

The Key Extended Entry Program (KEEP):

A Methadone Treatment Program for Opiate-Dependent Inmates

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Abstract

The Key Extended Entry Program (KEEP) is the only known methadone treatment program for incarcerated opiate-dependent inmates in the United States. Initiated in 1987, KEEP performs approximately 18,000 detoxifications and 4,000 admissions for methadone treatment per year. Of those methadone treatment patients discharged to the community, mostly to outpatient KEEP programs, 74–80% report to their designated program. Recidivism rates reveal that 79% of KEEP patients were incarcerated again only once or twice during a recent 11-year period. Finally, KEEP data point to the importance of dedicating slots in the community for released inmates and maintaining them on sufficient blocking doses to eliminate the craving for heroin. About 6% of KEEP patients, some with mental illness, have a high incidence of recidivism.

Key Words: Methadone, correctional treatment, jail, discharge planning, recidivism.

Introduction

WITH A SIGNIFICANT INCREASE in the number of drug-related arrests in the New York Metropolitan area in 1987 (1), the Correctional Facility on Rikers Island experienced troubling overcrowding and unrest. In response, the Key Extended Entry Program (KEEP) was initiated through the cooperative efforts of the New York City Department of Correction and the New York Division of Substance Abuse Services. Conceived as both a narcotic treatment program and an AIDS prevention initiative, it remains the only known methadone pharmacotherapy program of its kind for incarcerated opiate-dependent inmates in the United States.

There are two components to the KEEP program. The first is the jail-based program at the NYC Rikers Island Correctional Facility, sometimes referred to as Pre-KEEP. The second component is the community-based KEEP programs that accept direct referrals from Rikers Island as well as walk-in admissions and referrals from other health, social service, and criminal justice agencies. The focus of this article will be on the KEEP services provided at Rikers Island and the linkages that have been made with the community-based KEEP programs.

Prior to the initiation of KEEP, many opiate-dependent inmates with minor offenses were released to the community before their detoxification was completed. Releasing such inmates in the throes of withdrawal nearly guaranteed a return to addiction, criminality and high-risk behaviors, including exposure to HIV, tuberculosis, and other infectious diseases. Offering inmates a choice of heroin detoxification or methadone treatment allowed for suitable inmates to make a transition from Rikers Island to community-based methadone treatment centers upon their release. KEEP's creation of dedicated

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slots for released inmates from Rikers Island has facilitated this transition for these otherwise difficult-to-place patients.

Patient Eligibility Criteria

Selection for the KEEP program depends on the medical and legal status of the patient. Candidates are selected from those patients placed, by medical staff, on one of two withdrawal protocols:

- Heroin withdrawal protocol – involves 12 days of tapering methadone
- Methadone withdrawal protocol – the tapering period is based on the community program dosage, i.e., a patient on 100 mg of methadone will receive a 39-day tapering protocol.

Staff from KEEP and the Department of Correction determine legal eligibility.

Legal Eligibility Determination

KEEP staff generate a list of potential candidates from the previous day's admissions who were placed by medical staff on a methadone detoxification protocol. This list is submitted to the Department of Correction for legal screening. The Inmate Identification System is used for patient verification.

Patient eligibility includes the following criteria:

- patients sentenced to less than one year of jail time
- patients detained in jail for legal charges that will not result in a jail sentence of more than one year, if found guilty
- patients who *plea bargain* their charges while detained (i.e., plead guilty to a lesser charge), whose sentence will result in less than a one-year jail term.

The following patients are not eligible for admission to the program:

- patients whose charges will result in a sentence of more than one year. Note: Those sentenced to a term greater than one year must be transferred from the New York City Correctional System into the New York State Correctional System, which does not currently provide methadone maintenance treatment.
- Patients who are detained for a violation of New York State Parole (e.g., patients who

were on parole but were not compliant with the rules and regulations of parole).

Patients must comply with the rules and regulations of the KEEP program as well as the rules contained in the Inmate Rule Book. Violation of these rules may lead to termination from the KEEP/Detox Program. Patients terminated from the program receive an individualized detoxification schedule which is determined by the KEEP program medical director.

Admission

Patients are interviewed on admission to the KEEP program. This session includes an orientation to the program's services and rules. Educational material is presented to help the patient understand methadone treatment and general substance abuse treatment issues. AIDS education is also provided, aimed at reducing risk behaviors. Discharge planning begins with the admission interview.

Admission Procedure

The admission interview covers:

- an orientation to the KEEP program, informing the patient that the program is voluntary and that detoxification can be requested at any time. Other treatment options for opiate-dependence are also discussed with the patient.
- the provision of information about methadone to clarify any misconceptions that the patient may have. This education includes information on the benefit of increasing methadone dosing to achieve therapeutic levels.
- introductory information on transmission of disease and risk reduction behavior. Patients are informed that educational presentations will be ongoing during their participation in the KEEP program.

At the time of admission, the KEEP counselor completes a referral letter to a community based KEEP program. This letter is issued to the patient at the end of the admission interview. The KEEP counselor informs the patient of the location and offers travel directions to the selected community-based KEEP program.

The KEEP counselor determines the methadone dosage level according to the

patient's detoxification status and confers with the physician on the medication order. The interaction of some medications with methadone (e.g., rifampin) may require the methadone dose to be adjusted. A patient from a community methadone maintenance treatment program is maintained on the dose prescribed by that program. This would include patients who enter KEEP on relatively high doses of methadone, i.e., 150–200 mg, when recommended by their community physician. Patients who were illicit heroin users and not in methadone treatment at the time of admission are encouraged to agree to a dosage level of 70 mg. If they do not agree, they will be maintained on 30 mg.

At admission, the KEEP counselor contacts the New York State Methadone Central Registry and the community-based KEEP program where the patient will receive aftercare. If the court or release date is known, this information is given to the community-based program.

Documentation

All patients admitted to the KEEP program participate in the completion of an individualized treatment plan. Treatment plans are reviewed and updated as needed but not less than every two months. A progress note is written for all patients at the time of admission to the KEEP program. The note contains the following information:

- Date, time and patient location at the time of admission.
- Statement that the patient has been accepted into the program.
- Statement that the rules and regulations of the program have been reviewed with the patient
- Patient's KEEP medication dosage, duration, and frequency of administration.
- If the patient is from a community-based methadone program, documentation is made of the name of the program and the previous medication dosage.

Progress notes are also placed in the chart when the patient's medications are renewed and when the treatment plan is updated.

Treatment Program

Medication Administration

Methadone is administered daily utilizing the Direct Observation Therapy (DOT) method.

That is, a nurse and a correction officer directly observe the patient swallowing the methadone. Before leaving the area, each patient must also respond verbally to the correction officer to further insure ingestion of the medication. The diversion of methadone has been a remarkably minimal problem when utilizing this method.

Psychoeducation

Counselors meet regularly with KEEP patients to determine how they are tolerating their maintenance dose of methadone and to discuss treatment issues. Treatment, offered in both individual and group formats, combines the provision of information with discussion. In many cases, handouts highlighting some of the following points are made available:

- Methadone treatment is a medically supervised procedure in which a daily oral dose of a long-acting synthetic narcotic medication is received.
- Methadone is most effective when one is given a dose that "blocks" the effects of heroin and reduces craving for it.
- Methadone produces no significant side effects. It is a legal medication, made by licensed and approved pharmaceutical companies using high standards of quality control.
- Methadone does produce physical dependence, meaning that withdrawal symptoms and drug craving will be experienced if methadone treatment is stopped abruptly without a medically supervised detoxification program. It must be understood that there is a high risk for returning to heroin use if methadone treatment is stopped in an inappropriate way.
- Methadone can help you stop the use of street heroin, and lead to a more stable and productive lifestyle.
- Methadone is not a treatment for cocaine abuse or for abuse of other drugs or alcohol.

HIV Treatment Services

KEEP provides counseling on HIV prevention and risk reduction, case management, and intensive discharge planning services. Discharge planning includes making application for entitlement housing and referrals to residential health care facilities, the latter of which requires the provision of extensive medical documentation.

Relapse Prevention

KEEP provides relapse prevention services to a target group of patients who return to Rikers after a first treatment episode. Through individual and group counseling and peer feedback, recidivist patients are encouraged to identify triggers to relapse and to develop alternative methods of dealing with those triggers. Through ongoing psychoeducation and group support, patients are encouraged to adhere to their treatment plan.

Alternatives to Incarceration Services

KEEP also provides alternatives to incarceration (ATI) services by evaluating detained inmates for placement in drug-free residential therapeutic communities, residential methadone-to-abstinence programs, and outpatient ATI programs. Linkages developed with numerous criminal justice agencies have enabled KEEP staff to provide these services to those detained inmates whose needs would be better served by drug treatment than by incarceration.

Referrals to Other Treatment Services on Rikers Island

In 1998, the Therapeutic Community Services (TCS) program was initiated on Rikers Island. This program, funded by the Department of Correction, is run by St. Barnabas Hospital under the auspices of Health and Hospitals Corporation-Correctional Health Services. TCS is a drug-free program that offers treatment and discharge planning to patients within a modified therapeutic community environment. Patients who choose to withdraw from methadone are regularly referred to the TCS program. KEEP has also

forged a strong working alliance with Mental Health Services, which provides counseling in all the buildings housing KEEP patients. This allows KEEP patients who have psychological problems and/or are on psychiatric medications to receive mental health treatment while maintaining their enrollment in KEEP.

Results

An analysis of Table 1 demonstrates a significant increase in the number of heroin withdrawal protocols after 1995, with a fairly consistent number of patients utilizing these protocols since 1996. MMTP withdrawal protocols increased steadily until 1998, but dropped in 1999, consistent with an overall decrease in the number of inmates admitted to Rikers Island in 1999. The number of patients undergoing observation prior to either opiate withdrawal or appropriate medication has been remarkably consistent over this 5-year period.

Table 2 indicates that the number of admissions to KEEP treatment services reached a record high in 1997, but has shown a slight decrease in the past two years, consistent with a decrease in the overall inmate census on Rikers Island. The reporting rate to aftercare has remained between 78–80%. The reporting rate of KEEP patients compares very favorably with those reported for any other population of patients (2).

Table 3 reveals the total number of discharges from the KEEP program during 1999. The data for male and female patients are grouped. The 78% rate of reporting to community-based treatment organizations (CBOs) is calculated from the number discharged to a CBO. During this period, the sentenced males were more likely to voluntarily withdraw from the KEEP program, while the detained males were more likely to be

TABLE 1
KEEP Detoxification Services (1995–1999)

Year	1995	1996	1997	1998	1999
Heroin Withdrawal	8,844	11,454	11,312	11,840	11,058
MMTP Withdrawal	5,786	6,030	6,385	6,548	6,062
Opiate Withdrawal					
Observation *	1,252	1,158	1,289	1,346	1,296
Totals	15,882	18,642	18,986	19,734	18,416

* Individual is assigned to observational period prior to a determination to withdraw drug or admit to an appropriate medication program.

TABLE 2
KEEP Methadone Treatment Services (1995–1999)

Year	1995	1996	1997	1998	1999
Admissions	3,802	3,940	4,373	4,331	3,929
Discharges to Community	2,903	3,205	3,631	3,433	3,177
Reported for Treatment	2,258	2,548	2,847	2,707	2,463
Reporting Rate (%)	78%	80%	78%	79%	78%
Average Daily Census	438	474	470	425	390

TABLE 3
KEEP Discharge Rates
Detained and Sentenced Males and Females
January 1 – December 30, 1999

	Detained Males	Sentenced Males	Sentenced and Detained Females	Totals
Total # of Discharges	1,131	1,550	1,216	3,897
# who voluntarily withdrew	42	104	22	168 (4%)
# terminated from program	107	13	40	160 (5%)
# transferred	353	39	0	392 (10%)
# discharged to CBO*	629	1,394	1,154	3,177 (80%)
# reported to CBO*	464 (74%)	1,078 (77%)	921 (80%)	2,463 (78%)

* Community Based Organization

terminated. A significant number of detained males were transferred, most of them into the KEEP program for sentenced males. Because all female inmates reside in the same building on Rikers Island, treatment is seamless for those enrolled in KEEP when they are transferred from detained to sentenced status. Overall, the data suggest that the female KEEP patients are slightly more likely to remain in KEEP while at Rikers and to report to their CBO upon discharge than are either the detained or sentenced men.

Table 4 examines the aftercare adherence of inmates who were not involved in substance abuse treatment prior to incarceration. It is

evident that patients without prior connection to a program are much less likely to adhere to aftercare than are those previously involved in treatment. This argues that it is not just methadone dependence that predicts aftercare adherence, but also prior familiarity with treatment and/or a specific treatment program. Interestingly, patients discharged on higher doses of methadone are substantially more likely to report to a CBO than are those on lower doses. This supports the belief that patients must achieve a true “blocking dose” in order to remain in treatment and to eliminate the craving for heroin.

Table 5 demonstrates that nearly four-fifths of KEEP patients have been admitted to Rikers

TABLE 4
Aftercare Adherence of Patients Not in Treatment
Prior to the Rikers Admission (1998)

Methadone Dose at Time of Discharge from Rikers	# Patients Discharged	# Reported to CBO	% Reported to CBO
< 30 mg	1,273	664	52%*
≥ 30 mg	341	247	72%*
Totals	1,614	911	56%

* $p < 0.001$

TABLE 5
KEEP Recidivism Rates for 11 Years
January 1988 – December 1998

Frequency	Number of Patients Admitted (n)	Percentage of Patients Admitted %
1x	10,324	59
2x	3,426	20
3x	1,430	8
4x	734	4
5x	444	3
6x or more	1,112	6
Totals	17,470	100

Island only one or two times during a recent 11-year period. While overall recidivism rates are not available, the KEEP patients are demonstrating a remarkably low rate of recidivism, given their long history of drug involvement. These data suggest that KEEP may be playing a significant role in reducing jail recidivism in the majority of opiate-dependent individuals that it treats. This would need further study involving comparison groups. There remain a subgroup (6%) of difficult-to-treat patients, however, who are frequent recidivists (6 times or more) and who require specialized treatment.

Table 6 reveals that the number of methadone patients receiving HIV medication has been very consistent over this 5-year period, especially considering the slight decrease in the jail and the KEEP census in the past two years. By contrast, there has been a marked decrease in the use of tuberculosis-preventive medication and Directly Observed Therapy medication. Most striking is the sharp increase in the use of psychotropic medications by patients in KEEP. The data reveal that only 8% of the KEEP patients were on psychotropic medications in 1995 (# on psychotropics/

average daily census) at any one time compared to 18% in 1999.

Discussion and Conclusions

KEEP has been in operation on Rikers Island for over 13 years now. While incarcerated, KEEP patients have been motivated to receive in-jail treatment and a community-based placement; they frequently report having difficulty negotiating the latter themselves. Anecdotally, the Department of Correction reports a decrease in the use of sick call because inmates are no longer forced into opiate withdrawal. Secondly, KEEP patients have been reported to be less of a management problem in jail because violation of the Inmate Rule Book results in the immediate removal of the patient from KEEP and, ultimately, a detoxification from methadone. Moreover, KEEP outpatient services, by facilitating the transition after release from jail, fosters overall compliance and aftercare.

KEEP offers the option of withdrawal from heroin or methadone, or maintenance on methadone during incarceration. Both options have been utilized by a substantial number of incarcerated patients over this time period. The majority of those who choose methadone treatment leave Rikers Island in good standing from the KEEP program and report to CBOs at a remarkably consistent 74–80% rate. Most of the CBOs are community-based KEEP programs that are designed to continue treatment on a more long-term basis. The data suggest that when inmates admitted to Rikers have not been in treatment prior to admission, their rates of aftercare are markedly lower. This argues for the need for patients to identify with a particular outpatient treatment setting in order to ease the transition from jail. The outpatient treatment center assumes responsibility for

TABLE 6
Average Number of Methadone Patients Receiving Other Medications per Day

Year	1995	1996	1997	1998	1999
HIV Medication	59	56	*	48	48
Tuberculosis Preventive Medication	24	14	*	10	6
Directly Observed Therapy Medication	10	5	*	4	2
Psychotropic Medication	34	34	*	51	72
Average Daily Census	438	474	470	425	390

* Data not available

continuing to administer sufficient blocking doses of methadone in order to eliminate the heroin craving and to maintain the patient in treatment. This appears to be crucial. Remarkably, nearly 80% of KEEP patients have been admitted to Rikers Island only once or twice during a recent 11-year period. There do remain, however, a small cluster of patients who are frequent recidivists. Some of these patients, i.e. those with multiple problems, need more comprehensive services. Others, who are more intractable, are often kept in treatment in the interest of reducing their risk to themselves and to the public at large.

Maintenance on less than 30 mg of methadone may prove to be insufficient treatment for the majority of opiate-dependent individuals. This finding is supported by previous research (3), which found that KEEP patients accepting a high dose (≥ 60 mg) were significantly less likely to be reincarcerated than were those accepting a low dose (≤ 30 mg). While a fixed higher dose correlated with reduced recidivism, these authors recommended routine methadone plasma level monitoring to adjust doses to achieve "blocking dose plasma levels." These observations suggest that a sufficient methadone dosing practice (≥ 60 mg daily.) is essential to program effectiveness.

The more than twofold increase in use of psychotropic medications, as indicated in Table 6, emphasizes the need for increased mental health involvement for this population of patients. The reason for this increased use of psychotropic medications is not known.

Health care administrators and personnel have changed their opinions about substance abuse treatment in the last twenty years. Concerns that methadone treatment is merely substituting one drug for another have been replaced with the belief that many individuals receiving methadone treatment lead productive lives and engage in less criminal activity and fewer health risk behaviors. In addition, viewing substance abuse treatment as a process in which addicted individuals move through predictable stages of readiness for change (4) offers more hope to both the patient and the practitioner. With that hope, patients are more likely to remain in treatment. While health risk behaviors are difficult to assess, the KEEP data would suggest that this program has been effective both in maintaining patients in treatment and in reducing criminal behavior. KEEP will continue to refine its methods to serve those patients who present with special needs.

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