Emergency Departments Can Facilitate Linkage to HIV Care

Providing antiretroviral starter packs for selected patients who test HIV positive is feasible and safe.

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Offering a two-week supply of free antiretroviral medications to people who test positive for HIV at an emergency department, without waiting for follow-up test results, is a safe and feasible approach for selected individuals, according to study results published in Open Forum Infectious Diseases.

Research has shown that prompt HIV treatment leads to better outcomes, including improved linkage to and retention in care, a lower likelihood of disease progression and death and reduced viral transmission. San Francisco's Rapid ART program, for example, has dramatically reduced the time between diagnosis and achievement of an undetectable viral load.

But questions remain about the optimal time to start antiretroviral therapy (ART). When someone tests positive on an HIV antigen or antibody test, they typically are linked to follow-up care for additional evaluation, such as viral load, CD4 count and drug resistance testing. Some people, however, do not attend these follow-up appointments and fall out of care.

Douglas White, MD, of the Alameda Health System in Oakland, California, and colleagues implemented a protocol to provide rapid treatment for people who test positive for HIV during emergency care. People seen at the emergency departments at Highland Hospital and San Leandro Hospital are routinely offered opt-out HIV antigen/antibody testing, meaning they are tested if they don't decline.

"Emergency departments are uniquely positioned to identify and treat people with HIV who otherwise might remain undiagnosed and to reengage patients who are aware of their HIV-positive status but not in care," the study authors wrote.

Starting in July 2021, eligible patients who tested positive received a free 14-day starter pack of a widely used first-line antiretroviral regimen and were linked to follow-up care. A single one-pill-once-daily regimen—Biktarvy (bictegravir/tenofovir alafenamide/emtricitabine)—was chosen after polling HIV physicians to simplify the process for emergency department physicians who don't specialize in treating HIV. The medication was provided by Gilead Sciences.

Providing starter packs avoided challenges such as insurance barriers and after-hours prescribing when the pharmacy was closed, the authors noted. The two-week supply gave people time to attend follow-up appointments and find insurance coverage for ongoing treatment but minimized the risk of drug resistance if someone didn't take the medication consistently or was lost to follow-up. Partnering clinics agreed to expedite appointments, and patient navigators provided support and transportation assistance.

A seven-item checklist was developed to help emergency department physicians assess eligibility. The protocol excluded people who were more likely to have problems such as side effects or preexisting drug resistance. They were considered unlikely to have a false-positive test result, had not taken antiretrovirals before, were not pregnant, did not have symptoms of opportunistic infections (OIs) and had "acceptable" liver and kidney function. The participants were discharged after emergency treatment.

During the first year of the program, 10,606 HIV antigen/antibody tests were administered at the two emergency departments. Of these, 106 people (about 1%) had a positive result and were assessed for rapid ART eligibility; about a third had a new diagnosis while more than half were previously diagnosed but not on treatment. Most (75%) were men, and the median age was about 41 years. Just over half were Black, 23% were Latino, 15% were white and 6% were Asian. Most were covered by Medicaid (73%) or Medicare (8%); only 3% had private insurance. Substance use was common, with 15% reporting injection drug use and 27% reporting methamphetamine use.

Within this group, 31 people (29%) were deemed eligible for rapid ART. The most common reasons for exclusion were previous use of antiretrovirals (64%), suggesting they might have preexisting drug resistance, and hospital admission (51%). Three were excluded because of impaired liver or kidney function and seven due to concern about OIs.

Among those considered eligible, 26 people—21 newly diagnosed and three previously diagnosed—were offered rapid ART. Everyone with a previous diagnosis and all but one of those with a new diagnosis accepted the offer and received a starter pack either while they were at the emergency department or soon after discharge. The overall rapid treatment rate was 24%, but rose to 56% for newly diagnosed people. Two people who received rapid ART were later found to be HIV negative on confirmatory tests. Among the 23 people who were eligible according to the protocol, 91% were offered rapid ART, 87% received it and 83% went on to receive follow-up care.

People in the rapid ART group started treatment significantly sooner. Everyone who received antiretrovirals through the emergency department program did so within 30 days compared with just 23% of those who did not. The average time to treatment initiation was zero days for those who received rapid ART versus six days for those who did not. People who received rapid ART were also substantially more likely to receive follow-up care within the next 30 days compared with those who did not receive the starter packs (83% versus 50%, respectively).

Only one of the 23 confirmed HIV-positive patients who received rapid ART developed immune reconstitution inflammatory syndrome (IRIS) within six months, which can occur when a person

with advanced immune deficiency goes on treatment and their CD4 count starts to rise. This individual, who was hospitalized two weeks after starting treatment, was diagnosed with AIDS and had a CD4 count of 44.

“The initiation of emergency department rapid ART for patients testing HIV antigen/antibody reactive is feasible, well accepted, and safe and may be an important facilitator of linkage to care,” the study authors concluded.

“We show that it is feasible for emergency physicians to follow an institution-specific protocol, with guidance from a peer colleague and navigators, to integrate rapid ART delivery into an emergency department that supports HIV screening,” they wrote. “We have observed that when ART is made immediately available, patients gain a sense of control, feel supported and understand that HIV is managed by taking a daily medication.”

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