

# Medical Problems of 500 Prisoners on Admission to a County Jail

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THE HEALTH PROBLEMS of prisoners have been of interest to members of the medical and public health professions as well as prison officials for many years. Cline and Wangrow (1) have pointed out that the prisoners they studied had a high degree of alcoholism. Other investigators (2) have pointed out the relationship of alcoholism to antisocial behavior and to habit deterioration which manifests itself in frequent breaches of the peace. Powelson and Bendix (3) have discussed the administrative problems in establishing and operating a medical care program in a penal setting. The problems in many instances were caused by philosophical differences between the health professions and the custodial staff.

There have been many studies on tuberculosis casefinding in penal institutions, and there has been the common conclusion that this is a most productive casefinding activity. Bettag, in a tuberculosis survey in a State prison in Illinois (4), reported a prevalence of 8.9 active cases per 1,000 persons, which he considered to be seven times the rate for Illinois as a whole. Gary (5) surveyed penal and correctional institutions in Ohio and found suspected tuberculosis in 3.3 percent of inmates. This was estimated to be three times the general population rate in Ohio. Myers and associates (6) con-

ducted a survey at the Los Angeles County Jail and found a prevalence rate of 6.3 active cases of tuberculosis per 1,000 persons and a rate for new active cases of 2.1 per 1,000. This was twice the rate for the city of Los Angeles and three times the rate for Los Angeles County. In the Hartford County Jail in Connecticut, Chaucer (7) found three cases of active tuberculosis per 100 films. The cooperation of Hartford County Jail prisoners put under tuberculosis sanatorium care was good.

Opinions have differed as to the subsequent treatment experience of tuberculosis cases found in jails. Northrop and his group (8) felt that such casefinding must be accompanied by facilities for forcible isolation and by adequate supporting laws. Deakins and associates (9) found that the conduct of patients hospitalized following a penal institution survey in San Joaquin County, Calif., was good and almost equal to that of the general population of the sanatorium. They stated that the value of such a program was impaired by the probable return of most of the treated patients to an alcoholic, nomadic existence when they were discharged. Such a course would lead to eventual reactivation of the disease.

## Project Plan

In September 1960 the Albany County Department of Health was authorized to carry out a medical screening program for prisoners detained for more than 48 hours in the Albany County Jail and Penitentiary.

For a number of years medical care at the jail had been provided by a nurse and a salaried

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physician who was available on call. The jail had no infirmary and only one large room for examination and treatment. To carry out the new screening program, the department of health employed a panel of physicians and a practical nurse. The regular medical staff of the department of health supervised the program.

A medical unit was established at the jail, including nurses' rooms, examining rooms, and certain basic equipment, including an electrocardiograph and a chest X-ray unit. Results of the physical examinations and screening tests were made available to a newly created panel of physicians, who conducted a regularly scheduled daily sick call and were responsible for actual medical care.

Medical screening of prisoners upon admission consisted of a complete history and physical examination supplemented by a chest X-ray, hemoglobin determination, Clinitest urine screening for sugar and albumin, and a blood Wassermann. Additional laboratory tests were done on an individual basis and were readily available from a private laboratory. Psychiatric consultation for grossly disturbed patients was supplied by psychiatrists from the Albany County Mental Health Board. All findings were made a permanent part of the prisoners' records at the jail, and duplicate copies were forwarded to the department of health. During the first year of this program, September

1960 to September 1961, 850 prisoners received this complete medical screening. The results of the first 500 examinations are analyzed here.

### Population Surveyed

Of the 500 prisoners screened, 92.2 percent were males, about 80 percent were white, and 38 percent were over age 45 years (table 1). Twenty-five percent of the group were married; the remainder were single, separated, divorced, or widowed.

The prisoners had been sentenced mainly for minor offenses: intoxication, vagrancy, disorderly conduct, assault, traffic violations, and other violations in the misdemeanor class. Larceny and nonsupport accounted for 23 percent of the sentences. The larcenies were concentrated in the age group of 16 to 24 and mainly involved car thefts. The sentences for the misdemeanor group ranged from 10 to 90 days.

About 60 percent of the study group had had a grammar school education or less. Only about 5 percent could be considered as having a history of steady employment. Most employment records showed occasional, seasonal, or only fairly steady employment. As one might expect from the nature of the comparatively lenient sentences, alcoholism played a large role, with about 50 percent of the prisoners admitting to the heavy use of alcohol. Narcotic ad-

**Table 1. Age, sex, and race of 500 inmates of Albany County Jail included in a medical screening program upon admission, September 1960 to September 1961**

Age (years)	Total		Male					Female				
	Number	Per cent	White	Non-white	Race not stated	Total	Per cent of total survey group	White	Non-white	Race not stated	Total	Per cent of total survey group
All ages.....	500	100.0	363	88	10	461	92.2	22	13	4	39	7.8
16-24.....	113	22.6	78	17	1	96	19.2	13	4	0	17	3.4
25-34.....	90	18.0	52	29	2	83	16.6	1	5	1	7	1.4
35-44.....	105	21.0	67	26	4	97	19.4	5	3	0	8	1.6
45-54.....	87	17.4	74	9	1	84	16.8	1	1	1	3	.6
55-64.....	73	14.6	62	5	2	69	13.8	2	0	2	4	.8
65-74.....	27	5.4	25	2	0	27	5.4	0	0	0	0	0
75 and over.....	5	1.0	5	0	0	5	1.0	0	0	0	0	0

diction was infrequent, with only 2 prisoners out of the 500 giving a history of addiction. The study population was thus characterized by unattached, alcoholic males with poor educational background and irregular employment.

The examining physicians considered the medical histories reliable or fairly reliable in more than 80 percent of cases and unreliable in only about 2 percent. The histories showed a large number of operations and hospitalizations. More than one-half of the group had been hospitalized for surgery or serious illnesses. It was striking that as many as 25, or

5 percent, had had surgical procedures for peptic ulcer. Despite this history of medical care, more than 60 percent of the group had no physician or clinic that they used routinely. Most of their previous care had evidently been on an episodic, emergency basis.

### Findings

Urine examinations were positive for sugar in 31 of the 500 prisoners. Thirty prisoners were available for followup, and subsequent blood sugar tests showed 20 to be normal and 10

**Table 2. Medical care given or recommended for the future to 500 inmates of Albany County Jail, September 1960 to September 1961, by age group**

Type of care	Total	Age group (years)						
		16-24	25-34	35-44	45-54	55-64	65-74	75 and over
Received.....	113	18	19	25	22	20	6	3
General hospital.....	13	1	1	1	3	4	3	0
Psychiatric hospital.....	14	1	4	5	2	1	1	0
Tuberculosis hospital.....	7	0	0	3	1	3	0	0
Nursing home.....	3	0	0	0	0	1	1	1
Psychiatric evaluation.....	8	3	2	2	1	0	0	0
Medical care on premises.....	68	13	12	14	15	11	1	2
Recommended.....	132	13	13	29	25	37	13	2
General.....	112	12	12	23	22	32	9	2
Tuberculosis.....	20	1	1	6	3	5	4	0
Total.....	245	31	32	54	47	57	19	5

**Table 3. General hospital care required by 500 inmates of Albany County Jail, September 1960 to September 1961, by major diagnosis and age group**

Major diagnosis	Total	Age group (years)						
		16-24	25-34	35-44	45-54	55-64	65-74	75 and over
Diabetes.....	3	0	0	0	0	2	1	0
Genitourinary disease.....	1	0	0	0	0	0	1	0
Appendicitis.....	1	1	0	0	0	0	0	0
Delirium tremens and venereal disease.....	1	0	0	0	1	0	0	0
Cancer.....	3	0	0	0	1	1	1	0
Convulsive disorder.....	1	0	0	0	1	0	0	0
Narcotic addiction.....	1	0	1	0	0	0	0	0
Laceration.....	1	0	0	1	0	0	0	0
Multiple <sup>1</sup> .....	1	0	0	0	0	1	0	0
Total.....	13	1	1	1	3	4	3	0

<sup>1</sup> Diabetes, vascular disease, kidney disease.

elevated. Further investigation indicated that eight were true diabetics; three of these required hospitalization.

The tuberculosis casefinding procedures will be dealt with in detail in a later section. Among the group of 500 prisoners, 4 active previously unknown tuberculosis cases were discovered, and the patients were hospitalized. This yield of 8 per 1,000 is 16 times the yield in general community surveys in upstate New York. Two patients with previously reported tuberculosis and one with suspected tuberculosis were also hospitalized.

Eight of the prisoners had positive blood Wassermann tests. Four of these cases were previously known and had been treated. The remaining four had latent syphilis; two were treated on the premises, one was treated while hospitalized for another condition, and the fourth was treated by the county health department after release from jail. One case of acute gonorrhea was discovered and treated. The

incidence of untreated venereal disease was 1.0 percent.

Immediate medical care, including hospitalization, was needed by 113 prisoners or 22.6 percent. Hospital care was required by 6.8 percent of the group: 2.6 percent in general hospitals, 2.8 percent in psychiatric hospitals, and 1.4 percent in tuberculosis hospitals (table 2). Nursing home care was required by 0.6 percent of the group. Table 3 indicates the reasons for general hospital care. Of three inmates hospitalized for possible cancer, the disease was confirmed in one, one left against medical advice still considered a suspect, and the third was found negative for cancer.

Immediate medical care on the premises was required by 15.2 percent of the group for a wide variety of conditions (table 4). Psychiatric evaluation for gross personality disorder was required by 1.6 percent and general medical care by 13.6 percent. Future care was recommended for 26.4 percent of prisoners. Either

**Table 4. Prisoners given immediate medical care<sup>1</sup> on premises among 500 inmates of Albany County Jail, by disease, condition, type of care, and age group, September 1960 to September 1961**

Disease, condition, or type of care	Total	Age group (years)						
		16-24	25-34	35-44	45-54	55-64	65-74	75 and over
Acute alcoholism	3	0	0	1	1	1	0	0
Anemia	1	0	1	0	0	0	0	0
Angina pectoris	1	0	0	0	0	1	0	0
Arthritis	1	0	0	0	1	0	0	0
Asthma	2	0	1	0	0	1	0	0
Bursitis	2	0	0	2	0	0	0	0
Diabetes	3	0	2	1	0	0	0	0
Epilepsy	2	1	0	0	1	0	0	0
Heart condition	1	0	0	0	0	1	0	0
Hypertension	3	0	0	1	1	0	0	1
Infections	5	1	1	1	0	1	1	0
Injuries	8	1	1	1	3	2	0	0
Myalgia	1	1	0	0	0	0	0	0
"Nervousness"	2	0	0	1	1	0	0	0
Pregnancy	2	2	0	0	0	0	0	0
Pulmonary infections	2	0	1	0	1	0	0	0
Skin conditions	4	2	1	0	0	1	0	0
Throat conditions	2	0	0	0	1	1	0	0
Ulcer of stomach	2	0	2	0	0	0	0	0
Upper respiratory infection	1	0	0	1	0	0	0	0
Venereal disease	3	1	0	2	0	0	0	0
Multiple conditions	5	1	0	1	1	1	0	1
Medical advice	1	1	0	0	0	0	0	0
Investigations <sup>2</sup>	11	2	2	2	4	1	0	0
Total	68	13	12	14	15	11	1	2

<sup>1</sup> Exclusive of psychiatric consultation and tuberculosis care.

<sup>2</sup> Final diagnoses negative.

**Table 5. Number and percentage of inmates requiring medical care<sup>1</sup> among 500 inmates of Albany County Jail, September 1960 to September 1961, by age group**

Age group (years)	Total inmates in survey	Treated		
		Number	Percent of—	
			Age group	Total group
All ages----	500	245	100.0	49.0
16-24-----	113	31	27.4	6.2
25-34-----	90	32	35.6	6.4
35-44-----	105	54	51.4	10.8
45-54-----	87	47	54.0	9.4
55-64-----	73	57	78.1	11.4
65-74-----	27	19	70.4	3.8
75 and over---	5	5	100.0	1.0

<sup>1</sup> Includes care given or recommended for the future.

immediate or future care was recommended for almost 50 percent of the group (table 2).

Data from the U.S. National Health Survey indicated that, in 1957-59, 41 percent of the American population were suffering from one or more chronic conditions or illnesses (10). Twenty-one percent of persons under the age of 25 showed chronic conditions. The figure for ages 45-64 was nearly 60 percent, and for 65 years of age and over it was about 77 percent. Recognizing the variations in methods and tabulating, it is interesting to note that the corresponding percentages in table 5 are very close to those reported in the national survey.

Prisoners were informed by the examining physicians of all health conditions found, and care was provided for all immediate medical problems. Each prisoner requiring further diagnostic study and care was provided with a followup form, a stamped addressed card to be used by the patient in requesting that medical information be forwarded to his private physician or clinic. Following discharge only 8 of the 500 prisoners returned this card.

### Tuberculosis Casefinding

In September 1960 a mobile chest X-ray unit was obtained from the New York State Department of Health for an initial survey of the prisoners. Of 188 films taken, 7 were read as prob-

ably active tuberculosis and 4 as probably inactive. Followup of these 11 cases yielded 2 previously unreported active cases and 3 previously reported active cases. Both patients with previously unreported tuberculosis received hospitalization and 1 year following discovery were still on outpatient drug therapy and under regular health department clinic supervision. Of the three previously reported active cases, two were under supervision a year later and classed as inactive and one has been lost to followup.

Following this initial small-film survey, arrangements were made for the transportation of prisoners to the infirmary of the Albany County Welfare Department, about 2 miles distant from the jail, for their admission chest films. There were some prisoners who could not be transported because of the nature of their sentences. The plan worked temporarily but placed a large burden on the guard staff of the jail and also on the X-ray unit at the county infirmary. Because the yields were so high in the initial survey, arrangements were made by the health department to install a unit at the county jail for 14- by 17-inch admission chest X-rays on all prisoners. During the period September 1960 to September 1961, 632 14- by 17-inch films were taken.

Initial reading of these films indicated there were 23 prisoners with signs of active or inactive tuberculosis or suspected tuberculosis. Followup on these cases yielded four previously unreported active cases of tuberculosis, seven previously reported cases, and six inactive cases; six were lost to observation. All four patients with new active cases of tuberculosis were hospitalized. At the time of writing, three remain hospitalized, and one patient has been returned to the jail and is on drug therapy there. Of the seven cases that had been previously reported as active tuberculosis, four were lost to observation, one patient is on drugs and under clinic supervision, and two are presently back in the jail and their disease is classed as inactive.

With the two new active cases found in the initial small-film survey, casefinding had yielded a total of six new active cases out of 820 films or a rate of 7.3 per 1,000 compared with an overall present yield of 0.5 cases per 1,000 films in general community surveys in up-

state New York. The overall prevalence of active tuberculosis among the prisoners was 16 cases out of 820 films, or a rate of 19.5 per 1,000. Of the six new cases, four were single and two were separated. Followup yielded 26 non-household and 2 household contacts (a brother and a sister-in-law). Sixteen of the nonhousehold contacts were evaluated, and no cases of tuberculosis were found. The others refused to cooperate.

Our experience with patients with newly reported cases of tuberculosis has been good. Their acceptance of suggested treatment following transfer to the local tuberculosis ward has equaled that of our general experience with tuberculosis patients. The final results will have to await a longer period of observation.

### Conclusions

The survey indicated that the predominant characteristics of individuals admitted to the county jail were those of vagrant alcoholic males. Many had had previous emergency medical attention but had little interest in the routine care of their health.

Tuberculosis and diabetes casefinding projects in a jail setting are apparently worthwhile.

The medical problems of prisoners are such that, in a medium-sized county jail, regularly scheduled physician services are necessary. Psychiatric consultation should be available to jail physicians because of the large number

of prisoners suffering from mental illness on admission.

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### Short-Term Nursing Courses

The Nursing Information Service of the Division of Nursing, Public Health Service, has published a list of the agencies and colleges in various States which this summer and fall will sponsor short-term nursing courses with grants made available through the Professional Nurse Traineeship Program. The program was started in 1956 to help professional nurses improve their skills in the teaching, supervision, or administration of nursing services.

Copies of the short-term list are available upon request to the Division of Nursing.