Determinants of outcome among preterm infants admitted to the Mother and Baby Unit of Komfo Anokye Teaching Hospital, Ghana

Ocran Akua Afriyie, 1,2, Enimil Anthony, 2,3, Plange Rhule Gyikua, 1,3, Boakye-Yiadom Adwoa Pokuaa, 1,3, Brobby Naana Wireko, 1,3, Adjei Barnie Stella. 1,3

1Mother and Baby Unit, Directorate of Child Health, Komfo Anokye Teaching Hospital, Kumasi, Ghana
2Infectious Disease Unit, Directorate of Child Health, Komfo Anokye Teaching Hospital, Kumasi, Ghana.
3Department of Child Health, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

ABSTRACT

Background

Each year, approximately 15 million babies are born too early. Mortality associated with preterm birth is the highest contributor to under five mortality globally.

At Komfo Anokye Teaching Hospital (KATH), preterm birth remains the leading cause of admission to the Mother and Baby Unit (MBU) and is the highest contributor to neonatal mortality.

Objectives

To determine the precipitating factors for preterm birth at KATH and to evaluate factors that influence the outcome of preterm babies admitted to the MBU.

Methods

A descriptive cross-sectional study was conducted on 80 babies delivered before 33 weeks gestation who were admitted to the MBU between January and March, 2021. Babies were selected prospectively by simple random sampling and their birth weight, gender, initial temperature, precipitating factors for delivery, admission and discharge/death dates were recorded on a case-record form and analysed using excel version 2016.

Results

Among the 80 cases studied, 56% were males, 54% were born vaginally and 42% were referred. Their gestational ages ranged from 25 to 32 weeks (average 29 weeks). Their mean birth weight was 1.12 kg (range 0.6 kg to 1.9 kg). Eighty-four percent of recruits had temperatures below 36.5°C. Premature rupture of membranes (63%) was the leading precipitating factor and hypertensive disorders was associated with the highest mortality (55%).

Conclusions

The precipitating factors for preterm birth can be predominantly attributed to maternal infections therefore a comprehensive antenatal care with active screening and management of maternal infections can lead to a decline in preterm birth and its complications.

Majority of babies were hypothermic on admission. The deleterious effect of hypothermia on the preterm infant has been widely studied. Robust interventions must be put in place especially during transfer of preterm infants to maintain their temperatures within the normal range.

These can lead to improved outcomes which will contribute favourably to achieving the third sustainable development goal.