

### Transcript Details

This is a transcript of a continuing medical education (CME) activity. Additional media formats for the activity and full activity details (including sponsor and supporter, disclosures, and instructions for claiming credit) are available by visiting:

<https://reachmd.com/programs/cme/mrs-vt-elizabeth-a-case-study-on-the-secondary-prevention-of-vte/24237/>

Released: 03/29/2024

Valid until: 03/29/2025

Time needed to complete: 1h 44m

### ReachMD

[www.reachmd.com](http://www.reachmd.com)

[info@reachmd.com](mailto:info@reachmd.com)

(866) 423-7849

---

Mrs. V.T. Elizabeth: A Case Study on the Secondary Prevention of VTE

### Announcer:

Welcome to CME on ReachMD. This episode is part of our MinuteCE curriculum.

Prior to beginning the activity, please be sure to review the faculty and commercial support disclosure statements as well as the learning objectives.

### Dr. Siegal:

Good day, everyone. I'm Dr. Deborah Siegal. I'm a hematologist and thrombosis physician at the Ottawa Hospital in Ottawa, Canada. We're going to be talking today about secondary prevention of venous thromboembolism. So let's start with a case.

This is a 68-year-old woman who has an unprovoked pulmonary embolism and proximal deep vein thrombosis of the leg. She's completed 5 1/2 months of therapeutic anticoagulation with rivaroxaban and is assessed in clinic for consideration of ongoing anticoagulation. Her guideline-directed cancer screening is up to date and she's had no complications of therapy or any intercurrent illnesses or concerns. Her medical history is significant, as you see, for hypertension, dyslipidemia, and osteoarthritis, for which she's actually awaiting total hip arthroplasty, and her BMI is 21. She's taking medications to treat her hypertension and dyslipidemia. She occasionally takes acetaminophen. On the right-hand side of the screen, you can see her investigations. Hemoglobin normal at 12.6, platelet count normal, and her creatinine clearance is 58 mL/min.

So when faced with patients who are undergoing assessment for anticoagulation for venous thromboembolism, this is a scheme that's been proposed by the American Society of Hematology in their most recent guidelines. As you can see, after the initial diagnosis of DVT or PE, there's a short period of initial treatment followed by primary treatment, which lasted about 3 to 6 months, after which there is a decision about whether to stop or continue, anticoagulation for secondary prevention.

And so this is a slide that summarizes that in terms of a framework. Patients undergo a treatment for their deep vein thrombosis or pulmonary embolism for 3 to 6 months, after which there is this decision point. And the key part of the decision point is an assessment of the provoking factors, which may or may not have been present at the time of the initial clot and also which may or may not be present after the 3 or 6 months of treatment.

And so we consider provoking factors in terms of transient, persistent, and unprovoked. The assessment of provoking risk factors is important because it helps determine the risk of recurrence off anticoagulation and informs ongoing treatment, and it's also important to remember that up to 50% of venous thromboembolic events are unprovoked, which means no identifiable transient or persistent risk factors.

And so at the end of the day, our goal is to determine the net clinical benefit of ongoing treatment, and that means that we want to identify people who would benefit from long-term anticoagulation.

This slide summarizes the different types of risk factors. There are transient and persistent risk factors, and transient risk factors are often categorized according to major or minor. You can see them listed there. For example, a major risk factor would be surgery with general anesthesia more than 30 minutes, a minor risk factor could be exogenous estrogen therapy, like combined oral contraception.

On the right-hand side, you can see important persistent risk factors, like inflammatory bowel disease or active cancer, which is really common in the setting of the treatment of venous thromboembolism.

And it's important because risk factors have differing impact on the risk of recurrence. As you can see from this slide, VTE provoked by major transient risk factors have the lowest risk of recurrence, while patients with VTE provoked by a persistent risk factor are among the highest, and that would be something like cancer.

It's important to note that in the setting of an unprovoked venous thromboembolism, the risk of recurrence after discontinuing anticoagulation is up to 10% at 1 year, and then continues to increase to about 25% at 5 years.

So it's helpful to be able to explain to patients just what that risk looks like. And of course, after the completion of primary treatment, there is a spectrum of risk, again, ranging from the low risk of recurrence with provoked VTE compared to the higher risk of recurrence with unprovoked VTE, or those provoked by a persistent risk factor. And so there is a generally accepted threshold of about 5% per year, although that may be changing now in the era of newer treatments, with lower risks and fatal consequences of major bleeding.

There are clinical tools that can be used to assess the risk of recurrence in people, particularly to identify patients who may be safe to discontinue anticoagulation, and 2 of these clinical tools are the DASH prediction score and the Men continue and HERDOO2 prediction score for women. And you can see here that individuals with low scores of 0 or 1 for the DASH have a low annual rate of recurrence of less than 2%. Similarly, in the Men continue and HERDOO2 for women, a low score of 0 to 1 indicates a 3% per year risk, which is below that 5% threshold.

So what do the guidelines say? So the CHEST guidelines are shown on this slide. And as you can see, for transient risk factors that CHEST guidelines are recommending or suggesting against offering extended phase anticoagulation. However, for patients with unprovoked, or those who have persistent risk factors, the recommendation here is to offer extended phase anticoagulation with a DOAC. For individuals who cannot receive a DOAC, the guidelines suggest offering extended phase anticoagulation with a vitamin K antagonist, like warfarin.

Similarly, ASH recommends not providing antithrombotic therapy for individuals with transient risk factors. However, for those with chronic risk factors or unprovoked clots, the suggestion is indefinite antithrombotic therapy over stopping.

So these guidelines are quite similar actually for people who have transient risk factors. Generally the recommendation is to discontinue treatment, while, for those who have unprovoked VTE or those associated with a persistent risk factor, then anticoagulation is recommended indefinitely.

So with regards to the dose intensity for extended duration treatment, there is some conflicting recommendations from CHEST and ASH. So the CHEST guidelines suggest the use of reduced-dose apixaban or rivaroxaban over full-dose, and the ASH guidelines suggest a standard dose DOAC over a lower dose DOAC, so here we're seeing some different recommendations just based on, the certainty of the evidence low to moderate here. And so there's some other considerations that are important to keep in mind for individualizing treatment.

And so with that, I'd like to wrap up here and say thank you for participating and I hope that this has been a valuable learning experience, and we'll look forward to seeing you again.

**Announcer:**

You have been listening to CME on ReachMD. This activity is jointly provided by Global Learning Collaborative (GLC) and TotalCME, LLC. and is part of our MinuteCE curriculum.

To receive your free CME credit, or to download this activity, go to [ReachMD.com/CME](https://ReachMD.com/CME). Thank you for listening.