

Prevalence and associated factors of pediatric emergency mortality at Tikur Anbessa specialized tertiary hospital: A five year retrospective case review study

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Background: Childhood mortality remains high in resource-limited third world countries. Most childhood deaths in hospital often occur within the first 24 hours of admission. Many of these deaths are from preventable causes. This study aims to describe the patterns of mortality in children presenting to the pediatric emergency department.

Methods: This was a five-year chart review of deaths in pediatric patients aged seven days to 13 years presenting to the Tikur Anbessa specialized tertiary hospital (TASTH) from January 2012 to December 2016. Data were collected using a pretested, structured checklist, and analyzed using the SPSS Version 20. Multivariate analysis by logistic regression was carried out to estimate any measures of association between variables of interest and the primary outcome of death.

Results: The proportion of pediatric emergency department (PED) deaths was 4.1% (499 patients) out of 12,240 PED presentations. This translates to a mortality rate of 8.2 deaths per 1000 patients per year. The three top causes of deaths were pneumonia, congestive heart failure (CHF) and sepsis. Thirty two percent of the deaths occurred within 24 hours of presentation with 6.5% of the deaths being neonates and the most common co-morbid illness was malnutrition (41.1%). Multivariate analysis revealed that shortness of breath [AOR=2.45, 95% CI (1.224-91)], late onset of signs and symptoms [AOR=3.22, 95% CI (1.34-7.73)], fever [AOR=3.17, 95% CI (1.28-7.86)], and diarrhea [AOR=3.36, 95% CI (1.69-6.67)] had significant association with early mortality.

Conclusion: The incidence of pediatric emergency mortality was high in our study. A delay in presentation of more than 48 hours, diarrheal diseases and shortness of breath were significantly associated with early pediatric mortality. Early identification and intervention are required to reduce pediatric emergency mortality.