

## **Neonatal haematology in Zimbabwe. II: The red cell and white cell parameters.**

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### **Abstract**

Red cell and white cell parameters were determined in 600 (310 male and 290 female) normal Black Zimbabwean neonates with a mean  $\pm$  sd birth weight of 3.0  $\pm$  0.4 (range 2.04 to 4.50, median 3.0) kg using a Coulter Counter Model S Plus. Cord anaemia (cord Hb < 13.5 gdl<sup>-1</sup>) was detected in 60 (10 pc) of the neonates. Although the male babies were significantly heavier than the females ( $p = 0.004$ ), there were no significant differences ( $p > 0.05$ ) in the red cell and white cell indices between the two sexes. When the haematological parameters of the 540 (90 pc) non-anaemic (cord Hb  $\geq$  13.5 gdl<sup>-1</sup>) neonates were analysed, the mean  $\pm$  sd values which may serve as local reference standards were: Hb 15.2  $\pm$  1.8 (range 13.5 to 19.4) gdl<sup>-1</sup>, Hct 47.3  $\pm$  4.9 (range 38.6 to 60.3) pc, MCV 107.8  $\pm$  9.4 (range 88.8 to 134.3) fl, MCH 31.9  $\pm$  3.4 (range 25.2 to 45.2) pg, MCHC 32.9  $\pm$  1.3 (range 30.0 to 38.3) gdl<sup>-1</sup>, nucleated red blood cells 6.1  $\pm$  5.9 (range 0 to 55) per 100 white blood cells, reticulocyte count 5.0  $\pm$  1.9 (range 0 to 24.0) pc, total leucocyte count 13.8  $\pm$  4.4 (range 4.6 to 132.8)  $\times 10^9$  l<sup>-1</sup>; differential count: neutrophils 7.30  $\pm$  2.90 (range 1.72 to 18.02)  $\times 10^9$  l<sup>-1</sup>, lymphocytes 5.67  $\pm$  2.47 (range 0.98 to 16.14)  $\times 10^9$  l<sup>-1</sup>, monocytes 0.81  $\pm$  0.83 (range 0 to 5.58)  $\times 10^9$  l<sup>-1</sup>, 1 and eosinophils 0.08  $\pm$  0.13 (range 0 to 0.72)  $\times 10^9$  l<sup>-1</sup>