

# Utilization of Former Military Medical Corpsmen In the Provision of Jail Health Services

LAMBERT KING, MD, PHD, ARLEN REYNOLDS, RPH, AND QUENTIN YOUNG, MD

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**Abstract:** In an effort to improve the quality of health services within a large urban jail, former military medical corpsmen have been employed as an integral component of a jail health service. Medical corpsmen are responsible for the performance of intake medical evaluations, delivery of prescription medications, triage for physician sick call, and provision of elementary health services on the jail tiers. Utilization of medical

corpsmen has been associated with improved rates of medication delivery as well as beneficial effects in relation to tuberculosis and venereal disease control, and a more appropriate utilization of physician services. Effective utilization of medical corpsmen requires cooperation from the correctional staff as well as consistent supervision and support by qualified physicians. (*Am. J. Public Health* 67:730-734, 1977)

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## *Introduction*

In the foreseeable future, it is likely that more than 400,000 persons will continue to be confined in U.S. jails and prisons. Recent court decisions have emphasized the obligation of state and local authorities to provide essential health care services to both pre-trial detainees and convicted persons.<sup>1, 2</sup> Comprehensive standards for prisoner health services have been prepared by numerous agencies and organizations including the American Public Health Association.<sup>3</sup> Past issuance of such comprehensive standards has had minimal impact upon the abysmal quality of medical care in correctional institutions. Continuing gaps in medical services for the majority of prisoners have been documented.<sup>4, 5</sup> If there is a mainstream of health care services in the U.S., jails and prisons continue to closely compete for a few drops of the most brackish waters.

There are multiple causes for the deficiencies of correctional institutions' medical care including lack of concerned political and professional leadership, archaic physical facilities, and minimal budgets for medical care.<sup>6, 7</sup> Certainly there remains a critical shortage of qualified health personnel interested in work within prisons and jails. The job of providing health services in such institutions is emotionally frustrat-

ing, physically taxing, and usually considered low in professional esteem.

In an effort to improve medical services within the Cook County (Illinois) Department of Corrections, former military medical corpsmen have been extensively utilized. This paper will describe and evaluate three years of experience in the use of former military medical corpsmen as an integral component of a health services system in a large urban jail. The interaction between health care personnel and the staff of a large correctional institution will be explored.

## *Initiation of the Medical Corpsman Program*

In June 1973, in the wake of a series of newspaper exposes criticizing jail health services, the Health and Hospitals Governing Commission of Cook County assumed responsibility for the provision of medical care to persons confined within the Cook County Department of Corrections. The Department of Corrections includes Cook County Jail (Division I), the House of Corrections (Division II), the Women's Correctional Center (Division III), and the Work Release Building (Division IV). Currently, the four divisions of the Department of Corrections respectively confine approximately 2,000, 1,200, 200, and 800 persons. More than 80 per cent of those incarcerated are pre-trial detainees who are unable to post bond. Although the daily population averages 4,200 persons, the turnover rate is high since there are more than 50,000 separate intake admissions each year. The physical facilities within the Department of Corrections are generally overcrowded and antiquated as evidenced by the fact that 2,000 persons are confined within Cook County Jail, a facility

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From the Cermak Memorial Hospital and Cook County Hospital, Chicago. Address reprint requests to Dr. Lambert King, Department of Medicine, Cook County Hospital, 1825 West Harrison, Chicago, IL 60612. This paper, submitted to the *Journal* October 8, 1975, was revised and accepted for publication March 4, 1977; it is based on a presentation made at the 103rd Annual Meeting of the American Public Health Organization in Chicago.

completed in 1929 and designed for 1,306 inmates. This combination of overcrowded, inadequate physical facilities and rapid turnover rate poses significant barriers to provision of comprehensive medical care.

Services provided by the Health and Hospitals Governing Commission within the Cook County Department of Corrections include both inpatient and outpatient care. Inpatient care is provided either at Cermak Memorial Hospital, an accredited 75-bed hospital located within the Department of Corrections, or, in those instances when highly specialized care is necessary, at Cook County Hospital. Outpatient functions include intake medical screening, daily sick call, and subspecialty clinics. Medical staff includes attending physicians in all major specialties as well as a contingent of nine house staff physicians who rotate from Cook County Hospital for either one- or two-month intervals. Forty-six nursing staff as well as a full range of other supportive personnel function within Cermak Memorial Hospital. The medical corpsmen described in this paper function solely as part of the outpatient services within the jail where their functions are defined and supervised by licensed physicians.

The medical corpsman program within Cook County correctional facilities was stimulated by Project VEHTS (Versatile Employment of Health-Trained Servicemen), a research and development project of the U.S. Department of Labor.<sup>8</sup> Project VEHTS included a detailed study of veteran medics to determine the extent of transferability of medics to the civilian health sector and the obstacles impeding it. Two medic populations were identified. The smaller group consists of men retiring after a career in the service, including medical, technical, and administrative experience. This group has a high level of experience and their principal problem is to surmount the barriers of credentialing. The other major group of veteran medics consists of one-termers with basic military medical training and diverse experience that is difficult to assess. Both major groups have been employed in the developing of the medical corpsman program within the Cook County Department of Corrections. The program was initiated with five employees in 1973 and has been increased in three years to the current level of 45 medical corpsmen.

The minimal requirements for employment as a medical corpsman in the program include a high school education and two years experience as a military medical corpsman. Recently, a requirement for state certification as an emergency medical technician or licensed practical nurse has been added. Most of the current corpsmen were referred by Operation MEDIHC (Military Medical Experience Directed into Health Careers), an Illinois Hospital Association project funded by the U.S. Department of Health, Education, and Welfare. Medical corpsmen are employed at an annual salary range of \$9,600–13,000. With the cessation of the Vietnam War, there has been a reduced but still adequate pool of former military medical corpsmen applying for employment within the program. Turnover in the program has been less than 15 per cent per year.

The duties and responsibilities of the medical corpsmen in the provision of jail health services are defined by the medical director and by other licensed physicians employed by the Cook County Health and Hospitals Governing Commission.

The corpsmen can perform only those functions that are delegated to them by licensed physicians and specified in a written manual. The major areas of work responsibility include intake medical evaluation, triage for sick call, medication distribution, and provision of assistance to physicians in outpatient clinics. In several areas of work responsibility, the effects of the corpsman program are measurable.

### *Intake Medical Evaluation*

Medical evaluation upon admission to the jail is a formidable task since an average of 150 persons must be screened daily. Medical corpsmen at the jail take a brief health history, draw blood for serology, apply a Mantoux test, and complete a description of bruises and scars. On the basis of the intake evaluation, the corpsmen may refer a patient directly to a physician at Cermak Memorial Hospital or may schedule a sick call appointment for the following day. An average of 5 per cent of entering inmates are referred directly to the physician. An additional 15 per cent are scheduled for continuing care at daily physician sick call. Medical problems detected or assessed upon admission to the jail are similar to those seen in other urban primary care facilities. Particularly frequent medical problems seen within the jail include sequelae of trauma, psychosis, drug and alcohol withdrawal, hypertension, diabetes, seizure disorders, asthma, tuberculosis, and venereal disease.

During the past three years, medical corpsmen have performed more than 130,000 intake evaluations. Although a modern reception and diagnostic center is now under construction, all previous intake evaluations had to be performed in a primitive and chaotic area which severely limited capacity of the corpsmen to perform appropriate physical examinations. Current corpsman staffing levels permit an average of only eight minutes per screening examination at Cook County Jail. Despite these limitations, utilization of medical corpsmen for intake evaluation appears to have been beneficial.

Prior to initiation of the corpsman program, intake medical screening was performed either by correctional officers or by moonlighting physicians. Several parameters are available that can be utilized to indirectly assess the performance of medical corpsmen in the intake area. First, utilization of the corpsmen has permitted tuberculin testing instead of 70mm chest films, thereby promoting a more effective program of tuberculosis detection and prophylaxis.<sup>9</sup> Secondly, medical corpsmen have been more effective than correctional officers in the drawing of serology specimens, a function that has proved crucial in venereal disease control since the rate of true positives per 100,000 has been found to be 1,869. Thirdly, the inpatient mortality rate at Cermak Memorial Hospital has declined from an annual average of 14 for the period 1971–1973 to less than one for the period 1974–1976. Although this significant decline in mortality rate is a product of improvements in numerous areas, it is at least a partial reflection of skillful triage by corpsmen performing intake medical evaluation.

With the addition of modern physical facilities, we believe that use of experienced former military medical corps-

men for entrance medical evaluations will permit satisfactory compliance with the standards in this area recently promulgated by the American Public Health Association.<sup>3</sup> Continued accessible physician support must be provided for the medical corpsmen performing the intake evaluations and periodic physician audits of the quality of intake evaluations should be made.

### Medication Distribution

The safe and effective distribution of prescription and nonprescription medications in large correctional facilities is a vexatious problem. Security constraints often limit transport of patients to central locations for regular administration of medications. Both real and imagined dangers exist in relation to drug contraband and abuse, often necessitating supervised administration of each individual dose of medication. Prior to initiation of the medical corpsman program, medications were administered by correctional officers. These officers had no formal training in the administration of prescription medications, drug side effects, or interactions; moreover, control of medications by the correctional officers was at least potentially subject to the abuse of medications for security control rather than medical indications.

In order to evaluate the effects of the medical corpsman program on the distribution of prescription medications, pharmacy records were reviewed for the same quarterly period of 1973, 1974, and 1975. Available statistics allowed measurement of the total number of doses prescribed, doses properly charted as administered, doses returned to pharmacy, and doses not properly accounted for. The results of this review are shown in Table 1. After medical corpsman had replaced correctional officers, there was both a marked increase in the number and percentage of doses administered as well as a significant decrease in the number and percentage of doses not properly accounted for. Accountability for medications not administered has markedly improved. Medications which are prescribed but not administered are accounted for by patients being bonded-out, the 10 per cent of inmates taken to widely dispersed court facilities daily, patient refusal of medications, and internal transfer of inmates from one part of the institution to another. Further improvements in the medica-

tion distribution rates are anticipated with completion of new jail facilities, implementation of a daily dose system, and installation of computer record keeping.

### Medical Triage within the Jail

Prior to initiation of the medical corpsman program, correctional officers processed inmate requests to attend daily physician sick call. Medical corpsmen have now been assigned to each tier and dormitory within the jail in order to provide primary health care services at the residential level. The functions of the medical corpsmen at the residential level are summarized in Table 2.

Inmates requesting routine sick call services must first be evaluated by their respective medical corpsman. The corpsman may dispense a nonprescription medication such as acetaminophen under written guidelines, or may refer the patient to a physician for further evaluation in one of the central dispensary areas. Triage for sick call is provided in each living unit. During the night, an inmate may be sent by the correctional officer to see a physician at Cermak on an emergency basis. During a two-year period, the utilization of medical corpsmen performing triage for sick call has been associated with a decrease in the number of patients presenting to the physician at sick call from more than 300 to less than 150 per day. This decrease has allowed the physicians assigned to sick call to provide more thorough evaluation and treatment.

The foregoing decrease in the number of inmates presenting at physician sick call is at least partially attributable to effective work of the medical corpsmen at the tier level. There have been no marked improvements in institutional conditions that would otherwise account for the decreased sick call rates. The decrease cannot be accounted for by lack of access to sick call since the guidelines under which corpsmen function are strictly enforced in order to insure that an inmate with even a mildly persistent complaint must be sent to sick call. Through communication with the inmates in each particular area of the jail and the judicious use of non-prescription medications, the medical corpsmen appear to have dealt effectively with minor complaints that, in the past, almost always were referred to the physician at sick call.

**TABLE 1—Sequential Comparison of Distribution of Prescription Medications within the Cook County Department of Corrections\***

Time Period	Total Prescribed Doses	Total Doses Administered	Doses Returned**	Doses Not Accounted For	Per Cent Delivery
April-June, 1973	24,762	4,457	13,867	6,438	18
April-June, 1974	156,082	79,601	72,494	3,987	51
April-June, 1975	215,100	139,750	73,199	2,151	65

\*Responsibility for distribution of prescription medications was gradually transferred from correctional officers to medical corpsmen between July and November 1973.

\*\*Based on preparation of one week's medication. A daily dose system is now being implemented in order to decrease the number of doses returned.

**TABLE 2—Responsibilities of Medical Corpsmen on Jail Tiers**


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Distribution and Charting of Prescription Medications
Observation for Common Side Effects of Prescription Medications
Monitoring of Therapeutic Response—Periodic Blood Pressure Measurement
Tuberculosis Program
Reading and Reporting of Tuberculin Skin Tests
Triage for Physician Sick Call
Completion of Referral Notes to Physician
Distribution of Non-Prescription Medications for Limited Periods According to Physician Guidelines
Miscellaneous Functions
Medical Dressing Changes
Health Education
Monitoring and Reporting of Environmental Conditions Affecting Health
Emergency Treatment and Transport

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### *Interactions with the Correctional System*

The medical corpsmen distribute medications and perform triage for sick call in all areas of the jail, including those tiers designated as maximum security. Prior to introduction of the corpsman program, medical personnel functioned only in limited geographic areas within the jail. The administrative table of organization for the medical corpsmen is distinct from that of the Department of Corrections. The corpsmen thereby constitute a relatively independent and highly peripatetic medical presence within the jail. During the first year of the program, the correctional administration generally viewed the program with suspicion and often refused to cooperate with the corpsmen at the tier level. Gradually, however, most of the corpsmen were able to develop cooperative working relationships with the tier correctional officers. Cooperation between the correctional staff and the medical corpsmen is essential if effective medication distribution and triage for sick call on the tier are to be accomplished.

A significant problem which has been encountered with our medical corpsman program within the jail relates to the effects of the jail environment upon the morale and performance of the medical corpsmen. The corpsmen spend a large portion of their time working on jail tiers that are overcrowded, noisy, often unsanitary, and tense. Although the medical corpsmen do not work for the Department of Corrections, inmates frequently complain to the corpsmen about jail conditions over which the corpsmen have little direct control. The anger of inmates resulting from overcrowding and a sometimes unpalatable diet is often directed at the corpsman on the tier. A combination of such factors places serious cumulative stress upon the medical corpsmen. Individual corpsmen may develop severe reactive depression after working in the jail environment for a long period of time. Therefore, careful attention must be devoted to the availability of sup-

portive and counseling services for the corpsmen. Members of the medical staff and psychiatric staff must frequently counsel the corpsmen regarding their individual reactions to the stresses of their work. On the basis of our experience with the medical corpsmen, a recommendation can be made that all health care personnel working in a jail or prison environment should be regularly rotated into less stressful settings in order to maintain their sensitivity to human needs.

### *The Issue of Credentialization*

Many jail and prison health care programs have been criticized for improper utilization of inmate personnel and unlicensed professional personnel. Because military medical training programs are generally not transferable to civilian institutions, we have had to assess the propriety of the use of unlicensed medical corpsmen in a large urban institution which is under constant public scrutiny. This assessment has promoted the implementation of several mechanisms designed to insure proper corpsmen utilization and to respond to any potential legal challenges to the program.

First, the limits of medical corpsmen functions are strictly defined by the medical director and other licensed physicians. Medical corpsmen are not permitted to initiate prescription medications as would a licensed physician's assistant functioning under physician protocols. Second, the conditions under which the corpsmen may dispense non-prescription medications are also strictly limited. Third, corpsmen must pass periodic written examinations in order to document their competency in medication distribution and triage functions. Finally, we have instituted a further requirement that medical corpsmen maintain current state certification either as emergency medical technicians or licensed practical nurses. This requirement insures a basic level of competency in initial management of the emergency situations that corpsmen frequently encounter on the tiers.

### *Costs and Benefits*

Experienced former military medical corpsmen can generally be employed at salary levels that are slightly less than those of registered nurses and significantly less than nurse practitioners or certified physician's assistants. Medical corpsmen should not, however, be viewed as inexpensive substitutes for more highly trained personnel. Although many of our medical corpsmen are in the process of training to become physician's assistants, their military medical experience does not allow them to assume the responsibilities for independent patient management that would be delegated to full trained nurse practitioners or physician's assistants. Similarly, the functions performed at the tier level by our medical corpsmen—medication distribution, sick call triage, elementary health education—would represent an inappropriate use of more highly trained personnel.

Analysis of the costs of correctional health services is replete with difficulties. Some states currently spend more than \$1,000 per inmate per year for correctional health care.<sup>10</sup>

Our entire jail medical care program expends approximately \$700 per inmate per year including the services provided by the medical corpsman at the tier level. Direct costs of the corpsman program represent an expenditure of \$112 per inmate per year. This figure must be assessed in the context of the rapid turnover rate of the jail population, a factor which places immense burdens on corpsman personnel who must perform the intake medical evaluation and serve a constantly changing population within the dormitories and tiers. Based upon the average length of stay of one month per inmate, the costs of corpsman services represent an expenditure of less than \$10 per inmate per month.

It should be emphasized that expenditures for medical corpsmen within jails and prisons will not be beneficial unless adequate support is provided to attract highly qualified physicians, nurses, and other health personnel as back-up in the context of a comprehensive health program. To place medical corpsmen in close contact with inmates needing health care in a setting where access to the full range of essential health services is not available would insure failure of a corpsman program.

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### 'Medical Aspects of Aging' Seminar To be Held Sept. 30—Oct. 1

"Medical Aspects of Aging," September 30—October 1, 1977 at the Gainesville Hilton Hotel, Gainesville, Florida. The course will offer 11 hours credit from the American Medical Association's, Category 1 and 11 prescribed hours from the American Academy of Family Physicians will be awarded on an hour to hour basis. Approval applied for from the Florida Medical Association. Fees are \$65 physicians and \$35 allied health. Registration closes September 20, 1977. For further information please contact Mr. Bill Rockwood, Coordinator, University of Florida, Division of Continuing Education, Box J-233, J. Hillis Miller Health Center, Gainesville, FL, 32610 or telephone (904) 392-3143.