Anticoagulation

Four contributions to this issue deal with the topic of anticoagulation.

In his **editorial**,[1] Barry Jacobson celebrates the demise of the outdated prothrombin index (PI), which many clinicians in South Africa have insisted on using as a measure to adjust warfarin dosages. Anticoagulation with warfarin is a relatively safe and effective means of preventing life-threatening thrombotic events. However, it is essential that the dosage is adequately and carefully controlled. Internationally the PI has been replaced by the international normalised ratio (INR). It has therefore been agreed that all coagulation laboratories in South Africa will no longer issue PI reports. The only measures that will be reported are the INR, partial thromboplastin time (PTT) (patient) and PTT (control).

'Guidelines' for clinical management of important common conditions have featured regularly in the *SAMJ*. In response to major complications that have occurred in anticoagulation therapy, the subcommittee of the Southern African Society of Thrombosis and Haemostasis has provided guidelines for the maintenance of warfarin therapy at an anticoagulation clinic.[2] The objectives of an anticoagulation clinic are to optimise control of a patient's coagulation and to educate patients, because warfarin has a narrow therapeutic range. Firstly it should be ensured that there are no contraindications to warfarin therapy – these include severe bleeding, non-compliance, and the first trimester of pregnancy and from 34 - 36 weeks onwards. The target INR for most indications is 2.5. Details about the initiation of therapy, frequency of monitoring, patient education and the management of specific circumstances that warrant extra care are all addressed.

Aspirin therapy is widely used in patients with arterial disease to prevent platelet aggregation. Current aspirin therapy is monitored using platelet aggregation to measure the dose-response curve to diverse platelet activators. Mayne and colleagues[3] assessed the utility of the thrombo-elastogram in monitoring of aspirin therapy in 25 healthy volunteers who were given low-dose aspirin therapy and conclude that it may not have utility.

Heparin is currently the anticoagulant of choice for the prevention and treatment of thrombo-embolic disease in pregnancy because it does not cross the placenta. The use of low-molecular-weight heparin (LMWH) is preferred to unfractionated heparin as it is associated with lower risk of bleeding, osteoporosis, heparin-induced thrombocytopenia and hypersensitivity reactions. Schapkaitz and Jacobson[4] report on the successful use of Fondaparinux in a young pregnant woman who developed a hypersensitivity reaction to two LMWH preparations.

Emergency department workload

Regular working hours commencing some time after breakfast and stopping in the lateish afternoon are usual for most office jobs. Emergencies in medicine unfortunately do not abide by such convenient norms. But the extent and the severity of such 'after-hours' workload in emergency units are not generally appreciated. Wallis and Twomey[5] studied the patients at four community health centres. They found clear and predictable peaks in attendance after 16h00 and at weekends with a steady stream of patients presenting overnight. Case severity was evenly distributed between emergency, urgent and routine care and nearly 10% of patients were referred on to a higher level of care. Such data have important implications for the provision of emergency care, its staffing and resource allocation.

Community-acquired pneumonia in adults

The second set of guidelines in this journal is a revision of the existing South African community-acquired pneumonia guidelines.[6] This was produced by the working group of the South African Thoracic Society in the light of increasing antibiotic resistance, introduction of new antibiotics, and international trends based on evidence published since the previous guideline.

Pneumonia is an acute infection of the lung parenchyma distal to the terminal bronchiole, most commonly bacterial in nature, and associated with clinical and/or radiological evidence of consolidation of part or parts of one or both lungs. It remains a cause of considerable morbidity and mortality throughout the world. Mortality is improved by early initiation of antibiotics to which the causative organism(s) are susceptible, and adversely affected by delayed or inappropriate therapy.

Diabetic retinopathy in primary care

Diabetic retinopathy is a leading cause of adult blindness, and screening can reduce the incidence. Mash and colleagues[7] investigated screening with a fundal camera by a technician and found that it improved the quality of care for diabetic patients and that it is feasible in the South African public sector, primary care setting.

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2. Jacobson BF, Schapkaitz E, Haas S, *et al*. Guideline for the maintenance of warfarin therapy at an anticoagulation clinic. *S Afr Med J* 2007; 97: 1259-1265.
3. Mayne E, Jacobson BF, Louw S, Bernstein P, Mayne A. The utility of thrombo-elastography in the monitoring of aspirin therapy. *S Afr Med J* 2007; 97: 1289-1291.
4. Schapkaitz E, Jacobson BF. Delayed hypersensitivity to low-molecular-weight heparin (LMWH) in pregnancy. *S Afr Med J* 2007; 97: 1255-1257 (Part 2).
5. Wallis LA, Twomey M. Workload and casemix in Cape Town emergency departments. *S Afr Med J* 2007; 97: 1276-1280.
6. Working Group of the South African Thoracic Society. Management of Community-Acquired Pneumonia in Adults. *S Afr Med J* 2007; 97: 1295-1306.
7. Mash R, Powell D, Du Plessis F, van Vuuren U, Michalowska M, Levitt N. Screening for diabetic retinopathy in primary care with a mobile fundal camera – evaluation of a South African pilot project. *S Afr Med J* 2007; 97: 1284-1288.