ABSTRACT

Background: Cardiovascular diseases (CVDs) are estimated to cause approximately 17.7 million deaths globally, with over 80% occurring in low and middle-income countries specifically from sub-Saharan Africa. Data on cardiothoracic conditions is largely limited in Ghana, hence clinical audit of cardiothoracic emergencies will improve clinical care and outcomes.

Study Aim: To describe the pattern and outcomes of cardiovascular conditions presented at the National Cardiothoracic Centre (NCTC), Korle Bu Teaching Hospital (KBTH).

Methods: A retrospective cohort study on cardiothoracic conditions from January 2015 to December 2019 was conducted at the NCTC. Diagnosis obtained from the medical records was recategorized using the international classification of diseases (ICD 10). The primary outcome was cardiothoracic mortality. Descriptive statistics, equality of survival, and survival analysis were performed to describe, determine the cumulative incidence and mortality rate per 1000 person-days at risk and hazard ratio respectively.

Results: The study involved a retrospective cohort of 2903 patients from 2015-2019 with age ranging from an infant with 1-month-year-old to 102 years (overall mean±standard deviation= 49.4±25.5) and the overall proportion of male versus female differential was restively 56.1% versus 43.9%. The commonest reported conditions were; circulatory system diseases (59%), congenital malformations (18.2%), abnormal clinical and laboratory findings, and others (14.7%). The overall mortality rate was 10.3/1000 person-days at risk (95%CI=9.0-11.6) and ranged from 6.3/1000 person-days at risk in 2018 to 17.1/1000 person-days at risk in 2016. More than twice the hazard ratio (HR) was estimated among patients with circulatory system diseases and abnormal clinical and laboratory findings respectively compared with congenital malformation [aHR(95%CI)=2.05(1.20-3.50) and 2.41(1.06-5.46) respectively]. Increasing age was significantly associated with the risk of mortality and was

highly significant among patients aged 60 years and above (crude Hazard Ratio= 2.05; 95%CI= 1.20-3.50).

Conclusion: There has been a steady rise in cardiovascular conditions at the NCTC, vis-á-vis a decline in the mortality rate within the period. Circulatory system diseases and abnormal clinical and laboratory findings were high-risk factors for mortality confounded with increasing age. The Ghana national aging policy must consider the cardiothoracic conditions among the aged to create a good picture of aging and to promote the health and wellbeing of the aged.