Implementation of 25-well culture plates for M. tuberculosis drug susceptibility testing in Indonesia

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Abstrak

Saat ini tidak ada metode standar untuk uji kepekaan obat terhadap Mycobacterium tuberculosis di antara laboratorium-laboratorium di Indonesia. Sejak bulan Januari 2002 sampai dengan Januari 2004, kami mencoba menerapkan metode plat dengan 25 sumur yang berisi media middlebrook's (metode Drug Susceptibility Culture Plate (DSCP)) yang digunakan oleh Dutch Supranational Reference Laboratory at the Institute of Public Health and the Environment (RIVM), Bilthoven, Netherlands. Pengalaman kami memperlihatkan bahwa metode ini berpotensi memberikan hasil yang lebih baik karena sangat mudah distandardisasi, hasilnya lebih cepat dan dapat memperlihatkan nilai KHM (Konsentrasi Hambat Minimum) yang lebih terperinci. Data dari 364 isolat yang telah diuji dengan metode DSCP memperlihat resistensi terhadap INH, rifampisin, ethambutol, dan streptomisin secara berurutan adalah 21,4%; 19,8%; 15,7%; and 16,5%. Resistensi ganda didapatkan pada 13,2% isolat. (Med J Indones 2005; 14: 142-6)
<hr>At present, there is no standardized method for Mycobacterium tuberculosis drug susceptibility testing (DST) among laboratories in Indonesia. Since January 2001 to January 2004 we have tried to establish the method of 25-well culture plates with middlebrook's media (Drug Susceptibility Culture Plate (DSCP) method) used by the Dutch Supranational Reference Laboratory at the Institute of Public Health and the Environment (RIVM), Bilthoven, Netherlands. Our experience showed that this method potentially gives better result as it can be very well standardized, faster and provides detailed MIC (Minimal Inhibitory Concentration) values. Data from 364 isolates that have been tested by DSCP method showed that resistance to INH, rifampicin, ethambutol, and streptomycin were 21.4%, 19.8%, 15.7%, and 16.5% respectively. Multidrug resistance were found in 13.2% isolates. (Med J Indones 2005; 14: 142-6)