Xpert MTB/RIF identified rifampicin-resistant tuberculosis in Bukavu, Democratic Republic of the Congo

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Setting: Provincial General Referral Hospital of Bukavu, Democratic Republic of Congo.

Objectives: To determine the prevalence, risk factors and outcomes of rifampicin-resistant tuberculosis (RR-TB).

Methods: Secondary analysis from a database containing clinical data and Xpert MTB/RIF results collected from 2012-2014. A multivariate logistic regression was performed to identify independent risk factors of RR-TB.

Results: Of 225 suspected tuberculosis (TB) patients, 65.8% were male. The mean (SD) age was 34.9 (16.8) years. Eighty-five (37.8%) were HIV-positive; 167 (74.2%) had pulmonary TB; 131 (58.2%) of these were TB sputum smear-positive. Forty-five (20%) participants were TB retreatment cases. Twenty of 225 Xpert MTB/RIF tests performed (8.9%; 95% CI 5.5 – 13.4) were RR-TB. Overall, 28 (12.4%) deaths occurred, of whom 6 (30%) were RR-TB (P= 0.013). Risk factors independently associated with RR-TB were: retreatment cases vs. new TB cases (adjusted odds ratio [aOR] = 5.5, 95% CI 0.9 – 32, P=0.06); and previous TB treatment failure ([aOR] = 17.6, 95% CI 2.2 – 142, P=0.007).

Conclusions: There was a relatively high prevalence and mortality of RR-TB, especially in previously TB therapy failure cases. There is an urgent need to increase access of affordable drug-susceptibility testing for accurate diagnostic and management of TB cases in this setting.