

Abstract

Introduction: Tuberculosis (TB) is global health problem that causes ill-health among millions of people each year. The most common method for diagnosing TB worldwide is sputum smear microscopy. However the advent of HIV/AIDS has complicated the diagnosis and management of TB with associated emergence of multidrug resistant TB (MDR-TB) and extensively drug resistant TB (XDR-TB). Studies that evaluate methods for diagnosing TB and follow-up of TB suspects to verify the presence or absence of active TB are crucial for prompt diagnosis and treatment. The present study aimed to assess adherence to attend follow up clinical and sputum re-examination clinics for symptomatic HIV positive presumptive TB patients initially assumed to be TB negative. The study aimed to find out at what time HIV positive smear negative TB suspects would become positive for TB and with which diagnostic method within a 6 month follow up.

Methods: This was a cohort study conducted in nine East African Public Health Laboratory Networking sites in Kenya. Eligible new and previously treated presumptive TB patients i.e. a patient presenting with symptoms and signs suggestive of TB who tested positive for HIV and had sputum smear negative on initial sputum smear examination were enrolled in to the study. Study participants were then followed up for repeat sputum smear examination at 2 weeks, 2, 4, and 6 months.

Results: Of the of the 1323 presumptive TB patients enrolled between February 2013 and February 2014, only 201 (15.2% were eligible for follow up and 164 (81.6%) did not return at 2 weeks for follow up. Of the 37 (18.4%) who returned for follow up at 2 weeks, none was either sputum smear positive or GeneX-pert positive. Initial sputum from all the 201 participants were subjected to culture on both solid and liquid media. Culture results were available for only 156 patients of whom 15/156, (9.6%) were culture positive. Follow up adherence at 2 weeks was significantly associated with history of previous treatment (p-value = 0.010) but not associated with gender (p-value =0.268).

Conclusion: The high proportion of non-adherence to follow up among HIV positive presumptive TB patients is a cause for concern to the national TB program. We recommend active follow up for HIV positive presumptive TB patients with initial sputum smear negative results especially with the new diagnostic tools that are available and can diagnosis TB

early. Since the study is ongoing strategies should be put in place to ensure active follow up of the presumptive TB patients as part of the protocol.