

PREVALENCE AND FACTORS ASSOCIATED WITH ANAEMIA AMONG NEWBORNS DELIVERED AT MWANANYAMAU AND TEMEKE HOSPITALS DAR ES SALAAM, TANZANIA.

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ABSTRACT

Background: Anaemia is a significant public health problem affecting children that has major consequences and adverse impacts on social and economic development in low, middle and high-income countries. If untreated, anemia is associated with adverse health consequences including stunted growth, impaired cognitive development, compromised immunity, disability and increased risk of mortality. Newborn babies are more vulnerable to anemia with an increase in prevalence in developing countries. Several studies have been conducted In Tanzania assessing prevalence, predictors and risk factors of anemia among children less than five years of age, however there is no data on the burden of neonatal anemia and its associated factors in our setting.

Objective: To assess the prevalence of anaemia among term neonates delivered at Mwananyamala and Temeke Hospitals, as well as the factors that contribute to it.

Methodology: This was a hospital-based cross-sectional study undertaken at Mwananyamala and Temeke Hospitals' wards for a study period of three months. A total of 288 term newborns were included in the final data study analysis. A standardized questionnaire was used to collect data and the mother's medical records were reviewed as well. Umbilical cord blood sample was collected from each neonate for full blood picture using a full blood picture machine (CD Ruby) and a haemoglobin level of less than 15.0 g/dl was considered to be anaemia. Data was analyzed using SPSS version 23, Descriptive statistics were summarized as the mean and standard deviation for continuous variables and proportions for categorical variables. The relationship between independent variables and dependent variable was determined using logistic regression analysis. Univariate logistic regression analysis was conducted between independent variable and dependent variable. All variables with p-values below or equal to 0.2 were entered into a multivariate regression analysis. The adjusted odds ratios and 95% confidence intervals (CIs) are used for interpretation of the factors associated with anaemia in newborns. A p value < 0.05 was considered statistically significant.

Results: A total of 288 neonate-mother pairs who fulfilled all the eligibility criteria were enrolled in the study. The prevalence of anaemia was found to be 45.8%. The number of ANC attendance was significantly associated with the manifestation of anaemia in newborns (p-value < 0.05). The mothers who visited once or twice had higher chances

(or 3.33, CI=95%) of giving birth to anaemic neonates compared to mothers who visited the ANC more than three times.

Conclusions: The study shows that the prevalence of anaemia among term newborns delivered at Mwananyamala and Temeke Regional Referral Hospitals is relatively high and the factor that was found to be associated with anemia in neonates in this study was the number of antenatal clinic visits, with fewer visits associated with an increased risk of developing anaemia in neonates.

Recommendations: Further studies with a larger sample size should be conducted to identify on the factors and causes of anaemia in newborns including assessing iron status in pregnant mothers and the relationship to neonatal anemia. The studies should be conducted among different cultural communities in Tanzania in order to draw more conclusive information.