

Venous Thromboembolism in Lymphoma: Risk Stratification and Evolving Anticoagulation Strategies

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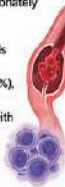
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BACKGROUND

Venous thromboembolism (VTE) is the second leading cause of death in cancer patients, and lymphoma represents a particularly high-risk malignancy. The incidence of VTE in lymphoma patients ranges from 5% to 17%, with non-Hodgkin lymphoma carrying a disproportionately elevated risk.

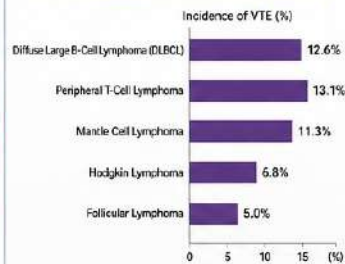
Histological subtype markedly influences this burden: VTE rates are significantly higher in aggressive subtypes including DLBCL (12.6%), peripheral T-cell lymphoma (13.1%), and mantle cell lymphoma (11.3%) compared with Hodgkin lymphoma (6.8%) and follicular lymphoma (5.0%).

Despite this, thromboprophylaxis remains underutilised and risk stratification poorly standardised in routine lymphoma care.



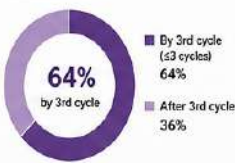
RESULTS

1. VTE INCIDENCE BY LYMPHOMA SUBTYPE



2. TEMPORAL PATTERN OF VTE

64% of VTE episodes occurred by the third cycle of chemotherapy, identifying early treatment as a critical window.



3. RISK FACTORS FOR LYMPHOMA-ASSOCIATED VTE

Risk Factor	Evidence Strength*
Female sex	Mod
Older age	Mod
Prior VTE history	High
DLBCL histology	High
III-IV Advanced Ann Arbor stage (III-IV)	High
Elevated performance status (≥2)	Mod
Bulky disease	Mod

*Based on consistency across observational studies

CONCLUSIONS

Lymphoma patients face a substantial and subtype-dependent VTE burden, with the highest incidence in aggressive subtypes (DLBCL, peripheral T-cell, mantle cell lymphoma).

Most VTE events occur early, within the first 3 cycles of chemotherapy, highlighting a critical window for prevention and vigilance.

DOACs demonstrate superior efficacy over LMWH for treatment of VTE and show prophylactic benefit in high-risk ambulatory patients.

Current risk stratification tools, such as the Thromboly score, have limited predictive performance and require further refinement and validation.

Prospective, lymphoma-dedicated trials are needed to establish evidence-based anticoagulation protocols tailored to this high-risk population.

METHODS



A structured literature review was conducted across MEDLINE, Embase, and the Cochrane Library.



Studies reporting VTE incidence, risk factors, prophylaxis, and anticoagulation outcomes in lymphoma patients were included.

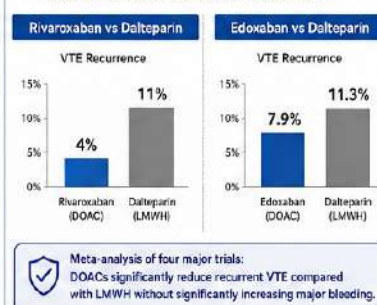


Randomised controlled trials, retrospective cohorts, meta-analyses, and risk model validation studies were included.

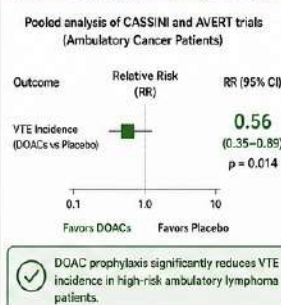


Data were synthesised narratively, with lymphoma-specific findings prioritised where available.

4A. ANTICOAGULATION FOR TREATMENT



4B. ANTICOAGULATION FOR PROPHYLAXIS



5. RISK STRATIFICATION – Thromboly SCORE



KEY TAKEAWAYS



Early identification of high-risk lymphoma patients is essential.



Consider thromboprophylaxis in high-risk ambulatory patients on chemotherapy.



DOACs should be considered preferred agents for treatment in the absence of contraindications.



Risk models need refinement to better guide clinical decision-making.

REFERENCES

Available upon request.



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