COMPLICANZE DEI PICC NEL PAZIENTE ONCOLOGICO

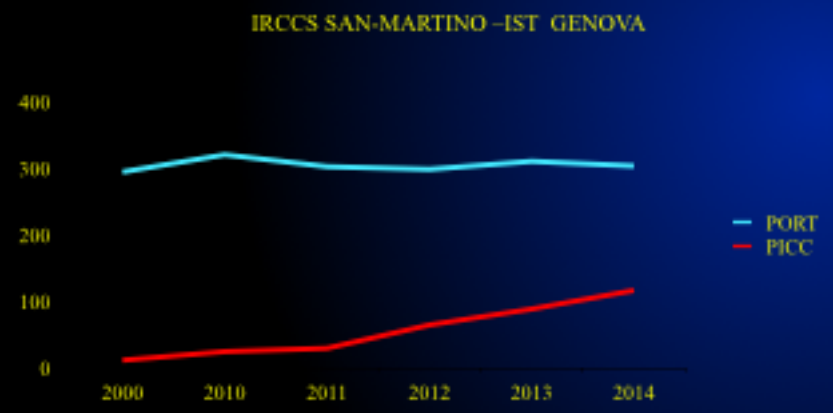
Sergio Bertoglio – IRCCS San Martino, IST
DISC- UNIVERSITA' DEGLI STUDI DI GENOVA

CLINICAL SIGNIFICANCE OF THE USE OF PICCS

- The use of PICCs has grown in hospitalized, critically ill, and ambulatory patients.
- Despite widespread use, scant data regarding the prevalence, patterns and appropriateness of PICC use exists.
- PICCs are associated with venous thromboembolism and bloodstream infections, complications that may offset any perceived benefit(s) from these devices.
- A research agenda examining patterns of use, complications, and comparative risks and benefits of PICCs in well-defined populations is needed.

Vineet Chopra, MD, *The American Journal of Medicine (2012) 125, 733-741*

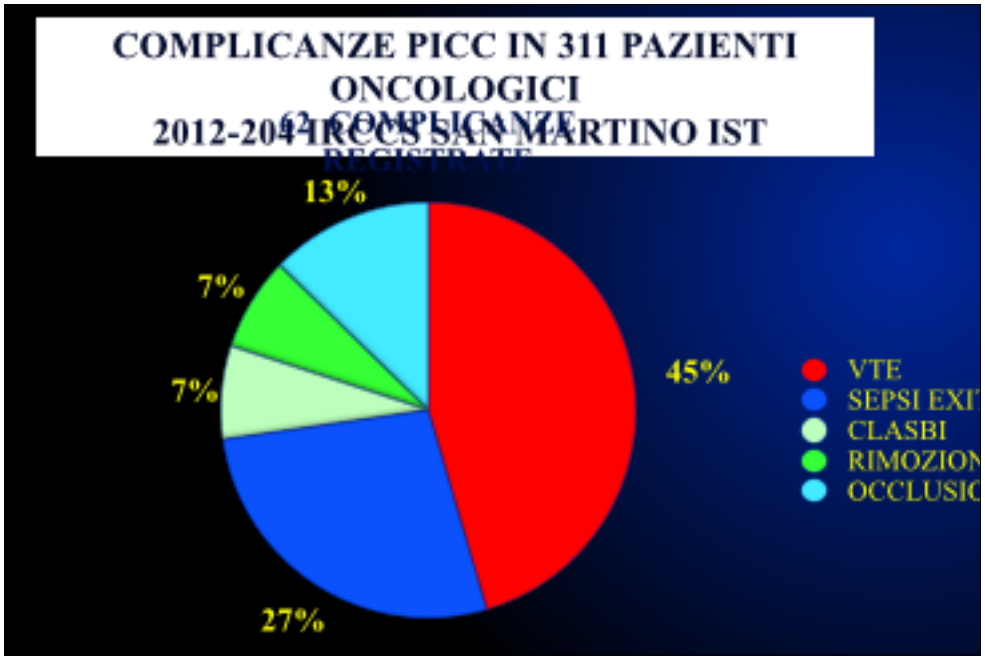
INCREMENTO UTILIZZO DEI PICC IN PAZIENTI ONCOLOGICI 2000-2014



PRINCIPALI COMPLICANZE DEI PICC

INFETTIVE → RIMOZIONE +++
TROMBOTICHE → RIMOZIONE +/-
MECCANICHE → RIMOZIONE +/- SOSTITUZIONE

COMPLICANZE PICC IN 311 PAZIENTI ONCOLOGICI 2012-204 IRCCS SAN MARTINO IST



RISK OF BSI IN ADULTS WITH DIFFERENT IV DEVICES ; SYSTEMIC REVIEW OF 200 PUBLISHED PROSPECTIVE STUDIES

Maki DG, et al. Mayo Clinic Proc 2006

	%	evnti/1000 gc
CVC	28.9%	3.2 /1000 gc
CVC TUNNELLED	22.5%	2.4 /1000 gc
PICC	2.8%	2.1 /1000 gc
PORT	2.6%	0.1 /1000 gc

COMPLICANZE INFETTIVE PICC IN 311 PAZIENTI ONCOLOGICI 2012-204 IRCCS SAN MARTINO IST

PICC (N°311)	6.1%	1.82 /1000 gc
PORT (N°1022)	2.6%	0.24 /1000 gc

COMPLICANZE INFETTIVE PICC IN 311 PAZIENTI ONCOLOGICI 2012-204 IRCCS SAN MARTINO IST

PRESIDIO (N°)	INCIDENZA N°(%)	RIMOZIONE N° (%)
PICC (311)	*19 (6.1%)*	*8 (2.6)*
SEPSI EXIT SITE	*15 (4.8%)*	*4 (1.3%)*
CLASBI	*4 (1.3%)*	*4 (1.3%)*
PORT (1022)	*27 (2.6%)*	*23 (2.2%)*

VTE OVERT US-CONFIRMED IN PAZIENTE ONCOLOGICO (Non ematologico)- IRCCS SAN-MARTINO IST (2011-2014)

PRESIDIO (N°)	INCIDENZA N°(%)	RIMOZIONE N° (%)
PICC (311)	*26 (8.4%)*	*7 (2.25%)*
PORT (1022)	*24 (2.34%)*	*2 (0.25%)*

PICC E TROMBOSI VENOSA

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

Lancet 2013; 382: 311–25

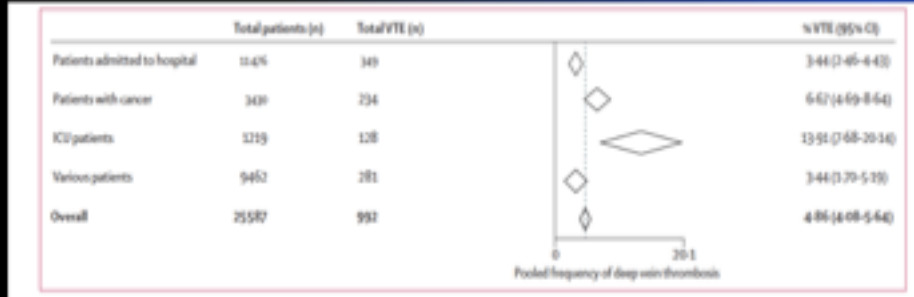
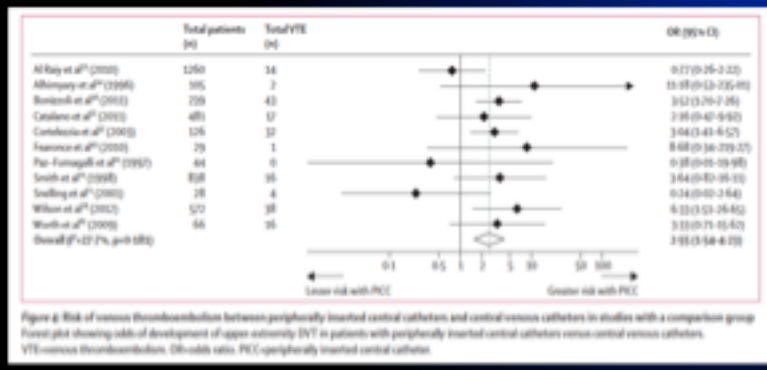


Figure 3: Forest plot showing weighted frequency of peripherally inserted central catheter-related VTE risk, stratified by patient population
VTE=venous thromboembolism. ICU=intensive care unit.

TVP MAGGIOR RISCHIO PER I PICC vs CVC ?

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

Lancet 2013; 382: 311–25



FATTORI DI RISCHIO TVP ASSOCIATA A PICC

LIEM TK et al, J VASC SURG 2012;55: 761-767

ANALISI UNIVARIATA

*Variable**	*DVT (–)*	*DVT (+)*	*P*
Technical			
Catheter diameter >5F	72.30	92.50	.002
Multilumen PICC	71	93	.004
Right-sided insertion	41	45	.592
Cephalic insertion site	24.10	0	.043
Cavoatrial tip	72	70	.769
Clinical variable			
Age, years	41.7 ± 25.8	48.8 ± 18.9	.029
Male gender	52	60	.298
Recent surgery	56	58	.751
Recent trauma	10	4	.209
Malignancy	23	39	.021
Chemotherapy	21	61	<.001
Infection	73	74	.785
Hypertension	41	37	.554
Diabetes	18	52	<.001
Tobacco	13	25	.033
Hormonal therapy	1.20	31	<.001
Renal insufficiency/ failure	22	18	.714
Hypercholesterolemia	18	19	.813

FATTORI DI RISCHIO PICC-DVT

ANALISI MULTIVARIATA – LOGISTIC REGRESSION

Table III. B, Multivariable logistic regression of technical and clinical variables related to peripherally inserted central catheter (PICC)–associated upper extremity deep venous thrombosis (DVT)

Technical or clinical variable	*OR (95% CI)*	P
Catheter diameter ≥5F	3.9 (1.1-13.9)	.037
Malignancy	4.1 (1.9-8.9)	<.001

CI, Confidence interval; *OR*, odds ratio.

LIEM TK et al, J VASC SURG 2012;55: 761-767

COMPLICANZE MECCANICHE/ GESTIONALI IN 311 PAZIENTI ONCOLOGICI PORTATORI DI PICC IRCCS SAN-MARTINO IST(2011-2014)

COMPLICANZA	INCIDENZA N°(%)	RIMOZIONE N° (%)
RIMOZIONE ACCIDENTALE	*5 (1.6%)*	*5 (1.6%)*
OCCLUSIONE	*12 (3.9%)*	*6 (1.9%)*
MECCANICHE PORT (1022)	*19 (1.9%)*	*15 (1.5%)*

RIMOZIONI PICC PER COMPLICANZE NELPAZIENTE ONCOLOGICO (2011-2014)

PRESIDIO (N°)	INCIDENZA N° (%)
PICC (311)	*26 (8.4 %)*
PORT (1022)	*40 (3.9 %)*

SVILUPPI NELLA PREVENZIONE DELLE COMPLICANZE DEI PICC IN ONCOLOGIA

- CORRETTA SCELTA DEI PRESIDI (Calibro- N°Lumi)
- EMPOWERMENT GESTIONALE E BUNDLES SPECIFICI
  - Gestione dell'exit site
  - Medicazione
  - Sistemi di fissaggio alla cute
  - Flushing dei cateteri

SVILUPPI NELLA PREVENZIONE DELLE COMPLICANZE DEI PICC IN ONCOLOGIA

PROFILASSI VTE PICC RELATED IN PAZIENTI ONCOLOGICI

LWMH ? NOA

Dabigatran
Rivaroxaban
Apixaban

Alcuni aspetti tutt'ora incerti anche in letteratura

PORT VC **PICC VC**

Reale impatto economico dei due presidi

Impatto psico fisico per il paziente

QoL attesa e percepita

COSTS OF PORT vs PICC IN ONCOLOGY

SUPPORTIVE CARE CANCER 2014; 22: 121-128

ORIGINAL ARTICLE

Comparison of peripherally inserted central venous catheters (PICC) versus subcutaneously implanted port-chamber catheters by complication and cost for patients receiving chemotherapy for non-haematological malignancies

CONCLUSIONI

THE USE OF PICC IN ONCOLOGICAL PATIENTS MUST BE PROPERLY WEIGHED CONSIDERING BENEFITS AND RISKS.
THE MAJORITY OF CANCER PATIENTS ARE NOT SUITABLE FOR A PICC ACCESS.

NANCY MOUREAU , WOCOVA –Berlin June 2014

sergio.bertoglio@istge.it