OBJECTIVES: To document the pattern of presenting clinical and haematological features of chronic myeloid leukaemia (CML) in central Africans and evaluate the clinical consequences of treating the disease with chemotherapy. DESIGN: Prospective descriptive analysis of clinical and haematological data. SETTING: Departments of Haematology of tertiary referral centres and teaching hospitals. MATERIALS AND METHODS: Prospective clinical and haematological data were collected on 150 central Africans (90 Zimbabweans and 60 Malawians) using modern Coulter counters and standard up-to-date haematological procedures and the results analysed using predetermined criteria and the top-desk Scientific Calculator Model HP 48GX, Texas Instruments, USA. RESULTS: There were 150 CML patients studied. Males predominated in a ratio of 1:5:1. The youngest patient was 10 years and the oldest 77 years with a mean +/- s.d. of 38.9 +/- 14.7 years. The peak age incidence of 47.3% occurred between 21 to 40 years. The Ph chromosome was found in 19 of the 20 patients studied. Although complaints attributed to splenic enlargement were the most common symptoms, several unusual clinical features were encountered viz: hepatomegaly (26%), bleeding (12%), significant lymphadenopathy (11.3%), purpura (3.3%), skin infiltration (2.7%), cardiac failure (2.7%) and 14.7% were diagnosed incidentally. Symptoms such as fatigue, headaches and weight loss were associated with greater degrees of leucocytosis, severe to gross splenomegaly and lower haemoglobin levels. The severe to gross splenomegaly which occurred in 68(45.3%) suggests that patients in this part of the world seek medical advice rather late in the disease. The median survival times of 65, 47 and 39 months respectively for alpha interferon, hydroxyurea and busulphan are in agreement with those of previous larger series from other parts of the world. CONCLUSIONS: The study has revealed that the presenting pattern of clinical and haematological features of CML is changing probably due to the advent of modern clinical practice coupled with increased physician density, greater awareness of disease among clinicians besides other reasons. However, optimal treatment is not possible for the majority of patients due to lack of chemotherapeutic agents and supportive care. RECOMMENDATION: Referral centres in African health systems should be equipped for better management of CML patients.