

## Comparison of prognostic determinants in childhood acute lymphoblastic leukaemia in negroid and Caucasian populations

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### **Abstract:**

The response of acute lymphoblastic leukaemia (ALL) to treatment remains very low in developing countries. Many factors have been cited to be probable determinants of prognosis. To compare the prognostic determinants of childhood ALL in developed Western countries and developing African countries, a review of published data was carried out. Both an electronic and manual search were undertaken. The manual search was confined to four leading African journals. All articles were subjected to an eligibility criteria. The proportions of six prognostic factors were either extracted from the original publications or calculated from available published data. A pooled proportion was computed and 95% confidence intervals calculated and compared. Eleven articles fulfilled the inclusion criteria. One article with nineteen study subjects was available on black African population. Six articles from developed countries were excluded. The proportions of children below the age of two years or above the age of nine years constituted 26% (CI = 0.24,0.28) and 37% (CI = 0.15,0.59) in developed countries and the Black African population respectively. There was a statistically significant higher population of children with high total WBC count in African children compared to developed countries. Proportions for other factors in developed countries and developing countries respectively were as follows: T-cell immunophenotype (17% and 60%), FAB-L2, L3 (15% and 83%), CNS involvement (5% and 13%) and mediastinal shadows on CXR (8% and 13%). It is concluded that there is a need for basic epidemiologic research on childhood ALL in African countries. The frequency of poor prognostic determinants for ALL in developing African countries is higher than in developed countries