New York City's experience with compulsory hospitalization of a hard core of recalcitrant tuberculosis patients demonstrates varied benefits for the majority of these patients.

Forcible Detention of Patients With Active Tuberculosis

ROBERT GLASS, M.D.

LEGAL REGULATIONS governing forced hospitalization of recalcitrant patients with communicable pulmonary tuberculosis apply in many States of the United States (*1*). Only a few States attempt enforcement, however, because most lack facilities suitable for isolation of recalcitrant patients. Programs for forcible isolation of recalcitrant patients suffering from active pulmonary tuberculosis are in effect in California, particularly Los Angeles County (*2,3*); Seattle, Wash. (*4*); Milwaukee, Wis. (*5*); Nova Scotia, Canada (*6,7*); Columbus, Ohio (*8*); Philadelphia, Pa. (*9*); and in the State of Georgia (*10*).

Since 1903, New York City has had regulations governing and directing forced hospitalization of recalcitrant patients suffering from communicable diseases, including tuberculosis. From 1916 to 1942, the city used for this purpose a municipal hospital on an island in the East River, accessible only by ferry boat. A guard at the hospital gate sufficed to prevent illegal departures from the hospital, which could hold 60 to 100 patients at one time. After 1942, this hospital was diverted to other uses, and the detention of these patients was tried in two other municipal hospitals in succession. The physical nature of these facilities, however, and the lack of correctional personnel were inadequate to prevent escapes.

In 1955, limited facilities for the detention of recalcitrant male patients suffering from communicable pulmonary tuberculosis were provided at the hospital of the Rikers Island Penitentiary for men, where the medical and administrative arrangements appeared to offer good prospects.

This report presents the results of the enforced hospitalization of 46 male patients successively admitted to Rikers Island Hospital in New York City from July 1, 1955, through December 31, 1957.

The New York City Program

Patients are admitted to the detention service as violators of the Sanitary Code of the City of New York, section 87, regulation 16; and section 97, regulations 3, 4, 5, and 6. These paragraphs empower the commissioner of health of New York City to remove to and detain in a hospital, patients suffering from pulmonary tuberculosis in a communicable form, who present, or are likely to present, a danger to the lives and health of other persons. These patients are known to the department of health as persons who have pulmonary tuberculosis with positive sputum or cavitary lesion and who willfully neglect to take precautions against transmission of the disease. Nonattend-

Dr. Glass is a clinician with the bureau of tuberculosis of the New York City Department of Health. *The program referred to in this paper is carried out with the cooperation and assistance of the New York City Department of Correction.*

ance at chest clinics, refusal to accept hospitalization, and irregular discharges from hospitals are frequent features in the records of these patients. Chronic alcoholism is also present in a comparatively high percentage of this group.

Forcible hospitalization on the detention service is undertaken only after physicians, nurses, and medical social workers, through concerted action, have exhausted by personal contact and by mail all possible means of soliciting the recalcitrant patient's voluntary cooperation (*11*).

As a premonitory measure, the "hold" procedure has been instituted. Patients who in the past have habitually left the hospital against advice, have not returned from permitted leave, or have disregarded hospital regulations are given the alternative of accepting voluntary hospitalization with strict adherence to hospital regulations, or removal to the detention service under the regulations of the sanitary code. Under the "hold" procedure the patient, as well as the administration of the hospital to which he is admitted, is informed that the patient is not to be given a pass without consent of the department of health or be allowed to leave the hospital against medical advice. If the patient fails to observe the provisions of the "hold," the hospital administration reports the facts to the department of health. The patient is then removed from the hospital to the detention service by due process of law. A "hold" is placed only on those patients who, if not hospitalized, would be subject to forcible hospitalization.

Management

Patients in the detention service receive combined chemotherapy and supportive drug treatment for tuberculosis and whatever medication may be indicated for nontuberculous conditions. Transfer, under "hold," to nondetention hospitals is arranged for patients whose condition, tuberculous or other, requires methods of treatment, especially surgical, or methods of examination for which the Rikers Island Hospital is not equipped.

Sputum concentrates and cultures and drug sensitivity tests are done at the bureau of laboratories of the New York City Department of Health. All other tests and X-ray examinations are performed at the Rikers Island Hospital.

Treatment of the patients is directed and supervised by a consultant on the staff of the bureau of tuberculosis of the health department, who serves as a liaison officer between the department of health and the department of correction. The consultant visits the Rikers Island Hospital every week, submitting his reports and recommendations to the director of the bureau of tuberculosis.

Decisions on transfer or release of detained patients are based on these reports and recommendations.

The medical social workers at Rikers Island and the department of health assist the patients and their families during the time of hospitalization and prepare the ground for care and assistance after discharge.

Release From Detention

Release from detention service is granted to patients whose tuberculosis becomes clinically arrested, and whose treatment and medical supervision can be safely continued outside the hospital.

Also, patients are released who, after a period of observation on the detention service, seem to have acquired satisfactory understanding of their condition and of the need for their continued hospitalization and treatment. Such patients are transferred to nondetention hospitals for the continuation of their isolation. To insure a greater degree of control, a "hold" is placed on them.

Between July 1, 1955, and January 1, 1958, 46 men were admitted to the detention service. They included one readmission case. Fourteen had moderately advanced pulmonary tuberculosis and 32, far-advanced disease. None had minimal disease. Ages ranged from 21 to 72 years with an average of 44 years. The following is the age distribution:

Age group	*Number of patients*
21–29	10
30–39	15
40–49	8
50–59	10
60–72	3

The majority showed features of antisocial behavior: 16 were alcoholics; 1 was a drug ad-

North Carolina Regulations

Legal regulations applying to the forced hospitalization of recalcitrant patients with communicable pulmonary tuberculosis have been enforced in the State of North Carolina for a number of years. The following appears in section 1, article 19A, chapter 130 of the General Statutes in the Cumulative Supplement of 1949, which was rewritten and ratified by the North Carolina General Assembly on March 29, 1951.

"The infectious patient that willfully fails and refuses to accept treatment as determined by the local health officer shall be guilty of a misdeameanor and shall be imprisoned in the prison department of the North Carolina Sanatorium. The period of imprisonment shall be for a period of 2 years. The medical superintendent may upon signing and placing among the permanent records of the North Carolina Sanatorium a statement to the effect that such person may be discharged without danger to the health or life of others at any time during the period of commitment. At time of discharge he will give a full statement of his reasons to the health officer serving the territory from which the person came. He also has the authority to transfer the patient from the prison division to the main sanatorium or if a veteran to a Veterans Administration hospital if the patient has demonstrated his willingness to obey the rules and regulations of the sanatorium and State laws."

Confined patients receive combined chemotherapy, supportive hospital treatment, and surgery, as indicated.

The law has several effects on potential irregular discharges:

- Patients know that the local health officer has the power to enforce hospitalization and treatment through court procedures. Patients transferred to the Veterans Administration Hospital at Oteen, N.C., from the prison section have continued their treatment without further trouble and have not attempted to leave against medical advice.
- Patients soon acquire an insight into their condition when they begin to improve as a result of enforced treatment. They soon develop the desire to acquire an inactive diagnosis so that they can be released and returned to their homes. Consequently they adhere to hospital rules and accept treatment.
- When a patient leaves the Veterans Administration hospital irregularly, his local health officer is notified within 24 hours. If he is receiving chemotherapy, a recommendation is also made as to drugs and duration of treatment.
- Chronic alcoholism is a large factor in failure to accept hospitalization and treatment. Enforced hospitalization provides the opportunity to help the patient with this problem.—R. E. MOYER, M.D., *chief of the tuberculosis service, Veterans Administration Hospital, Oteen, N.C.*

dict; and 6 had records of previous violation of the criminal law. Two had to be removed to psychiatric institutions. The known duration of their disease prior to confinement varied from 3 months to 10 years, with an average of 44.7 months. The duration was less than a year for 7 patients and from 13 to 24 months for 8 patients. Twenty patients had had the disease from 25 to 60 months and 11 patients longer than that.

Each of the 46 patients had had multiple hospitalizations, the maximum being 44, and multiple irregular discharges from hospitals, with a maximum of 28. The average was 7 for hospitalizations and 5 for irregular discharges from hospitals. One patient after his first and only visit to the chest clinic, where his disease was diagnosed by chest X-ray and sputum examination, refused further attendance at the clinic or hospitalization.

The time elapsed since the last attendance at a chest clinic or last hospitalization varied from 2 days to 2 years, with an average of 3½ months. Twenty-two patients were brought to detention as violators of a "hold." Of the remaining 24, one-third had been out of clinics or hospitals, without medical supervision, for a period of more than 6 months.

Followup

As of December 31, 1957, the patients had spent from 70 to 447 days on the detention service prior to their release or transfer, with an average of 180 days, not considering those pa-

tients who, on December 31, 1957, were still confined to detention. One patient had to be transferred to a psychiatric institution 2 days after his admission to the detention service. He had not been diagnosed as a psychiatric case at any time previously.

Of the 15 patients discharged with arrested disease from detention hospitals up to the end of 1957, 8 originally had had moderately advanced disease and 7 far advanced. Among those discharged from nondetention hospitals after medical treatment only, one had had moderately advanced disease and another far advanced; one of the patients discharged after pulmonary resection had had moderately advanced tuberculosis and three far advanced.

Ten of the group discharged from detention with arrested disease are attending chest clinics where they are receiving medication. One patient had to be rehospitalized in a nondetention hospital because of reactivation of the disease; another was hospitalized for a nontuberculous condition, and three were lost from clinic followup and are not accounted for.

On December 31, 1957, 8 patients were still confined to the detention service, 1 patient had died there from a pulmonary hemorrhage.

Twenty-two patients had been transferred to nondetention hospitals. In this group, six men achieved arrested status; two of them had medical treatment only, and four achieved arrested status after they had accepted, and received, pulmonary surgery. After regular discharge from the nondetention hospital, these patients are now attending chest clinics.

Four patients managed to escape from the hospital to which they had been transferred from the detention service in spite of the "hold" which had been placed on them. Two patients died in nondetention hospitals, one of them from a nontuberculous condition. At the end of 1957, 10 patients were still hospitalized in nondetention hospitals, 2 of them in psychiatric institutions.

The sputum of 12 patients had become negative prior to admission to detention. Seven of them had been violators of a "hold" while hospitalized in a nondetention hospital and therefore had to be brought to detention. Their last positive sputum had been reported within a month prior to their commitment to detention. Five patients had been recalcitrant over periods of 3 to 6 months, and their last positive sputums dated that far back.

Fifteen patients were discharged from detention as arrested cases on the basis of negative sputums and gastric cultures and stationary chest films with absence of cavitation, observed over a period of at least 6 months, and also on the basis of predetention reports and findings. Six patients transferred to nondetention hospitals achieved control of their disease and regular discharges as arrested cases. Four patients had surgery and were observed over a period of at least 3 months postoperatively to have negative cultures and stationary chest films with absence of active disease. Two were medically treated patients who were observed for at least 6 months after sputum conversion and who had stationary chest films showing no cavitation and no disease activity.

By December 31, 1957, four patients were still confined to detention, with sputum converted and chest films showing improvement or approaching stabilization over a period of less than 6 months. At nondetention hospitals the corresponding group comprised three patients. The remaining 18 patients, on detention and in nondetention hospitals, were still considered as active cases, either with sputum tests proving activity or with such reports pending.

Discussion

The reaction of the patient to forced hospitalization varied in accordance with his personality. During the consultant's visits on the detention ward, every effort was made to educate the patients about their condition and its clinical and public health aspects. Their clinical records were explained to them and, as far as possible, X-ray findings and changes outlined.

Such explanations had been offered to these patients whenever possible prior to commitment to detention, but the patients were more inclined to accept these explanations after they recognized the improvement from required treatment. The patients were shown that in many instances the prolonged stay and treatment on the detention service had produced good results, even arrest of the disease. The

impossibility of the patient's signing out at will and adherence to strict hospital rules and regulations served as important adjuvants to the medical treatment.

Prior to their commitment to the detention service, when not submitting to regular treatment, these men had not given themselves an opportunity to experience a favorable development in the course of their disease. For the first time the majority of detained patients were in a position to realize the change in their condition as this was demonstrated and explained. They also learned to understand the need for the protection of the community against infection and for their own care and medical supervision. Some of the patients who formerly had been the most recalcitrant have been attending chest clinics regularly since their release from detention or nondetention hospitals with arrested disease. Others, transferred to nondetention hospitals, have remained there without attempt to leave against medical advice and have shown full cooperation with the hospital staff. However, it is only fair to state that the poorest results were in the group of chronic alcoholics. There were six alcoholics in the group of seven who were lost from further followup after their release from detention with arrested disease or as irregular discharges from nondetention hospitals to which they had been transferred from detention.

The administrations of several nondetention institutions with tuberculosis services requested the transfer to their hospitals of patients in detention who were eligible for such a transfer to demonstrate to their own potential irregular discharges that the department of health can enforce hospitalization of recalcitrant patients who are a menace to public health and who do not accept the regulations of the sanitary code. The fact remains, however, that there exists a small hard core of individuals for whom all efforts to obtain cooperation have no effect, and for this group detention remains the only means of control (*12*, *13*).

Summary

In June 1955, the New York City Department of Health in cooperation with the Department of Correction set aside beds at the Rikers Island Hospital for enforced hospitalization of recalcitrant male patients with active pulmonary tuberculosis who were a danger to public health.

Forcible detention is undertaken only after exhausting all means of enlisting the voluntary cooperation of the recalcitrant patient.

A total of 46 patients, including one who was readmitted, were put on the detention service from its initiation in July 1955 through December 31, 1957. Of these, 20 became arrested cases of pulmonary tuberculosis, either while confined to the detention service or after transfer to a nondetention hospital. There were four irregular discharges from nondetention hospitals. Three patients, released from detention as arrested cases, did not report to chest clinics for continuation of their medical supervision and treatment. Three patients died, one on detention, from a pulmonary hemorrhage, and two in nondetention hospitals, one of them from a nontuberculous condition. One patient suffered reactivation of tuberculosis after his release from detention as an arrested case and while attending a chest clinic. He was rehospitalized in a nondetention hospital.

By December 31, 1957, 18 patients were still hospitalized on the detention service or in nondetention hospitals. Seven of these men showed improvement, bacteriologically and by chest X-ray, quantitatively and qualitatively, which may permit expectation of control of their condition in the future under continued hospital treatment.

The patient who had to be readmitted to detention and who was subsequently transferred for a second time to a nondetention hospital is still hospitalized there. His condition is slowly improving.

The 46 recalcitrant patients treated in about 18 months represent a small proportion of the number of persons in the area with active pulmonary tuberculosis requiring hospitalization. Stimulated by results during this limited period, preparations are being made for expansion of the forcible detention program.

REFERENCES

(*1*) University of Texas, Institute of Public Affairs: Tabulations and summary of tuberculosis questionnaire. Austin, 1950.

(*2*) Telford, P. K., and Bogen, E.: Compulsory isola-

tion for tuberculosis. Its effects on spread of tuberculosis in contact during one decade. Am. Rev. Tuberc. 45: 288–291, March 1942.
(3) Kupka, E., and King, M. R.: Enforced legal isolation of tuberculous patients. Pub. Health Rep. 69: 351–359, April 1954.
(4) Northrop, C., Fountain, J. H., and Zahn, D. W.: The practical management of the recalcitrant tuberculous patient. Tr. Nat. Tuberc. A., 1952, pp. 162–168. *Also* Pub. Health Rep. 67: 894–898, September 1952.
(5) Banyai, A. L., and Cadden, A. V.: Compulsory hospitalization of open cases of tuberculosis. Am. Rev. Tuberc. 50: 136–146, August 1944.
(6) McCurdy, D. G.: The recalcitrant tuberculous patient. Canad. J. Pub. Health 45: 350–352, August 1954.
(7) Hiltz, J. E.: Compulsory treatment of the tuberculous. Canad. M. A. J. 71: 569–571, December 1954.
(8) Potts, W. L., and Goodloe, O. M.: Compulsory hospital isolation of recalcitrant positive-sputum patients (with analysis of an extremely successful enforcement plan). Ohio State M. J. 48: 25–31, January 1952.
(9) Ottenberg, D. J.: Note on experience on a locked ward in Philadelphia. *In* Proceedings of the Conference on Protective Isolation of the Tuberculous, Denver, Colo., January 22, 23, 1957. Washington, D.C., U.S. Public Health Service, 1958, p. 22ff.
(10) Gross, J. H.: Compulsory isolation of the uncooperative tuberculous patient. The experiment in the State of Georgia. Am. Rev. Tuberc. 77: 506–510, March 1958.
(11) Elledge, C. M.: Friendly persuasion. Bull. Nat. Tuberc. A. 43: 21–22, September 1957.
(12) Kennedy, R. L.: Recalcitrant patient. Bull. Nat. Tuberc. A. 43: 55–56, April 1957.
(13) Protective isolation of the tuberculous. Conference report. Pub. Health Rep. 72: 781–785, September 1957.

Children On Their Own

Nearly 400,000 children under 12 years of age have to care for themselves while their mothers work, the Children's Bureau reports. About 138,000 of these children are under 10 years of age.

A special survey conducted for the Children's Bureau by the Bureau of the Census, which covered the arrangements made by working mothers for care of their children during May 1958, also brought out the following information:

Among children under 12 years of age, 1 in 13 whose mother works must look out for himself for varying periods. In the age group 10–11 years, 1 child in 5 is without any care while the mother works.

The number of mothers in the labor force with children under 18 years of age has more than doubled since 1950. During the period studied, a total of 2,873,000 mothers were working full time. Of their 6,665,000 children, 5,073,000 were under 12 years of age. All the children of nearly 1 out of 4 of the working mothers were under 6 years old.

Most of the children for whom day care was arranged were in charge of either fathers or relatives while their mothers worked. About 1,034,000 were looked after by nonrelatives who either came into the children's homes or cared for them in their own homes. About 24,000 children under age 3 years, and 67,000 children between the ages of 3 and 5, were in group care.

Authorities in the Children's Bureau doubt that children under 3 years should be cared for in groups. Such children ordinarily need individual attention from their mothers or from a mother substitute, they say.