

STUDY OF DRUG RESISTANT CASES AMONG NEW PULMONARY TUBERCULOSIS PATIENTS ATTENDING A TUBERCULOSIS CENTER, YANGON, MYANMAR

Wah Wah Aung¹, Ti Ti², Kyu Kyu Than³, Myat Thida¹, Mar Mar Nyein¹, Yin Yin Htun⁴,
Win Maung² and Aye Htun²

¹Bacteriology Research Division, Department of Medical Research (Lower Myanmar);
²National Tuberculosis Program, Myanmar; ³Epidemiology Research Division, Department of
Medical Research (Lower Myanmar); ⁴Department of Medical Research (Central Myanmar)

Abstract. A cross-sectional descriptive study was carried out at a tuberculosis center, Yangon, Myanmar from October 2003 to July 2004 to analyze the drug susceptibility of new sputum smear positive pulmonary tuberculosis patients. A total of 202 *Mycobacterium tuberculosis* isolates were tested for resistance to isoniazid, streptomycin, rifampicin and ethambutol. Resistance to at least one anti-tuberculosis drug was documented in 32 (15.8%) isolates. Mono-resistance (resistance to one drug) was noted in 15 (7.4%) isolates and poly-resistance (resistance to two or more drugs) was noted in 17 (9.4%) isolates, including 8 (4.0%) multi-drug resistant isolates (resistance to at least isoniazid and rifampicin). Total resistance to individual anti-tuberculosis drugs were: isoniazid (29, 14.3%), streptomycin (11, 5.4%), rifampicin (10, 4.9%) and ethambutol (1, 0.5%). The demographic data and possible contributing factors of drug resistance were evaluated among the drug resistant patients. Poly-resistant cases had significantly longer intervals between symptom appearance and achieving effective anti-tuberculosis treatment than mono-resistant cases ($p = 0.015$).