The haemostatic system comprises 6 main components, i.e. (i) platelets; (ii) vascular endothelium; (iii) coagulation proteins; (iv) natural anticoagulants; (v) the fibrinolytic system; and (vi) natural anti-fibrinolytic factors.

The haemostatic system is designed to protect against exsanguination through generation of thrombi at sites of injury, while simultaneously maintaining blood fluidity. This delicate balance is highly regulated and achieved through a complex interplay of procoagulant and anticoagulant proteins within the vascular system. Numerous acquired and congenital conditions may tip the balance either way, i.e. towards a prothrombotic or prohaemorrhagic state.

Thromboembolic conditions are the leading cause of mortality, estimated to account for 1 in 4 deaths worldwide in 2010. Over time, the incidence and mortality rates of these conditions have improved in developed countries, but are increasing in developing countries. Consequences of thrombosis include ischaemia or infarction (arterial thrombi), oedema (venous thrombi) and embolisation. Clinicians in southern Africa need to become more cognisant of this devastating disease.

Because of the vastness of the topic, it is spread over 2 parts in CME. Part 1 discusses inherited thrombophilia (current issue), and acquired forms are discussed in part 2 (forthcoming issue). The content covers pathophysiological and diagnostic aspects, and is aimed at enhancing insight into the subject – thereby equipping the general practitioner to institute appropriate action with regard to investigation, initial management and referral. As current management practice is beyond the scope of this CME, readers are directed to the South African prophylactic and therapeutic guideline in this regard.

The authors are indeed grateful for the opportunity to discuss this important and dynamic segment of coagulation disorders.

NA Alli
Department of Molecular Medicine and Haematology, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg; and National Health Laboratory Service, Johannesburg, South Africa
nazeer.alli@nhls.ac.za