## Treatable factors associated with severe anaemia in adults admitted to medical wards in Blantyre, Malawi, an area of high HIV seroprevalence.

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## **Abstract**

Severe anaemia is a common presentation in non-pregnant adults admitted to hospital in southern Africa. Standard syndromic treatment based on data from the pre-HIV era is for iron deficiency, worms and malaria. We prospectively investigated 105 adults admitted consecutively to medical wards with haemoglobin < 7 g/dl. Those with acute blood loss were excluded. Patients were investigated for possible parasitic, bacterial, mycobacterial and nutritional causes of anaemia, including bone marrow aspiration, to identify potentially treatable causes. Seventy-nine per cent of patients were HIV-positive. One-third of patients had tuberculosis, which was diagnosed only by bone marrow culture in 8% of HIV-positive patients. In 21% of individuals bacteria were cultured, with non-typhi salmonella predominating and Streptococcus pneumoniae rare. Iron deficiency, hookworm infection and malaria were not common in HIV-positive anaemic adults, although heavy hookworm infections were found in 6 (27%) of the 22 HIV-negative anaemic adults. In conclusion, conventional treatment for severe anaemia in adults is not appropriate in an area of high HIV prevalence. Occult mycobacterial disease and bacteraemia are common, but iron deficiency is not common in HIV-positive patients. In addition to iron supplements, management of severe anaemia should include investigation for tuberculosis, and consideration of antibiotics active against enterobacteria