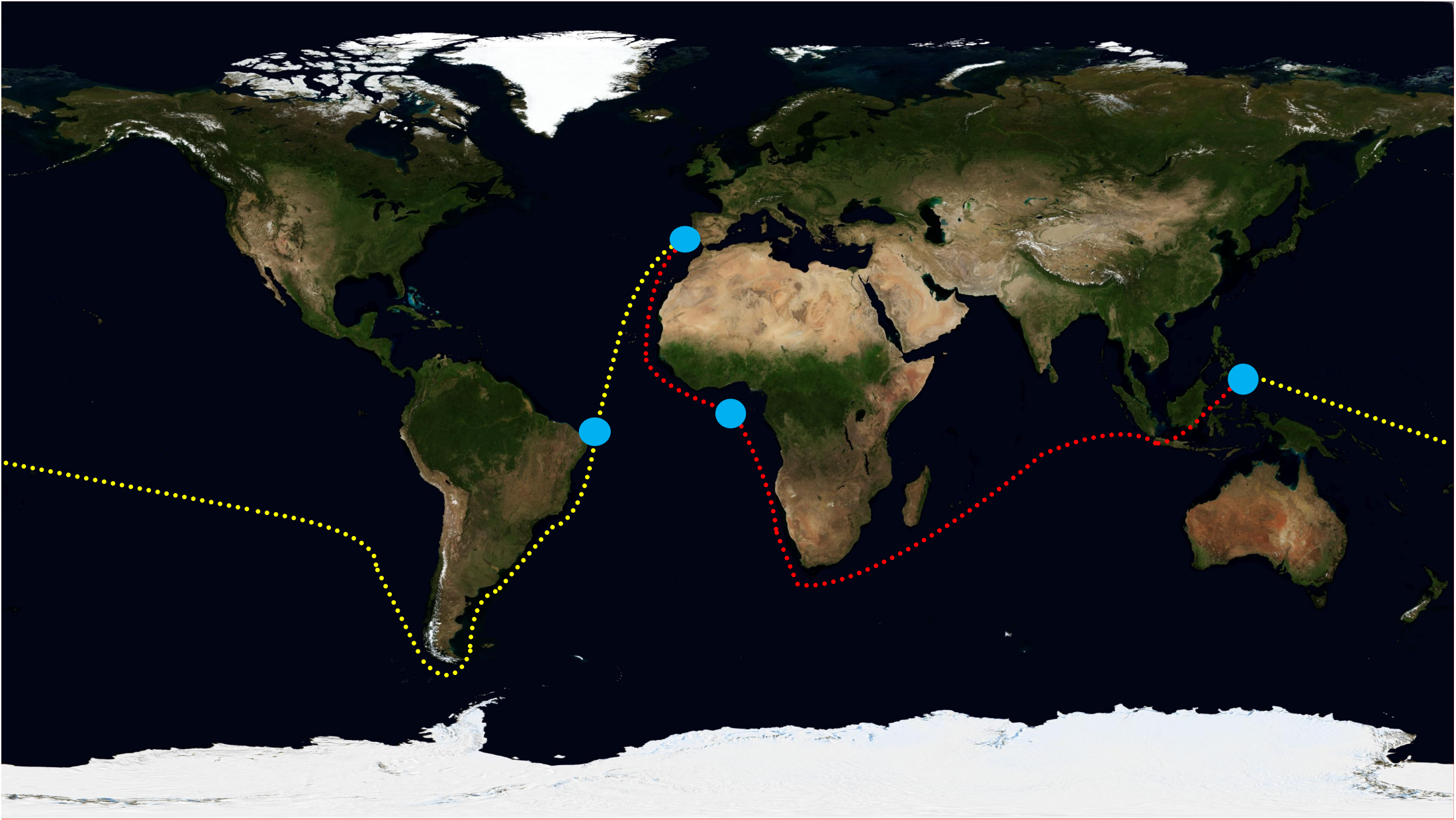
P. Balsorano, MD

DEPARTMENT OF ANESTHESIA AND INTENSIVE CARE MEDICINE
Division of Oncological Anesthesia and Intensive Care

AOU CAREGGI, Florence, Italy



*Storia naturale! Chi era
costei?*



Magnitude of the problem

CRT: Symptomatic: 0-28%; Asymptomatic: 25-71%

The background of the slide features three figures in red jumpsuits against a dark, textured background. The figure on the left is in a dynamic pose, leaning forward. The central figure stands upright, holding a large pair of scissors with both hands, the blades crossed in front of their chest. The figure on the right is also in a dynamic pose, leaning back. Overlaid on this image are four white rectangular boxes with black borders, each containing text. A small, solid red rectangle is positioned in the top right corner of the slide.

**Different
definitions**

**Different
techniques**

**Different
populations**

**Different diagnostic
approaches**

Magnitude of the problem

CLINICAL RESEARCH STUDY

THE AMERICAN
JOURNAL of
MEDICINE®

Peripherally Inserted Central Catheter-associated Deep Vein Thrombosis: A Narrative Review

Nabil Fallouh, MD, MS,^a Helen M. McGuirk, MPH,^{a,b} Scott A. Flanders, MD,^a Vi

^aDepartment of General Medicine, University of Michigan Health System, Ann Arbor; ^bP
Outcomes Program of Excellence and the Center for Clinical Management Research, Ann

Risk of venous thromboembolism associated with peripherally inserted central catheters: a systematic review and meta-analysis



Vineet Chopra, Sarah Anand, Andy Hickner, Michael Buist, Mary A M Rogers, Sanjay Saint, Scott A Flanders

Incidenza: 0-71%



Baumann KL et al. Thromb Res. 2017 Sep;157:64-71

Magnitude of the problem

J Vasc Access 2014; 00 (00): 000-000
DOI: 10.5301/jva.5000280

ORIGINAL ARTICLE

A prospective, randomized comparison of three different types of valved and non-valved peripheral

Mauro Pittiruti¹, Alessandro Emoli², Patrizia Porta², Bruno A Giancarli

Support Care Cancer
DOI: 10.1007/s00520-014-2387-9

¹ Department
² Day Hosp
³ Department

ORIGINAL ARTICLE

Peripherally inserted central catheters patients: 5-year results of a prospectiv

Paolo Cotogni · Cristina Barbero · Cristina Garrino · Claudia Degi
Baudolino Mussa · Antonella De Francesco · Mauro Pittiruti

Original research article

Peripherally inserted central catheter-related thrombosis rate in modern vascular access era—when insertion technique matters: A systematic review and meta-analysis

Paolo Balsorano¹, Gianni Virgili², Gianluca Villa³, Mauro Pittiruti⁴,
Stefano Romagnoli¹, Angelo Raffaele De Gaudio³
and Fulvio Pinelli¹

Journal of Surgical Oncology 2016;113:708–714

Peripherally Inserted Central Catheters (PICCs) in Cancer Patients Under prospective Study on the Incidence of Complications and Overall Failures

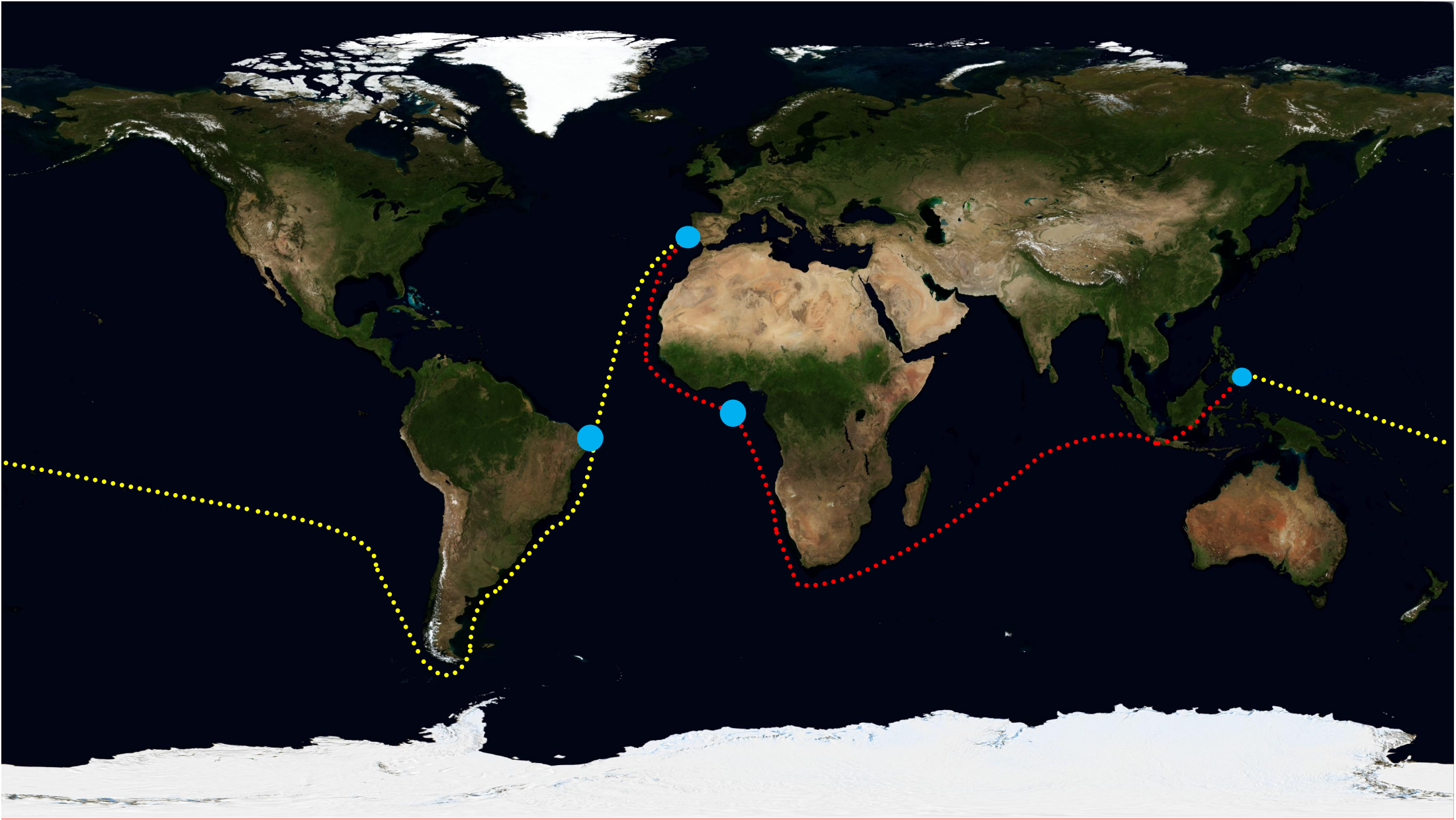
JVA
The Journal of
Vascular Access

The Journal of Vascular Access
1–10
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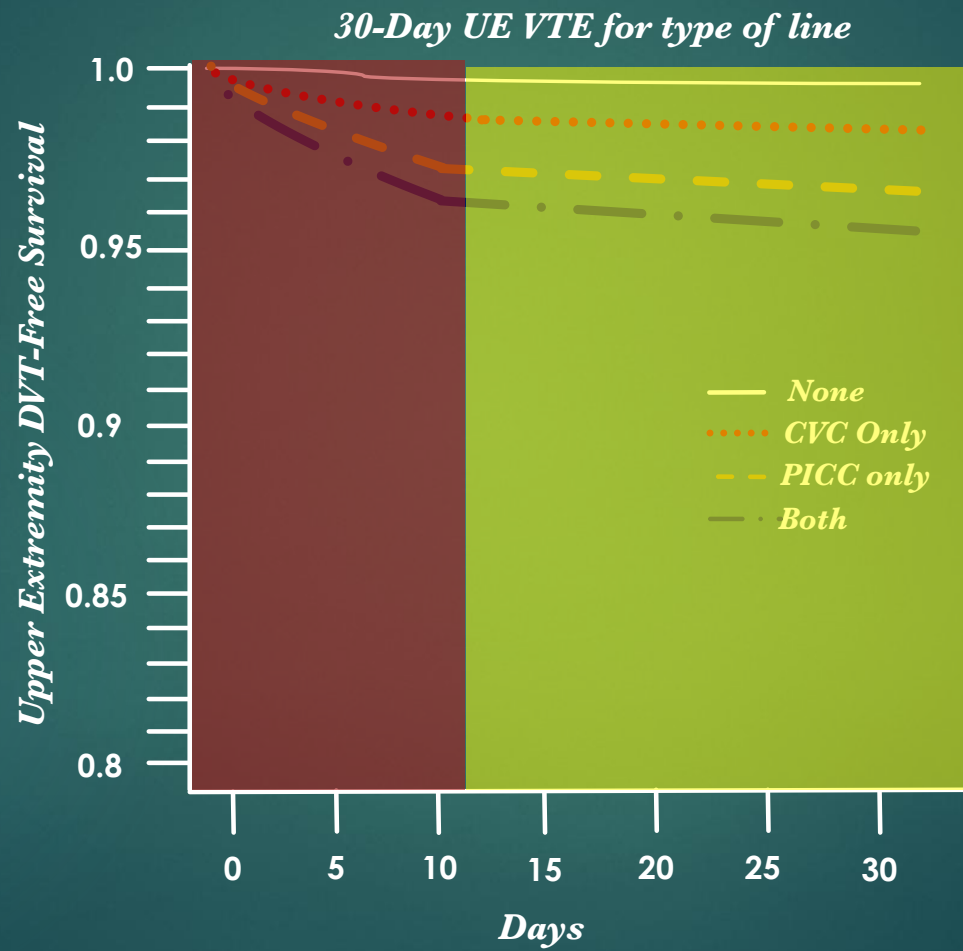
BEATRICE FACCINI, BA,¹ LUCA LALLI, MD,² FERDINANDO CAFIERO, PhD,²
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ogy Unit, IRCCS San Martino—IST National Institute for Cancer Research, Genova, Italy

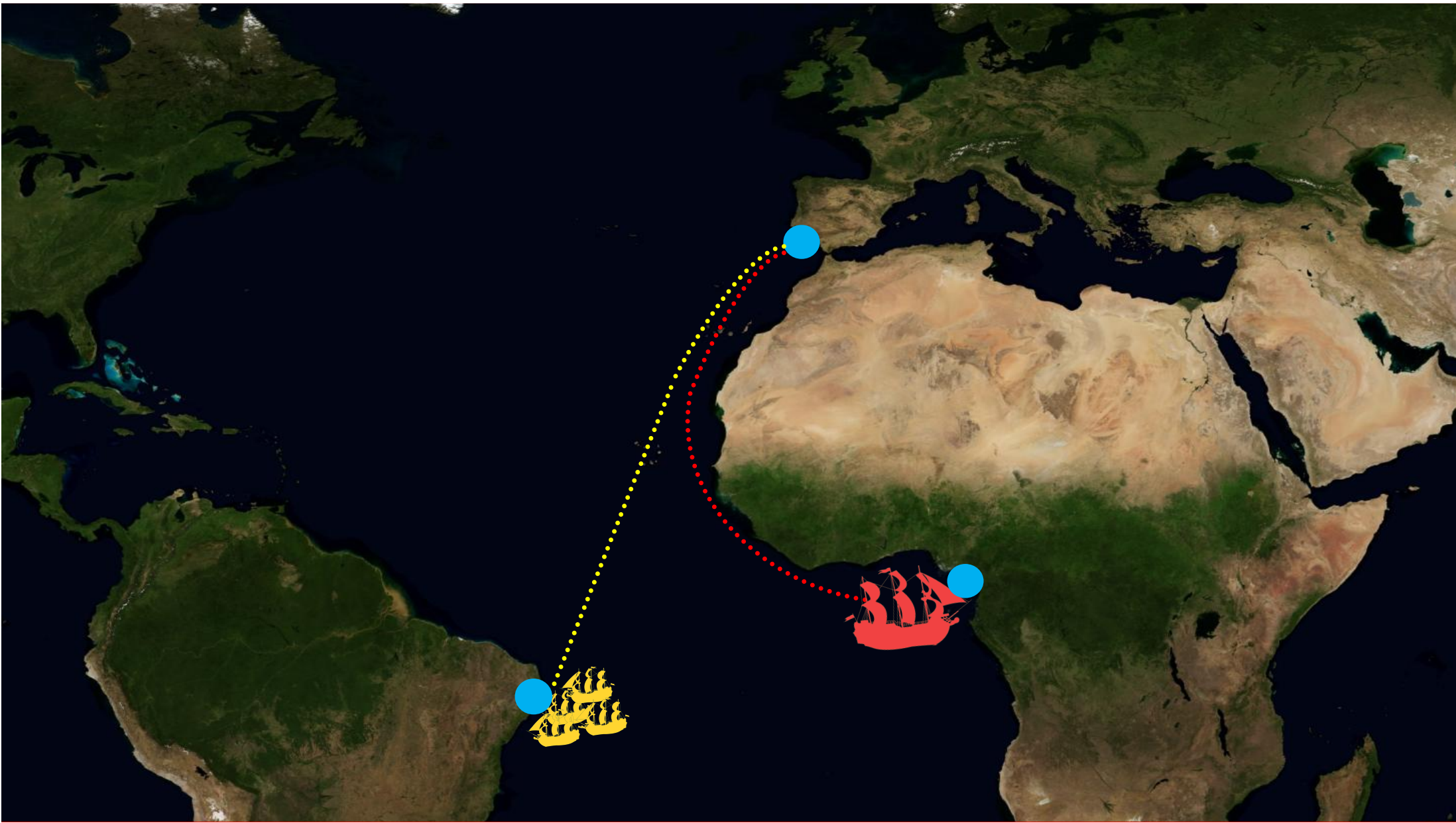


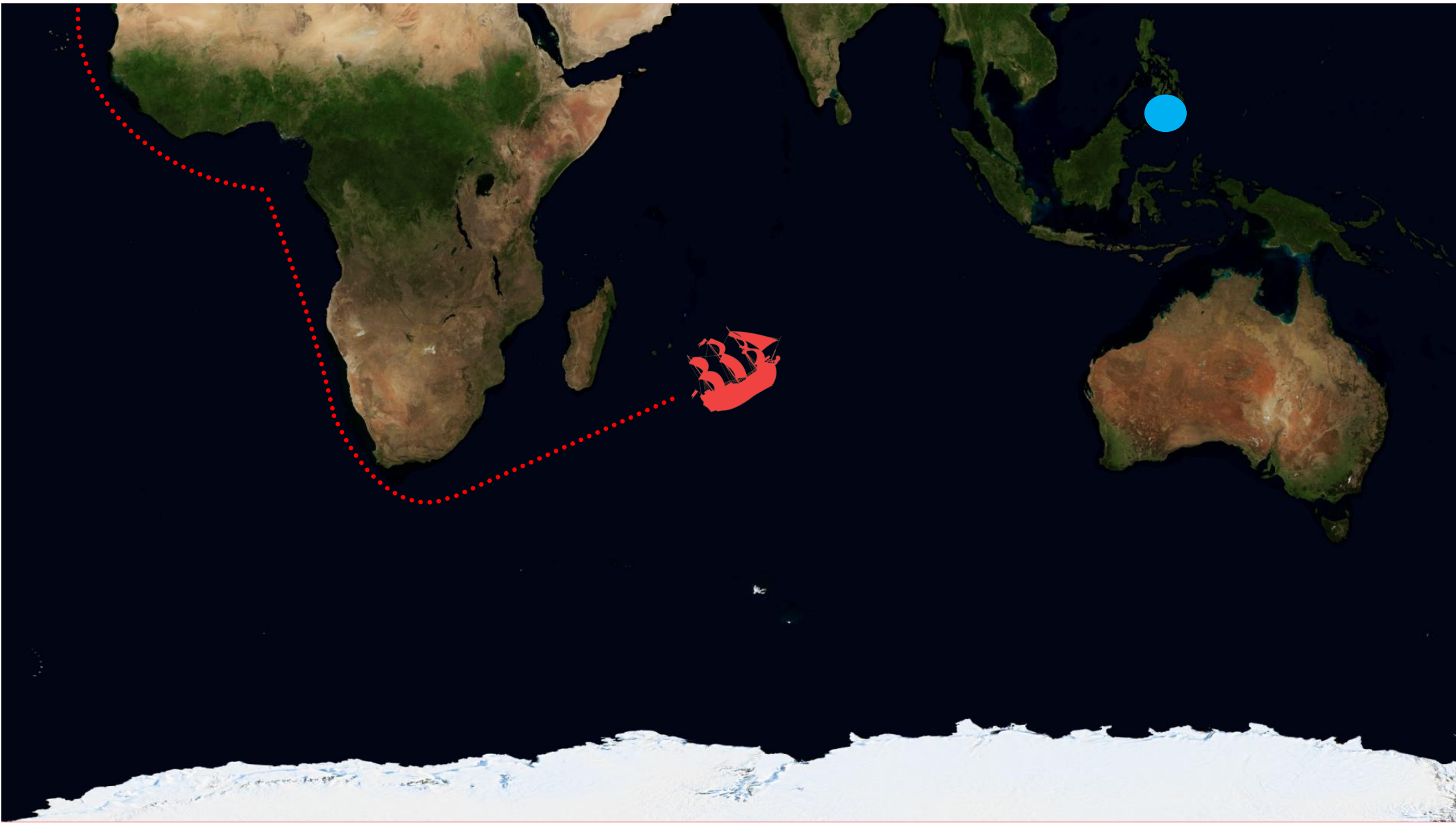




When?

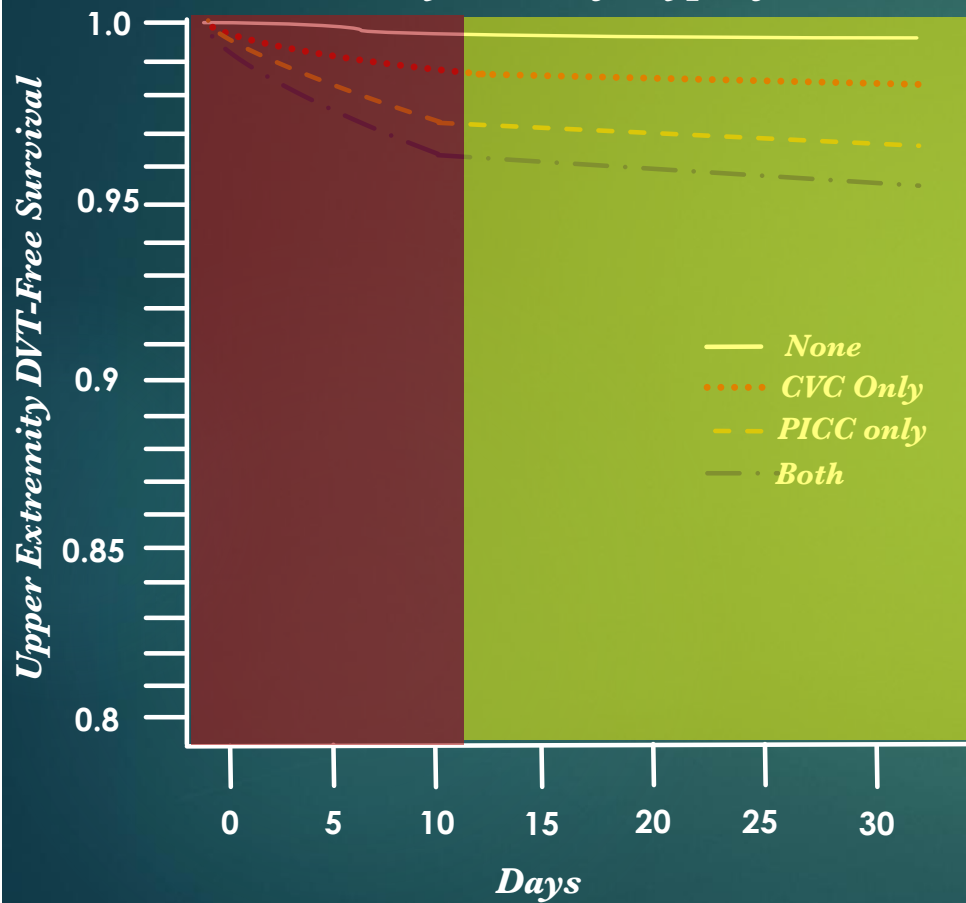




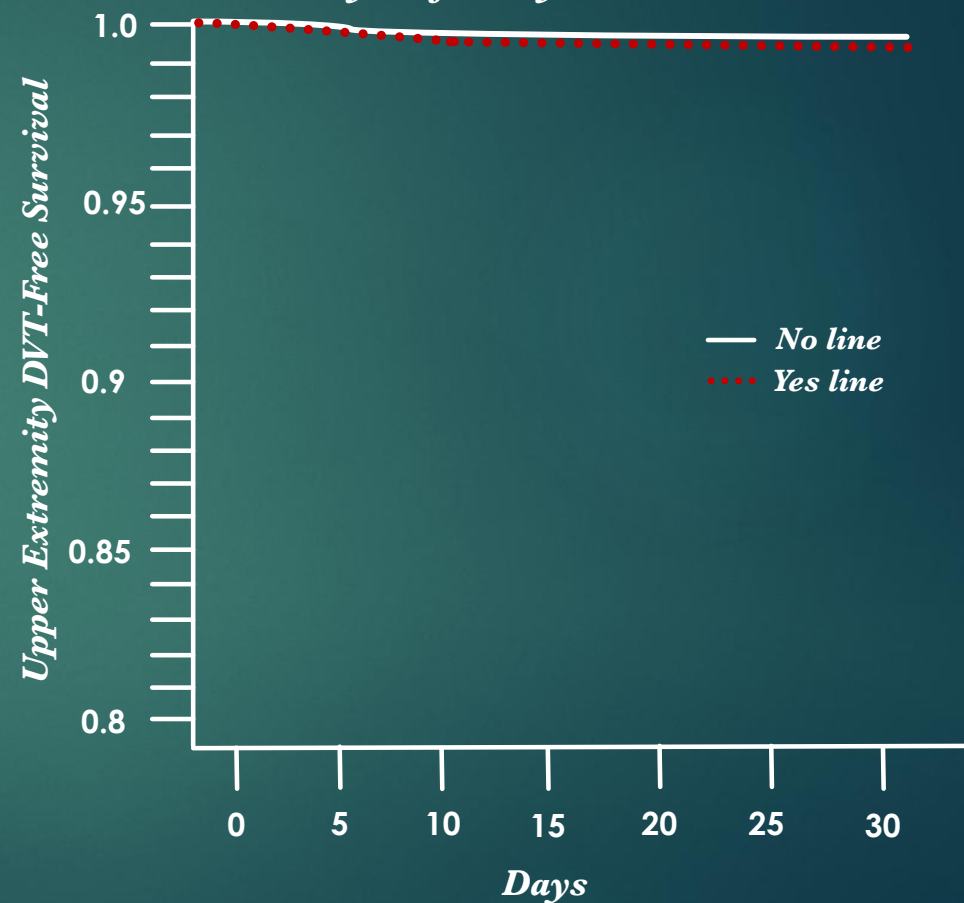


Pulmonary embolism

30-Day UE VTE for type of line



30-Day PE for Any line versus No line



Pulmonary embolism

JVA
ISSN 1129-7298

J Vasc Access 2017; 18 (2): 153-157
DOI: 10.5301/jva.5000670

ORIGINAL RESEARCH ARTICLE

Peripherally inserted central catheter-related complications in cancer patients: a prospective study of over 50,000 catheter days


Junren Kang¹, Wei Chen¹, Wenyan Sun², Ruibin Ge¹, Hallong Li¹, Enling Ma¹, Qingxia Su², Fang Cheng³, Jinhua Hong⁴, Yuanjuan Zhang⁵, Cheng Lei⁶, Xinchuan Wang⁷, Aiyun Jin⁸, Wanli Liu⁹

TABLE II - Frequency of complications and removal due to complications

Type of complications	Complications (%)	Removal due to complications (%)	Duration of PICC use, median (range)
UEDVT	9 (1.9)	1 (0.2)	120 (7-305)
CLABSI	6 (1.3) ^a	4 (0.8)	79 (24-132)
Breakage	7 (1.5)	1 (0.2)	82 (3-185)
Occlusion	16 (3.4)	8 (1.7)	130 (47-280)
Accidental withdrawal	11 (2.3)	7 (1.5)	85 (29-189)
Phlebitis	10 (2.1)	6 (1.3)	40 (2-185)
Skin allergy	22 (4.6)	9 (1.9)	47 (6-171)
Total ^b	81 (17.0)	36 (7.5)	80 (2-343)

heparin, only one (0.2%) PICC was removed immediately for contraindication to anticoagulant therapy. None of the patients developed pulmonary embolism. CLABSI was shown in six (1.3%) PICCs and four (0.8%) of them were removed immediately with an infection rate 0.12 per 1000 catheter days. Patients were treated with systemic antibiotic treatment and cured.


PTS



Contents lists available at [ScienceDirect](#)

Thrombosis Research


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



Full Length Article

Post-thrombotic syndrome and recurrent thromboembolism in patients with upper extremity deep vein thrombosis: A systematic review and meta-analysis

Kartiga Thiyagarajah^a, Leah Ellingwood^a, Kaitlin Endres^b, Aaron Hegazi^b, James Radford^a, Alla Iansavitchene^c, Alejandro Lazo-Langner^{b,d,*}



PTS

Real problem?


6-37% after UEDVT

Is it relevant?

Long term disability

**Not frequent after catheter-related
UEDVT**

Czihal M et al. Vasa. 2012 May;41(3):200-4.
E.E. Elman et al. Thromb. Res. 117 (6) (2006) 609–614
Thiyagarajah K et al. Thromb Res. 2019 Feb;174:34-39




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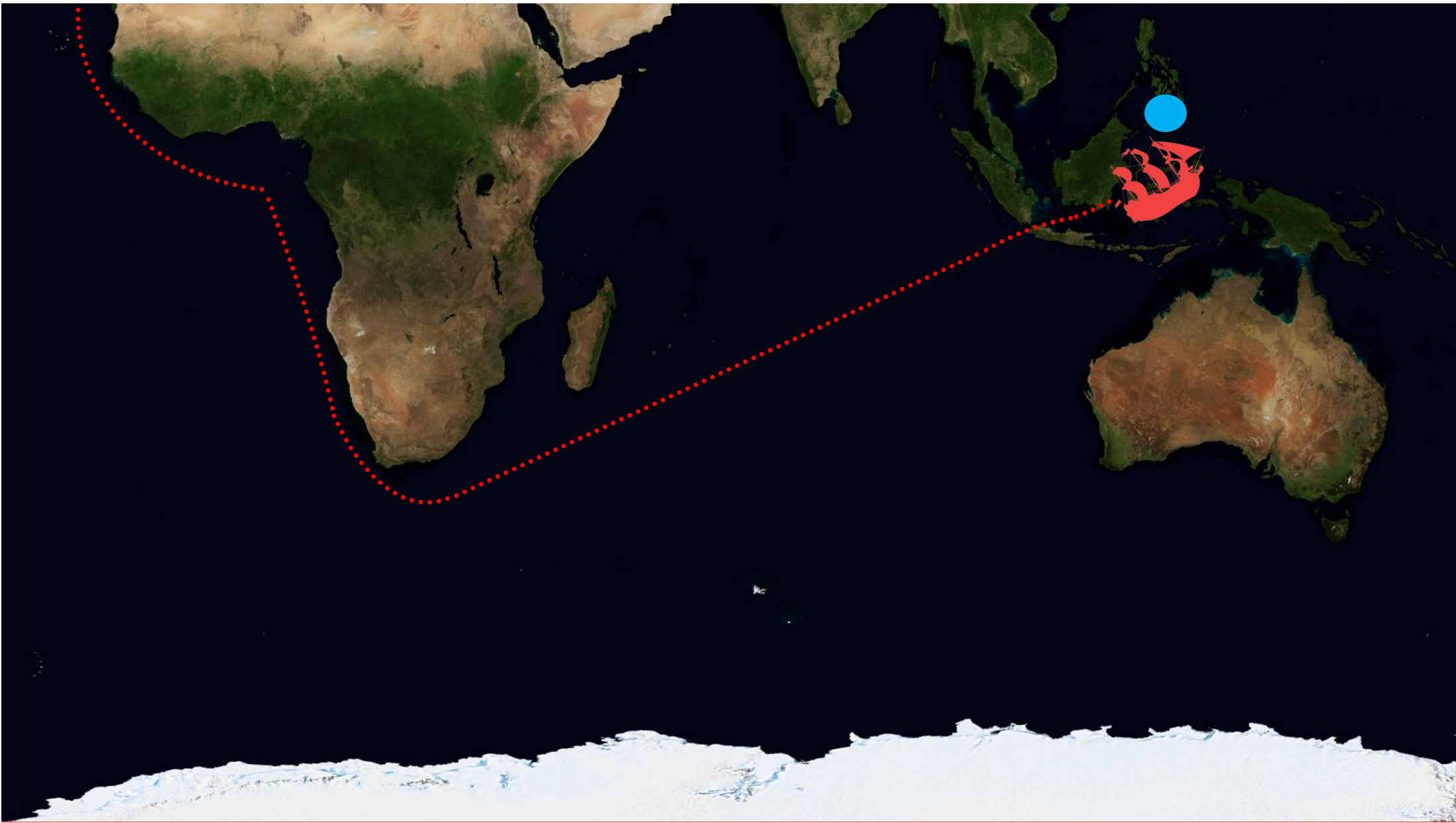
Full Length Article

Post-thrombotic syndrome and recurrent thromboembolism in patients with upper extremity deep vein thrombosis: A systematic review and meta-analysis

Kartiga Thiagarajah^a, Leah Ellingwood^a, Kaitlin Endres^b, Aaron Hegazi^b, James Radford^b, Alla Iansavitchene^c, Alejandro Lazo-Langner^{d,e,*}

Recurrence

	Recurrent thrombosis		
	Patients, <i>n</i>	Pooled proportion (%)	(95% CI)
All UEDVT	2552	7.5	(4.1–10.9)
Primary	1011	6.4	(3.7–9.1)
<u>Secondary</u>	335	15.9	(0.6–31.2)





..and now?

THROMBOSIS AND HEMOSTASIS

CME Article

The natural history of asymptomatic central venous catheter-related thrombosis in critically ill children

Sophie Jones,¹⁻⁴ Warwick Butt,^{1,5} Paul Monagle,¹⁻³ Timothy Cain,⁶ and Fiona Newall^{1-4,7}

¹Department of Paediatrics, The University of Melbourne, Melbourne, VIC, Australia; ²Haematology Research Group, Murdoch Children's Research Institute, Melbourne, VIC, Australia; ³Department of Clinical Haematology, The Royal Children's Hospital, Melbourne, VIC, Australia; ⁴Department of Nursing, The University of Melbourne, Melbourne, VIC, Australia; and ⁵Paediatric Intensive Care Unit, ⁶Medical Imaging Department, and ⁷Department of Nursing Research, The Royal Children's Hospital, Melbourne, VIC, Australia

**146 pts
with CVC
placement**

22% CRT

1% PTS

**0% thrombosis
extension/recurrence/PE**

2-year follow up

..and now?

THROMBOSIS AND HEMOSTASIS

Comment on Jones et al, page 857

A silent response to silent thrombosis

Sarah O'Brien | Nationwide Children's Hospital

The work of Jones and colleagues will likely be a "game changer" in the management of asymptomatic pediatric thrombosis, because current guidelines (based on low-quality evidence) recommend anticoagulation for 6 to 12 weeks in such patients. This study provides high-

*Pacific
Ocean*

