The Tuberculosis Patient in the General Hospital

JAMES S. EDLIN, M.D., F.C.C.P.,* SYDNEY BASSIN, M.D., F.C.C.P.**
and ALFRED A. RICHMAN, M.D.***
New York, New York

We have come a long way from the day when Dr. Janeway advised Dr. Trudeau to "stay out in the open and ride horseback." Our therapeutic armamentarium has gone beyond the days of the patient freezing in his bed or chair on an open porch. Our attack on tuberculosis has become multiple and versatile with more intensive propaganda and education, case finding and mass x-ray surveys and we have added to the basic principle of rest such measures as pneumothorax, pneumoperitoneum, thoracoplasty and resection surgery. The comparatively recent discovery of antibiotics has further strengthened our hand.

Despite these advances of which we may be justly proud, the tuberculosis problem remains acute and unsolved. This disease still extracts its toll of 40,000 to 50,000 deaths in this country annually. The tuberculosis death rate still ranges near 22 per 100,000 population and it has been estimated that there are approximately 500,000 active cases of tuberculosis in the United States.

According to the American Trudeau Society, the minimum number of beds needed for the care of the tuberculous is two and one half per annual death and the recommended number is three per annual death.

In the February 1950 issue of Public Health Reports a report of "Tuberculosis Facilities" by Reed and Bloomquist informs us that only about 8 per cent of the total existing hospital beds are set aside for care of tuberculous patients. This amounts to 93,852 of which 12,393 were declared non-acceptable because of obsolescence, fire or health hazards. The authors point out that we need a minimum of 146,926 tuberculosis beds which means that we must add at least 67,477 beds to the present inadequate total.

Our efforts at case findings have resulted in larger and larger numbers of discovered cases. As a consequence our tuberculosis hospitalization program has been strained to the utmost and our tuberculosis hospitals and sanatoria are, figuratively, "bursting at the seams." We have labored to find cases and when we have found them we have been faced by seemingly endless waiting lists for hospital admissions. All our principles of segregation of active

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*Medical Director, Manhattan General Hospital Tuberculosis Division.
**Attending Physician, Manhattan Gen. Hospital Tuberculosis Division.
***Executive Director, Manhattan General Hospital.
cases, all our efforts to prevent spread of the disease and all our hopes of early application of our newest forms of therapy are balked by this bottleneck.

Tuberculosis cannot be eradicated until every active case of this disease has been detected, isolated and treated until he is no longer infectious.

The solution lies in making more beds available but the present high level of building costs has acted as a brake on the tuberculosis hospital construction program. It would be less expensive and more practical to utilize or expand presently existing facilities in general hospitals. Not only is this desirable as an emergency expedient but it is our firm conviction that the establishment of self-contained tuberculosis units in general hospitals is a very practical goal for many important considerations in addition to the financial one.

Fear of tuberculosis has been a major factor in the isolation of this disease to distant sanatoria—fear on the part of the hospital administrator, the physicians, nurses, employees and the general public. It has long been felt that once the tuberculous case has been diagnosed the general hospital's function becomes one of facilitating disposition to a sanatorium.

Re-education must obviously be complete and a greater knowledge of the disease and the possibilities for safe handling must be taught at every level to medical students, nurses, hospital personnel and the general public. Teaching has suffered by the isolation of the tuberculous patient in comparatively inaccessible sanatoria. The medical profession and its co-workers have come to regard the tuberculous patient as a menace to be diagnosed and transferred. This is a process of escape and can never help to solve the problem. The tuberculosis unit can be integrated with the hospital and all the facilities of the general hospital can be utilized. Patients with tuberculosis are not spared other diseases. They are subject to all the other ills that flesh is heir to and the staff of the general hospital should be available for consultation and treatment. All too often, under our existing system, the patient who has an acute appendix or other surgical problem must be transferred to other institutions for the acute condition and then must be re-transferred to the sanatorium. The existence of a tuberculosis unit in the general hospital is of definite educational value and tends to keep the general staff on its diagnostic toes. The exchange of knowledge between specialities is facilitated and the phthisiologist and thoracic surgeon will benefit as will the general practitioner and specialists in other fields.

We must also take into consideration the great hardship that is created for the tuberculous patient and his family when we
isolate him in outlying sanatoria. The separation from family is a definite psychological hazard to the patient's acceptance of a long period of isolation and bed rest. His uneasiness concerning his family's welfare is a detriment in his cure. The long trips to the sanatorium are a physical burden to the family and often strain an already meager budget.

As a result of these considerations and with the whole-hearted cooperation of Dr. Marcus Kogel, Commissioner of the Department of Hospitals of New York City, and Dr. Alfred Richman, Medical Superintendent of the Manhattan General Hospital, a tuberculosis unit was established at that hospital on February 21, 1949 with a capacity of 134 beds with a second section of 106 beds opened on January 14, 1950 for a total of 240 beds. The unit was established for the care of city patients and their care was to be paid for by the City of New York.

The hospital is a proprietary hospital of 525 bed capacity, caring for private and semi-private patients. It is located in downtown Manhattan, in the midst of an urban community. The tuberculosis service is located on the third and sixth floors of the hospital. The unit has a private admitting department and all visitors to this unit are taken in a separate elevator to the respective floors of the unit. Patients are admitted to the hospital through the offices of the Hospital Admission Bureau, Tuberculosis Division, as transfers from other institutions or as direct admissions. Four residents are assigned to the tuberculosis service. These physicians have had previous experience in tuberculosis but, in addition, it is our plan to enable graduates of grade A schools to undertake internships in tuberculosis. The resident staff is under the supervision of a complete staff of phthisiologists and thoracic surgeons. Physicians on the staff of the Manhattan General Hospital specializing in cardiological, gastrointestinal, gynecological, eye, ear, nose and throat, dental and general surgical diseases are assigned to the tuberculosis staff and are available for consultation. A rapport is maintained with the staff of the general hospital and all physicians are invited to attend the conferences and lectures held by the tuberculosis staff. All forms of medical and surgical collapse therapy are performed and a special operating room has been assigned to the unit. A complete laboratory has been installed and is equipped to perform all necessary examinations. X-ray and fluoroscopic units are available for both floors and a tomographic x-ray apparatus is provided for special studies. In addition, a photo-roentgen unit provides for a chest film of every admission to the general hospital.

Each unit has its own dishwashing department and all dishes and utensils remain in the individual units and are sterilized on
the respective floors. All food is brought to the units from the main kitchen on a carrier and is transferred to electrically heated food trucks from which they are served. Dishes and utensils are cultured regularly for bacterial growth.

All nursing and attendant personnel receive pre-employment x-ray examination of the chest and are re-checked at regular intervals. At present there is one nursing supervisor for the unit and thirty nurses who are assisted by 19 attendants and orderlies.

During the year 1950, 771 patients were cared for, 576 of whom were male and 195 female, constituting a patient day census of 99,901.

City tuberculous patients in Hospital as of January 1, 1950 .................. 188
City tuberculous patients admitted during 1950 .................................. 583
TOTAL under care during 1950 ......................................................... 771
City tuberculous patients discharged during 1950 ............................. 383
City tuberculous patients deaths during 1950 .................................... 63
TOTAL deaths and discharges .......................................................... 446
TOTAL days care for city patients during 1950 .................................. 99,901

Educational films provided by the New York Tuberculosis and Health Association are utilized in the orientation of patients and a series of lecture and question periods are held.

The rehabilitation of controlled cases is an essential part of a tuberculosis service. Patients are placed under the supervision of one of the attending physicians and their increase in activity guided. Arrangements are made with the New York Tuberculosis and Health Rehabilitation and other similar services for the teaching of new skills and job placement. A full time Social Service worker is assigned to the unit and cares for the psychological and social problems that may arise, in addition to assisting with occupational therapy and rehabilitation.

An attempt is made to place some of the patients in jobs as attendants and orderlies within the tuberculosis unit so that they may increase their work activity under supervision.

The table on the following page outlines the type and number of procedures performed during the year 1950 and gives an idea of the scope of service rendered.

Because of the increasing demands for beds, an annex was opened in Brooklyn, New York with a 110 bed capacity. This extension has its own laboratory and x-ray equipment and is staffed by two residents under the supervision of the staff of the main hospital.

Arrangements are in progress with the Department of Hospitals for the establishment of a follow-up clinic so that cases discharged
from the hospital can be adequately supervised and collapse therapy continued. This clinic will offer all necessary services including examination of new cases and examination of suspects and contacts. Hospitalization can be effected directly when indicated.

The question that will arise in the hospital administrator’s mind is the one of insurance and compensability. He will be concerned with the possibility of tuberculosis occurring in his employees as a result of contact with open cases of tuberculosis. It must be emphasized that this occupational hazard exists in the general hospital just as much as in a tuberculosis institution. It is our contention that the danger is greater in the general hospital where there is no awareness of infection and where active tuberculosis cases lie unsuspected on surgery, medical and maternity wards. There the failure to take proper and easily carried precautions gives rise to real hazards to personnel and patients. It has been our experience that as many, if not more, cases of tuberculosis arise in this way as will develop in a tuberculosis institution. The known case is a minor risk; the unknown case, a great menace.

Insurance rates should not rise with the establishment of tuberculosis units in general hospitals. As a matter of fact, the greater awareness of the disease, careful x-ray film screening of all patients, pre-employment and routine x-ray films all serve to decrease the risk.

It must be realized that a two way risk exists. Personnel can infect patients as well as vice versa. Real prevention and control can only be established when the entire hospital population is integrated into the plan for reducing this occupational disease hazard.

**SUMMARY**

We wish to urge that the incorporation of a tuberculosis unit in the general hospital be given serious consideration as an important step in the control of tuberculosis. Our experience with such a unit in the Manhattan General Hospital has proved it to
be practical, workable and of great value to the hospital and the community as a therapeutic and educational center.

RESUMEN

Queremos insistir en la necesidad de incorporar dentro de todo hospital general una unidad de tuberculosis como un paso serio para el dominio de la tuberculosis. Nuestra experiencia en el Hospital General de Manhattan ha demostrado que éste es práctico, factible y de gran importancia para el hospital y para la comunidad como un centro de tratamiento y de educación.

RESUME

Comme facteur essensiel dans la lutte contre la tuberculosis, nous désirons insister sur l'importance de l'incorporation d'une unité anti-tuberculeuse dans un hôpital général. Notre expérience, au Manhattan General Hospital, avec une telle unité, a démontré que cette organisation était pratique, d'application facile et d'une grande valeur pour l'hôpital et le public en général, comme centre de traitement et d'éducation.