13th Annual Scientific Conference & Gathering

Theme
Environmental Virology, Exposomics and Epigenetics

Venue
Old Great Hall, College of Medicine, University of Lagos, Idi Araba, Lagos State

Date
Wednesday 8th June 2016

Time
8.00 am - 5.00pm
Objectives: Tuberculosis (TB) is a leading cause of morbidity and mortality in developing
regions. Understanding the nexus of survival pattern, treatment outcomes and prognostic differentials of
tuberculosis infection could help strengthen policies aimed at reducing morbidity and mortality. We characterized
the pattern of sputum smear–positive tuberculosis infection and adherence to Directly Observed Treatment Strategy
(DOTS) at Lagos University Teaching Hospital (LUTH), Lagos, Nigeria.

Methodology: Retrospective cohort study of 210 sputum smear–positive TB patients that underwent DOTS at
LUTH from January 2008 to June 2011. Variables extracted: socio–demographics, proximity of patients’ residence
from LUTH, family support, anatomical location of lesion, HIV status, treatment outcomes, including conversion time
to smear–negative sputum. Survival analysis was performed. Kaplan–Meier estimator was used to compute
median time to sputum conversion and Cox proportional model for hazard ratios (HR).

Results: Treatment outcomes: 72.5% cured, 8.6% dead, 12.4% defaulted. Median sputum conversion time was 67
days (range: 63–71). Patients residing ≤25km to LUTH (65.7%) significantly adhered to treatment compared to
those living >25km (31.6%). Recipients of family support significantly adhered to therapy (83.0%) compared to
non-recipients (14.6%). Median conversion time was lower among those adherent to treatment (58 days compared
to non-adherents (73 days) \( p=0.025 \), and was significantly higher among HIV positive (79 days) compared to HIV
negative patients (53 days) \( p=0.011 \). Factors independently associated with time to sputum conversion: treatment
failure (HR=0.21, 95%CI: 0.63–0.94), level of adherence (HR=0.27, 95%CI: 0.11–0.63). Percentages of patients
remaining in care: 98.4% at 3 months and 74.0% at 15 months. 1.9% and 25.9% were lost to follow–up at 3 and 15
months respectively.

Conclusions: Poor adherence and lack of social support were the main reasons for compromised response to
treatment. Integration of family support with DOT strategy and location of treatment centers close to patients’
residence could enhance effectiveness.

Keywords: Directly Observed Treatment Strategy, sputum conversion time, tuberculosis