Promoting HCV Treatment Completion for Prison Inmates: New York State's Hepatitis C Continuity Program

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SYNOPSIS

This article describes the development of a statewide program providing continuity of hepatitis C virus (HCV) treatment to prisoners upon release to the community. We discussed length of stay as a barrier to treatment with key collaborators; developed protocols, a referral process, and forms; mobilized staff; recruited heath-care facilities to accept referrals; and provided short-term access to HCV medications for inmates upon release. The Hepatitis C Continuity Program, including 70 prisons and 21 health-care facilities, is a resource for as many as 130 inmates eligible to start treatment annually. Health-care facilities provide fairly convenient access to 87.1% of releasees, and 100% offer integrated HCV-human immunodeficiency virus/acquired immunodeficiency syndrome care. As of March 2006, 24 inmates had been enrolled. The program was replicated in the New York City Rikers Island jail. The program is operational statewide, referrals sometimes require priority attention, and data collection and other details are still being addressed.

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Prisons and jails are priority settings for public health interventions because inmates have a disproportionate burden of infectious diseases, including hepatitis C.[1–6] Hepatitis C virus (HCV) infection among inmates varies in prevalence, with rates among specific subpopulations of up to 54%. HCV is possibly the most prevalent bloodborne infection in prisons in the United States.[7–11] An increase in deaths from liver disease among inmates has been observed.[12]

The need to identify and treat inmates with HCV has been highlighted by both correctional and public health officials.[13–17] Challenges related to HCV treatment include: resource needs, limited epidemiologic and other data, treatment constraints related to duration of incarceration and indeterminate inmate length of stay, management of treatment side effects, frequent movement of inmates between facilities, co-morbidities, inmate attitudes and behaviors, lack of referral resources and follow-up after release, and difficulties in data collection.[13,17–19] Integrated models of care for people with HCV infection and other conditions, such as human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS), are needed.[6,8,13,20–22] Although costly, HCV antiviral treatment in prisons is feasible and acceptable outcomes can be achieved.[18,23,24] At some stages of disease, the benefits of HCV treatment outweigh the costs, and treatment completion benefits inmates and society at large.[8,9,20,22,25–28]

The New York State (NYS) Department of Correctional Services (DOCS) houses the fifth-largest prison population in the nation.[29] There were 65,197 inmates under custody on January 1, 2004.[30] A 2003 seroprevalance study of 3,936 inmates entering DOCS indicated that 13.3% of males and 24.1% of females showed evidence of HCV infection. Among the 611 HCV-infected inmates in the cohort, 115 (19%) were co-infected with HIV. (Personal communication, Ling Wang, PhD, New York State Department of Health [NYSDOH], January 2005.) DOCS initiated screening of inmates at intake for HCV risk in 1999. DOCS offers testing to inmates with apparent risk and those who have positive screening tests are evaluated according to clinical guidelines based upon recommendations of the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC).[31,32] In 2005, 19,821 HCV antibody tests were performed on DOCS inmates and 409 inmates started HCV treatment. Overall, 1,464 DOCS inmates have received HCV treatment through March 31, 2006.

The DOCS and the NYSDOH have an established partnership with joint initiatives to advance correctional health.[3,33–35] One challenge to comprehensive treatment was the impact of indeterminate or short length of stay on HCV antiviral treatment decisions. DOCS, like other correctional systems, had a policy to begin HCV treatment only in patients with enough time left in confinement to complete treatment, because incomplete treatment is less likely to be effective. Most releasees do not have health insurance, and there is no program comparable to the AIDS Drug Assistance Program (ADAP) to pay for treatment in the community.[31,32,36] This article describes the Hepatitis C Continuity Program, the first such program in the U.S., which is an intervention to remove indeterminate length of stay as a limiting factor in initiation of HCV antiviral treatment (hereafter referred to as AHCV treatment). The program promotes continuity and completion of HCV treatment upon and after release to the community.

METHODS

Developing a statewide system for continuity of HCV treatment required a multidisciplinary approach. Multiple partners worked to develop a statewide system with referral resources in every NYS region committed to accepting inmates with HCV, sometimes on short notice (one week or less), and to continuing HCV treatment. Access to expensive medications upon release, even while Medicaid and other entitlements were being established, had to be assured. Protocols outlining prerelease steps and activities at release as well as procedures for an intake at a community hospital were required. In addition, a community-based partner would be needed to promote continued treatment.

DOCS and DOH engaged multiple stakeholders in program development and in solving complex problems. The Division of Parole (DOP) was a critical partner, given that more than 85% of DOCS inmates are released on parole. DOP established a central point of contact and determined how facility-based parole officers (FPOs) and community supervision POs could best support HCV treatment completion. The New York City (NYC) public hospital system, the Health and Hospitals Corporation (HHC), agreed to provide care for uninsured inmates released to NYC. DOH recruited hospitals and other health-care facilities outside of NYC. DOCS medical, nursing, and pharmacy staff addressed the need for access to expensive medication immediately after release, before Medicaid or other eligibility (i.e., NYS ADAP) is in place. DOH facilitated conceptual agreements between agencies, prepared and circulated draft protocols, and convened meetings for debriefing specific referrals and for problem solving.

RESULTS

Statewide referral network for integrated HCV/HIV treatment

Referral resources are in place in every NYS region. Eleven HHC hospitals offer continuity of treatment for inmates receiving HCV treatment who are returning to NYC. All HHC hospitals are also Designated AIDS Centers (DACs). NYSDOH AIDS Institute designation of hospitals as licensed DACs signifies that they provide state-of-the-art inpatient and outpatient treatment for HIV/AIDS. The 44 DACs statewide have access to enhanced outpatient HIV Medicaid reimbursement rates beyond those available to community-based primary-care clinics. Outside of NYC, nine DAC hospitals and one other health-care facility affiliated with the AIDS Institute accept referrals. As of January 2006, a statewide network of 21 health-care facilities accepts inmates being treated for HCV, and each facility can provide integrated care for HCV and HIV/AIDS. Some DACs care for former inmates with HCV who are not HIV co-infected. Others triage inmates who are HCV mono-infected only to other health-care providers in the community for completion of HCV treatment.

The majority (60.1%) of inmates are from and return to NYC, and those receiving HCV treatment are referred to HHC hospitals. An additional 10.4% of DOCS inmates were committed from suburban NYC counties and another 16.6% of inmates are from upstate counties with population centers of at least 50,000 inhabitants. The remaining 12.8% of inmates are from more rural counties.[30] The urban and suburban locations of the 21 referral facilities for the Hepatitis C Continuity Program provide fairly convenient access to postrelease HCV or HCV-HIV treatment for roughly 87.1% of releasees being treated for HCV.

Summary of prerelease protocols

DOCS Health Services and DOCS Transitional Services, in collaboration with FPOs and, in some prisons, working with community-based organizations funded by the AIDS Institute for HIV/AIDS transitional planning, provide prerelease and transitional (discharge) planning in cooperation with DOP. DOCS staff identifies inmates with chronic HCV who may not have sufficient incarceration time to complete treatment, verify the geographic area to which each inmate will be released, and coordinate postrelease plans with the FPO. DOCS staff meets with each inmate who would otherwise qualify for HCV treatment to explain the option of receiving continuity of treatment, at no cost to the inmate, through referral to a hospital in the region to which they will be released, by first being referred to the HIV/AIDS program at the designated health-care facility.

The inmate receives guidance and assistance with necessary paperwork to prepare for release and enrollment into the Hepatitis C Continuity Program. Paperwork includes: (*1*) a Release of Medical Information to be sent to the hospital prior to release; (*2*) forms to establish Medicaid eligibility upon release or to apply for the ADAP; (*3*) a release for limited specific medical information to be shared with the DOP so that the assigned community PO may assist in appointment keeping and other measures to support treatment completion; and (*4*) a release of limited specific information to be shared, through HCV treatment completion, with the DOH AIDS Institute for program monitoring and evaluation. When these steps are completed, a form to request DOCS Chief Medical Officer's approval of HCV treatment verifies that the inmate should be considered for participation in the Hepatitis C Continuity Program.

When HCV treatment is approved, the inmate is asked to select the hospital that would be most convenient for his/her treatment. DOCS staff use referral directories—provided by HHC and DOH—that contain up-to-date contact information to contact the hospital to provide relevant clinical information. As release approaches, DOCS staff schedules an initial appointment at the hospital. If the inmate is co-infected with HCV and HIV, the appointment is made with a physician at the AIDS Center. If the patient is HCV mono-infected, the AIDS Center will help set up an early appointment with a hepatologist or gastroenterologist at the hospital. DOCS staff transmits appointment and contact information to the FPO, the central pharmacy, and the AIDS Institute. The FPO provides this information to the DOP central office, which furnishes it to the assigned community PO, and provides the community hospital with contact information for the supervising PO.

DOCS ensures that enough Ribavirin or similar medication is supplied to the releasee upon discharge to last until the appointment at the hospital. DOCS also sends the receiving hospital a two-week supply of pegylated interferon or other similar medication. The pegylated interferon or similar medication—the second component of the treatment regimen—is sent in advance to the hospital pharmacy because this medication is injectable and requires clinical monitoring. Every effort is made to schedule the initial appointment at the receiving hospital almost immediately upon release because a delay in setting up that appointment can jeopardize successful treatment.

Hospital staff confirms completion of a Medicaid

application, if applicable, and asks that the inmate be informed of the need to bring all necessary documentation to the first clinic visit. Hospital staff informs the appropriate receiving clinic of the need to administer pegylated interferon or similar medication at the very first appointment and that a supply of Ribavirin or similar medication should be set aside for the new patient. Hospital staff obtains the name and contact information for the inmate's community supervision PO, if applicable, from the DOP central office.

Summary of postrelease protocols

Hospital staff determines if the patient is HCV infected only or HCV/HIV co-infected and makes a clinic appointment at the AIDS Center or other health-care facility. Appointments for HCV-only patients are made with the hospital's hepatology or gastroenterology department. If the releasee misses the initial appointment with the clinic, efforts are made, in collaboration with the community PO, to contact the patient and ensure that the next appointment is kept. Hospital staff obtains a signed authorization for release of limited specific information to be shared with the AIDS Institute for purposes of program monitoring and evaluation through HCV treatment completion.

The AIDS Institute requires all DACs to address treatment adherence as part of medical care coordination and case management. For co-infected inmates, the HIV case managers actively coordinate between the HIV primary-care physicians and the hepatologists or gastroenterologists providing HCV care, bridging two separate hospital departments. Nurses and counselors in outpatient units also help support treatment completion. To the extent possible, AIDS Center case-management staff address barriers to appointment keeping and adherence to the prescribed treatment regimen. Issues such as transportation and child-care are addressed, if feasible. Once the new patient is established at either the AIDS Center or the hepatology or gastroenterology department, an assessment is made of the patient's need for support services, especially psychiatric medication, to complete the treatment regimen. Other supports for HCV treatment completion are provided by POs, who aid with appointment keeping and arrange supportive services, such as mental health, housing, and substance abuse treatment, to increase the probability of treatment adherence.

Monitoring and evaluation

DOCS, DOP, and DOH developed a simple approach to program monitoring and evaluation using forms completed within DOCS and by the receiving hospitals for those inmates who authorize release of information for this purpose. DOCS provides information, including the inmate's HCV testing history, genotype, HCV treatment, HIV status and, if HIV infected, most recent CD4 count and viral load and discharge information. Receiving hospitals verify intake, receipt of medical records, HCV treatment outcomes (including sustained virologic response), and CD4 count and viral load for inmates with HIV/AIDS.

Implementation

The NYC component, offering referral to HHC hospitals, was implemented in October 2004. An additional year was required to develop referral resources and protocols for inmates released outside of NYC. Significant time was required for negotiation and problem solving to develop a referral network in NYS regions without public hospitals. During 2005–2006, DOCS and DOH staff worked together, on a case-by-case basis, to make arrangements for inmates being treated for HCV infection who were to be released.

It was estimated that, in any given year, as many as 130 DOCS inmates would be eligible to start HCV treatment while incarcerated within DOCS facilities without sufficient incarceration time remaining to complete treatment before release. Of these inmates, up to 20% could be HCV-HIV co-infected.[35] As of March 2006, 22 inmates had been released to NYC HHC facilities and two inmates had been released to DACs or other health-care facilities outside of NYC. The Figures provide three case examples.

Figure 1. Case study A: example from the Hepatitis C Continuity Program

The Infection Control Nurse and Nurse Administrator of Bedford Hills Correctional Facility were notified of Carol's parole date a week before release. Carol was in mid-regime of her hepatitis C virus (HCV) treatment. Referral to community health services was required. After holding a conference with Carol to determine her parole residence, a telephone call was made to her community parole officer (PO) to confirm the residence and to advise the PO of the plan for medical treatment follow-up in the community. An appointment within seven days of release was made at a Health and Hospitals Corporation (HHC) hospital's gastrointestinal (GI) clinic. A copy of Carol's Comprehensive Medical Summary (CMS) was faxed to the clinic. On the day of parole, Carol was given a two-week supply of medication, her CMS, and the date and time of her clinic appointment at the HHC hospital, together with directions to the clinic. One week later, a telephone call was made to the HHC hospital's GI clinic and to Carol's PO to confirm that Carol completed her initial appointment.

Figure 2. Case study B: example from the Hepatitis C Continuity Program

A releasee enrolled as a hepatitis C virus (HCV) community participant, John, initiated a level of cooperation with medical compliance at his local clinic. However, after several months of compliance, John relapsed into substance use and broke off required contacts with his parole officer (PO). After the Division of Parole's attempts to locate John failed, a violation of parole warrant was considered. The community PO received a call from a hospital social worker, who explained that John had come to the clinic for HCV treatment and confessed his relapse and issues surrounding his return to drug use. The PO was willing to forgo a parole warrant, and arrangements were made for residential drug treatment.

DISCUSSION

Initiatives to provide continuity of HCV treatment upon release are essential, yet providing uninterrupted continuity of care from correctional facilities to the community is challenging. The Hepatitis C Continuity Program shows that it is possible for HCV treatment to be initiated during incarceration without regard to the expected incarceration time remaining. NYS inmates who initiate HCV treatment prior to release receive timely referral to appropriate clinics for continuation of treatment or for integrated HCV-HIV/AIDS care, as necessary. In addition, accessing community-based health care for individuals released from prison who have health-related issues has benefits beyond an individual's health. Coordination among prison-based health services, community providers, and community supervision professionals promotes positive reentry outcomes and produces public health benefits.

Issues encountered during start-up included staff turnover within DOCS, DOP, and the community hospitals; inmates not being released as expected; and outstanding warrants that preempted postrelease arrangements. Although referral resources are available in each NYS region, additional referral resources would provide more convenient access for releasees in rural and suburban areas, reduce travel time to appointments, increase the likelihood of kept appointments, and provide greater statewide coverage.

Data collection forms were implemented in 2006. The program is just beginning, and more time is needed to assess its success. However, the program has already been extended within NYC, where the HHC hospital system accepts referrals of inmates being released from Rikers Island, through which more than 100,000 individuals pass each year.

Although the cost-effectiveness of this integrated model is unknown at present, expected benefits include improved health outcomes for individuals receiving care, cost savings, and public health benefits to society. The Hepatitis C Continuity Program will be expanded and evaluated; it may be a model for other diseases.

Figure 3. Case study C: example from the Hepatitis C Continuity Program

During the winter of 2005–2006, a Department of Correctional Services physician contacted the Division of Parole (DOP) central office liaison because of concerns about the release of a patient infected with hepatitis C to the New York City shelter system and, in particular, about the patient's ability to cope with the medical protocol and the overall potential for community adjustment. Prior to release, the DOP was able to arrange placement in a structured residential setting with case-management services. The residential provider was located a short distance from the community hospital to which the releasee was being referred.

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