

## Pattern of Low Birth Weight and Early Outcome of Neonates Admitted at Neonatal Unit in Omdurman Maternity Hospital from December 2019 to May 2020

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### ABSTRACT

**Background:** The birth weight of an infant is the first weight recorded after birth, ideally measured within the first hours after birth, before significant postnatal weight loss has occurred. Low birth weight is defined as a birth weight of less than 2500g (up to and including 2499g), as per the World Health Organization. Low birth is considered as the single most important predictor of neonates' mortality, especially of deaths within the first months of life

**Objective:** To study pattern of low birth weight and early outcome of neonates admitted to neonatal unit at Omdurman maternity hospital from December 2019 to May 2020

**Methods:** Cross sectional hospital-based study conducted at Omdurman maternity hospital within the period from December 2019 to May 2020 which covered neonates with birth weight less than 2500 gm admitted to neonatal unit. Data collected, prepared, entered and analyzed using SPSS version 25.0.

**Results:** This study covered 150 neonates of whom 70 (46.7%) with low birth weight, 63 (42%) with very low birth weight and only 17 (11.3%) were extreme low birth weight. The most common low birth weight risk factors identified were prematurity (76.7%) and high-risk pregnancy such as premature rupture of membrane (41.6%) and pregnancy induced hypertension (29.2%). The most common identified clinical presentation and complications were respiratory distress (82%) followed by sepsis (54.7%), hypothermia (48.7%), hyperbilirubinemia (38%), hypoglycemia (37.3%) and electrolyte disturbances (32%) mainly hypocalcemia (17.3%). The mortality was (52%) more than half among study group.

**Conclusion and recommendations:** Based on our results, low birth weight among neonates in Sudan is associated with adverse perinatal outcomes and high mortality so, early identification of the risk factors for low birth weight through prenatal surveillance of high-risk pregnant women and accurate management after delivery and hospitalization may help to prevent these adverse perinatal outcomes in Sudan.

**Keywords:** Low birth weight (LBW), Very low birth weight (VLBW), Extremely low birth weight (ELBW), Prematurity, Premature rupture of membranes (PROM), Antenatal care, Antepartum hemorrhage

*Bahrain Med Bull 2022; 44 (1): 824 - 831*

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