Viral Hepatitis Vaccination in an Opioid Treatment Program: Hartford, Connecticut, 2002–2005

Paul McLaughlin, MA[a]

SYNOPSIS

Hartford Dispensary, a private, not-for-profit behavioral health care organization specializing in opioid treatment program services, serves more than 4,200 clients per day in seven licensed facilities. In May 2002, the Dispensary began offering free combined hepatitis A and B vaccine for all eligible clients in two Hartford clinics. Initial eligibility criteria required a client to be hepatitis C antibody positive, hepatitis B virus (HBV) surface antigen (HBsAg) negative, not pregnant, and not have a contraindication due to a medical condition.

From May 2002 through April 2005, 5,419 doses of combined vaccine were given. Of the 2,072 clients who received a first dose, 92% (1,914) received the second dose and 69% (1,433) completed the series. Long treatment duration, frequent client visits, availability of medical staff, and counseling support contributed to high rates of combined vaccine series completion in the two programs. Opioid treatment programs appear to be good settings in which to provide hepatitis vaccination for high-risk adults.

[a]Hartford Dispensary, Hartford, CT

Address correspondence to: Paul McLaughlin, MA, Hartford Dispensary, 345 Main St., Hartford, CT 06106; tel. 860-525-32181; fax 860-525-7332; e-mail <Paul.McLaughlin@hdisp.org>.

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Opioid treatment programs (OTPs) provide medical, pharmacological (e.g., methadone hydrochloride, buprenorphine), and counseling services to approximately 200,000 clients in the United States annually.[1] These programs commonly provide services such as infectious disease prevention and education. The majority of OTP clients have a history of injecting drugs, placing them at high risk for human immunodeficiency (HIV)/acquired immunodeficiency syndrome (AIDS) and viral hepatitis.[2] Because OTPs retain clients for extended periods of time and have licensed medical facilities with medical staff, OTPs are good settings in which to provide comprehensive hepatitis prevention and control services, including hepatitis C counseling, testing, treatment, and hepatitis A and B vaccinations. A 2006 Hartford Dispensary 12-month length-of-stay study showed a mean length of treatment for clients of 3.21 years, a median length of treatment of 1.85 years, and a range of one day to 35.5 years.

The Hartford Dispensary is a private, not-for-profit behavioral health-care organization that has provided medical and public health services in the greater Hartford area since 1871. OTP services have been provided since 1971. Currently, the Dispensary's seven licensed and accredited clinics serve more than 4,200 clients per day. The majority of clients have injected drugs. This article describes the hepatitis vaccination program at the agency's two largest clinics, Doctor's and Henderson-Johnson, which have a combined census of about 2,000 clients per day (Table 1).

In 2002, because of concerns about the high level of chronic hepatitis C infection, liver disease, and resulting death among its clients, Hartford Dispensary management decided to develop a hepatitis A and B vaccination program for clients testing positive for hepatitis C antibodies. Hartford Dispensary contacted the Connecticut Department of Public Health (CT-DPH) seeking low-cost hepatitis A and B vaccine for its clients. Through special funding initiatives, the CT-DPH offers hepatitis vaccine for programs that serve clients with high-risk behaviors. The CT-DPH provides this vaccination to high-risk adults in a variety of settings, including gay bars, sexually transmitted disease (STD) clinics, local health departments, and colleges. CT-DPH agreed to provide combined hepatitis A and B vaccine (combined vaccine) to the Hartford Dispensary to vaccinate hepatitis C antibody positive clients. At the beginning of the collaboration, CT-DPH provided sufficient vaccine for two Hartford area OTPs. Hartford Dispensary thus became the first OTP in Connecticut to provide this vaccination.

METHODS OF VACCINE DELIVERY

Prior to admission to the OTP, applicants received a medical evaluation and physical examination that included hepatitis B virus (HBV) surface antigen (HBsAg) testing and the offer of hepatitis C virus (HCV) antibody testing, counseling, and treatment. During a follow-up visit, clients were given the results of their hepatitis B antigen test and, if applicable, hepatitis C antibody test. They were also informed of the vaccination program and offered combined hepatitis A and B vaccination.

Due to vaccination supply limitations, initial eligibility required a client to be hepatitis C antibody positive, HBsAg negative, and neither pregnant nor having a contraindication due to a medical condition. In 2003, CT-DPH supplied additional vaccine and the Dispensary made hepatitis vaccination available to all clients who met the criteria, plus pregnant clients. Some eligible clients initially declined to be vaccinated; however, many of these clients accepted the vaccination after receiving more information and encouragement from clinical staff members.

Nursing staff members obtained informed consent and demographic information from each client being vaccinated. Client vaccination and disease history were

Table 1. Mean monthly client census and admissions for Doctor's Clinic, Henderson-Johnson Clinic, and combined, May 2002–May 2005

	Doctor's Clinic		*Henderson-Johnson Clinic*		*Combined*	
Year	*Mean monthly census*	*Mean monthly admissions*	*Mean monthly census*	*Mean monthly admissions*	*Mean monthly census*	*Mean monthly admissions*
2002[a]	743	35	956	64	1,698	99
2003	775	36	1,020	62	1,796	98
2004	803	36	1,185	66	1,988	102
2005[b]	808	35	1,250	77	2,058	113

[a]Based on data from May through December 2002.

[b]Based on data from January through May 2005.

also recorded on admission. Clients were also given vaccine information statements corresponding to the vaccines to be administered. Client name, identification number, gender, race/ethnicity, age, date of vaccination, and the number of the dose in the vaccination series the client received were all recorded. The project coordinator received the consent forms, demographic information, and vaccination data monthly; entered the data; and conducted intensive data checks, including chart reviews, to ensure accuracy. Data from both clinics, Doctor's and Henderson-Johnson, were analyzed for this report.

RESULTS

Data on the numbers of first, second, and third doses of vaccine given were available from May 2002 through April 2005. Data were collected by individual and presented as number of doses by calendar year (Table 2). In total, 5,419 doses of combined vaccine were given during this period. A total of 2,072 clients received the first dose, 1,914 received the second dose, and 1,433 received the third dose. The completion rate between the first and second dose was 92%, considerably higher than at the other CT-DPH sites. (Personal communication, Debbye Rosen, Adult Immunization Coordinator, Connecticut Department of Public Health, Hartford, Connecticut, November 2006.) Overall, 69% (1,433) of the 2,072 clients who received the first dose completed the series.

A primary limiting factor to successful completion is OTP program drop-out rates. A 12-month client discharge review of all seven Hartford Dispensary clinics revealed that 44.8% of OTP clients who end treatment have been in treatment for less than six months. Clients who left before completing the vaccination series were encouraged to return to finish the series.

Recruitment rates by ethnicity (percentage of client census who took the first dose) were: Latino, 58.8%, Caucasian 40.0%, and African American 47.1%. Completion rates for these clients were: Latino, 74.3%, Caucasian 62.3%, and African American 66.6%. Recruitment rates for males were 50.2% and females 47.8%. Completion rates for males was 68.3% and for females 91.7%.

DISCUSSION

Findings from the Hartford Dispensary support the importance of OTPs as settings to reach high-risk adults with an integrated viral hepatitis prevention program. The Dispensary achieved high levels of hepatitis A and B vaccination among active OTP clients. In addition, the completion rate for the three-dose vaccination series compared favorably with the rate reported in other public health settings, such as STD clinics.[3,4] Hepatitis A and B vaccinations are particularly important in OTPs because of the high proportion of clients who have chronic liver disease, particularly those who are HCV antigen positive and those who are HIV infected due to past injection drug use, and are therefore at risk of severe illness if they contract hepatitis A or B.[5]

Several factors contributed to the success of the program. First, CT-DPH provided free vaccine. Second, long treatment duration and frequent client visits presented more opportunities to provide initial and follow-up vaccine doses. Third, as in other OTPs, the Dispensary has medical and nursing staff available to administer vaccine. Fourth, given the long-term involvement of clients with the OTP, counselors have multiple opportunities to discuss the importance of vaccination with reluctant clients. The two Dispensary clinics where vaccinations were given serve a substantial number of adults at high risk of viral hepatitis, with a static census of about 2,000 and approximately 1,200 admissions a year. Ethnicity and gender were not barriers to recruitment or completion of the vaccination series.

The findings of this report are limited because the Hartford Dispensary received free vaccine and technical assistance from CT-DPH, thus these results

Table 2. Number of combined hepatitis A and B vaccine doses administered to active methadone clients, Hartford Dispensary, May 2002–April 2005

Year	*Dose 1*	*Dose 2*	*Dose 3*	*Total doses*
2002[a]	618	524	64	1,206
2003	636	586	675	1,897
2004	693	689	538	1,920
2005[b]	125	115	156	396
Total	2,072	1,914	1,433	5,419

[a]Based on data from May through December 2002.

[b]Based on data from January through April 2005.

may not be generalizable to other substance abuse treatment programs that do not have access to free vaccinations.

Substance abuse treatment programs provide access to large numbers of adults at high risk for hepatitis A, B, and C. These programs can be enhanced to provide additional counseling, testing, vaccination, and follow-up services. The experience at the Hartford Dispensary strongly supports the importance of free vaccine and technical assistance. Federal, state, and local governments should develop programs to provide free vaccine and other related services to substance abuse treatment programs. The hepatitis A and B vaccination program piloted by the Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment is an example of such an approach.[6]

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