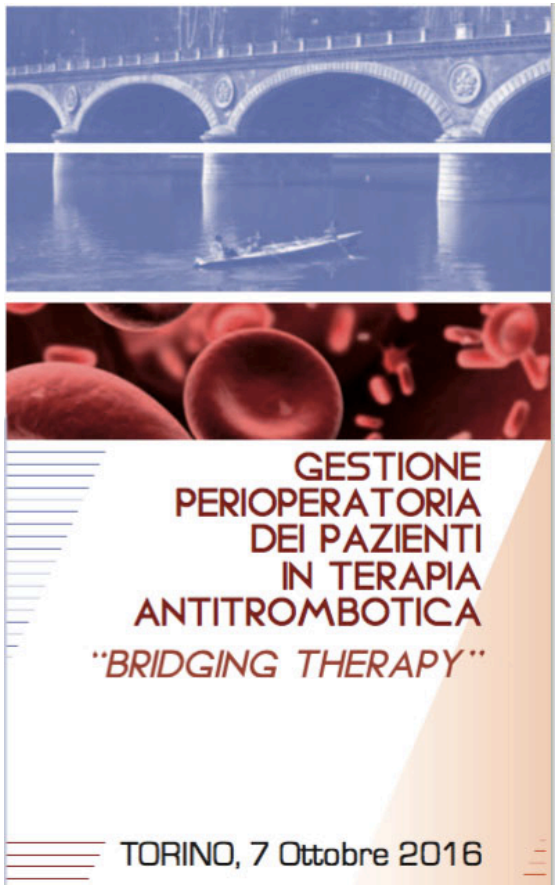
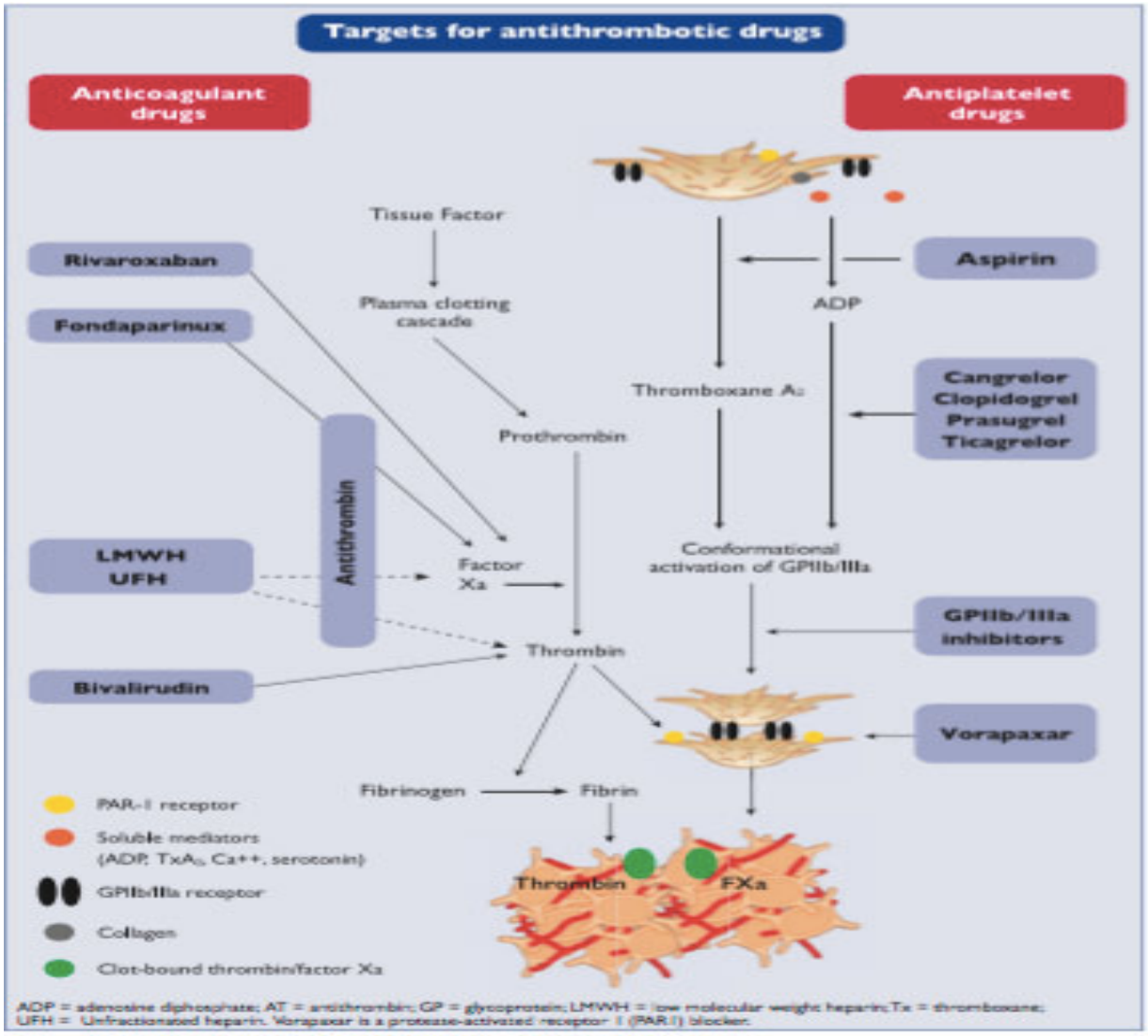
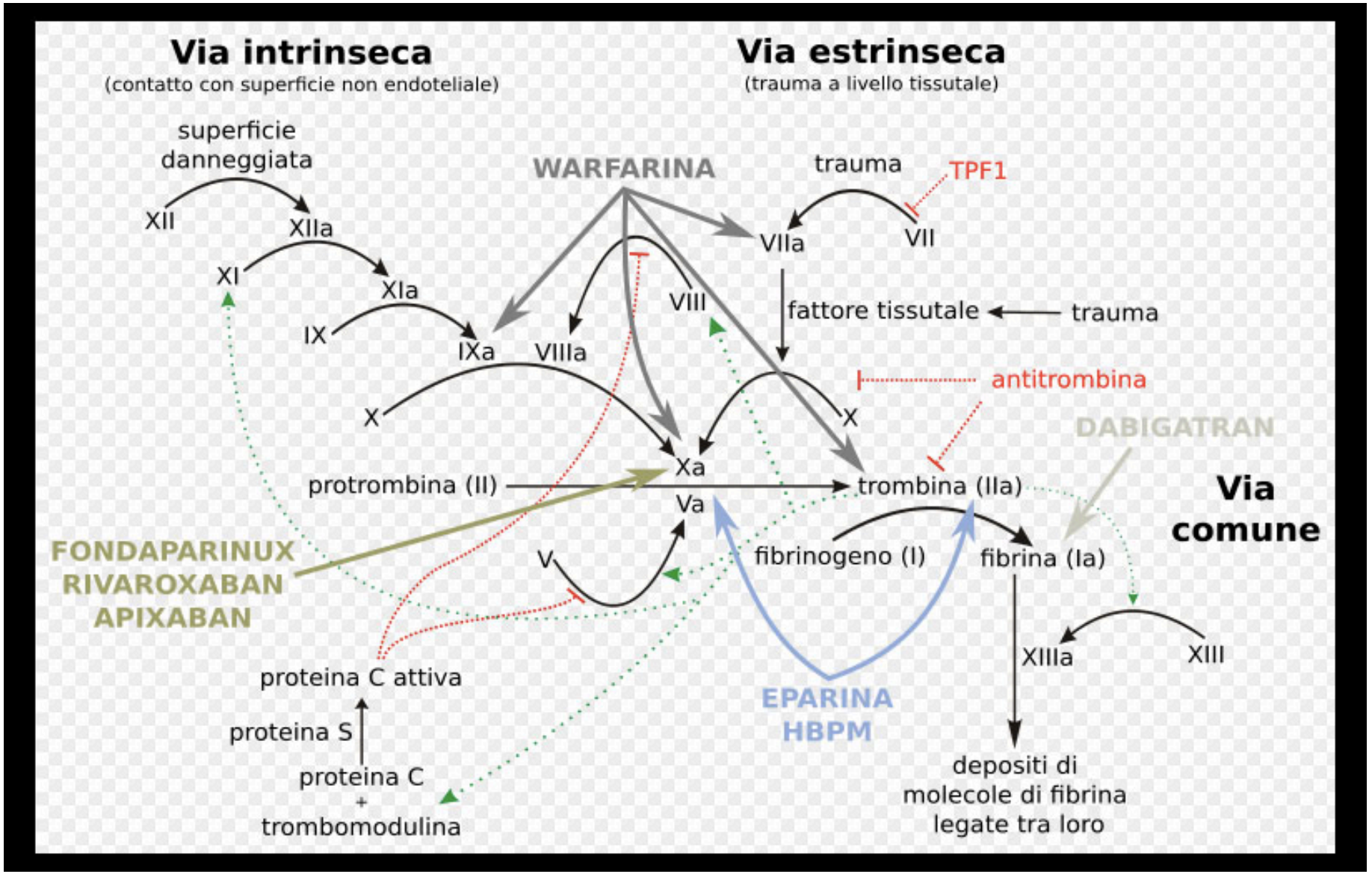
CHI SONO I PAZIENTI IN TERAPIA ANTITROMBOTICA ?

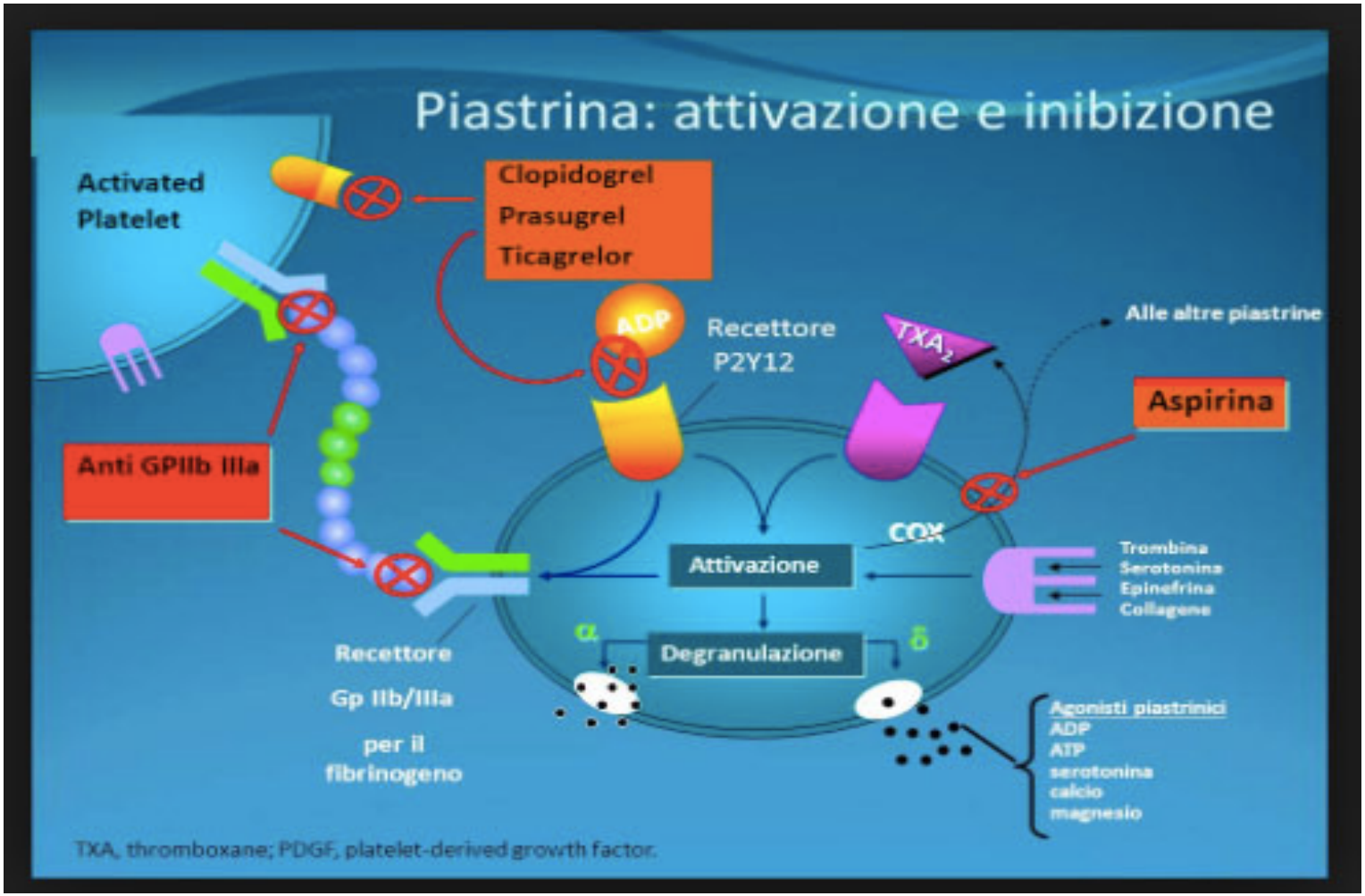
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ASL TO2




Targets for antithrombotic drugs
Anticoagulant drugs
Antiplatelet drugs
Tissue Factor
Rivaroxaban
Fondaparinux
Plasma clotting cascade
Aspirin
ADP
Thromboxane A2
Cangrelor
Clopidogrel
Prasugrel
Ticagrelor
Prothrombin
Antithrombin
LMWH
UFH
Factor Xa
Conformational activation of GPIIb/IIIa
GPIIb/IIIa inhibitors
Thrombin
Bivalirudin
Vorapaxar
Fibrinogen
Fibrin
PAR-1 receptor
Soluble mediators (ADP, TxA2, Ca++, serotonin)
GPIIb/IIIa receptor
Collagen
Clot-bound thrombin/factor Xa
Thrombin
FXa
ADP = adenosine diphosphate; AT = antithrombin; GP = glycoprotein; LMWH = low molecular weight heparin; Tx = thromboxane; UFH = Unfractionated heparin. Vorapaxar is a protease-activated receptor 1 (PAR-1) blocker.


Via intrinseca
(contatto con superficie non endoteliale)
Via estrinseca
(trauma a livello tissutale)
superficie danneggiata
XII
XIIa
XI
XIa
IX
IXa
VIIIa
VIII
X
Xa
WARFARINA
trauma
TPF1
VIIa
VII
fattore tissutale
trauma
antitrombina
X
DABIGATRAN
protrombina (II)
trombina (IIa)
Va
V
fibrinogeno (I)
fibrina (Ia)
Via comune
FONDAPARINUX
RIVAROXABAN
APIXABAN
XIIIa
XIII
proteina C attiva
proteina S
proteina C
+
trombomodulina
EPARINA
HBPM
depositi di
molecole di fibrina
legate tra loro


Piastrina: attivazione e inibizione
Activated Platelet
Clopidogrel
Prasugrel
Ticagrelor
ADP
Recettore P2Y12
TXA_2
Alle altre piastrine
Aspirina
Anti GPIIb IIIa
COX
Attivazione
Trombina
Serotonina
Epinefrina
Collagene
α
Degranulazione
δ
Recettore Gp IIb/IIIa per il fibrinogeno
Agonisti piastrinici
ADP
ATP
serotonina
calcio
magnesio
TXA, thromboxane; PDGF, platelet-derived grovrth factor.

Chi sono i pazienti in terapia anticoagulante ?

- Pazienti con fibrillazione atriale

➢ non valvolare (FANV) : AVKs o DOACs

➢ valvolare : pazienti con stenosi mitralica moderata o severa – pazienti portatori di protesi valvolari meccaniche : AVKs

- Pazienti portatori di protesi valvolari meccaniche : AVKs

- Pazienti con malattia tromboembolica venosa (MTVE) AVKs o DOACs

Chi sono i pazienti in terapia antiaggregante?

- Pazienti in prevenzione primaria
- Pazienti in prevenzione secondaria(CAD, stroke, PAD…)

Singolo AA: ASA Ticlopidina Clopidogrel

- Pazienti post ACS DAPT per 12 mesi
- Pazienti post ACS e PTCA-Stent DAPT per 12 mesi
- PTCA-STENT in elezione DAPT per 1-3/6-12 mesi

Duplice AA : ASA + Prasugrel Ticagrelor Clopidogrel

- Pazienti in triplice terapia: anticoagulante e AA

(pazienti in FA sottoposti a PTCA - stent)

Triplice TAO/DOACS +DAPT(Clopidogrel)

Scenari clinici possibili : OAC e chirurgia elettiva

- La terapia OAC (AVK) puo' essere mantenuta (procedure o chirurgia minore)

- La terapia OAC (AVK) deve essere interrotta ma non e' necessaria bridging therapy
-
- La terapia OAC (AVK) deve essere interrotta ma e' necessaria bridging therapy

- DOACs : timing sospensione -ripresa no bridging therapy

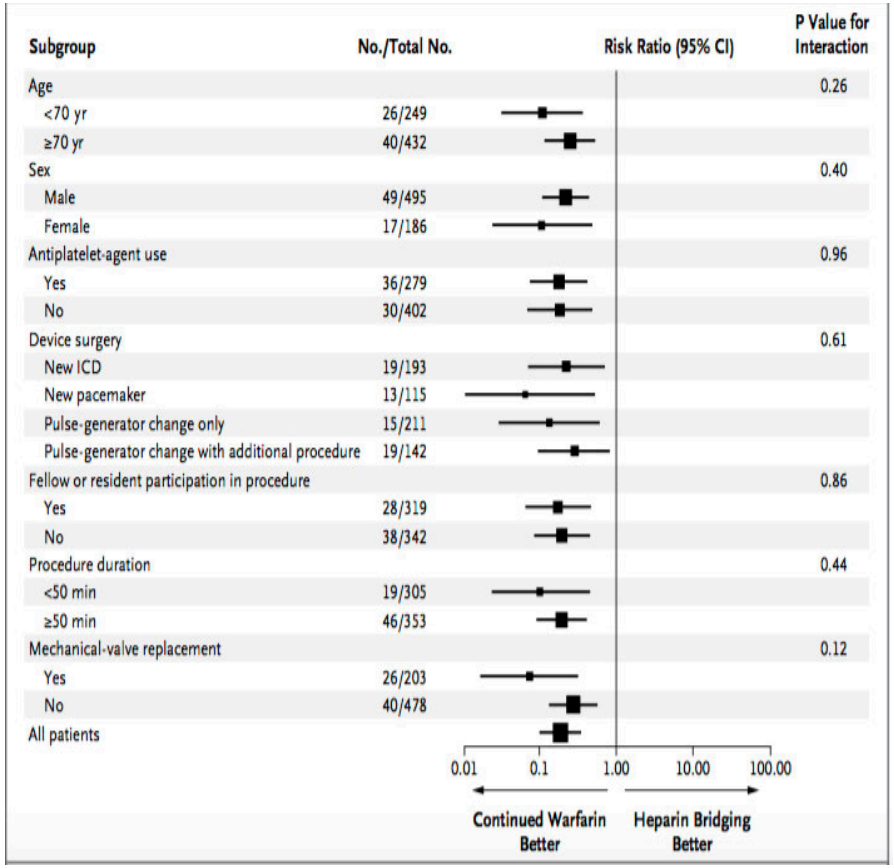
Scenari clinici possibili : AA e chirurgia elettiva

- Il singolo antiaggregante puo' essere mantenuto o sospeso
- La DAPT puo' *(e deve)*essere mantenuta
- La DAPT deve essere interrotta ma mantenuto singolo AA (ASA)
- La DAPT deve *(e puo')* essere interrotta
- La DAPT deve essere interrotta ma e' necessaria bridging therapy (Inib. GPIIb/IIIa)

Pacemaker or Defibrillator Surgery without Interruption of Anticoagulation

David H. Birnie, M.D., Jeff S. Healey, M.D., George A. Wells, Ph.D., Atul Verma, M.D., Anthony S. Tang, M.D., Andrew D. Krahn, M.D., Christopher S. Simpson, M.D., Felix Ayala-Paredes, M.D., Benoit Coutu, M.D., Tiago L.L. Leiria, M.D., and Vidal Essebag, M.D., Ph.D., for the BRUISE CONTROL Investigators*

Outcome	Heparin Bridging (N=338)	Continued Warfarin (N=343)	Relative Risk (95% CI)	P Value
Primary outcome				
Clinically significant hematoma — no. (%)	54 (16.0)	12 (3.5)	0.19 (0.10–0.36)	<0.001
Components of primary outcome				
Hematoma prolonging hospitalization — no. (%)	16 (4.7)	4 (1.2)	0.24 (0.08–0.72)	0.006
Hematoma requiring interruption of anticoagulation — no. (%)	48 (14.2)	11 (3.2)	0.20 (0.10–0.39)	<0.001
Hematoma requiring evacuation — no. (%)	9 (2.7)	2 (0.6)	0.21 (0.05–1.00)	0.03



Ematoma clinicamente significativo

3.5% "continued warfarin" vs 16% "bridging therapy"

Perioperative Bridging Anticoagulation in Patients with Atrial Fibrillation

James D. Douketis, M.D., Alex C. Spyropoulos, M.D., Scott Kaatz, D.O., Richard C. Becker, M.D., Joseph A. Caprini, M.D., Andrew S. Dunn, M.D., David A. Garcia, M.D., Alan Jacobson, M.D., Amir K. Jaffer, M.D., M.B.A., David F. Kong, M.D., Sam Schulman, M.D., Ph.D., Alexander G.G. Turpie, M.B., Vic Hasselblad, Ph.D., and Thomas L. Ortel, M.D., Ph.D., for the BRIDGE Investigators*

ATE 0.4% "No bridging" vs 0.3% "bridging"

Bleeding 1.3% No bridging vs 3.2% bridging

Pazienti in FA CHADS 2.3

No protesi valvolari meccaniche

Procedure prevalentemente a basso rischio di sanguinamento – 11% chirurgia maggiore

Bridging therapy : LWMH 100 U kg x 2

Warfarin 24 h post – LWMH 24/48-72h post

Outcome	No Bridging (N=918)	Bridging (N=895)	P Value
	number of patients (percent)		
Primary			
Arterial thromboembolism	4 (0.4)	3 (0.3)	0.01*, 0.73†
Stroke	2 (0.2)	3 (0.3)	
Transient ischemic attack	2 (0.2)	0	
Systemic embolism	0	0	
Major bleeding	12 (1.3)	29 (3.2)	0.005†
Secondary			
Death	5 (0.5)	4 (0.4)	0.88†
Myocardial infarction	7 (0.8)	14 (1.6)	0.10†
Deep-vein thrombosis	0	1 (0.1)	0.25†
Pulmonary embolism	0	1 (0.1)	0.25†
Minor bleeding	110 (12.0)	187 (20.9)	<0.001†

* P value for noninferiority.
† P value for superiority.

DOCUMENTO DI CONSENSO AZIENDALE PER LA GESTIONE DELLA TERAPIA ANTITROMBOTICA PERIOPERATORIA NELLA CHIRURGIA ELETTIVA