

Abstract

Background:

Early deaths and treatment nonadherence are major reasons for low childhood acute lymphoblastic leukemia (ALL) survival in low- and middle-income countries. This study assessed treatment outcomes of children presenting with ALL and evaluated perspectives of health-care providers (HCP) on ALL treatment at a Kenyan academic hospital.

Methods:

This was a combined retrospective medical records and cross-sectional questionnaire study. Treatment outcomes of 136 children diagnosed with ALL between 2010 and 2016 were collected. Questionnaires were completed by 245 HCP (response rate, 86%) between September and October 2016.

Results:

Childhood ALL treatment outcomes were death (30%), progressive or relapsed disease (26%), abandonment (24%), and event-free survival (20%). Of all deaths, 80% were early deaths (prior or during induction), whereas 20% occurred in remission. Probability of event-free survival at three years was 18%. Only 57% of HCP believed childhood ALL can be cured, with more doctors (96%) than other HCP (45%) believing in curability of ALL ($P < 0.001$). The majority of HCP (96%) thought that experienced doctors should put more time and effort into making parents understand the diagnosis and necessity to complete treatment. According to HCP, reasons for protocol nonadherence included parental financial difficulties (94%) and use of alternative treatment (79%).

Conclusions:

Event-free survival for ALL in Kenya is low. The primary reason for treatment failure is early death from treatment-related complications. More efforts should be directed toward improving supportive care strategies. In the opinion of HCPs, improved communication with parents and supervision of junior staff will improve ALL treatment outcomes.

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