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Initial screening for antituberculous drug resistance at an inpatient facility in Leon, Nicaragua.

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Antituberculous (anti-TB) drug resistance has become a major tuberculosis control issue in the United States, where this situation has closely paralleled the current acquired immunodeficiency syndrome epidemic associated with human immunodeficiency virus type-1 (HIV-1) infections. In less developed countries, especially those like Nicaragua with an apparently low prevalence of known HIV-1 infections, less is known about the epidemiology of antituberculous drug resistance. To understand the potential extent of this problem in Nicaragua, we conducted a cross-sectional prevalence study at Nicaragua's only inpatient tuberculosis treatment facility, located in Leon, Nicaragua. A radiometric method was used during recovery, purification, and drug susceptibility testing of clinical Mycobacterium tuberculosis isolates. Resistance to at least one of the major anti-TB medications was found in 15 (40.5%) of 37 sputum isolates, of which seven (19%) were resistant to either isoniazid alone, or to isoniazid plus another agent other than rifampin. Five were resistant to at least isoniazid and rifampin i.e., 13.5% demonstrated multidrug resistance). Two isolates were resistant to pyrazinamide alone, and one was resistant to streptomycin alone. These initial results suggest that anti-TB drug resistance is a defined problem for tuberculosis control programs in Nicaragua, a problem that is largely related to individual noncompliance, lack of extensive drug susceptibility testing facilities, and a general unavailability of expensive anti-TB medications for re-treatment. Ongoing surveillance for drug resistance, using the methodology presented here, might assist Nicaraguan public health officials in their tuberculosis control programs.

*Antitubercular Agents/PHARMACOLOGY *Drug Resistance, Multiple *Mycobacterium tuberculosis/DRUG EFFECTS *Tuberculosis, Multidrug-Resistant/EPIDEMIOLOGY