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Time to Recovery and Predictors Among Children Treated for Severe Acute Malnutrition (SAM) in Stabilization Centers in Conflict-Affected Tigray, Ethiopia

Background:

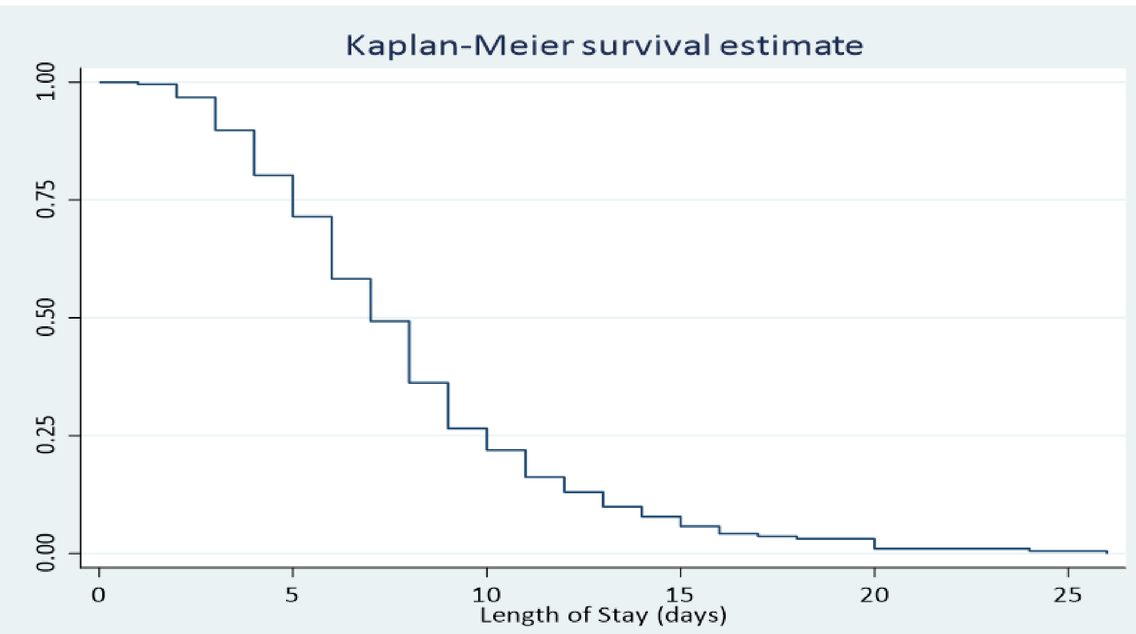
The study was conducted in one of the war-torn regions of Ethiopia to assess factors associated with time to recovery from complicated SAM in a conflict setting. The locations targeted were reporting emergency GAM rate during the study period while the health system was collapsed, and food insecurity further aggravated acute malnutrition burdens. This study investigates recovery time and predictors among under-five children with complicated SAM.

Children who passed the appetite test were 2.39 times more likely to recover early compared to those who failed. The absence of intravenous (IV) fluid administration was also associated with better outcomes. Additionally, not requiring NG tubes, Zinc supplementation, and the absence of medical complications were found to be a strong predictor of speedy recovery as indicated by the steeper decline in the survival curve

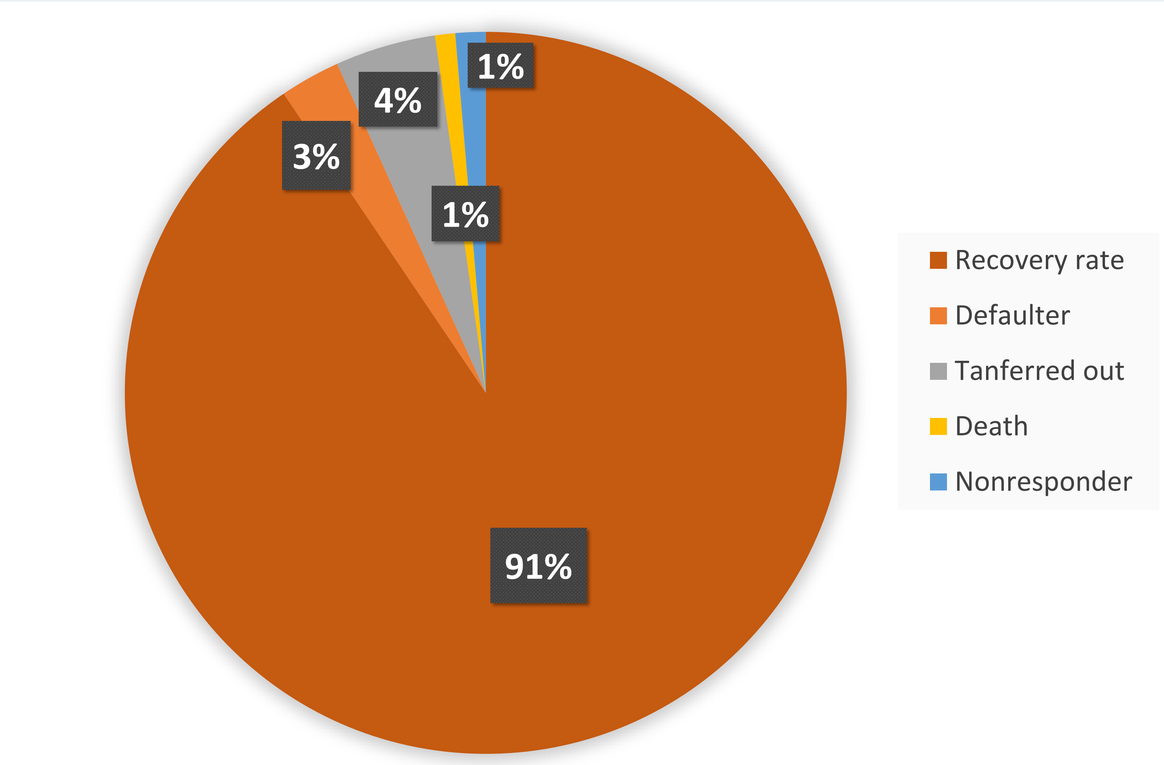
Methods and result of the study

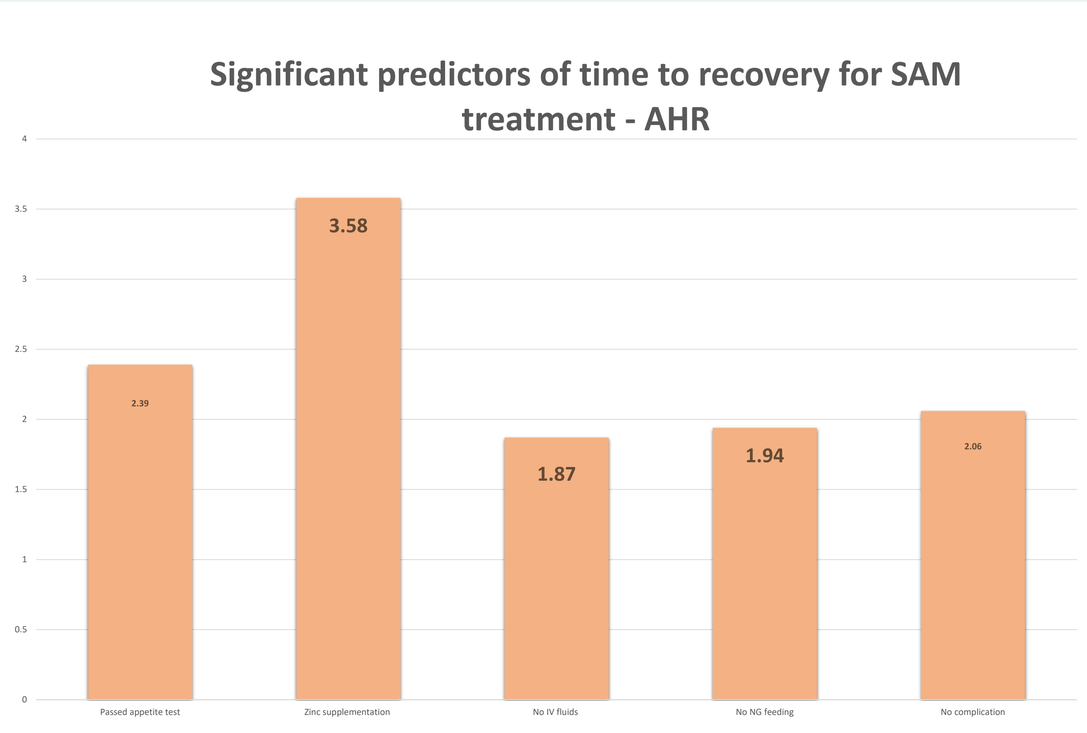
A facility-based Retrospective cohort study of 222 children 0-59 months was conducted between Oct 2023 to Nov 2024 from Sihul Hospital, Shiree town and Seleklaka Hospital, Seleklaka Town, IN Tigray Regions, Ethiopia. •Kaplan-Meier and Cox regression to analyze time to recovery

Overall Kaplan-Meier of survival curves of study sample



The Kaplan-Meier curve illustrates the probability of remaining admitted (not discharged) over time among SC admissions. The steep decline in the curve indicates that a significant proportion of SAM admitted cases were discharged within the first 10 days of admission. By day 25, the survival probability approaches zero, suggesting nearly all patients had been discharged by this point.





Clinical Implication of the findings and Limitations:

The appetite test remains a critical tool in triaging severe acute malnutrition (SAM) cases and predicting treatment outcomes, the presence of medical complications strongly correlates with slower recovery, underscoring the importance of integrated case management that addresses both nutritional deficits and concurrent illnesses. Ensuring

Limitations:

• Retrospective design limits causality, Unmeasured variables (e.g., caregiver practices)

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