

EVIDENCE BASED STATEMENT

DOMAIN **01**, Statement **09**
TOPIC: “**venous thrombosis recurrence**”

SEARCH TERMS & SOURCES

((VENOUS THROMBOSIS) AND (RECURRENCE)) AND ((INCIDENCE) OR (PREVALENCE))

INCLUSION CRITERIA

- Lower limb only
- Reviews
- Publication < 10 years, only ENG

SEARCH RESULT BEFORE - AFTER SELECTION

346/11

PERTINENT LITERATURE NOT IDENTIFIED BY THE LITERATURE SEARCH

1. Martinez C, Cohen AT, Bamber L, Rietbrock S. Epidemiology of first and recurrent venous thromboembolism: a population-based cohort study in patients without active cancer. Thromb Haemost. 2014 Aug;112(2):255-63.

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IDENTIFIED REFERENCES

1. Wiegers HMG, Knijp J, van Es N, et al. Risk of recurrence in women with venous thromboembolism related to estrogen-containing contraceptives: Systematic review and meta-analysis. *J Thromb Haemost.* 2022 Feb 2.
2. Khan F, Tritschler T, Kimpton M, et al. Long-term risk of recurrent venous thromboembolism among patients receiving extended oral anticoagulant therapy for first unprovoked venous thromboembolism: A systematic review and meta-analysis. *J Thromb Haemost.* 2021 Nov;19(11):2801-2813.
3. Khan F, Tritschler T, Kahn SR, Rodger MA. Venous thromboembolism. *Lancet.* 2021 Jul 3;398(10294):64-77.
4. Kemp MT, Obi AT, Henke PK, Wakefield TW. A narrative review on the epidemiology, prevention, and treatment of venous thromboembolic events in the context of chronic venous disease. *J Vasc Surg Venous Lymphat Disord.* 2021 Nov;9(6):1557-1567.
5. Áinle FN, Kevane B. Which patients are at high risk of recurrent venous thromboembolism (deep vein thrombosis and pulmonary embolism)? *Blood Adv.* 2020 Nov 10;4(21):5595-5606.
6. Gautam G, Sebastian T, Klok FA. How to Differentiate Recurrent Deep Vein Thrombosis from Postthrombotic Syndrome. *Hamostaseologie.* 2020 Aug;40(3):280-291.
7. Lijfering WM, Timp JF, Cannegieter SC. Predicting the risk of recurrent venous thrombosis: What the future might bring. *J Thromb Haemost.* 2019 Sep;17(9):1522-1526
8. Fahrni J, Husmann M, Gretener SB, Keo HH. Assessing the risk of recurrent venous thromboembolism--a practical approach. *Vasc Health Risk Manag.* 2015 Aug 17;11:451-9.
9. Kyrle PA. Predicting recurrent venous thromboembolism in cancer: is it possible? *Thromb Res.* 2014 May;133 Suppl 2:S17-22.
10. Cannegieter SC, van Hylckama Vlieg A. Venous thrombosis: understanding the paradoxes of recurrence. *J Thromb Haemost.* 2013 Jun;11 Suppl 1:161-9.
11. Galanaud JP, Bosson JL, Genty C, et al. Superficial vein thrombosis and recurrent venous thromboembolism: a pooled analysis of two observational studies. *J Thromb Haemost.* 2012 Jun;10(6):1004-11.

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TEXT FOR INCLUSION IN THE DOCUMENT

DOMAIN 01, Statement 9, TOPIC: “**venous thrombosis recurrence**”

Venous thrombo-embolism (VTE) recurrence has been reported to be over 30% after 10 years from the completion of the anticoagulation therapy. Up to 4% of these cases are fatal.

[Gautam G, Sebastian T, Klok FA. How to Differentiate Recurrent Deep Vein Thrombosis from Postthrombotic Syndrome. *Hamostaseologie*. 2020 Aug;40(3):280-291].

A distinction between provoked and unprovoked VTE has been done also in terms of recurrence risk, with the first one occurring approximately in 3% of cases at 5 years versus up to 30% in the latter case.

Several clinical prediction models are available for assessing the VTE recurrence risk following an unprovoked event: for example, HERDOO2 score, Vienna prediction model, the DASH score, the Leiden Thrombosis Recurrence Risk Prediction model.

While several biomarkers are currently investigated for VTE recurrence prediction, up to our knowledge none has been validated yet.

***[Stevens H, Peter K, Tran H, McFadyen J. Predicting the Risk of Recurrent Venous Thromboembolism: Current Challenges and Future Opportunities. *J Clin Med*. 2020;9(5):1582. Published 2020 May 22. doi:10.3390/jcm9051582]**

A recent publication showed how, in under 50 yo, family VTE history represent a major risk for recurrence, independently by the gender.

[de Moreuil C, Le Mao R, Le Moigne E, et al. Long-term recurrence risk after a first venous thromboembolism in men and women under 50 years old: A French prospective cohort. *Eur J Intern Med*. 2021 Feb;84:24-31].

Further risk factors for VTE recurrence have been identified in antiphospholipid syndrome and active cancer.

VTE associated with estrogen-containing contraceptives has a low risk of recurrence the risk of recurrence is low after hormonal therapy cessation.

[Wiegers HMG, Knijp J, van Es N, et al. Risk of recurrence in women with venous thromboembolism related to estrogen-containing contraceptives: Systematic review and meta-analysis. *J Thromb Haemost*. 2022 doi: 10.1111/jth.15661]

The distinction between post-thrombotic syndrome and recurrent VTE might be challenging due to overlapping sign and symptoms, together with a lack of diagnostic standards: further investigations on the specific characterization and identification of these two linked conditions are needed.

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STATEMENT FOR PUBLIC EVIDENCE-BASED AWARENESS

DOMAIN 01, Statement 9 “venous thrombosis recurrence”
“more than ¼ thrombosis cases recur at 10 years from the first event”

SELECTED REFERENCES

1. Gautam G, Sebastian T, Klok FA. How to Differentiate Recurrent Deep Vein Thrombosis from Postthrombotic Syndrome. *Hamostaseologie*. 2020 Aug;40(3):280-291
2. *Stevens H, Peter K, Tran H, McFadyen J. Predicting the Risk of Recurrent Venous Thromboembolism: Current Challenges and Future Opportunities. *J Clin Med*. 2020;9(5):1582. Published 2020 May 22. doi:10.3390/jcm9051582
3. de Moreuil C, Le Mao R, Le Moigne E, et al. Long-term recurrence risk after a first venous thromboembolism in men and women under 50 years old: A French prospective cohort. *Eur J Intern Med*. 2021 Feb;84:24-31
4. Wiegers HMG, Knijp J, van Es N, et al. Risk of recurrence in women with venous thromboembolism related to estrogen-containing contraceptives: Systematic review and meta-analysis. *J Thromb Haemost*. 2022 doi: 10.1111/jth.15661

identified LITERATURE BIAS

Lack of proper distinction between post-thrombotic syndrome and venous thrombosis recurrence

SUGGESTED NEXT LINES OF RESEARCH

Validation of a globally accepted venous thrombosis clinical and instrumental follow up protocol