

A VENOUS THROMBOEMBOLISM (VTE) TOWN HALL: Answering Your Top Questions on Treatment and Secondary Prevention

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This handout is a supplemental resource to an educational video activity released on Medscape in August 2016.

Please access the activity on Medscape for complete information and content.

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Introductions	Why Discuss VTE?	Case Scenario: Meet Allison
Approach to Suspected DVT	Approach to Suspected DVT	
Key references	High, moderate, and low pretest probability	
	Wells' Criteria for DVT	
		.,
	www.mdcalc.com/wells-criteria-for-dv	
		Risk High
	Leg paralysis 1 1-2 Bedridden >3 days 1 0	Moderate Low
	Local vein tenderness 1	LOW
	Entire leg swollen 1	
	Unilateral swelling >3 cm 1 Unilateral pitting edema 1	
	Superficial veins 1	
	Likely alternative -2	TAM -
	DVT=deep vein thrombosis.	

Approach to Suspected DVT	Approach to Suspected DVT	Approach to Suspected DVT
What to know about D-dimer testing	When to use thrombolysis	What labs to do before starting medications
Approach to Suspected DVT		Approach to Suspected DVT
Distal DVT: treat or don't treat?		Where to treat: home or hospital?
Distal DVT: What Would You Do About I		
Do you treat distal DVT?		
Yes, if:	xtension include:	
 Severe symptoms Extends distally Positive d-dime Extensive size (>7 mm in diam 	>5 cm, multiple veins,	
Extends to proximal veins Close to proxim		
 Has risk factors for extension Active cancer History of DVT Inpatient status 		
Serial imaging (2 weeks)		
	TEAM -	

Approach to Suspected PE	Approach to Suspected PE	Approach to Suspected PE	
When is CT angio not needed?	When is CT angio needed?	Lab test considerations	
Approach to Suspected PE	Approach to Suspected PE		
When to use thrombolysis	Heart failure	Low risk on this right now!	
	Point total and risk classes: <65=Class I, 66-85=Class II, 86-105=Class III, 106-125=Class IV, >125=Class V, >125=		

Approach to Suspected PE	Initial Treatment	Initial Treatment Selection			
Summary	Medication reco	ommendations			
	NOACs for V	NOACs for Venous Thrombosis			
	Rivaroxaban XARELTO®	Dabigatran PRADAXA®	Apixaban ELIQUIS®	Edoxaban SAVAYSA®	
	15 mg bid for 3 weeks then 20 mg once daily	150 mg bid	10 mg bid for 7 days then 5 mg bid	Daily (60 mg; or 30 mg for renal impairment or low weight)	
	Can be used without parenteral heparin treatment first	5 days parenteral (LMWH) treatment needed before dabigatran	Can be used without parenteral heparin treatment first	5 days parenteral (LMWH) treatment needed before edoxaban	
		FDA Approval S	atus (for VTE)	'	
	Approved November 2012	Approved April 2014	Approved August 2014	Approved January 2015	
	NOAC=Non-vitamin K oral anticoagulant. LHWH+low m	olecular weight, heparin. VTE=Venous thromboembolism.		TEAM	
	Initial Treatment	t Calaakian		Dationt Edu	ıcation and Ongoing Management
Initial Treatment Selection					
Starting NOACs	When not to us	When not to use NOAC		Advising patients when to call their PCP	

Patient Education and Ongoing Management	Patient Education and Ongoing Management	Treatment Dur	ration
Preventing information overload	Resources	DVT vs PE	
Treatment Duration	Treatment Duration		
Terminology	Provoked clots		
	Provoked Clots Are Associated With		
	■ Surgery		
	Estrogen therapy		
	■ Pregnancy		
	• Leg injury		
	■ Flights of >8 hours		
		TEAM	

Treatment Duration	Treatment Duration	Treatment Duration		
Unprovoked clots and men vs women	Other factors affecting recurrence risk	Summary		
Treatment Duration Thrombophilia testing	Managing Around Medical Procedures and Special Situations	Managing Around Medical Procedures and Special Situations		
Thrombophina testing	Delay procedure if possible	When is interruption not needed?		

Managing Around Medical Procedures Managing Around Medical Procedures and Special Situations and Special Situations When is interruption needed? **Determining risk** Warfarin and the New Oral Anticoagulants: A Quick Comparison Warfarin COUMADIN® Dabigatran¹ PRADAXA® Apixaban³ ELIQUIS® Rivaroxaban² XARELTO® Edoxaban⁴ SAVAYSA® VKORC1 Factors II, VII, IX, X Target Thrombin Factor Xa Factor Xa Factor Xa 72-96 hours 2 hours 2.5-4 hours T (max) 3 hours 2-3 hours 5-9 hours healthy, Half-life 40 hours 14-17 hours 8-15 hours 8-10 hours 9-13 hours elderly Monitoring Every 4 weeks or PRN Not needed Not needed Not needed Not needed Administration Once daily Once daily Twice daily Once daily Twice daily Metabolism Cytochrome P450 80% renal, 20% fecal 35% renal 25% renal 35% renal Ecarin clotting time, PT/INR Anti-Xa activity Assay Anti-Xa activity Anti-Xa activity thrombin time TEAM **Managing Around Medical Procedures** Closing **Additional Notes** and Special Situations **Summary**

References

American Heart Association. Venous Thromboembolism (VTE). http://www.heart.org/HEARTORG/Conditions/More/Venous-Thromboembolism-VTE_UCM_479052_Article.jsp#. V4AtlPkrLIV. Accessed July 8, 2016.

Aujesky D, Obrosky DS, Stone RA, et al. Am J Respir Crit Care Med. 2005;172(8):1041-1046. PMID: 16020800.

Aujesky D, Roy PM, Verschuren F, et al. Outpatient versus inpatient treatment for patients with acute pulmonary embolism: an international, open-label, randomised, non-inferiority trial. *Lancet*. 2011;378(9785):41-48. PMID: 21703676.

Bates SM, Jaeschke R, Stevens SM, et al. Diagnosis of DVT: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest*. 2012;141(2 Suppl):e351S-e418S. PMID: 22315267.

Connolly SJ, Ezekowitz MD, Yusuf S, et al. Dabigatran versus warfarin in patients with atrial fibrillation. N Engl J Med. 2009;361(12):1139-1151. PMID: 19717844.

Douketis JD, Spyropoulos AC, Spencer FA, et al. Perioperative management of antithrombotic therapy: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest*. 2012;141(2 Suppl):e326S-e350S. PMID: 22315266.

Enden T, Haig Y, Kløw NE, et al. Long-term outcome after additional catheter-directed thrombolysis versus standard treatment for acute iliofemoral deep vein thrombosis (the CaVenT study): a randomised controlled trial. *Lancet*. 2012;379(9810):31-38. PMID: 22172244.

Giugliano RP, Ruff CT, Braunwald E, et al. Edoxaban versus warfarin in patients with atrial fibrillation. N Engl J Med. 2013;369(22):2093-2104. PMID: 24251359.

Granger CB, Alexander JH, McMurray JJ, et al. Apixaban versus warfarin in patients with atrial fibrillation. N Engl J Med. 2011;365(11):981-992. PMID: 21870978.

Guyatt GH, Akl EA, Crowther M, et al. Executive summary: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest*. 2012;141(2 Suppl):7S-47S. PMID: 22315257.

Kearon C, Akl EA, Comerota AJ, et al. Antithrombotic therapy for VTE disease: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. *Chest*. 2012;141(2 Suppl):e419S-e494S. PMID: 22315268.

Kearon C, Akl EA, Ornelas J, et al. Antithrombotic therapy for VTE disease: CHEST Guideline and Expert Panel Report. Chest. 2016;149(2):315-352. PMID: 26867832.

Konstantinides SV, Torbicki A, Agnelli G, et al. 2014 ESC guidelines on the diagnosis and management of acute pulmonary embolism. *Eur Heart J.* 2014;35(43):3033-3039. PMID: 25173341.

MD+CALC. Creatinine Clearance (Cockcroft-Gault Equation). http://www.mdcalc.com/creatinine-clearance-cockcroft-gault-equation/. Accessed July 8, 2016.

MD+CALC. Pulmonary Embolism Severity Index (PESI). http://www.mdcalc.com/pulmonary-embolism-severity-index-pesi/. Accessed July 8, 2016.

MD+CALC, Wells' Criteria for Pulmonary Embolism, http://www.mdcalc.com/wells-criteria-for-pulmonary-embolism-pe/, Accessed July 8, 2016.

MD+CALC. Wells' Criteria for DVT. http://www.mdcalc.com/wells-criteria-for-dvt/. Accessed July 8, 2016.

National Institute for Health and Clinical Excellence. Venous Thromboembolic Diseases: The Management of Venous Thromboembolic Diseases and the Role of Thrombophilia Testing. NICE Guideline CG144. https://www.nice.org.uk/guidance/cg144/evidence/full-guideline-186726349. Published June 2012. Accessed July 8, 2016.

Patel MR, Mahaffey KW, Garg J, et al. Rivaroxaban versus warfarin in nonvalvular atrial fibrillation. N Engl J Med. 2011;365(10):883-891. PMID: 21830957.

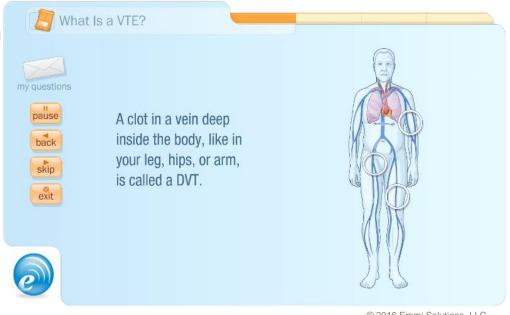
Ranger NS, Ward MA. A comparison of the direct oral anticoagulants in treatment of acute deep vein thrombosis for primary care physicians. *J Family Med Community Health*. 2015;2(2):1032.

Vedantham S, Goldhaber SZ, Kahn SR, et al. Rationale and design of the ATTRACT Study: a multicenter randomized trial to evaluate pharmacomechanical catheter-directed thrombolysis for the prevention of postthrombotic syndrome in patients with proximal deep vein thrombosis. *Am Heart J.* 2013;165(4):523-530. PMID: 23537968.

Wysokinski WE, McBane RD 2nd. Periprocedural bridging management of anticoagulation. Circulation. 2012;126(4):486-490. PMID: 22825410.

UNDERSTANDING YOUR HEALTH JUST GOT EASIER

To help you understand more about VTEs (which are basically blood clots), and feel more comfortable about your health, we invite you to view this brief Emmi® program. Emmi programs support you in managing your care and will answer many of the questions you may have. You can watch it as many times as you like and share it with your family and friends.



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READY TO GET STARTED?

Go to: www.goemmi.com/VTE1

Program name: Understanding VTEs