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2024
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ABSTRACT

Background

In 2014, one-third of child deaths occurring in South African hospitals were attributed to severe acute malnutrition. This study sought to determine demographic, family, socio-economic, clinical, and case-management factors contributing to mortality in severely malnourished children younger than 5 years admitted to three hospitals in Vhembe district, Limpopo, South Africa.

Methods

A retrospective record review of children aged 6 to 59 months admitted with severe acute malnutrition over 30 months was conducted. Bivariable and multivariable regression analyses of determinants of mortality were undertaken.

Results

Two hundred and forty-five children with severe acute malnutrition were identified. Their median (interquartile [IQR]) age was 14 (10, 18) months. The overall mortality was 26.9% (66/245). Determinants of mortality, based on the multivariable analysis, included diarrhoea on presentation (odds ratio [OR]=3.34, 95% CI 1.38, 8.10); anaemia (OR=3.30, 95% CI 1.28, 8.50]); a raised CRP (OR=9.29, 95% CI 2.81, 30.76]); and hyponatraemia (OR=6.64, 95% CI 2.70, 16.31). HIV status and a diagnosis of shock were not significant determinants of mortality.

Conclusion

Severe acute malnutrition mortality was high, particularly for a high middle-income country setting. Factors that may be amenable to intervention include better management of the presenting illness, particularly diarrhoea, a focus on electrolyte imbalance correction, and treatment of anaemia.