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Disclosures

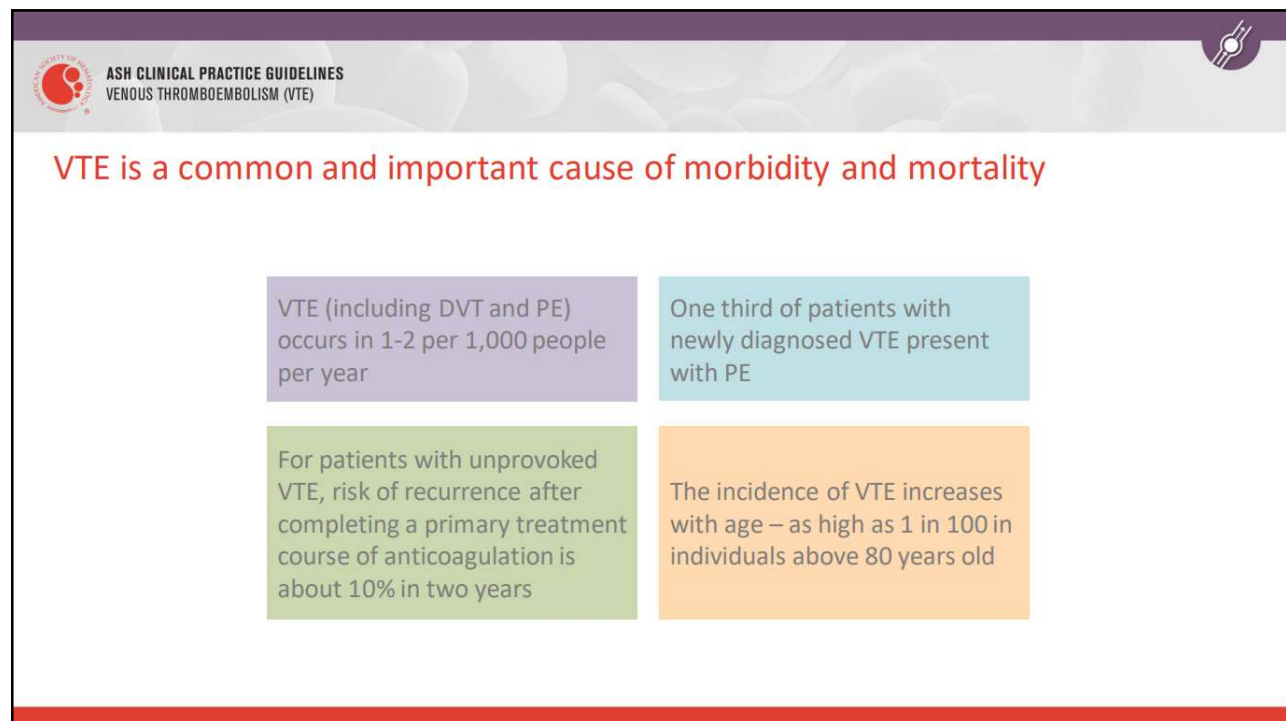
- Dr. He served on advisory board for Astra Zeneca.

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Learning Objectives

- Define risk factors for DVT/PE
- Recognize initial management, primary treatment, and secondary prevention of DVT/PE
- Understand dosing strategies and limitations of direct oral anticoagulants for treatment of DVT/PE
- Utilize clinical tools to assess risk of recurrent DVT/PE and bleeding

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ASH CLINICAL PRACTICE GUIDELINES
VENOUS THROMBOEMBOLISM (VTE)

VTE is a common and important cause of morbidity and mortality

VTE (including DVT and PE) occurs in 1-2 per 1,000 people per year	One third of patients with newly diagnosed VTE present with PE
For patients with unprovoked VTE, risk of recurrence after completing a primary treatment course of anticoagulation is about 10% in two years	The incidence of VTE increases with age – as high as 1 in 100 in individuals above 80 years old

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Risk factors for VTE (Modified ISTH classification)

Transient (Reversible)

- **Major risk factors (ie, transient factors that favor limited-duration anticoagulation):**
 - Major surgery >30 minutes, hospitalization or confined to bed with "bathroom privileges" for ≥3 days due to acute illness, trauma with fractures, pregnancy or postpartum, estrogen-containing therapy, IVF therapy
- **Minor risk factors (ie, transient factors that favor continuing anticoagulation):**
 - Minor surgery <30 minutes, hospitalization <3 days, reduced mobility at home ≥3 days due to acute illness, lower extremity injury without fracture with reduced mobility ≥3 days, long-haul flight,

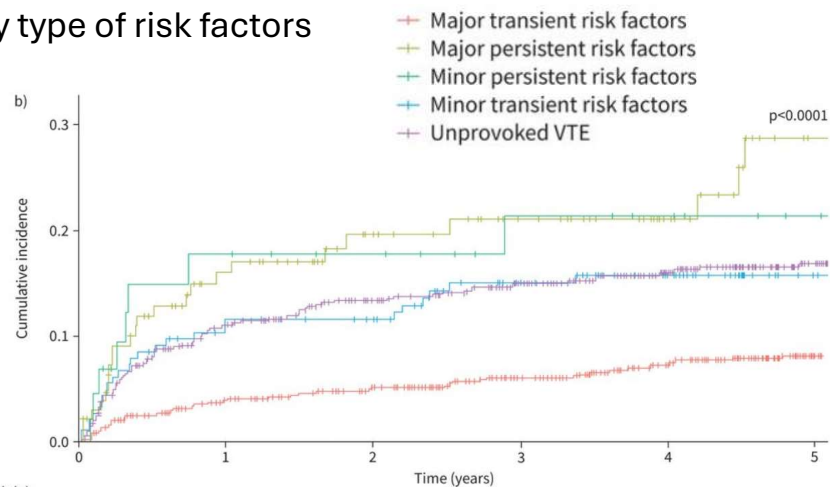
Chronic (Risk factors that persist over a prolonged period of time)

- **Major**
 - Cancer
 - ALS
- **Minor**
 - Autoimmune disease
 - Inflammatory disease

Le Mao R, Orione C, de Moreuil C, Tromeur C, Hoffmann C, Fauché A, Robin P, Didier R, Guegan M, Jiménez D, Le Moigne E, Leroyer C, Lacut K, Couturaud F. Risk stratification for predicting recurrent venous thromboembolism after discontinuation of anticoagulation: a *post hoc* analysis of a French prospective multicentre study. *Eur Respir J*. 2022 Sep 22;60(3):2103002. doi: 10.1183/13993003.03002-2021. PMID: 35210315.

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DVT Recurrence Risk by modified ISTH criteria by type of risk factors

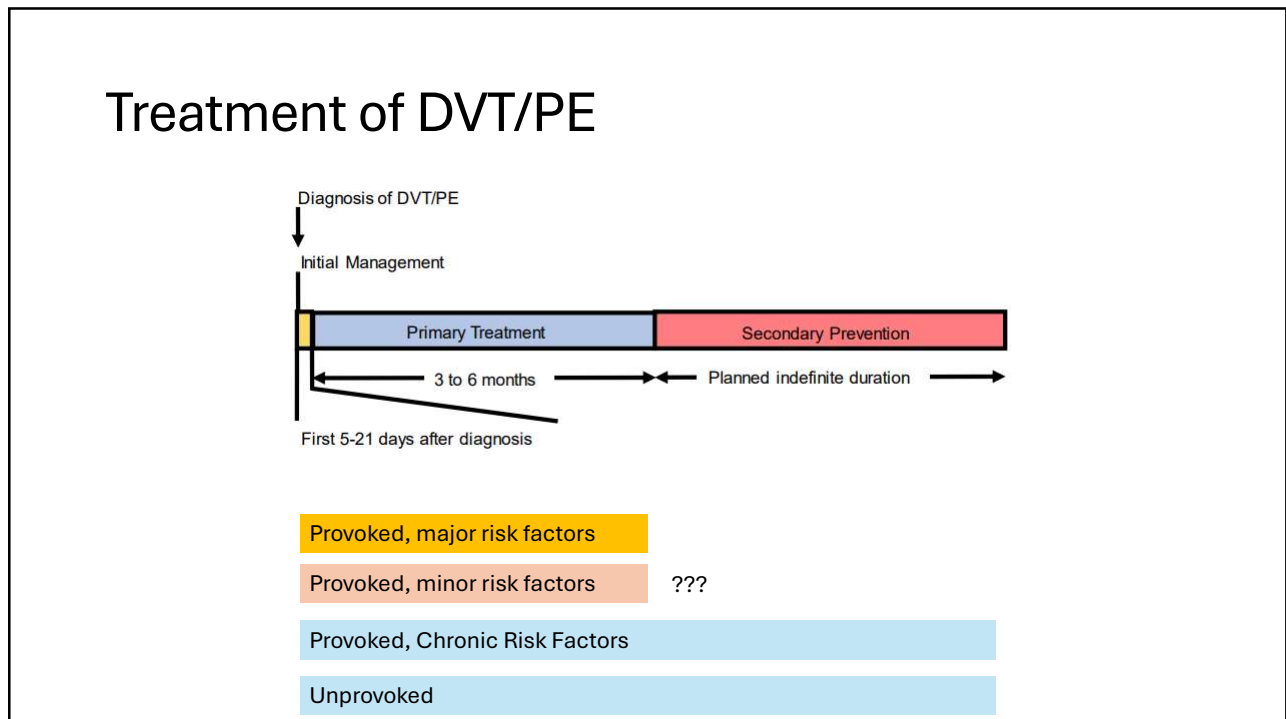


At risk (n):	0	1	2	3	4	5
Major transient risk factors	792	714	674	602	533	408
Major persistent risk factors	135	93	74	63	47	28
Minor persistent risk factors	45	35	32	27	25	21
Minor transient risk factors	185	158	153	131	114	81
Unprovoked VTE	724	605	559	514	443	337

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Acute treatment of DVT/PE

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Initial Management

- Start anticoagulation
- Identify candidates for catheter-directed lytic therapy or thrombectomy (hospitalization)
 - Massive PE with hemodynamic compromise
 - Symptomatic DVT with phlegmasia cerulea dolens or extensive iliofemoral DVT
- Do not test for protein C, protein S, antithrombin deficiency during acute clot as levels can be low due to consumption
- IVC filter not recommended unless unable to safely anticoagulate


Phlegmasia cerulea dolens



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ASH CLINICAL PRACTICE GUIDELINES
VENOUS THROMBOEMBOLISM (VTE)



Recommendation

For primary treatment of deep venous thrombosis or pulmonary embolism, the panel suggests short term (3-6 months) over long term anticoagulation (6-12 months) (conditional recommendation, moderate certainty)

Long-term compared with **short-term** anticoagulation for patients with VTE provoked by transient risk factor

Outcomes	Relative effect: RR (95% CI)	Anticipated absolute effects (95% CI)	
		Risk with short-term	Risk difference with long-term anticoagulation
● Mortality	1.38 (0.85 to 2.23)	18 per 1,000	7 more deaths per 1,000 (3 fewer to 22 more)
● PE	0.66 (0.29 to 1.151)	50 per 1,000	17 fewer PE per 1,000 (35 fewer to 25 more)
● DVT	0.50 (0.27 to 0.95))	117 per 1000	50 fewer DVT per 1,000 (24 fewer to 10 fewer)
● Major bleeding	1.46 (0.78 to 2.73)	13 per 1,000	6 more bleeds per 1,000 (3 fewer to 22 more)

Remarks:
For VTE provoked by transient risk factor, secondary prevention does not need to be considered

*Results based on approx. 2.5 year follow up


Quality of Evidence (GRADE): Low ● Moderate ● Strong ●

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Anticoagulation Treatment Options

- Direct oral anticoagulants (DOACs) include factor Xa inhibitors (rivaroxaban, apixaban) and direct thrombin inhibitors (dabigatran, edoxaban) \$\$\$
- Vitamin K antagonists (warfarin) \$
- Heparin and Low-molecular weight heparin (Enoxaparin) \$\$

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ASH CLINICAL PRACTICE GUIDELINES
VENOUS THROMBOEMBOLISM (VTE)



Recommendation

In patients with VTE, the panel *suggests* using **DOACs over VKAs** (conditional recommendation, moderate certainty)

DOAC compared with **VKA** for VTE:

Outcomes	Relative effect: RR (95% CI)	Anticipated absolute effects (95% CI)	
		Risk with VKA	Risk difference with DOAC
● Mortality	0.99 (0.85-1.15)	39 per 1,000	0 fewer deaths per 1,000 (6 fewer to 6 more)
● PE	0.97 (0.77-1.23)	20 per 1,000	1 fewer PE per 1,000 (5 fewer to 5 more)
● DVT	0.80 (0.59 to 1.09)	26 per 1,000	5 fewer DVT per 1,000 (2 more to 11 fewer)
● Major bleeding	0.63 (0.47 to 0.84)	17 per 1,000	6 fewer bleeds per 1,000 (3 fewer to 9 fewer)

Remarks:
May not be appropriate for all patient populations

The panel does not suggest one DOAC over another

Quality of Evidence (GRADE): Low ● Moderate ● Strong ●

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Who should not have a DOAC?

- Post-bariatric surgery or suspected malabsorption syndromes
- High Risk Antiphospholipid syndrome
- Pregnant women
- Mechanical heart valves
- DOAC failure
- BMI > 50 evidence is weaker

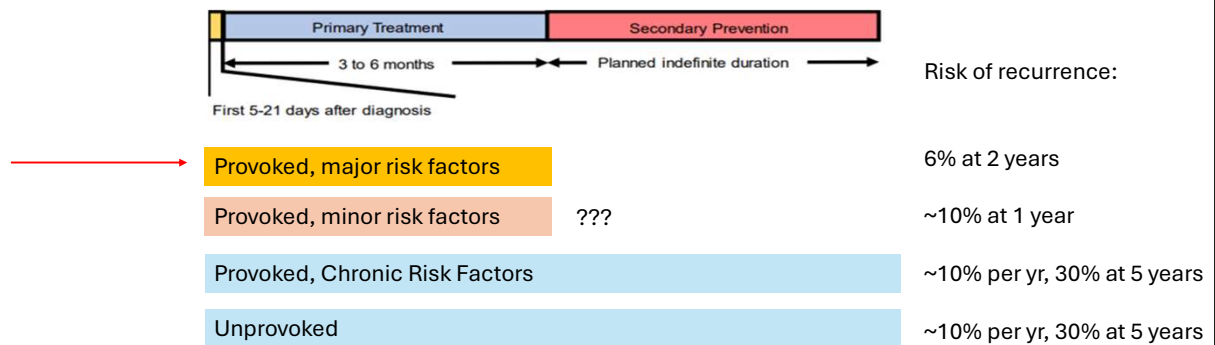
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Who should get extended duration anticoagulation for secondary prevention?

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Treatment of DVT/PE

- Intermediate Risk group



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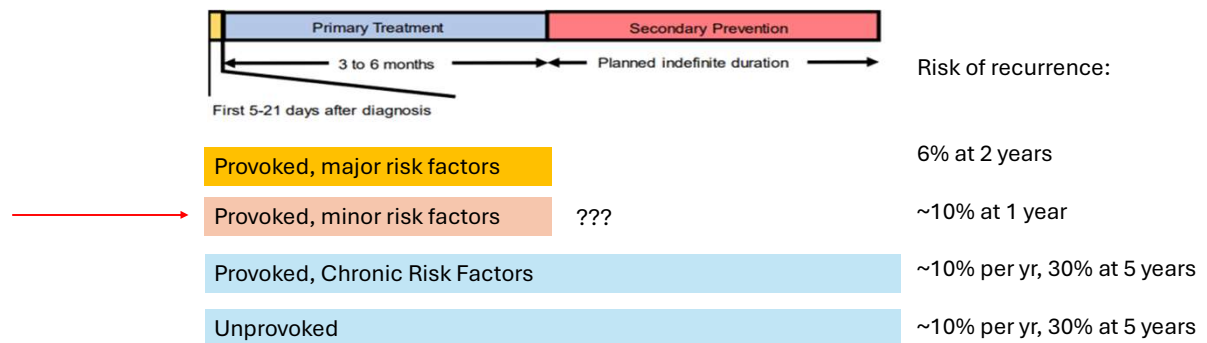
DVT/PE with Major Transient Risk Factors

- Major surgery >30 minutes, hospitalization or confined to bed with "bathroom privileges" for ≥ 3 days due to acute illness, trauma with fractures, estrogen therapy, pregnancy or postpartum
- 3-6 months anticoagulation in acute phase, generally extended duration
anticoagulation not recommended as risk for recurrent DVT ~3% during 1st year and 6% by 2 years post-cessation of anticoagulation
- Post op DVT has lowest rate of recurrence
- It is not recommended to check hypercoag workup for provoked clot with transient major risk factors
 - Weak thrombophilic conditions such as Factor V Leiden heterozygous does not change management

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Treatment of DVT/PE

- Intermediate Risk group



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DVT/PE with Minor Transient Risk Factors

- Minor surgery <30 minutes, hospitalization <3 days, reduced mobility at home ≥ 3 days due to acute illness, lower extremity injury without fracture with reduced mobility ≥ 3 days, long-haul flight
- Risk may be as high as 10% during Y1, 20% at 5 years
- There may be a role for additional testing as these patients may have higher risk of recurrence off anticoagulation than those with major risk factors, but not as high as those with chronic risk factors or unprovoked DVT
- Risk/Benefit analysis for bleeding vs clotting

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Thrombophilia workup

- Protein C, S levels
 - Don't check during acute clot due to consumption
- Antiphospholipid Syndrome
 - Don't check lupus anticoagulant while on anticoagulation as can be false positive. If you do check it, try to time immediately prior to next dose.
 - Beta 2-GP and ACL are ok
- Factor V Leiden gene mutation
- Factor II (Prothrombin) gene mutation
- Myeloproliferative neoplasm mutational testing

Who should be checked?

- Intermediate risk group (minor provoking risk factor)
- Patient is anxious and desires information
- Young age and considering extended duration AC
- Clotting in unusual locations (portal vein, dural venous sinus)

Who should not be checked?

- Clear major provoking, transient risk factor
- Unprovoked DVT/PE and all in agreement to do extended duration anticoagulation
- Older age- less likely to present with first DVT in setting of inherited thrombophilia

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Herdoo2 Score

HERDOO2 score is a clinical decision rule designed to identify **women** with a first unprovoked venous thromboembolism (VTE) who are at low risk for recurrence and may safely discontinue anticoagulation after completing initial therapy.

- **H:** Hyperpigmentation, edema, or redness in either leg (signs of postthrombotic syndrome)
- **E:** Elevated D-dimer (VIDAS assay ≥ 250 $\mu\text{g/L}$ while on anticoagulation, measured 6 months after initiation)
- **R:** Redness (included with hyperpigmentation and edema above)
- **D:** D-dimer (as above)
- **O:** Obesity (body mass index ≥ 30)
- **O:** Older age (≥ 65 years)

HERDOO2 score of 0 or 1 are considered at low risk for recurrent VTE (<3% per year)

Rodger MA, Le Gal G, Langlois NJ, Gin B, Mallick R, Giulivi A, Freedman M, Kovacs MJ; REVERSE II investigators. "HERDOO2" clinical decision rule to guide duration of anticoagulation in women with unprovoked venous thromboembolism. Can I use any d-Dimer? Thromb Res. 2018 Sep;169:82-86. doi: 10.1016/j.thromres.2018.07.020. Epub 2018 Jul 17. PMID: 30031290.

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D-dimer Testing after completion of AC for risk stratification of DVT recurrence

- NOT validated approach for men
- Timepoints to check include at cessation of AC and 1 month post
 - Later timepoints 3,9, and 15 months have also been studied
- Most studies used warfarin rather than DOAC

Table 2. Rates of Recurrent Venous Thromboembolism in Patients With a First Unprovoked Venous Thromboembolism in the Year Following Cessation of Therapy With a Vitamin-K Antagonist According to D-dimer Levels Measured After Stopping Treatment

D-dimer Level, ng/mL	Assay	No. of Patients	Annualized Risk, %
Palareti et al. ⁵² 2003			
>500	Vidas, ELISA	139	7.3
≤500		143	2.8
Eichinger et al. ⁵³ 2003			
≥250	Asserachrom, ELISA	401	4.5
<250		209	3.0
Palareti et al. ⁵⁴ 2006			
Clearview simplify, Qualitative			
Positive (>500)		120	10.9
Negative (≤500)		385	4.4
Shrivastava et al. ⁵⁵ 2006			
Liatest, Immunoturbidometric			
≥500		47	10.9
<500		110	2.9
Tait et al. ⁵⁶ 2007			
Vidas, ELISA			
≥500		71	14.4
<500		58	3.8
Baglin et al. ⁵⁸ 2008			
MDA, Liatest			
≥500		91	8.8
<500		51	4.8
Poli et al. ⁵⁷ 2008			
IL test, Liatest/175			
≥250		70	10.8
<250		105	3.8

Abbreviation: ELISA, enzyme-linked immunosorbent assay. Manufacturing information: Vidas, bioMérieux, Marcy l'Etoile, France; Asserachrom and Liatest, Diagnostica Stago, Parsippany, New Jersey; Clearview Simplify, Inverness Medical Professional Diagnostics, Louisville, Colorado; MDA (LJA), Trinity Biotech, Wicklow, Ireland; IL-Test (LJA), Instrumentation Laboratory, Milan, Italy.

Bauer KA. Long-term Management of Venous Thromboembolism: A 61-Year-Old Woman With Unprovoked Venous Thromboembolism. *JAMA*. 2011;305(13):1336–1345. doi:10.1001/jama.2011.361

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DOAC score for bleeding risk

Clinical Risk Prediction Tool	Points
Age, years	
65-69	2
70-74	3
75-79	4
≥80	5
Creatinine Clearance/eGFR(mL/min)	
30-60	1
<30	2
Underweight (BMI <18.5)	
	1
Stroke/TIA/Embolism History	
	1
Diabetes	
	1
Hypertension	
	1
Antiplatelet Use	
Aspirin	2
Dual-Antiplatelet	3
Nonsteroidal Anti-inflammatory (NSAID) Use	
	1
Bleeding History	
	3
Liver Disease	
	2
<i>Total Score Range: 0-10 (Maximum 10 points)</i>	

DOAC Score	1-Year Major Bleeding Risk
0-3	Very low
4-5	Low
6-7	Moderate
8-9	High
10*	Very high

Developed and validated in trial patients with Afib

More applicable for DOAC patients than HASBLED score (warfarin)

Aggarwal R et al. Development and Validation of the DOAC Score: A Novel Bleeding Risk Prediction Tool for Patients With Atrial Fibrillation on Direct-Acting Oral Anticoagulants. *Circulation*. 2023 Sep 19;148(12):936-946. doi: 10.1161/CIRCULATIONAHA.123.064556. Epub 2023 Aug 25.

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Apixaban for Extended Treatment of Venous Thromboembolism

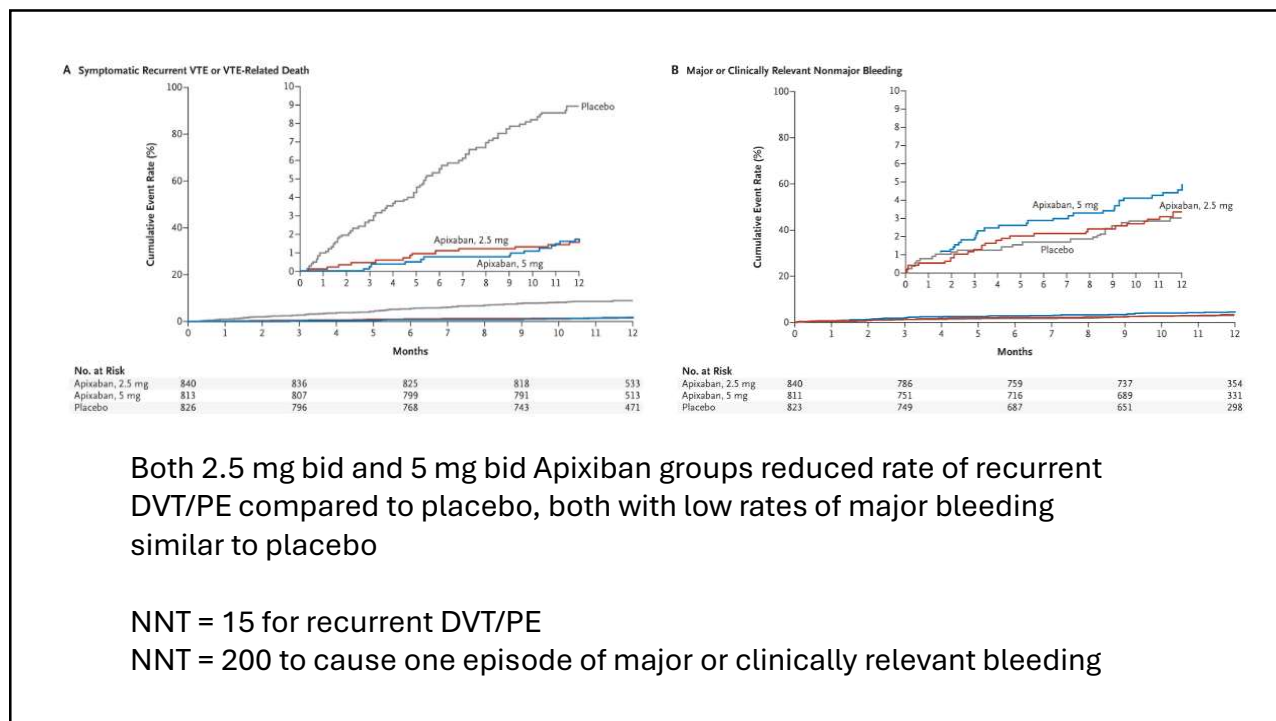


Authors: Giancarlo Agnelli, M.D., Harry R. Buller, M.D., Ph.D., Alexander Cohen, M.D., Madelyn Curto, D.V.M., Alexander S. Gallus, M.D., Margot Johnson, M.D., Anthony Porcari, Ph.D., Pharm.D., Gary E. Raskob, Ph.D., and Jeffrey I. Weitz, M.D., for the AMPLIFY-EXT Investigators* [Author Info & Affiliations](#)

Published February 21, 2013 | N Engl J Med 2013;368:699-708 | DOI: 10.1056/NEJMoa1207541 | **VOL. 368 NO. 8**

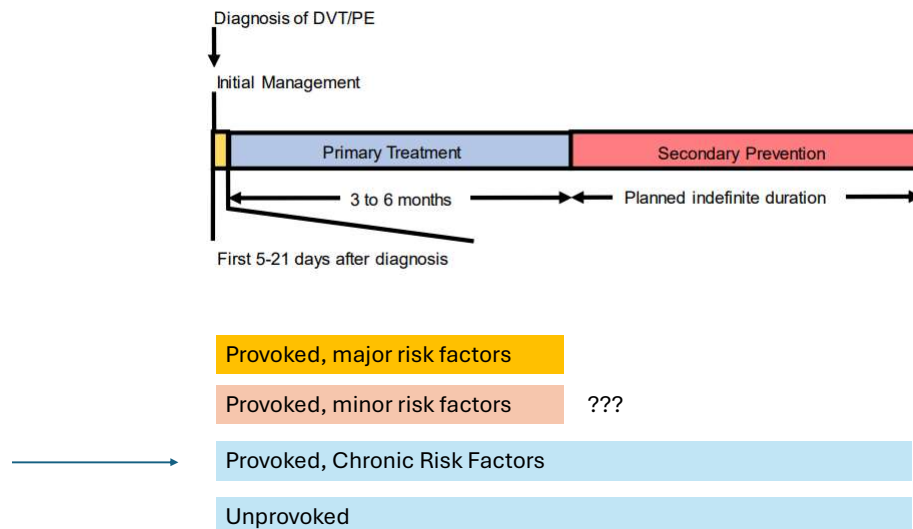
- AMPLIFY-EXT trial
- N = 2486 patients randomized to 2.5 mg bid, 5 mg bid Eliquis, or placebo for additional 12 months after 6-12 months of initial anticoagulation; treating physician with uncertainty about benefit of continuing therapy
 - Few patients with age > 75 or weight < 60 kg
- Exclusions: contraindication to continued anticoagulation, need for continued anticoagulation, significant anemia (hemoglobin <9 g/dL), thrombocytopenia (platelets <100,000/mm³), severe renal impairment (serum creatinine >2.5 mg/dL or creatinine clearance <25 mL/min), significant hepatic dysfunction

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Treatment of DVT/PE



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Provoked, chronic persistent risk factors

- Treat like an unprovoked VTE with extended duration anticoagulation due to high risk of recurrence ~10% per year
- Major risk factor is cancer*
- Minor risk factors autoimmune disease, inflammatory diseases, ALS*
- Other risk factors that may be contributory include obesity and metabolic syndrome

*Modified ISTH risk definitions

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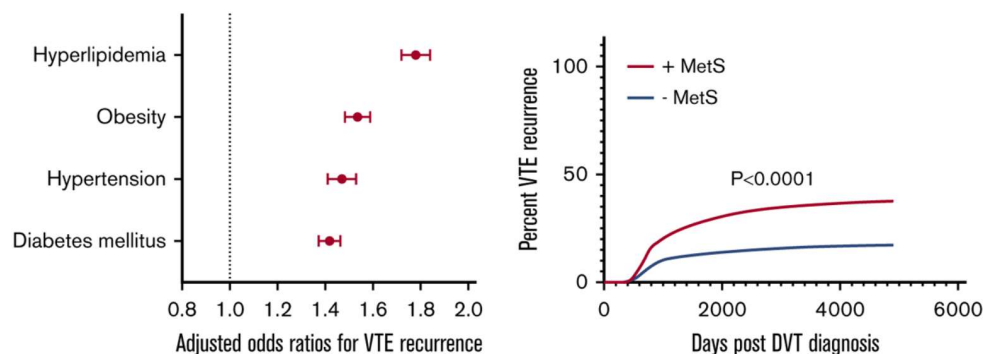
Obesity and Thrombosis

- Obesity is a risk factor for initial DVT and recurrence
- Morbid obesity (BMI > 40) has 2x higher rate of recurrence than normal weight
- Outcomes similar with DOACs vs warfarin with respect to DVT recurrence and bleeding
- Lower doses of DOACs (apixaban 2.5 mg bid or Xarelto 10 mg) not well studied with BMI > 40 and not recommended

Wee B, Lui B, Lai J, Khattak Z, Kwok A, Donarelli C, Ho P, Lim HY. Management of venous thromboembolism in morbidly obese patients: a 10-year review. *J Thromb Thrombolysis*. 2023 Feb;55(2):304-311. doi: 10.1007/s11239-022-02738-x. Epub 2022 Dec 16. PMID: 36526867.

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Metabolic Syndrome and Thrombosis



Lauren K. Stewart, Jeffrey A. Kline; Metabolic syndrome increases risk of venous thromboembolism recurrence after acute deep vein thrombosis. *Blood Adv* 2020; 4 (1): 127–135. doi: <https://doi.org/10.1182/bloodadvances.2019000561>

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Apixaban for Extended Treatment of Provoked Venous Thromboembolism



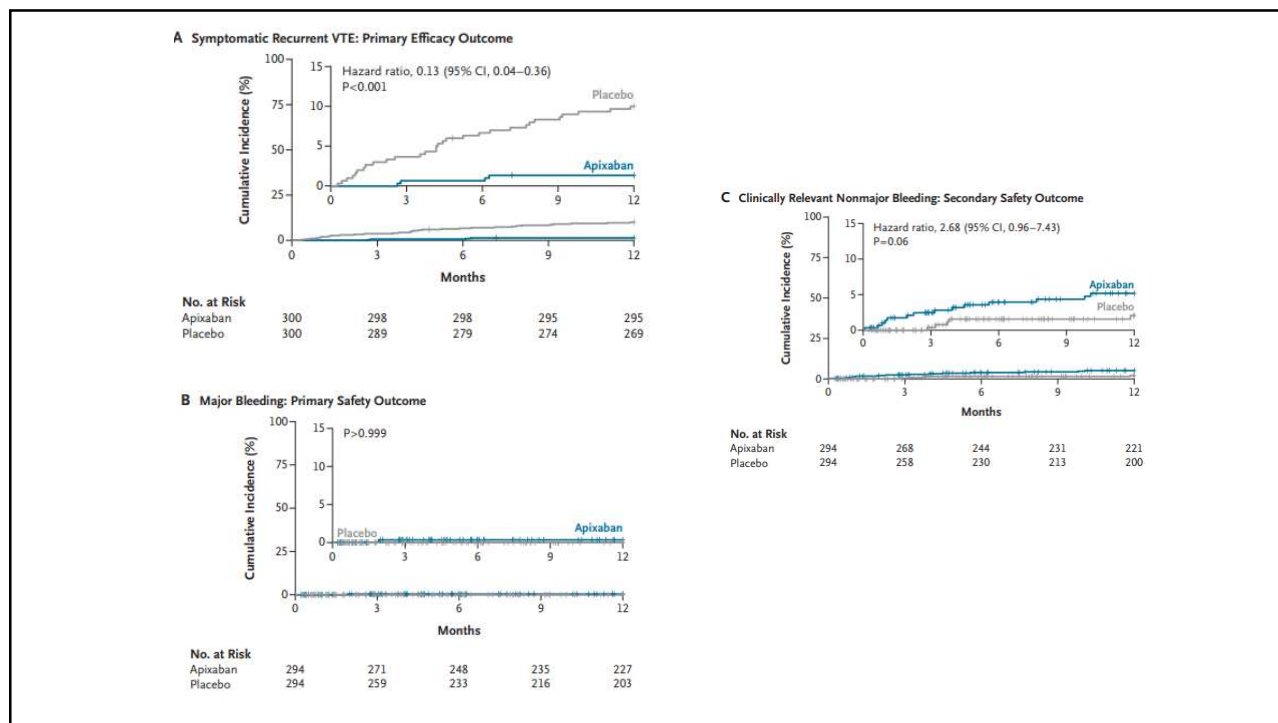
Authors: Gregory Piazza, M.D., Behnood Bikkeli, M.D., Arvind K. Pandey, M.D., Darsiya Krishnathasan, M.S., Candrika D. Khairani, M.D., Antoine Bejjani, M.D., Ruth H. Morrison, R.N., B.S.N., for the HI-PRO Trial Investigators

Hi-PRO trial

Published August 30, 2025 | DOI: 10.1056/NEJMoa2509426 | Copyright © 2025

- N = 600, >18 years of age and with confirmed VTE, completed at least 3 months of anticoagulation, randomized to receive oral apixaban (at a dose of 2.5 mg twice daily) or placebo for 12 months
 - >= 1 provoking factor, including major surgery (33%), trauma (19%), acute medical illness (18%), or immobility (31%)
 - >= 1 enduring risk factor for recurrence, such as BMI of at least 30 (48%), atherosclerotic cardiovascular disease (29%) chronic lung disease (22%), or chronic inflammatory disease (52%).

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ASH CLINICAL PRACTICE GUIDELINES
VENOUS THROMBOEMBOLISM (VTE)

Recommendation

After primary treatment for patients with DVT and/or PE **provoked by a chronic risk factor**, the panel *suggests* **indefinite antithrombotic therapy** over stopping anticoagulation (conditional recommendation moderate certainty) **Long-term** compared with **short-term** anticoagulation for patients with VTE provoked by chronic risk factor

Outcomes	Relative effect: RR (95% CI)	Anticipated absolute effects (95% CI)	
		Risk with short-term	Risk difference with long-term anticoagulation
Mortality	0.75 (0.49 to 1.13)	16 per 1,000	4 fewer deaths per 1,000 (8 fewer to 2 more)
PE	0.29 (0.15 to 0.56)	29 per 1,000	21 fewer PE per 1,000 (25 fewer to 13 fewer)
DVT	0.20 (0.12 to 0.34)	63 per 1000	50 fewer DVT per 1,000 (56 fewer to 42 fewer)
Major bleeding	2.17 (1.40 to 3.35)	5 per 1,000	6 more bleeds per 1,000 (2 more to 12 more)

Chronic thrombotic risk factors include:

- Inflammatory bowel disease
- Autoimmune disease
- Active cancer
- Chronic immobility
- Chronic infections

*Results based on approx. 2 year follow up

Quality of Evidence (GRADE): Low ● Moderate ● Strong ●

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Unprovoked DVT/PE

- Risk of recurrence 10% during year 1 and approaching 30% by 5 years
- Extended duration reduced dose DOAC is recommended
- Hypercoag testing can be done on a case by case basis
 - APLS testing may change management

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ASH CLINICAL PRACTICE GUIDELINES
VENOUS THROMBOEMBOLISM (VTE)

Recommendation

For patients with unprovoked DVT and/or PE, the panel *suggests against* routine use of prognostic scores, D-Dimer testing or ultrasound to guide the duration of anticoagulation (conditional, low certainty)

Prognostic Scores

HERDOO2
VIENNA
DASH

D-Dimer Testing

Persistently elevated D-Dimer

U/S

Residual vein thrombus

Outcomes	Relative effect: RR (95% CI)	Anticipated absolute effects (95% CI)	
		Standard risk	Risk difference with prognostic tools
N/A: Insufficient evidence for treatment outcomes based on prognostic tools compared to standard approach			

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ASH CLINICAL PRACTICE GUIDELINES
VENOUS THROMBOEMBOLISM (VTE)

Recommendation

For patients with DVT and/or PE who will continue with a DOAC for secondary prevention, the panel *suggests* using standard-dose DOAC or lower-dose DOAC (conditional recommendation, moderate certainty)

Lower-dose compared with **standard-dose DOAC** in patients continuing on indefinite anticoagulation

Outcomes	Relative effect: RR (95% CI)	Anticipated absolute effects (95% CI)	
		Risk with standard dose	Risk difference with reduced dose DOAC
● Mortality	0.68 (0.10-4.57)	6 per 1,000	5 fewer deaths per 1,000 (9 fewer to 2 more)
● PE	1.25 (0.54 to 2.91)	5 per 1,000	21 fewer PE per 1,000 (25 fewer to 13 more)
● DVT	0.75 (0.36 to 1.53)	9 per 1000	50 fewer DVT per 1,000 (56 fewer to 42 fewer)
● Major bleeding	0.97 (0.34 to 2.80)	4 per 1,000	6 more bleeds per 1,000 (2 more to 12 more)

Lower dose DOAC regimens for secondary prevention of VTE

- Apixaban 2.5 mg BID
- Rivaroxaban 10 mg OD

Quality of Evidence (GRADE): Low ● Moderate ● Strong ●

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Reduced Dose DOACs

- 6-12 months full dose → reduced dose for extended duration
- Reduced dose DOAC in acute phase based on clinical factors (2 of 3)
 - Weight < 60 kg
 - Age > 80
 - Creatinine \geq 1.5
- Reduce Dose DOAC based on bleeding risk

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High Risk Groups

Cancer associated DVT

Severe Thrombophilias

Recurrent DVT

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Cancer-associated Thrombosis

- Cancer patients have 7X higher risk of DVT/PE than general population
 - low threshold to check LE US or CT PE study with symptoms
- Pancreatic cancer and myeloproliferative neoplasms are highest risk
- Initial diagnosis, start of chemotherapy, and active disease (progression) are highest risk times
- Central venous catheters increase risk of upper extremity DVTs
- Cancer patients have a 2-3X higher risk of bleeding on anticoagulation
 - Thrombocytopenia, anatomic issues

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Cancer-associated Thrombosis

- ASCO and NCCN recommend anticoagulation with Enoxaparin, Apixiban, Rivaroxaban, or Edoxaban for VTE
 - Enoxaparin > warfarin
 - Enoxaparin ~ DOAC
- Extended therapy beyond 3-6 months if ongoing active cancer or treatment
- Malnutrition, polypharmacy are frequent in this population and could affect efficacy of DOACs
- For gastric cancers or suspected malabsorption, Enoxaparin is a better option

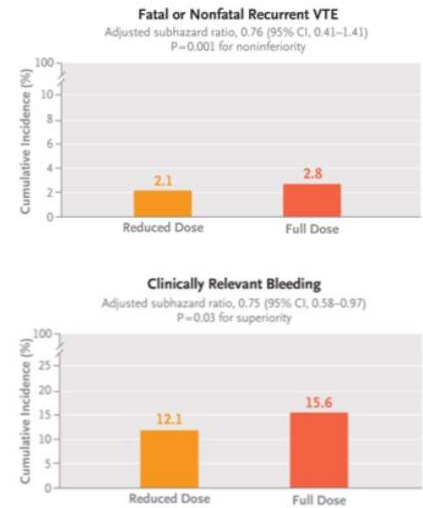
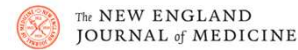
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Extended Reduced-Dose Apixaban for Cancer-Associated Venous Thromboembolism

Authors: Isabelle Mahé, M.D., Ph.D. , Marc Carrier, M.D. , Didier Mayeur, M.D., Jean Chidiac, M.D., Eric Vicaut, M.D., Nicolas Falvo, M.D., Olivier Sanchez, M.D., Ph.D., , for the API-CAT Investigators[†] [Author Info & Affiliations](#)

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- Randomized double blind noninferiority trial of patients with active cancer and DVT/PE who completed at least 6 months of anticoagulation, 1:1 randomization to reduced dose apixaban 2.5 mg bid or full dose 5 mg bid for 12 months
- Reduced dose apixaban was noninferior to full dose apixaban for outcome of recurrent VTE at 12 months, with significantly less bleeding



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Low dose Apixaban for high risk populations

- Patients with **history of recurrent VTE** and/or **severe thrombophilia** (HRR) have been excluded from trials
- Retrospective review of n=487 HRR patients from Italian registry study
- Anticoagulants were stopped in 11 of 487 patients (2.3%), full-dose DOACs were continued in 176 patients (36.1%), and 311 patients (63.9%) were shifted to low-dose DOACs (61.4% with apixaban 2.5 mg twice a day and 38.6% with rivaroxaban 10 mg once a day) after a median time of 1.3 years (range, 0.5-20.2 years).
- risk of recurrent VTE was similar between patients on full-dose and low-dose anticoagulation. Patients on full-dose anticoagulation had a trend toward a higher bleeding risk (relative risk, 2.2; 95% CI, 0.7-9.0).

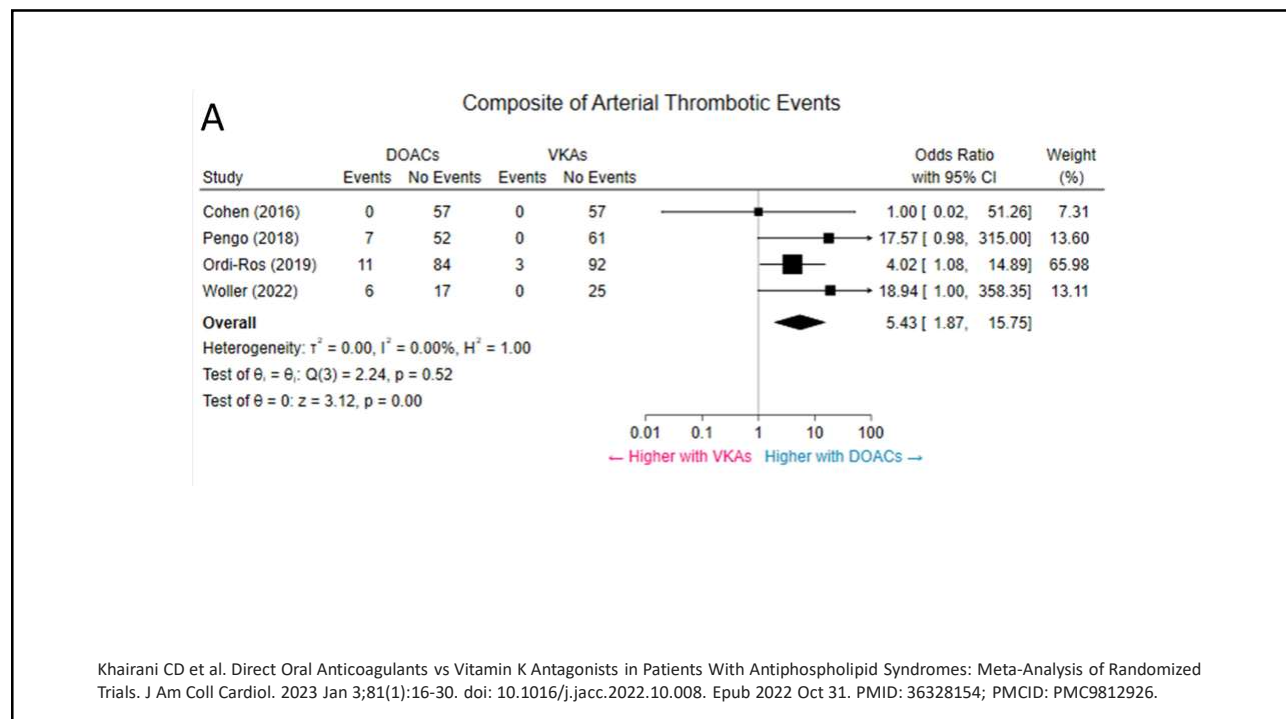
Poli D et al. Low-dose direct oral anticoagulants for secondary prevention in patients at high risk for recurrence due to history of recurrent venous thromboembolic events or severe thrombophilia: a retrospective analysis of the Italian Survey on anTicoagulated pAtients RegisTry 2. J Thromb Haemost. 2025 Aug 11;S1538-7836(25)00514-8. doi: 10.1016/j.jtha.2025.07.034. Epub ahead of print. PMID: 40803569.

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Antiphospholipid Syndrome

- Autoimmune clotting disorder characterized by **venous** or **arterial** thrombosis + laboratory criteria (positive lupus anticoagulant, beta 2 glycoprotein, cardiolipin antibody)
- Best evidence with Warfarin or Enoxaparin for prevention of recurrent thrombosis (protection against arterial thrombosis greatest)
- Triple positive or arterial thrombosis → warfarin or Enoxaparin
- Non-triple positive and no arterial thrombosis → DOACs can be used cautiously based on patient preference after risk/benefit discussion

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Take Home Points

- Clinical history is very important in management of DVT/PE to determine risk factors for recurrence
- Major, Minor, Transient or Persistent categorization of risk is recommended
- Reduced dose DOACs for extended duration treatment can be used for most patients, including cancer patients
- Consider thrombophilia workups and D-dimer testing for intermediate risk patients (minor transient risk factors) whose management is not clear. Antiphospholipid syndrome diagnosis can change management (Warfarin is preferred)
- Tools such as the DOAC score can help quantify bleeding risk

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Pt #1

- 55 yo F who presented with acute LLE DVT. No known provoking factors such as immobility, hormonal therapy, surgery, malignancy. She has completed 6 months of Apixiban and is anxious to get off anticoagulation as worried about bleeding risk as she likes to live an active lifestyle.
- Comorbidities: HTN
- Family Hx: No DVT
- Exam: no residual leg swelling or post-thrombotic changes

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Pt #1

- Patient agrees to hypercoag workup and D-dimer testing
- Hypercoag workup is negative
- D-dimer is within normal limits at 0 and 1 month post-cessation of anticoagulation
- Decision jointly made to remain off anticoagulation given her low HERDOO2 score

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Pt #2

- 44 yo morbidly obese M developed DVT after a 7 hour car ride. He has been taking Apixiban for the past 3 months without any bleeding issues.
- Comorbidities: DM, HTN
- Labs: +Factor V Leiden heterozygous

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Pt #2

- Risk factors for thrombosis: Obesity, metabolic syndrome, FVL heterozygous
 - FVL in absence of other risk factors would not change recommendation for a provoked clot
- I would not check D-dimer on this patient (male)
- We discuss the risks/benefits and decide to continue another 3 months of full dose Apixiban, then drop down to low dose Eliquis. Will RTC in 1 year to reassess

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Pt #3

- 60 yo M with stage III gastric cancer s/p chemotherapy and surgery. Presented initially with PE at diagnosis and has been taking Enoxaparin for the past 6 months. He is now on adjuvant immunotherapy.
- He is tired of doing injections and wondering if he can stop or switch to a pill.

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Pt #3

- Given recent active cancer and currently on immunotherapy, would recommend continuing extended duration anticoagulation
- For gastric cancer s/p surgery, absorption of DOAC is questionable so Enoxaparin would be preferred
- After discussion regarding risks and benefits, patient decides to stay on Enoxaparin but wants to have ongoing discussions regarding his risk in the future

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Pt #4

- 35 yo F presented with DVT in setting of oral contraceptives. She has completed 3 months of Xarelto. OCP has been discontinued. No longer having pain or swelling of leg. Her PCP ordered a repeat ultrasound of leg which showed a small amount of residual clot. She is wondering how long she needs to stay on anticoagulation.

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Pt #4

- End-of-treatment ultrasound can be helpful to establish a new baseline to compare for future recurrent DVTs, however residual thrombosis is often composed of fibrotic material that is no longer true thrombus
- It is not recommended to obtain repeat US in the absence of symptoms as it is unlikely to change management
- As this DVT was provoked and she is not symptomatic, recommend completion of anticoagulation at this time

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To contact me...

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