

ABSTRACT

Quality Assurance in Relation to Mycobacterial Sputum Samples Received and Processed at the National Public Health Laboratory, 1st August 1997 to 31st January 1998, and the Effect on Patients' Treatment.

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There has been a global increase in the incidence of mycobacterial cases since the advent of HIV and AIDS. This increase has not been seen in Jamaica. This study was done to determine the quality of samples received, at the National Public Health Laboratory, in terms of sputum/saliva and time submitted after collection, and to evaluate if this affected case treatment.

Data was retrospectively extracted from bench records at the laboratory and analyzed. Cross checking of laboratory negative and positive cases was done using patients' records at the National Chest Hospital, to validate laboratory results with clinical diagnosis. Evaluation of treatment of positive cases with respect to sensitivity results was done.

Results showed that of the 925 sputum samples submitted, 86.6% were true sputum samples, submitted mainly from the urban region. Sputum samples were five times more likely to yield positive TB culture results than saliva. There was no statistically significant difference in mycobacteria other than tuberculosis

(MOTT) or contamination results between sputum and saliva. With respect to time of arrival, only 412 samples were analyzed due to lack of data. Of these, 56.1% of these arrived within one day. Positive TB cultures were no different among sputum (14.3%) and saliva (13.3%) samples with respect to time of arrival. Contamination rate was slightly higher in samples received > 1 day (4.4%), to those received within one day (2.2%). The treatment of 22 TB positive cases evaluated, corresponded with the sensitivity results, but only one of the three MOTT cases corresponded.

The quality of sputum samples received was generally good, and did not significantly affect culture results and patients' treatment. A further study however, needs to be done to evaluate quality assurance and quality control measures in the laboratory.