

PREVALENCE OF NEONATAL HYPOTHERMIA IN A REFERRAL HOSPITAL'S NEWBORN UNIT IN KENYA.

Switchenko N¹, Kibaru E², Fassl B¹.

Faculty of Health Sciences, department of Paediatrics, University of Utah, USA

Faculty of Health Sciences, Department of Paediatric and Child Health, Egerton University Nakuru

BACKGROUND

Thermoregulation is uniquely challenging in the neonate and hypothermia is associated with the most common causes of newborn death. This study aims to describe the prevalence of hypothermia in hospitalized newborns in an urban referral hospital in Kenya and to assess the association of hypothermia with neonatal mortality.

METHODS

Axillary temperatures were measured once daily with a standard digital thermometer on all infants hospitalized in the newborn unit (NBU) at the Nakuru county referral hospital in Nakuru, Kenya between November 11, 2017 and December 12, 2017. Standard unit protocols related to thermal care were followed. The World Health Organization definitions of neonatal hypothermia (<36.5 degrees Celsius) and hyperthermia (>37.5 degrees Celsius) were used. Persistent hypothermia was defined as hypothermia on more than half of measurements made in infants who had two or more temperatures recorded. Clinical and demographic data were collected by chart review. Chi-square tests were performed.

RESULTS:

During the study period, there were 136 infants admitted to the NBU with a mortality rate of 22 percent. Multiple temperature recordings were done with 678 temperature measurements being recorded for 127 neonates with records of nine patients being unavailable. 110 neonates (87%) had at least one recorded episode of hypothermia. 92 (68%) had two or more temperature readings recorded and of these 55 (60%) had persistent hypothermia. 7(13 %) of the neonates who had persistent hypothermia died, 18 infants (14%) had recorded hyperthermia. Although persistent hypothermia was not associated with death ($p=0.09$). Neonates with severe hypothermia who had at least one temperature of less than 35°C were few 25 infants (20%), and this was associated with death ($p<0.05$).

CONCLUSION:

There is a high burden of hypothermia in the PGH NBU in Nakuru, Kenya. Identifying and addressing gaps in the care processes related to thermal care may improve neonatal outcomes.