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A retrospective analysis of two-month sputum smear non-conversion in new sputum smear positive tuberculosis patients in the Free State Province, South Africa

CITATION

Kigozi NG, Heunis JC, Chikobvu P & Van der Merwe S. 2014. A retrospective analysis of two-month sputum smear non-conversion in new sputum smear positive tuberculosis patients in the Free State Province, South Africa. *Journal of Public Health in Africa*, 5(2). DOI: 10.4081/jphia.2014.324

ABSTRACT

Little is known about the drivers of two-month sputum smear non-conversion in the South African context. Our study sought to determine these factors in new sputum smear positive tuberculosis (TB) patients in South Africa's Free State Province. A retrospective record review was conducted for all TB patients on treatment between 2003 and 2009. Two-month sputum smear non-conversion was defined by a positive sputum smear result. Data was subjected to univariate, bivariate and regression analyses. Generalised linear regression models were used to estimate the risk for two-month sputum smear non-conversion. Age, pre-treatment sputum smear grading, HIV status, and TB disease classification influenced two-month sputum smear non-conversion. Significant associations were thus established between health systems, microbiological, clinical and demographic factors, and two-month sputum smear non-conversion. This study provides programme managers with evidence to support the development of more tailored TB care.