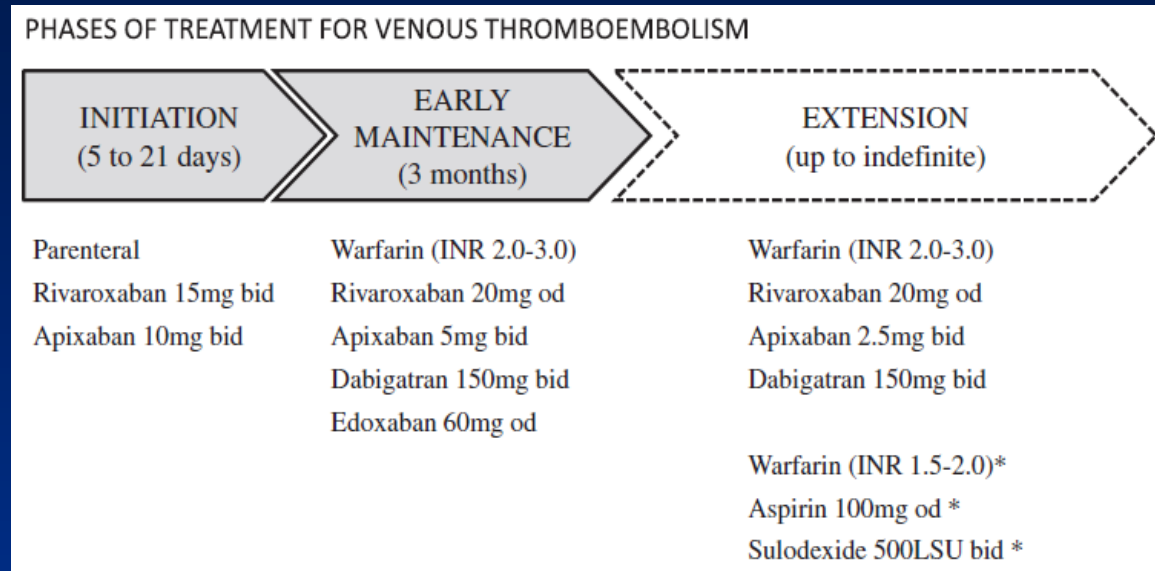


Cremona 10 marzo 2017

# Terapia e durata del trattamento

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Malattie Cardiovascolari  
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# From Blondon & Bounameaux, Circulation 2015



Initial — Long-Term — Extended

From Kearon et al., Chest 2016

# Terapia iniziale e lungo-termine TEV: Importanti differenze tra i NAO

- **Terapia parenterale per i primi 5-9 gg poi NAO**
  - dabigatran (Pradaxa) 150 mg BID
  - edoxaban (Lixiana) 60 mg OID
- **Subito NAO**
  - rivaroxaban (Xarelto) 15 mg BID x 21 gg  
poi 20 mg OID
  - apixaban (Eliquis) 10 mg BID x 7 gg  
poi 5 mg BID

## Recurrence incidence rates since the beginning of therapy for VTE

- At 14 d. = 55.4 per 100 person-years
- 90 d. = 30.0
- 180 d. = 17.7

The rate of VTE recurrence is highest during heparin therapy and the transition to warfarin.

The 2-week case fatality rates for recurrent PE and recurrent DVT alone are 11% and 2%, respectively (Heit et al. Blood 2011)



## START-Register

SURVEY ON ANTICOAGULATED PATIENTS – REGISTER

Registro computerizzato per la raccolta dei dati di pazienti trattati cronicamente con anticoagulanti



Percentuale del tempo trascorso sotto, entro o sopra il range terapeutico nei primi tre mesi di trattamento in relazione alle classi di score

Score	N. of patients (%)	Percentage of time below TR	Percentage of time within TR (TTR)	Percentage of time above TR
Score Groups				
0-1	916 (70%)	31±26.7	61±26	8.4±14
≥ 2	392 (30%)	39±28	53±26	7.7±13.7
P value		p= 0.0001	p= 0.0001	p= 0.61

*Palareti et al., Thromb Haemost 2016*

# NAO: Prevedibile migliore qualità nella fase iniziale del trattamento del TEV

L'iniziale fase di terapia con  
LMWH+warfarin è particolarmente  
difficile da regolare

# Terapia per la “maintenance”: primi 3-6 mesi

AVK

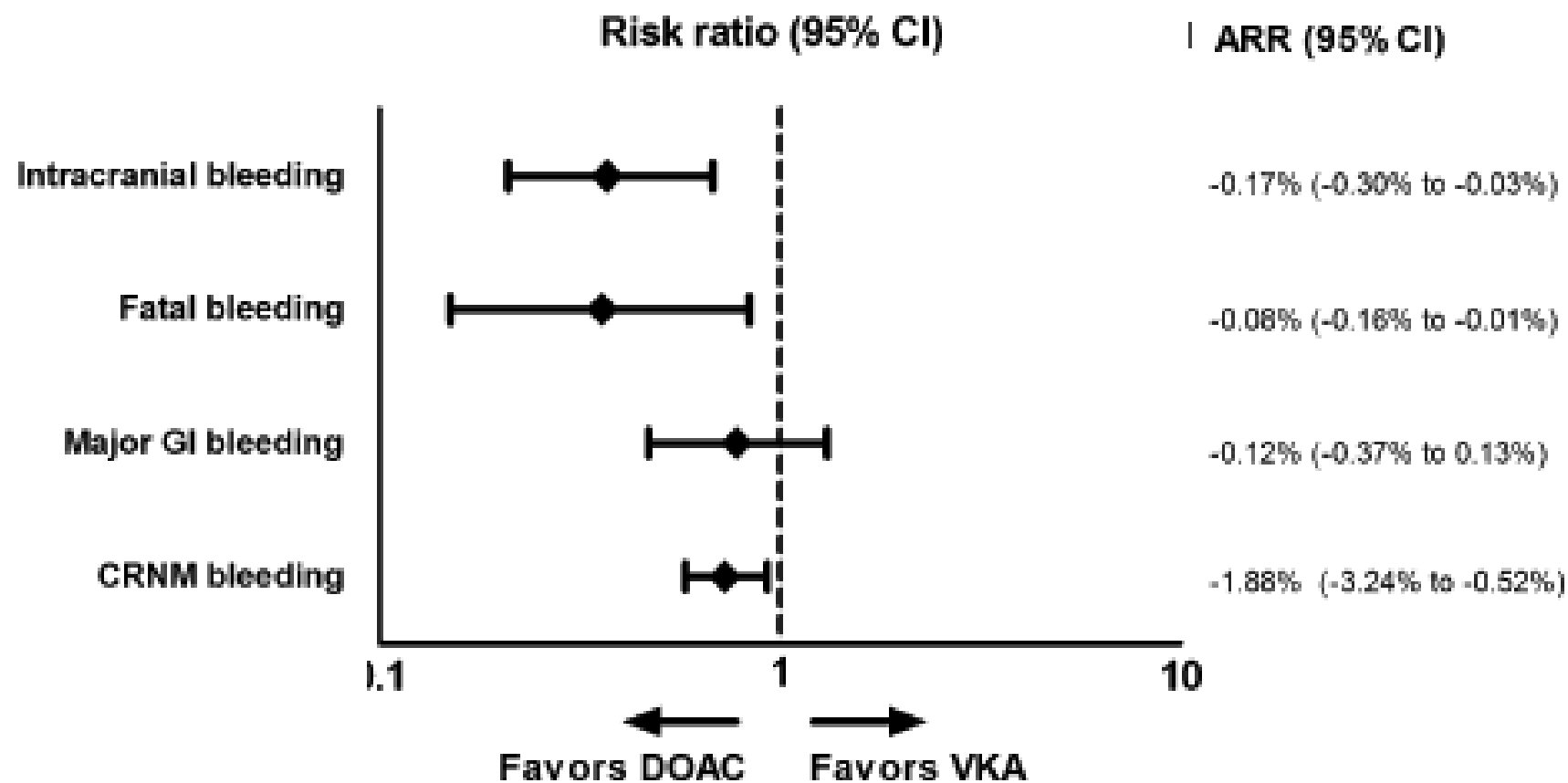
DOACs

LMWH

# Direct oral anticoagulants compared with vitamin K antagonists for acute venous thromboembolism: evidence from phase 3 trials

Nick van Es,<sup>1</sup> Michiel Coppens,<sup>1</sup> Sam Schulman,<sup>2</sup> Saskia Middeldorp,<sup>1</sup> and Harry R. Büller<sup>1</sup>

Blood  
2014



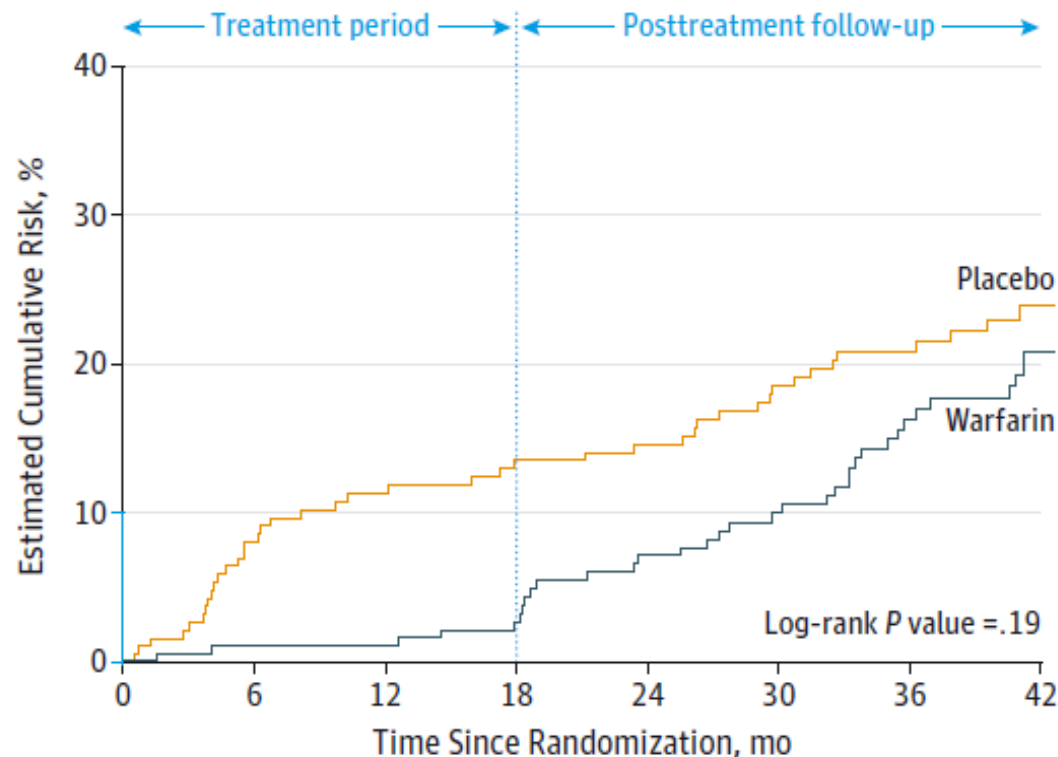


# Six Months vs Extended Oral Anticoagulation After a First Episode of Pulmonary Embolism

## The PADIS-PE Randomized Clinical Trial

Couturaud et al.  
JAMA 2015

Figure 2. Probability of the Composite Outcome of Recurrent Venous Thromboembolism and Major Bleeding Throughout the Study Period



## Criteria per AC corta

I pazienti con TEV dopo chirurgia maggiore  
devono ricevere AC per 3 mesi  
(per evitare recidive)

# Criteri per AC cronica

- $\geq 2$  episodi documentati di TEV (TVP prossimale e/o EP)
- Cancro attivo o malattie ematologiche
- Trombofilia maggiore
- Sindrome da anticorpi antifosfolipidi
- EP con shock o grave e prolungata ipotensione a rischio vitale
- Ipertensione polmonare
- Severa insufficienza cardio-respiratoria (NYHA 3 or 4)
- Altre indicazioni per AC

# Prognostic significance of residual venous obstruction in patients with treated unprovoked deep vein thrombosis

## A patient-level meta-analysis

Marco P. Donadini<sup>1</sup>; Walter Ageno<sup>1</sup>; Emilia Antonucci<sup>2</sup>; Benilde Cosmi<sup>3</sup>; Michael J. Kovacs<sup>4</sup>; Grégoire Le Gal<sup>5</sup>; Paul Ockelford<sup>6</sup>; Daniela Poli<sup>2</sup>; Paolo Prandoni<sup>7</sup>; Marc Rodger<sup>8</sup>; Giorgia Saccullo<sup>9</sup>; Sergio Siragusa<sup>9</sup>; Laura Young<sup>10</sup>; Matteo Bonzini<sup>11</sup>; Monica Caprioli<sup>1</sup>; Francesco Dentali<sup>1</sup>; Alfonso Iorio<sup>12</sup>; James D. Douketis<sup>13</sup>

At 6 mo. RVO was found in 55.1% of patients

RVO was a stronger predictor of recurrent VTE if detected at 3 months after diagnosis (HR = 2.17; 95% CI: 1.11-4.25)

Not predictive of recurrent VTE if detected at >6 months after diagnosis (1,124 patients, HR = 1.19)

### CLINICAL TRIALS AND OBSERVATIONS

#### D-dimer to guide the duration of anticoagulation in patients with venous thromboembolism: a management study

Gualtiero Palareti,<sup>1</sup> Benilde Cosmi,<sup>1</sup> Cristina Legnani,<sup>1</sup> Emilia Antonucci,<sup>2</sup> Valeria De Micheli,<sup>3</sup> Angelo Ghirarduzzi,<sup>4</sup> Daniela Poli,<sup>2</sup> Sophie Testa,<sup>5</sup> Alberto Tosetto,<sup>6</sup> Vittorio Pengo,<sup>7</sup> and Paolo Prandoni,<sup>8</sup> on behalf of the DULCIS (D-dimer and ULtrasonography in Combination Italian Study) Investigators

Dopo 1 anno di terapia nessuna differenza tra chi aveva RVO (5.3%) e chi no (6.3%)

# What after the first three months AC?

## Accepted Manuscript

Antithrombotic Therapy for VTE Disease: CHEST Guideline

Clive Kearon, MD, PhD, Elie A. Akl, MD, MPH, PhD, Joseph Ormelas, PhD, Allen Blaivas, DO, FCCP, David Jimenez, MD, PhD, FCCP, Henri Bounameaux, MD, Menno Huisman, MD, PhD, Christopher S. King, MD, FCCP, Timothy Morris, MD, FCCP, Namita Sood, MD, FCCP, Scott M. Stevens, MD, Janine R.E. Vintch, MD, FCCP, Philip Wells, MD, Scott C. Woller, MD, Col. Lisa Moores, MD, FCCP



2016

“In patients with a first unprovoked proximal DVT of the leg or PE who have a low or moderate bleeding risk, we suggest extended anticoagulant therapy (no scheduled stop date) (Grade 2B)”

# Recurrent VTE or VTE-related death in recent extension studies in placebo-treated

<b>Trials</b>	<b>Placebo group</b>
Resonate (6 mo; 18 mo) (dabig.)	5.6%; ~10%
Inspire (4 y) (ASA)	18.4%
Amplify extension (1 y) (apix.)	8.8%
SURVET (2 y) (sulodex.)	9.7%

## Accepted Manuscript

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2016

### Remarks:

Patient sex and D-dimer level measured a month after stopping AC therapy may influence the decision to stop or extend anticoagulant therapy.

**CLINICAL TRIALS AND OBSERVATIONS**

**D-dimer to guide the duration of anticoagulation in patients with venous thromboembolism: a management study**

Gualtiero Palareti,<sup>1</sup> Benilde Cosmi,<sup>1</sup> Cristina Legnani,<sup>1</sup> Emilia Antonucci,<sup>2</sup> Valeria De Micheli,<sup>3</sup> Angelo Ghirarduzzi,<sup>4</sup> Daniela Poli,<sup>2</sup> Sophie Testa,<sup>5</sup> Alberto Tosetto,<sup>6</sup> Vittorio Pengo,<sup>7</sup> and Paolo Prandoni,<sup>8</sup> on behalf of the DULCIS (D-dimer and ULtrasonography in Combination Italian Study) Investigators

**Clinical events occurred in the investigated patients**

	Negative D-dimer, no anticoagulation (n = 528; 829 y)*	Positive D-dimer, anticoagulation refused (n = 109; 171 y)*	Positive D-dimer, anticoagulation resumed (n = 373; 601 y)*
Primary outcomes, n, % (95% CI)	25 (4.7%; 3.2-6.9)	15 (13.8%; 7.9-21.7)§	4 (1.1%; 0.3-2.7)
Incidence per 100 pt-y, % (95% CI)	3.0% (2.0-4.4)	8.8% (5.0-14.1)¶	0.7% (0.2-1.7)
Major bleeding, n, % (95% CI)	0	0	14‡ (3.7%; 2.1-6.2)
Incidence per 100 pt-y, % (95% CI)			2.3% (1.3-3.9)





In patients with a first unprovoked proximal DVT or PE and who have a:

- (i) low or moderate bleeding risk, we suggest extended AC therapy (no scheduled stop date) (Grade 2B)
- (ii) high bleeding risk, we recommend 3 months of AC therapy over extended therapy (Grade 1B)

All patients who receive extended AC therapy should be reassessed at periodic intervals (e.g. annually).

**TABLE 11 ] Risk Factors for Bleeding with Anticoagulant Therapy and Estimated Risk of Major Bleeding in Low-, Moderate-, and High-Risk categories<sup>a</sup>**

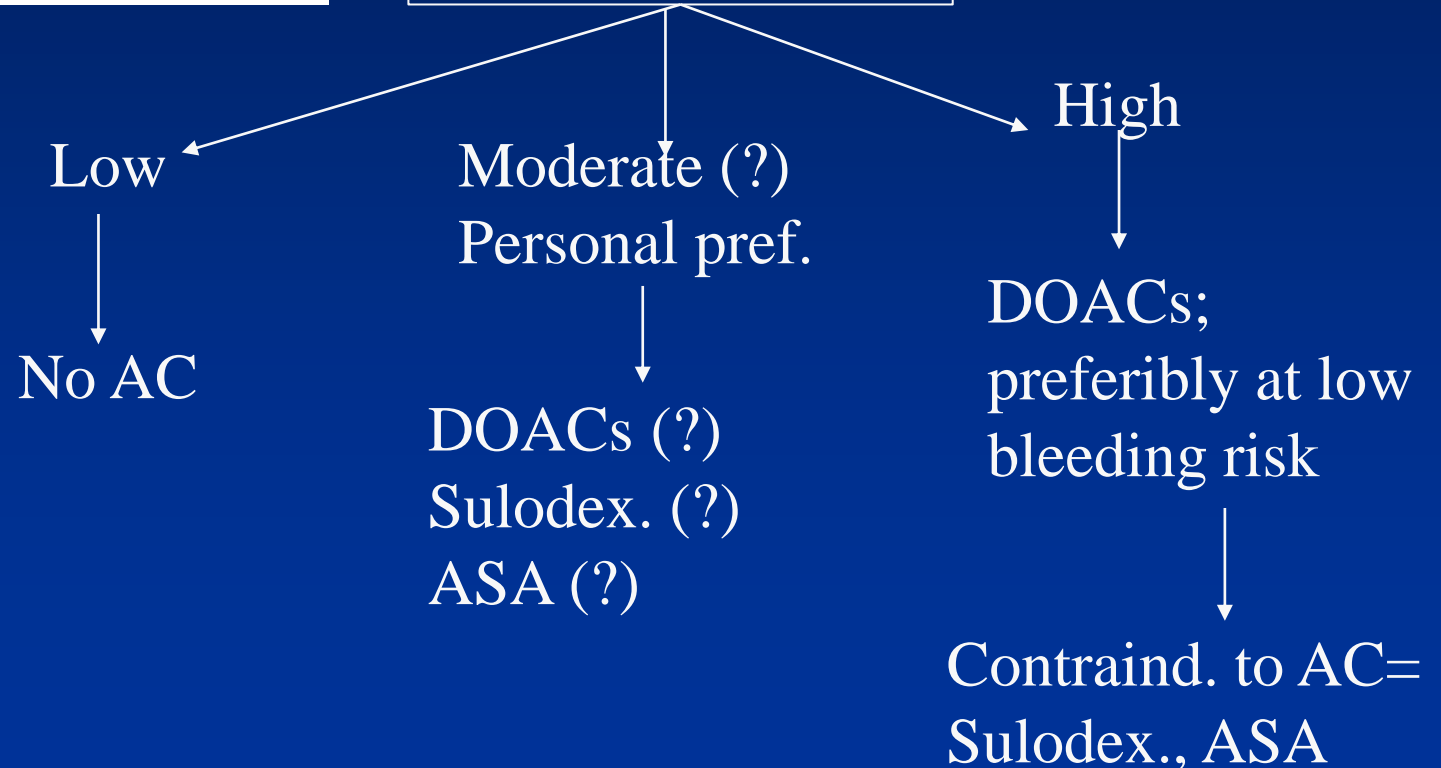
Risk Factors <sup>b</sup>
Age >65 y <sup>184-193</sup>
Age >75 y <sup>184-188,190,192,194-202</sup>
Previous bleeding <sup>185,191-193,198,201-204</sup>
Cancer <sup>187,191,195,198,205</sup>
Metastatic cancer <sup>181,204</sup>
Renal failure <sup>185,191-193,196,199,201,206</sup>
Liver failure <sup>186,189,195,196</sup>
Thrombocytopenia <sup>195,204</sup>
Previous stroke <sup>185,192,195,207</sup>
Diabetes <sup>185,186,196,200,202</sup>
Anaemia <sup>185,189,195,198,202</sup>
Antiplatelet therapy <sup>186,195,196,202,208</sup>
Poor anticoagulant control <sup>189,196,203</sup>
Comorbidity and reduced functional capacity <sup>191,196,204</sup>
Recent surgery <sup>189,209,c</sup>
Frequent falls <sup>195</sup>
Alcohol abuse <sup>191,192,195,202</sup>
Nonsteroidal anti-inflammatory drug <sup>210</sup>

*Kearon et al.  
ACCP  
Chest 2016*

Low risk (no bleeding factors) = 0.8%/y major bleeding  
 Moderate (one bleeding factor) = 1.6%/y “ “  
 High (two or more factors) = ≥6.5%/y “ “



Individual risk



## Lo studio APIDULCIS

Studio promosso dalla Fondazione;  
Sperimentazione clinica con farmaco – non profit

INFORMAZIONI=

[fondazionearianna@anticoagulazione.it](mailto:fondazionearianna@anticoagulazione.it)

# APIDULCIS: decisioni terapeutiche

- Al primo D-dimero positivo:
  - raccomandata AC con apixaban 2,5 mg x 2 al dì per 18 mesi  
(farmaco fornito da BMS-Pfizer)
  - esclusi se vogliono usare un altro farmaco
- Pazienti con D-dimero sempre negativo (4 volte):  
suggerita sospensione definitiva AC

Grazie