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# HIV and Hepatitis C Virus Screening in the Emergency Department and Linkage to Care During COVID-19: Challenges and Solutions

## To the Editors:

Fodjo et al reported recently results from their cross-sectional international survey that coronavirus disease-19 (COVID-19) and associated restrictive

Supported by Gilead-funded Frontlines of Communities in the United States (FOCUS). In the United States, the FOCUS Program is a public health initiative that enables partners to develop and share best practices in routine blood-borne virus (HIV, HCV, HBV) screening, diagnosis, and linkage to care in accordance with screening guidelines promulgated by the US Centers for Disease Control and Prevention (CDC), the US Preventive Services Task Force (USPSTF), and state and local public health departments. FOCUS funding supports HIV, hepatitis C virus, and hepatitis B virus screening and linkage to a first medical appointment. FOCUS partners do not use FOCUS awards for activities beyond linkage to the first medical appointment. This work was also supported by funds from the National Institutes of Health: MH113477.

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measures seem detrimental to the well-being and follow-up of people with HIV.<sup>1</sup> For diagnosing HIV in the United States, testing programs in emergency departments (ED) play a significant role. The COVID-19 pandemic has greatly impacted ED operations across the nation, primarily because of the need to prepare for and manage the pandemic, which has become the number one public health priority in the United States.<sup>2</sup> At the same time, dramatic decreases in patient volume were observed in many EDs, driven by the fear of COVID-19 transmission. Lower patient census had an impact on other public health initiatives, including reducing the numbers of patients<sup>3</sup> undergoing automated universal opt-out HIV and hepatitis C virus (HCV) screening in EDs.<sup>4–8</sup> COVID-19 raised important challenges to linkage to care efforts in those with newly diagnosed HIV or HCV infections, as well as those identified as known HIV positives out of care. Specifically, case managers and linkage to care coordinators have been required to work remotely, and there has been a dramatic decrease in available facilities that offer linkage to care.

We describe challenges in the face of the COVID-19 pandemic and possible solutions, focusing on the universal opt-out HIV and HCV ED screening program at the University of California San Diego (UCSD) Medical Center.<sup>3,9</sup> Since 2017, Electronic Medical Record-directed, automated, screening algorithms providing universal opt-out once-a-year laboratory-based antigen/antibody HIV testing to adults 18–64 years of age and universal HCV testing to adults 18–79 years of age have been conducted at 2 UCSD Medical Center EDs.<sup>3</sup> The program also identifies known HIV positives who have not been in care with their medical provider for more than 12 months. Linkage to care, defined as HIV- or HCV-positive individuals attending a first medical appointment, is an integral part of our screening program, conducted by 2 dedicated full-time case managers, who follow-up on preliminary positive results and pursue linkage to care process for HIV/HCV RNA-positive patients. Given the high prevalence of substance use and housing instability among patients identified as HIV or HCV positive, contact information in the electronic medical record is often outdated or incorrect or belongs to

**TABLE 1.** Weekly Census for HIV and HCV Testing as Well as Testing Numbers Before COVID and During the COVID Pandemic

Time Period/Testing Program Outcomes	Pre-COVID:	COVID:	COVID:
	November 2019—Mid March 2020	Mid March 2020—Mid May 2020	Mid May 2020—August 2020
Weekly ED census for HIV tests (median, interquartile range)	1212 (1170–1236)	849 (819–937)	1080 (998–1123)
Weekly number of HIV laboratory-based Ab/Ag tests (median, interquartile range)	214 (203–231)	140 (134–147)	191 (177–201)
Weekly ED census for HCV tests (median, interquartile range)	1497 (1455–1521)	1043 (998–1124)	1306 (1238–1364)
Weekly number of HCV Ab tests (median, interquartile range)	326 (315–356)	209 (192–213)	251 (241–264)

a relative who rarely interacts with the patient. Inaccurate contact information creates a significant challenge to the linkage-to-care process, resulting in significant linkage delays. Accordingly, case managers use alternative linkage to care methods to accommodate the needs of the population, including establishing in-person contact with preliminary positives who are still in the ED.

During the COVID-19 shutdown period between mid March and mid May 2020, the ED census for both HIV and HCV screening decreased by approximately 30% (Table 1). In line also number of weekly HIV tests dropped by about one third, from median 214 tests per week before COVID-19, to median 140 tests per week between mid-March to mid-May 2020. This proportional decreases suggest that although the ED census dropped, the proportion of ED patients screened for HIV did not change, similar to what has been reported from a Chicago ED.<sup>2</sup> Similarly, the number of weekly HCV tests dropped by about one third, from median 326 tests before COVID-10 to median 209 tests per week. Since mid-May 2020, an increase of testing numbers has been observed for both HIV and HCV, in line with an increasing census, reaching approximately 90% of the numbers observed pre-COVID-19 (Table 1).

During California’s mandated stay-at-home order, availability of (re)linkage to care appointments for HIV-positive individuals declined sharply, particularly during the first weeks and before some HIV clinics implemented remote care provider visits. Once remote visits were in place, priority was given to individuals with newly identified HIV infections, who

were scheduled immediately for in-person intake with subsequent visits being conducted remotely during the pandemic. Before the pandemic, newly HIV diagnosed individuals could be scheduled for their intake appointment usually within a week from their diagnosis; these first appointments were now pushed out 2–3 weeks (ie, median, 2.5 weeks) during the early days of the stay-at-home order, with the availability slowly increasing beginning in May. The greatest delays in appointment availability was experienced by known HIV-positive patients who had fallen out of care, with earliest appointments usually 3–4 weeks after ED contact. The pandemic also impacted the ability of some patients to enroll in federal assistance programs. Although many of the HIV-positive patients identified with our program have health insurance, others rely on federal assistance programs to receive HIV care. During the pandemic, enrollment into these federal assistance programs were switched to virtual visits, which made it more difficult for individuals with structural disparities, including homelessness and unemployment, to provide the necessary documentation (proof of income, residency, picture ID) to enroll within the 30-day grace period. Patient concerns were focused not only around delays in scheduling and treatment but also contracting COVID-19 when visiting a clinic, and their risk of severe complications or death because of their already weakened immune system.

Barriers to HCV care are a major challenge in HCV RNA-positive individuals identified by our universal HCV screening program, where more than half of diagnoses occur in individuals outside the birth cohort. Since the beginning of 2020, our screening program has identi-

fied 158 HCV RNA-positive individuals. Of those individuals, 78% reported active substance use, 70% were experiencing housing instability, and 65% reported both. Additionally, the majority of patients had unreliable contact information, making the linkage-to-care process more challenging during the pandemic. Close cooperation of our case managers with primary care providers (PCPs) has been a cornerstone of the success of our HCV linkage to care program, given that PCP referral for specialty care is required for managed health care plans through Medicare or Medic-Cal. Particularly, in those HCV-positive individuals where case managers cannot establish a direct contact, PCPs present an avenue that makes it possible for patients to initiate HCV care, and case managers often work closely with PCPs to initiate notification of diagnosis and linkage to care. Even before the pandemic, it could take several weeks to months for patients with no contact information to visit their PCP following notification of HCV positivity. The ability to link HCV-positive individuals to care via their PCPs has stalled during the COVID-19 pandemic, when across San Diego scheduling of in-person and walk-in visits was discouraged. Not only was appointment availability limited but also HCV-positive individuals were similarly concerned about going to facilities associated with possible exposure to COVID-19. The COVID-19 pandemic created significant delays in HCV linkage-to-care appointments (median time to linkage to care, 18 weeks between March and June 2020 versus median, 9 weeks between December 2018 and February 2020;  $P = 0.035$ ), thereby reducing the linkage-to-care rate.

Concerns about patient safety ensued the implementation of precautionary measures to limit the exposure to COVID-19 in health care settings. Before June 1, the majority of in-person visits were reserved for patients in need of immediate attention during the pandemic. Unfortunately, many patients identified in the ED as having HCV did not present with symptoms that warranted immediate attention. At the same time, many of those patients required in-person visits for additional testing (eg, ultrasound, laboratories) before the initiation of HCV treatment. In those instances, scheduling follow-up visits for HCV linkage to care was often delayed until after June 1, 2020. Since that time, restrictions have been slowly relaxing and appointment availability increasing, but this is expected to change again because of the recent surge of COVID-10 cases in the United States.

In conclusion, our automated, routine HIV and HCV ED testing program continued high-level screening during the peak of the COVID-19 pandemic, although absolute numbers were reduced by about one-third, in line with a reduced ED census. COVID-19 had a significant impact on our ability to link HIV- and HCV-positive individuals into care, resulting in delays particularly in relinkage of known HIV positives and to a greater extent for HCV-positive individuals. Despite the parallels concerning treat-

ment as prevention, the pathway to care for HIV is more organized because of a network of available resources including a mobile team of UCSD's HIV specialty care clinic, which can meet patients while admitted to the hospital and integrates HIV social services. Unfortunately, HCV resources are limited to individual entities that do not traditionally work together as part of the patients' care team. Consequently, HCV-positive patients often have to navigate medical and social services on their own. Although the linkage to care process continued during the pandemic, COVID-19 played a significant role in slowing the process. Further efforts are needed to improve linkage-to-care processes in the era of COVID-19, such as multidisciplinary treatment programs involving PCPs.

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