

TABLE
**Epidemiological Characteristics
 of Health Care Professionals With
 Tuberculosis. Hospital Universitario
 Germans Trias i Pujol, 1988-2002**

Tuberculosis as an Occupational Disease

To the editor: Following the excellent review by Rodríguez and Madrid¹ on pulmonary tuberculosis as an occupational disease, we would like to draw attention to tuberculosis among health care workers and the scarce information available in Spain. We present a study we carried out at the Hospital Germans Trias i Pujol in Badalona, Spain.²

Between 1988 and 2002, 21 cases of tuberculosis were detected among health care workers—8 men and 13 women—with a mean age of 29.5 years (range, 22-46). Resident physicians were the most affected occupational category with 8 cases (38%), and emergency departments the most affected workplace with 10 cases (48%). Occupations and workplaces are described in the Table. Family members living with each patient were examined to rule out nonhospital contagion; no index cases were found. Of the 3 cases in the pathology department, 2 could have been related to the autopsy of a patient with unsuspected disseminated bone tuberculosis but confirmation by culture of the mycobacteria was prevented by technical problems. The most common type of tuberculosis was pulmonary, with 13 cases (61.9%), followed by pleural effusions, with 6 (28.6%). There was 1 case of concomitant bone and pulmonary tuberculosis and 2 cases of soft tissue tuberculosis from accidental percutaneous puncture. All patients were cured after a 6- or 9-month treatment program. The annual incidence of tuberculosis in health care staff in our hospital during the study period ranged from 0 to 302.4 per 100 000 persons exposed, always

| | Number (%) |
|--------------------------|------------|
| Occupation | |
| Resident physician | 8 (38) |
| Clinical auxiliary staff | 5 (24) |
| Nurse | 4 (19) |
| Staff physician | 3 (14) |
| Laboratory technician | 1 (5) |
| Workplace | |
| Emergency department | 10 (48) |
| Pathology department | 3 (14) |
| Microbiology department | 2 (10) |
| Hospital ward | 2 (10) |
| Hematology laboratory | 1 (5) |
| Biochemistry laboratory | 1 (5) |
| Intensive care unit | 1 (5) |
| Drug addiction unit | 1 (5) |

higher than the incidence in the general population of Catalonia, Spain, during the same period except during the 4 years when no cases were declared in the hospital.

The results of our study confirm that tuberculosis is an occupational hazard for health care workers³ and show an increase in cases of tuberculosis among them, particularly in emergency departments—where resident physicians are exposed for many hours throughout their training—and in areas where contaminated material is handled, such as microbiology laboratories and pathology departments. In this last area, we would like to underline the risk of tuberculosis transmission during autopsies.^{4,5} In our opinion, the high incidence rate of tuberculosis among health care workers is due to the failure to isolate potential cases of pulmonary tuberculosis, poor or bad use of

protection masks, and poor ventilation in emergency department rooms. We would also like to stress the importance of an appropriate tuberculosis prevention program within hospitals, directed and supervised by the pneumology, preventative medicine, and infectious diseases units of each hospital. Such a program would encourage early diagnosis and treatment as well as tuberculous screening of the health care staff. To prevent tuberculosis among health care workers, particularly young persons entering the field, we agree with Rodríguez and Madrid¹ in that all efforts must be made to achieve and maintain effective preventive measures within hospitals, particularly in high risk areas.

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