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EDITORIAL COMMENT

Venous thromboembolism in Portuguese hospitals: Where we stand and how we can improve

Tromboembolismo venoso nos hospitais portugueses: ponto da situação e como podemos melhorar

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The fact that venous thromboembolism (VTE) is a common cardiovascular disease, particularly among hospitalized patients, with high mortality and morbidity, makes it a major public health issue. The good news is that it is the leading preventable cause of in-hospital death.

Recent years have seen great improvements in all aspects of VTE: prevention, diagnosis and therapy.[1] Aspects of VTE prevention such as identification of patients at risk and effective implementation of preventive measures probably remain the most challenging issues in this field.

For the first time in Portugal a prospective study – the ARTE study[2] – has gathered solid and valuable information regarding VTE risk profiles and the use of prophylactic measures in hospitalized patients.

A new risk score derived from the well-known scores of Caprini[3] and Khorana et al.[4] was applied to a population of 4090 hospitalized patients in medical, surgical, orthopedic and oncology departments. The proposed score is designed to be applied to all types of hospitalized patients. This is a clear advantage over the standard scores, especially considering the increasing complexity of diseases. However, it should be validated by prospective and independent studies before it can be used in clinical practice.

The majority of this population (95%) were found to be at high or moderate risk for VTE. Prophylaxis was used in only 67% during hospital stay and in 29% after discharge.

Differences in population characteristics preclude direct comparisons between studies, but these findings are similar to those of the ENDORSE study,[5] which found similar VTE risk profiles between countries but major asymmetries in the use of recommended prophylaxis.

The small number of thrombotic events reported in the ARTE study may reflect underdiagnosis. Major bleeding complications occurred in only 3.9% of inpatients under anticoagulant prophylaxis, reflecting the safety of this approach.

More important is the fact that the majority of VTE events occurred after hospital discharge, probably as a result of inadequate prophylactic measures. This finding is consistent with the need for extended VTE prophylaxis, a subject now under investigation, with several studies indicating a potential benefit.[6,7]

Prophylaxis rules were underused in the ARTE study, clearly illustrating the need for dissemination and implementation of guideline protocols. There are various possible ways of improving compliance with guidelines, including the

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use of electronic tools incorporating clinical prediction rules and risk scores.[8]

The publication of the ARTE study in the current issue of the *Journal* is a valuable contribution to extending knowledge of this condition and has the potential to draw attention to the problem of VTE prophylaxis in Portugal.

Conflicts of interest

The author has no conflicts of interest to declare.

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