

Venous thromboembolism prevention in South Africa: Bridging the gap between guidelines and practice

Pharmacological prophylaxis for venous thromboembolism (VTE) remains underutilised in South Africa (SA) as well as many other countries, contributing to substantial and preventable morbidity and mortality. To address this gap, the Southern African Society of Thrombosis and Haemostasis (SASTH) published clinical practice guidelines for VTE prevention in 2009, with an update in 2013.^[1,2] These evidence-based guidelines provide comprehensive recommendations for thromboprophylaxis in medical and surgical patient populations. However, despite the long-standing availability of both local and international guidelines, adherence to thromboprophylaxis recommendations for hospitalised patients at risk remains suboptimal.

In this issue, the TUNE IN Wave 3 study^[3] demonstrates that, even within academic hospitals, the appropriate use of anticoagulation for VTE prevention has not improved. Unexpectedly, the post-COVID era has not seen a decline in the utilisation of thromboprophylaxis. The study evaluated a large cohort of hospitalised medical, surgical and orthopaedic participants. A considerable proportion were classified as high risk for VTE. Yet, recommended pharmacological thromboprophylaxis was administered to only about half of medical and surgical participants. Rates were significantly higher among orthopaedic participants, reflecting the well-recognised VTE risk associated with major procedures. These findings highlight the persistent gap between evidence-based recommendations and clinical practice in preventing hospital-associated VTE.

Therefore, future studies are warranted to investigate the barriers contributing to the decline in VTE prophylaxis use. Possible factors such as clinical decision-making may be influenced by underestimation of VTE risk or overestimation of bleeding risk. This underscores the urgent need for re-education of healthcare providers on the clinical importance of anticoagulation.

Patient-related factors may reflect the inherent complexity of inpatient care, where patients' risk profiles are dynamic and require frequent reassessment. Institutional protocols can also impede implementation when risk assessment models are inconsistently applied or not integrated into electronic health record systems. Several studies have highlighted the fact that the implementation of

structured VTE risk assessment tools can standardise risk evaluation and improve compliance with thromboprophylaxis protocols.^[4] Importantly, decision-support tools should consider patient-specific variables such as weight, renal function, and comorbidities.

Finally, resource limitations, including the high cost of pharmacological agents, remain a critical challenge, particularly in low- and middle-income settings. The introduction of direct oral anticoagulants (DOACs) has provided a valuable alternative to low molecular weight heparin. However, their cost continues to be a major barrier to widespread use in resource-constrained environments. In addition, generic formulations cannot be universally endorsed, as some have demonstrated suboptimal anticoagulant activity when assessed by laboratory measures.

Effective prevention of VTE in hospitalised patients relies on careful evaluation of individual risk factors, including both VTE and bleeding risk, supported by decision-making tools. Future studies are critical for the development of targeted interventions aimed at improving adherence to prophylaxis guidelines, particularly among high-risk hospitalised populations.

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