Gestione perioperatoria del paziente in terapia anticoagulante: problematiche anestesiologiche

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PAIN AND REGIONAL ANESTHESIA

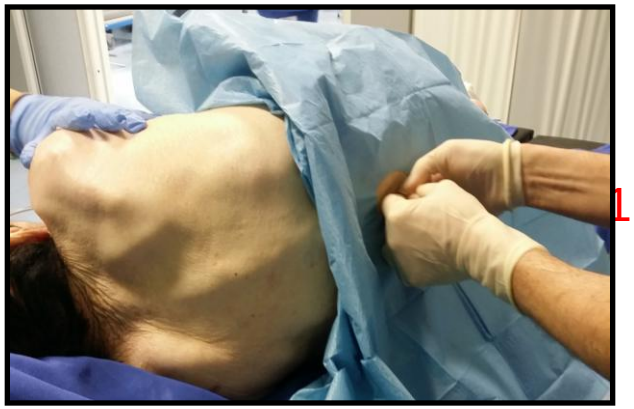
Anesthesiology 2004; 101:950–9

Severe Neurological Complications after Central Neuraxial Blockades in Sweden 1990–1999

Vibeke Moen, M.D., Nils Dahlgren, M.D., Ph.D.,† Lars Irestedt, M.D., Ph.D.‡*

Rischio di ematoma dopo **analgesia peridurale**

1 caso su 200.000 giovani partorienti



1 caso su 3.600 donne anziane protesi ginocchio

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Anesthesiology 2004; 101:950–9

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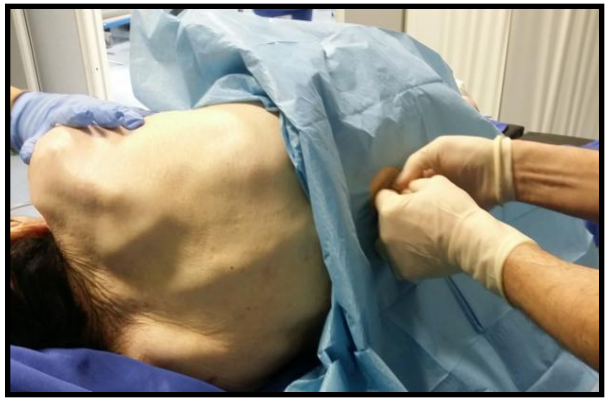
Rischio di ematoma dopo **anestesia spinale**

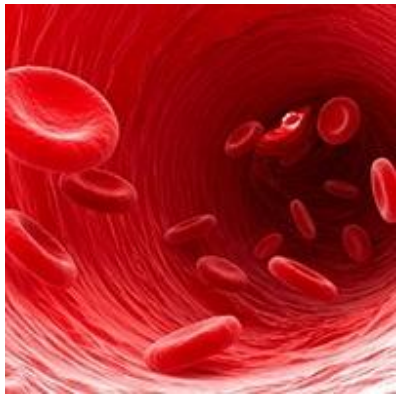
1 caso su 480.000 popolazione generale



1 caso su 22.000 donne con frattura di femore

Regional Anesthesia and Pain Medicine • Volume 35, Number 1, January-February 2010

ASRA PRACTICE ADVISORY



Regional Anesthesia in the Patient Receiving Antithrombotic or Thrombolytic Therapy

American Society of Regional Anesthesia and Pain Medicine Evidence-Based Guidelines (Third Edition)

Terese T. Horlocker, MD, Denise J. Wedel, MD,* John C. Rowlingson, MD,† F. Kayser Enneking, MD,‡ Sandra L. Kopp, MD,* Honorio T. Benzon, MD,§ David L. Brown, MD,|| John A. Heit, MD,* Michael F. Mulroy, MD,¶ Richard W. Rosenquist, MD,# Michael Tryba, MD,** and Chun-Su Yuan, MD, PhD††*

TABLE 8. Patient, Anesthetic, and LMWH Dosing Variables Associated With Spinal Hematoma

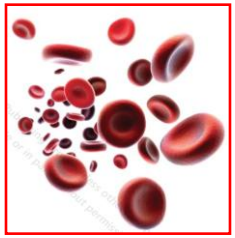
Patient factors
Female sex
Increased age
Ankylosing spondylitis or spinal stenosis
Renal insufficiency
Anesthetic factors
Traumatic needle/catheter placement
Epidural (compared with spinal) technique
Indwelling epidural catheter during LMWH administration
LMWH dosing factors
Immediate preoperative (or intraoperative) LMWH administration
Early postoperative LMWH administration
Concomitant antiplatelet or anticoagulant medications
Twice-daily LMWH administration

Table 2 Relative risk related to neuraxial and peripheral nerve blocks in patients with abnormalities of coagulation.

	Block category	Examples of blocks in category
Higher risk	Epidural with catheter	
	Single-shot epidural	
	Spinal	
	Paravertebral blocks	Paravertebral block
		Lumbar plexus block
		Lumbar sympathectomy
		Deep cervical plexus block
	Deep blocks	Coeliac plexus block
		Stellate ganglion block
		Proximal sciatic block (Labat, Raj, sub-gluteal)
		Obturator block
		Infraclavicular brachial plexus block
		Vertical infraclavicular block
		Supraclavicular brachial plexus block
	Superficial perivascular blocks	Popliteal sciatic block
		Femoral nerve block
		Intercostal nerve blocks
		Interscalene brachial plexus block
		Axillary brachial plexus block
	Fascial blocks	Ilio-inguinal block
		Ilio-hypogastric block
		Transversus abdominis plane block
		Fascia lata block
	Superficial blocks	Forearm nerve blocks
		Saphenous nerve block at the knee
		Nerve blocks at the ankle
		Superficial cervical plexus block
		Wrist block
		Digital nerve block
		Bier's block
Normal risk	Local infiltration	

ANESTHESIOLOGY NEWS SPECIAL EDITION • OCTOBER 2015

New Anticoagulants and Emerging Trends in Regional Anesthesia



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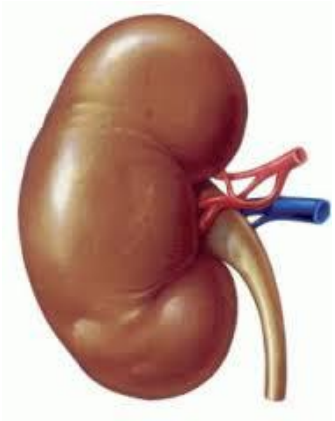
Fundaparinux (Arixtra ®)

Emivita 17 - 21 ore **Dose** 2,5 mg/giorno iniziando 6 ore post-operatorie

Eliminazione 77% renale



- se insufficienza renale moderata 1,5 mg/giorno
- se insufficienza renale severa controindicato

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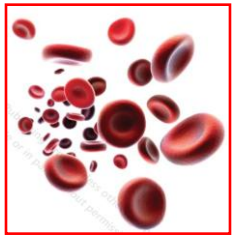

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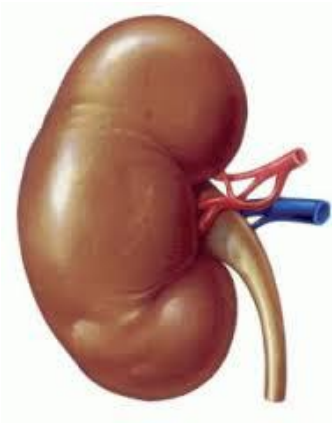
Dabigatran (Pradaxa ®)

Emivita 14-17 ore

Eliminazione 80% rene



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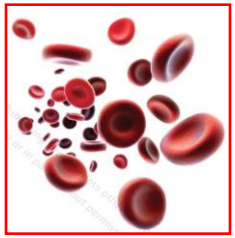

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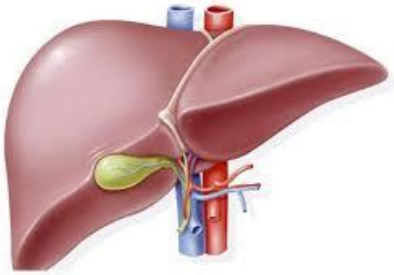
Apixaban (Eliquis ®)

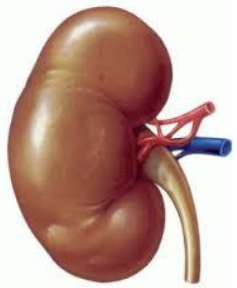
Emivita 10-15 ore

Eliminazione

75% fegato/bile ed intestinale



25% rene



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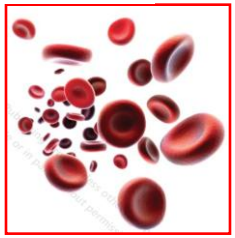

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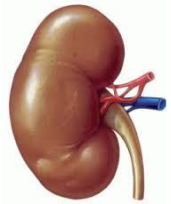
Rivaroxaban (Xarelto ®)

Emivita 5-9 ore

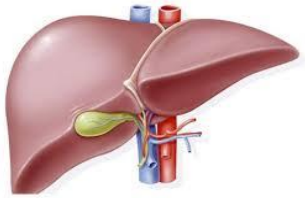
Dose 10 mg 6-8 dopo la chirurgia

Eliminazione

33% reni



33% feci/bile



33% metaboliti inattivi

- Insufficienza epatica severa — controindicato
- Anziani con funzione renale peggiorata — emivita può 11-13 ore

American Society of
Regional Anesthesia and Pain Medicine

Advancing the science and practise regional anesthesia and pain medicine

Recommended Time Intervals *Before* and *After* Neuraxial Block or Catheter Removal*

DRAFT

Drug	Time *before* puncture/catheter manipulation or removal	Time *after* puncture/catheter manipulation or removal
Dabigatran	5 days	6 hours
Apixaban	3 days	6 hours
Rivaroxaban	3 days	6 hours
Prasugrel	7-10 days	6 hours
Ticagrelor	5-7 days	6 hours

*Developed at 4th ASRA Practice Advisory for Regional Anesthesia in the Patient Receiving Antithrombotic or Thrombolytic Therapy

British Journal of Haematology, 2016, **175**, 602–613
bjh guideline

Peri-operative management of anticoagulation and antiplatelet therapy

David Keeling,[1] R. Campbell Tait,[2] and Henry Watson[3] on behalf of the British Committee for Standards in Haematology

[1]Oxford University Hospitals NHS Foundation Trust, Oxford, [2]Glasgow Royal Infirmary, Glasgow, and [3]Aberdeen Royal Infirmary, Aberdeen, UK

Emergenza nel paziente in DOACs

La concentrazione farmaco è stimata da:
- dose del farmaco
- ultima somministrazione
- funzione renale

Acido tranexamico

Concentrati complesso protrombinico considerati solo nel sanguinamento diffuso da coagulopatia. Pochi dati a supporto

F.A.N.S. e i **colloidi** da evitare

Emergenza in paziente Pradaxa ®

Praxbind®
idarucizumab
INJECTION 5g

Dose 5 g in bolo

Inattivazione immediata completa

Nessun effetto protrombotico

British Journal of Haematology, 2016, **175,** 602–613

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Emergenza nel paziente in antipiastrinici

Chirurgia urgente ad alto rischio emorragico/tempo non permette l'interruzione del farmaco

- **trasfusioni di piastrine**

almeno dopo 2 ore dall'ultima dose di **aspirina** (2 pools)

12-24 ore dopo l'ultima dose di **clopidogrel**

GRAZIE
PER
L'ATTENZIONE