



AC095

Adult Cardiology & Clinical Cardiovascular Medicine • Poster Presentation

BUILDING A LONGITUDINAL ADULT CONGENITAL HEART DISEASE REGISTRY IN NIGERIA: PROTOCOL FOR CHARACTERISING CLINICAL PROFILES, CARE GAPS, AND LONG-TERM OUTCOMES

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Background: Longitudinal data on adults with congenital heart disease remain scarce in Nigeria and sub-Saharan Africa, limiting understanding of disease progression, care gaps, treatment effectiveness, and outcomes. The Adult Congenital Heart Disease (ACHD) Registry will characterise disease patterns, clinical profiles, management, complications, healthcare utilisation, outcomes, and predictors of adverse events.

Methods: Adults aged 16 years or older with a confirmed structural congenital cardiovascular abnormality will be enrolled. Eligible patients may be unrepaired, repaired, partially repaired, palliated, or newly diagnosed in adulthood. Standardised baseline and follow-up data will include sociodemographic characteristics, diagnosis, anatomical complexity, physiological status, symptoms, examination findings, electrocardiography, echocardiography, laboratory tests, advanced imaging, interventions, medications, functional capacity, reproductive health, psychosocial factors, and gaps in specialist care. Outcomes will include hospitalisation, heart failure, arrhythmias, pulmonary hypertension, infective endocarditis, thromboembolism, reintervention, stroke, pregnancy outcomes, sudden cardiac death, and all-cause and cardiovascular mortality. Descriptive statistics will summarise registry characteristics. Regression models will identify independent predictors of complications and functional impairment. Mixed-effects models will assess longitudinal changes, while Kaplan–Meier and Cox regression will evaluate time-to-event outcomes.

Conclusions: The registry will generate locally relevant evidence on ACHD epidemiology, disease trajectories, outcomes, and unmet care needs, supporting risk stratification, clinical practice, service planning, research, resource allocation, and health policy across Nigeria and sub-Saharan Africa. It may also provide a foundation for regional collaboration, benchmarking, quality improvement, and development of robust population-appropriate prognostic models.

Keywords: Adult congenital heart disease; congenital heart disease; registry; prospective cohort; clinical outcomes; late complications; care gaps; cardiovascular mortality