

GUEST EDITORIAL

Anaemia (part 1)

Anaemia is the most common haematological abnormality, affecting an estimated 1.6 billion people globally. Healthcare workers, particularly general practitioners, regularly encounter patients who present with anaemia.

The causes of anaemia are numerous and varied, necessitating a structured diagnostic approach at presentation. While basic investigations suffice for most patients presenting with this condition, the less common types of anaemia often require expertise and more specialised diagnostic tests and equipment. Costs involved in infrastructure development and the acquisition of equipment pay dividends in the long term in the form of prompt and accurate diagnosis and appropriate interventions. However, in resource-challenged countries, budgetary constraints limit the scope of investigations and management options. This applies particularly to the inherited and chronic anaemias that are likely to have a significant (and in some instances total) degree of transfusion dependency.

From the 1990s onwards, South Africa (SA) has faced the following unique challenges that have placed added strain on the health budget:

- A steady influx of visitors for business, employment or health reasons.
- A rising incidence of HIV and tuberculosis, coupled with limited intervention by the health ministry, saw a significant increase in the complication rate, especially as patients often seek medical attention at an advanced stage of their disease. Anaemia is commonly detected at presentation. However, with progression of the disease, complications develop and anaemia of increasing severity often supervenes, which may require urgent intervention.

These challenges demand innovative approaches, such as sharing of resources and expertise between centres and a streamlined referral system. Construction of guidelines specific for the SA setting would be a step towards standardising treatment protocols and also highlight resource constraints with feasible solutions. A working example is the SA recommendations for the management of sickle cell disease.^[1]

Numerous approaches to the investigation of anaemia are described in the literature; these are generally based on different classifications of the subject. In this edition of CME various classification systems have been employed to construct a practical approach for the investigation of anaemia. Emphasis is placed on the diagnostic approach, broadly touching on pathophysiology and management issues. Given the vastness of the subject, it will be split into two parts: part 1, which focuses on central causes, i.e. decreased bone marrow output of erythrocytes; and part 2, which covers peripheral causes, i.e. peripheral loss, destruction or sequestration of erythrocytes.

An in-depth review of disorders causing anaemia is beyond the scope of this two-part CME series. For ease of reference, selected tables have been duplicated in both parts.

The authors are indeed privileged to have the opportunity to present an overview of this very common, yet vast, topic.

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1. Alli NA, Patel M, Dawood H, et al. Recommendations for the management of sickle cell disease in South Africa. *S Afr Med J* 2014;104(11):743-751. <http://dx.doi.org/10.7196/SAMJ.8470>