Assessment of Mortality Rate in Federal Teaching Hospital, Lafia

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ABSTRACT

Introduction: Hospital mortality remains a vital indicator of healthcare quality and system performance. Despite progress in healthcare delivery, tertiary hospitals in Nigeria continue to record high in-hospital deaths due to a combination of infectious, non-communicable, and preventable conditions. This study assessed the patterns, causes, and trends of hospital mortality at the Federal University Teaching Hospital (FUTH), Lafia, from 2020 to 2024, with the aim of identifying key determinants and guiding strategies for mortality reduction.

Methodology: A retrospective descriptive study design was employed, utilizing hospital mortality records spanning five years (2020–2024). Data were extracted from admission and death registers across major wards, including medical, surgical, obstetric, pediatric, and intensive care units. Variables analyzed included age, sex, causes of death, comorbidities, length of hospital stay, and availability of equipment and treatment. Mortality rates were calculated per 1,000 admissions, and findings were compared with national and international benchmarks.

Results: The overall hospital mortality rate at FUTH Lafia during the study period was 1.91% (19.1 deaths per 1,000 admissions). Mortality was highest among patients aged 45–64 years (25.6%) and ≥65 years (23.7%), reflecting the growing burden of non-communicable diseases (NCDs). Infants (<1 year) accounted for 19.6% of deaths, indicating persistent pediatric and neonatal health challenges. Male deaths predominated (54.8%), consistent with patterns seen in other African settings. The leading causes of death were sepsis (17.1%), stroke (15.3%), and HIV/AIDS complications (12.0%), while trauma (10.6%) and obstetric complications (8.9%) contributed substantially to the mortality burden. Common comorbidities included hypertension (28.4%) and diabetes mellitus (18.6%), underscoring the interplay between infectious and chronic disease burdens. Most deaths occurred in the medical ward (38.5%), followed by the ICU (17.2%), paediatric (16.8%), and obstetric wards (14.6%). Nearly 60.9% of deaths occurred within the first three days of admission, suggesting late presentation and inadequate emergency response capacity. Equipment and treatment adequacy were suboptimal, only 27.8% of deaths occurred where facilities were adequate, compared to 48.3% inadequate and 23.8% not available. Despite an annual increase in the number of deaths, the mortality rate per 1,000 admissions declined slightly from 19.9 in 2021 to 18.1 in 2024, indicating modest improvements in case management.

Conclusion: The mortality profile at FUTH Lafia underscores Nigeria's dual burden of infectious and non-communicable diseases, compounded by trauma and obstetric emergencies. The predominance of early inpatient deaths and inadequate resource availability highlight systemic weaknesses in emergency care and critical care infrastructure. Addressing these challenges requires strengthened emergency preparedness, expanded intensive care capacity, improved infection control, and integrated management of NCDs. Sustained investment in hospital infrastructure, timely referral systems, and staff capacity building are essential for reducing preventable in-hospital deaths and improving patient survival outcomes.

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