

CME: Atopic dermatitis

No other skin disease places such demands on resources, time and the human spirit as atopic dermatitis. Simplistically seeing atopic dermatitis as 'an allergy' is long outdated, as the complexity of this condition becomes more and more apparent as new information is published. All healthcare workers involved in the management of atopic dermatitis should take note of these guiding principles and try to implement them in clinical practice wherever possible.

The approach for this issue is novel, in that the articles have been compiled from a guideline on the management of this condition rather than publishing the guideline as a stand-alone supplement. As a result the topic is tackled in a way that particularly benefits the generalist, who receives clear and up-to-date information that is immediately useful in a clinical consultation.

The guideline, edited by Werner Sinclair and Robin Green, was developed in an attempt to improve the outcomes of treatment of this condition, which has such a major impact on the quality of life of sufferers. Understanding the disease will also help to eliminate unnecessary investigations, unnecessary and inappropriate interventions, and the use of unsubstantiated treatment modalities.

Non-communicable diseases (NCDs)

The burden of disease analysis shows that NCDs have become the largest cause of years of life lost (YLL) in South Africa (SA) (32% of YLL in 2009). This month's *SAMJ* carries coverage of the NCDs – SA's next looming epidemic, which poses a significant challenge to our economic development.^[1] Extensive routine information systems exist for key infectious diseases as well as maternal and child health, but minimal information is available on NCDs. The South African National Health and Nutrition Examination Survey (SANHANES-1) is expected to provide rich data for evaluation of NCDs.^[2]

Day *et al.*^[3] show that the proportion of years of life lost due to NCDs is highest in SA's metros and least-deprived districts, with all (except Mangaung) showing high age-standardised mortality rates for ischaemic heart disease, cerebrovascular disease (CVD) and hypertensive disease. Furthermore, the prevalence of hypertension has increased since 1998, a national household survey in 2010 showing a prevalence of >40% in adults aged ≥25 years.

Acknowledging that the burden of disease relating to NCDs would continue to rise if left unchecked, the SA National Department of Health released its *Strategic Plan for the Prevention and Control of Non-communicable Diseases 2013-17* in August 2013, laying out national goals and targets (Table 1, p. 681).

Day *et al.* admit that more work is needed to refine NCD monitoring in SA, to enable the ten goals of the national strategic plan to be assessed. The priority targets for NCDs need to be integrated into national health planning processes, and surveillance requires integration into national health information systems. Finally, a greater focus on integrated chronic care within primary healthcare is needed at all levels to meet requirements for the effective management of NCDs.

Healthy migration

Prevention and management of NCDs should include the migrant population, to which Vearey^[4] alerts us. The rest of the Southern African Development Community faces an increasing NCD burden. Healthy migration is good for development, but current prevention, testing and treatment responses in public health systems – particularly for chronic conditions – fail to engage with migration. In SA, public health responses fail to address internal and cross-border movement, and non-nationals face challenges in accessing healthcare. Of

particular concern is the lack of nationally and regionally co-ordinated strategies to ensure continuity of treatment for chronic conditions.

Cardiovascular disease

Treatment of CVD risk factors has traditionally been based on the presence or absence of a single risk factor, such as hypertension, hyperlipidaemia or diabetes, without considering the continuous relationship between blood pressure, glucose and cholesterol levels, and cardiovascular risk. While this approach appears straightforward, it may result in committing some individuals with only a small cardiovascular risk to years of unnecessary treatment or, conversely, failure to treat individuals with an overall higher risk. This is because a combination of several slightly elevated risk factors may result in a much higher total risk than a single, more strikingly raised factor.

Given the enormous burden of CVD and the high costs of management, Peer *et al.*^[5] believe that it is essential to prioritise cost-effective approaches that target high-risk individuals. This approach is particularly recommended as a cost-effective strategy in developing regions, such as our own, with scarce resources. In this CRIBSA study, CVD risk was high in unemployed men, the poorest women and less-educated adults, which suggests that CVD management needs to target these vulnerable groups.

Glucocorticoids, lipid and lipoprotein metabolism and atherosclerosis

Glucocorticoid treatment should be undertaken for appropriate indications, but in some instances special attention should be given to management of dyslipidaemia, as long-term survivors of treatment are likely to encounter atherosclerosis. Patients managed with glucocorticoids should have their cardiovascular risk assessed, especially if long-term treatment is planned. While the impact of glucocorticoids on atherosclerosis is unclear and some apparently favourable changes have been reported in high-density lipoprotein metabolism, very-low-density lipoprotein and low-density lipoprotein responses seem unfavourable.^[6]

Sexual and reproductive health needs of adolescents

There are strong associations of high HIV rates with high incidences of sexually transmitted infections (STIs), high rates of unplanned teenage pregnancy, and poor educational and economic outcomes. As age of sexual debut is considered important in these associations, adolescence has been recognised as a critical period for sexual and reproductive health (SRH), beyond HIV prevention. Despite the obvious need for SRH facilities and a supportive legal framework, adolescent-focused services are scarce, and young people face a number of barriers to accessing such services. A study carried out under the auspices of the Centre for the AIDS Programme of Research in South Africa (CAPRISA) of the Nelson R Mandela School of Medicine, University of KwaZulu-Natal, Durban, suggests that integrating SRH services into schools may overcome many of these barriers.^[7] The authors describe an SRH service model developed for high-school students, and its implementation in 14 high schools in rural SA. The programme comprised in-school group SRH information and awareness sessions in tier 1, in-school individual SRH counselling and customised counselling and testing in tier 2, and referrals to in-school fixed, in-school mobile, or public sector primary SRH clinics in tier 3. This SRH service provision pilot proved acceptable to the community and seems feasible for scale-up. Further work is required to understand interschool variability in uptake and identify additional service needs of students.

Preventing diabetic blindness

Diabetes is the third leading cause of blindness in SA, from retinopathy and cataracts, and accounts for 8 000 new cases of vision impairment every year.^[8]

International examples show that camera screening for diabetic vision impairment is successful on a national scale. In 1980, 2.4% of Iceland's population was legally blind, but by 2005 the prevalence had dropped to 0.5%! The decline was attributed to the availability of treatment and preventive measures. In SA, screening for retinopathy at primary care level is almost non-existent, despite current guidelines recommending annual screening. In addition, ophthalmic treatment in the form of laser therapy and operations requires referral to tertiary centres. In 2007, a pilot study in Cape Town evaluated the impact of mobile fundus photography to screen for diabetic retinopathy.^[9] Following the screening, an ophthalmic specialist reviewed the photographs and referred patients as needed. This proved effective and allowed a single technician to screen about 10 000 patients annually, suggesting that scale-up is feasible. Screening via camera alone cost ZAR189 per person with further costs, including follow-up operation procedures, ranging from a lower limit of ZAR10 500 to an upper limit of ZAR23 327 per blindness case averted.

The SA government provides support through monthly disability grants for the blind, totalling ZAR12 120 per year per blind person. The ZAR10 500 per blindness case averted is less than the expense of one year of a disability grant. Prevention of blindness would also extend the number of working years for every diabetic patient.

Although the SA pilot project was performed in an urban setting, similar projects in rural communities in Australia and France have proved effective. Furthermore, smart-phone technology that might allow screening for diabetic retinopathy using mobile phones is now being tested elsewhere in Africa.

As National Health Insurance will not cover diagnostic procedures outside its approved guidelines and protocols, it is essential that

screening for diabetic retinopathy be considered for scale-up nationally. The use of mobile fundus cameras has huge savings potential compared with the current situation of diabetes treatment and disability coverage.

The ability to acquire and record high-quality retinal images is only the first step in early detection of diabetic retinopathy: effective interpretation is essential. Cook *et al.*^[10] invited graders registered in the Ophthalmological Society of South Africa diabetic retinopathy screening programme to participate in an external quality assurance programme, and report their findings. Disparity in grader performance indicates room for improvement, and a high rate of referral to ophthalmology suggests that on average graders are performing safely, but with a high number of inappropriate referrals.

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This month in the SAMJ ...



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