



Identifying Clinical, Systemic & Policy Solutions to Address HIV/HCV Coinfection

Abstract

This position paper explores factors that affect clinical management of HCV among people living with HIV, getting at the root question of “Why aren’t we curing all people who are co-infected?” Understanding the gaps is a prerequisite to compiling solutions that support the patient, the clinician and the nursing field. We drew our findings from interviews conducted with clinical, research and policy experts during 2018-2019. Additionally, we reviewed a compendium of literature regarding HIV comorbidities and co-occurring conditions, as well as factors that inhibit or support access to HCV diagnosis and treatment. This paper provides important practical, clinical and policy insights related to treatment and care for people living with HIV and HCV. Examining the critical role of nurses in impacting system design, patient approaches and clinical norms and biases, are also important contributions of this paper. While this paper does not reflect changes and disruptions in advocacy, health systems design or clinical practice due to the COVID-19 pandemic, the observations and recommendations remain valid.

Background:

HIV and HCV coinfection results in a 3-fold increase in end-stage liver disease and cirrhosis.¹ In an era where we have unprecedented success with effective antiretroviral therapy (ART), coinfection remains a leading cause of death among people living with HIV.² These figures highlight the devastating effects of coinfection when treatment is uninitiated, lapsed or neglected. Beginning in 2015 and continuing through 2019, various approved therapeutic agents presented the reality of a cure for HCV, including for people living with HIV. Unfortunately, various policy, systemic and individual factors created a significant delay in the provision and uptake of HCV cure therapies for people living with HIV. Additionally, a rise in new HCV infections related to the opioid and heroin crisis³ and increased rates of incarceration and the spread of HCV while in prison has made the risk for coinfection with HCV/HIV among people who inject drugs (PWID) or recently incarcerated a re-emerging problem.⁴

¹ Starbird, Laura E., Hae-Ra Han, Mark S. Sulkowski, Chakra Budhathoki, Nancy R. Reynolds, and Jason E. Farley. "Care2Cure: A randomized controlled trial protocol for evaluating nurse case management to improve the hepatitis C care continuum within HIV primary care." *Research in nursing & health* 41, no. 5 (2018): 417-427.

² Falade-Nwulia, O., Sutcliffe, C., Moon, J., Chander, G., Wansom, T., Keruly, J., ... & Thomas, D. (2017). High hepatitis C cure rates among black and nonblack human immunodeficiency virus–infected adults in an urban center. *Hepatology*, 66(5), 1402-1412.

³ Opioid Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5846578/>

⁴ Incarceration reference: [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(18\)30469-9/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(18)30469-9/fulltext)

“Policies at the state level that remove barriers to care by allowing for a broad range of providers to treat people living with HCV (and HIV) are really important.”

The Policy Context

Policy changes created opportunities and challenges for expanding HCV cure treatment to people co-infected with HIV/HCV. Opportunities include the U.S. Department of Health and Human Services’ (HHS) recommendation that all persons living with HIV (PLWH) should be screened for HCV, and those at high risk for acquiring HCV should be screened annually. Expansion of healthcare coverage through the

Affordable Care Act (ACA)⁵, Medicaid expansion and inclusion of HCV drugs in AIDS Drug Assistance Program (ADAP) formularies have opened new doors for healthcare coverage, including people co-infected with HIV/HCV. Challenges to these recommendations and broader access to curative treatment, by states, relate to fears of growing FDA approvals of expensive wholesale costs of direct acting antivirals (DAA) for HCV. Along with expanded insured pools with the ACA, states were concerned that HCV and HIV/HCV medication recipients would bankrupt the system. As a result, states enacted numerous conditions to care to restrict access and therefore contain costs. These cost-containment measures included provider limitations, disease severity scores, sobriety requirements and other restrictions. Other policy issues intertwined with HCV cure uptake and success in PLWH are more intersectional and include incarceration and drug policy.

The Health System Context

Partially due to cost–containment measures and medical culture and sub-specialization, testing and treatment of HCV frequently relies on specialist-led care models in clinical settings, limiting access. In these settings, numerous patients are lost to care either before or after the initial intake visit.⁶ “Linkage to care” is a well-accepted crucial step in successful HIV treatment and is now translatable to HCV treatment for co-infected patients as well. A review of the literature suggests linkage to care models have proven effective for people living with HIV/HCV and potential co-occurring illnesses. Some examples include⁷:

- Patient navigation and facilitated referral for HCV evaluation
- Nurse-led pre-treatment assessment in prison with specialist support via telemedicine
- Integrated HCV care in drug & alcohol setting/primary care, including on-site HCV assessment with/without peer support
- Community-based nurse-led HCV evaluation and liver disease assessment

⁵ The Affordable Care Act and HIV/AIDS <https://www.hiv.gov/federal-response/policies-issues/the-affordable-care-act-and-hiv-aids>

⁶ New ‘treat all’ hepatitis C guidelines learn from the HIV experience <https://www.who.int/hepatitis/news-events/hep-c-treat-all/en/>

⁷ Bajis, S., Dore, G. J., Hajarizadeh, B., Cunningham, E. B., Maher, L., & Grebely, J. (2017). Interventions to enhance testing, linkage to care and treatment uptake for hepatitis C virus infection among people who inject drugs: A systematic review. *International Journal of Drug Policy*, 47, 34-46.

- Multidisciplinary mobile clinic offering point of care testing, counselling and liver disease assessment
- The use of technology and automated alerts for clients that are difficult to locate and contact due to factors such as homelessness or substance use.⁸

The Practitioner Context

“I believe we will change HIV/HCV care system when nurses are able to operate at the full extent of their licensure, skills and ability.”

Practice-level strategies address the most tangible ways to affect change in the clinical care of people living with HIV/HCV. The impact of relationships (e.g., with peer mentors, practitioners, and clinicians) cannot be overstated when it comes to patient access to, and retention in care for people living with HIV⁹ and can be

applied to HCV co-infection treatment outcomes. However, provider implicit bias (associations made with little conscious awareness) is often cited as a barrier to the offering of HCV cure treatment to HCV/HIV co-infected individuals, and the impact of implicit bias in the healthcare field is often linked to lower quality of care.¹⁰

The scarcity of hepatology specialists is also cited as another limiting factor within the provider milieu. However, numerous studies have shown that HIV and HCV care delivered by non-specialists, including nurse practitioners and primary care providers have equal success rates.¹¹

Finally, awareness of national guidelines and the pace of updates to those guidelines is important to the provider context. The American Association for the Study of Liver Disease (AASLD) guidelines¹² are the gold standard for providers engaged in the diagnosis and treatment of HCV, including HIV/HCV co-infection. The AASLD guidelines are updated as clinical evidence and social/structural changes that impact the treatment and HCV cure for people who are co-infected with HIV/HCV emerge.

Interview Insights

While we framed the policy, systemic and practice issues that impact care in the sections above, our goal with this paper is to explore the challenges and barriers to eliminate HCV in people living with HIV identified by people in the field. Generally, issues discussed included the above factors along with

⁸ Ferdinand, A., Bahamon, M., Panakos, P. D., Parris, M. A., & Kapur, G. B. (2019). Utilizing Electronic Health Record Alerts to Link HIV/HCV Patients into Care. *Journal of Emergency Medicine*, 56(6), 735.

⁹ Mugavero, M. J. (2016). Elements of the HIV care continuum: improving engagement and retention in care. *Topics in antiviral medicine*, 24(3), 115.

¹⁰ FitzGerald, C., & Hurst, S. (2017). Implicit bias in healthcare professionals: a systematic review. *BMC medical ethics*, 18(1), 19.

¹¹ Expansion of Treatment for Hepatitis C Virus Infection by Task Shifting to Community-Based Nonspecialist Providers <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5736381/>

¹² AASLD Guidelines: <https://www.hcvguidelines.org/>

experiences learned in personal practice. These experiences include the impact of drug use and drug use stigma, testing opportunities, location of services, clinician bias, service delivery design and location, nurse practitioner prescriptive authority and limitations, insurance barriers, identification of environmental barriers (homelessness, location & timing of services) and others.

We consulted 15 key informants with expertise on policy, practice, and patient care issues, soliciting their perspective on barriers to HCV care for persons living with HIV, as well as possible solutions to address identified barriers. We conducted hour-long, semi-structured individual interviews with nurses and nurse practitioners and physicians treating co-infected patients and/or people who inject drugs, HCV researchers, and HIV/HCV policy experts at the national and state level.

Interview Themes: The Challenges

Of themes that emerged from interviews, the most prevalent related to the HCV cure were: 1) screening and re-screening time delays, 2) linkage and access to care and lack of co-located treatment centers, 3) policy-linked (hospital or state legislation) payment barriers and 4) provider fatigue and bias. Each key informant mentioned the importance of understanding the context of these themes for the patient, provider, and treatment community.

Screening and re-screening time delays- The experts interviewed tied screening for HCV to several barriers. Some informants noted that some prescribers are simply not aware of new treatments and screening modalities related to HCV for PLWH. Others noted that prior authorization paperwork caused significant delays between testing and treatment for lower-income clients. One expert noted that “insurance and prior authorization creates significant challenges. For example, there could be a 3-month interval for a lab review even though medical facilities allow for 6-month lapses between testing and treatment.” A few expressed frustrations with “risk assessment bias, especially with individuals who need retesting.”

Linkage to care, access to and lack of co-located centers- Informants noted that co-located care and nurse case management helped in the initial introduction of care from screening, diagnosis, and linkage to care. However, after initial treatment is received, linkage and case management services are truncated, and engagement in ongoing care suffers from a significant drop-off in the continuation of HCV treatments. This is a concerning trend observed in practice.

Policy-linked (hospital or state legislation) payment barriers- At the time of the interviews, the wholesale cost of HCV treatment was expensive. Since then, costs have come down considerably and access to various patient assistance programs and expansion of insurance coverage HCV treatment has made this much less of a barrier. However, policymakers, providers, and patients are still concerned with cost, perhaps even when that concern is so warranted. Within this environment, restrictions are placed at the state level, which often impede or prevent at-risk patients from accessing care. Additionally, providers emphasize the cost of care in conversations with patients and may inadvertently deem certain patients as “worthy or unworthy of treatment.” As a result, patients consequently begin to count the cost of treatment and may opt-out of care, feeling that given the expense, they are not worth the support.

Many experts shared this sentiment as a real barrier for people with limited financial means or individuals engaging in riskier behaviors such as needle-sharing. The frustrating point with this treatment barrier, is this cost-benefit analysis is not applied to people diagnosed with other acute and chronic diseases when they have high price tags for care. For example, an alcohol user diagnosed with lung cancer is not required to achieve and sustain sobriety and would not be discouraged from participating in chemotherapy simply on the off chance they may relapse.

Provider fatigue and bias- Interestingly, multiple interviewees highlighted that some providers are simply tired and that they can't take on one more thing. As such, managing the real or perceived barriers to HCV treatment becomes another burden. Additionally, our experts acknowledged that provider bias towards at-risk patients such as substance users or someone experiencing homelessness remains an ongoing challenge. Some also believe that patients who are unsuccessful with HIV medication or staying adherent will not succeed with HCV treatments. However, this belief has proven to be untrue, as the treatments are very different. For many people living with HIV, consistently adhering to a never-ending treatment for a lifetime chronic disease (HIV), compared to beginning a time-bound treatment regimen that ends with a cure (HCV), is a win.

Interview Themes: The Successes

There was a general acknowledgment that the diagnosis, treatment, and care for people living with HCV have changed over the past few years for the better. The advent of highly effective, easy and short regimens of direct-acting antivirals (DAA) has substantially changed the outlook. Through our interviews, three additional core themes surfaced about successful advancement in the field: 1) improved screening and treatment, 2) team-based models of care and 3) expansion of HCV-related resources for providers and patients.

Improved screening and treatment- Notably, better screening mechanisms for co-infected individuals in specialist clinics have emerged, and more screenings are being conducted in the general population. Shorter treatment timeframes have promoted adherence, in addition to positive word-of-mouth information regarding the ease of therapy and cure rate associated with DAAs. Our panel of experts noted that more experienced clinics and facilities are ensuring that standardized processes are in place to support the patient (e.g. authorizations and linkage to care). In some states and regions, more clinics are performing reflex testing (automatically RNA testing HCV antibody-positive specimens) as a commonplace practice in HIV settings. Other "wins" include the resolution of significant barriers to care, namely Medicaid formularies, and the exclusion of prescribing providers. In some states, multiple licensed providers, such as primary care physicians, nurse practitioners, or specialists, can prescribe HCV medication. Overall, these progressions have improved treatment and cure rates.

Team-based models of care- Multiple interviewees noted a stronger reliance on inter-professional team-based approaches to care in recent years. According to WHO, "Team-based care is a strategic redistribution of work among members of a practice team. In the model, all members of the physician-

led team play an integral role in providing patient care.”¹³ While this is not mainstream, or true to form within healthcare systems nationwide, there is evidence of this model’s success. For example, nurses share closer relationships and more in-depth conversations with patients, often garnering a different level of trust than the physician, pharmacist, or another provider. Most often, nurses know the risky behaviors that patients may be participating in and better understand a need to rescreen. By leveraging the nurse’s knowledge of the patient, the physician or other prescriber can better collaborate with a Pharmacist on the best course of treatment for the patient. Another way team-based models are being leveraged is in completing prior authorization processes. By utilizing multi-disciplinary service teams that include physicians, nurses, and pharmacists, each component related to prior authorization process can be divvied and completed with more ease by the best provider in the continuum of care.

Expansion of HCV-related resources for providers and patients- In a digital and data-driven world, the healthcare industry has made some leaps in disseminating supportive information to providers and patients. A few experts noted that several critical resource hubs have surfaced for HIV/HCV clinicians and patients to reference, namely HRSA’s AIDS Education and Training Center (AETC) Program, National HIV Curriculum, and the National Clinical Center (HCV Warmline). The AETC has an extensive base of courses and modularized offerings, in addition to accessible digital resources that build the clinical capacities and expertise of providers working with people living with HIV and associated comorbidities.

Conclusions and Recommendations

HIV/HCV coinfection is associated with high morbidity and mortality in the absence of clinical management, making identification of these cases crucial.¹⁴ There is an urgent need to address the barriers that impede the HCV cure, which could improve the quality of life and save lives. While some barriers are localized to communities, others exist within states and regions, public funding for treatment, and state scope of practice laws. However, the Association of Nurses in AIDS Care (ANAC) and other organizations can facilitate change to HCV treatment for individuals living with HIV. Our recommendations include:

Policy Level

Nurses are rated by the US public as the most trusted profession,¹⁵ and we believe that this trust is a powerful tool in advocacy and developing policy recommendations. These actions may be “grass-top” (e.g. coordinated advocacy through coalitions at the national or state level) or “grass-roots” (e.g. through local media (e.g. letters to editors), dialogue with community partners and clinical sites, or individual visits with key decision-makers). Nurses must participate in industry networks, policy roundtables and

¹³ <https://apps.who.int/iris/bitstream/handle/10665/260424/WHO-NMH-NVI-18.4-eng.pdf;jsessionid=8F99466C20F5FE77DED6B6EE38AC274?sequence=1>

¹⁴ Bosh, K. A., Coyle, J. R., Hansen, V., Kim, E. M., Speers, S., Comer, M., Maddox, L. M., Khuwaja, S., Zhou, W., Jatta, A., Mayer, R., Brantley, A. D., Muriithi, N. W., Bhattacharjee, R., Flynn, C., Bouton, L., John, B., Keusch, J., Barber, C. A., Sweet, K., ... Hall, H. I. (2018). HIV and viral hepatitis coinfection analysis using surveillance data from 15 US states and two cities. *Epidemiology and infection*, 146(7), 920–930. <https://doi.org/10.1017/S0950268818000766>

¹⁵ <https://news.gallup.com/poll/274673/nurses-continue-rate-highest-honesty-ethics.aspx>

other decision-making environments to present challenges and solutions, and share their unique observations of the clinical and patient environment, successes, and gaps. Some policy level recommendations include:

Recommendation 1: Nurses and nursing organizations join national HCV advocacy organizations.

Rationale: Individuals and local nursing units can join organizations such as the National Viral Hepatitis Roundtable. Practitioners and organizations can join e-mailing lists of national organizations such as the National Alliance of State & Territorial AIDS Directors (NASTAD) and Center for HIV Law and Policy (Harvard) for updated information and opportunities to participate in national advocacy efforts such as sign-on letters, Action Alerts and Hill visits. Nursing participation can enhance the credibility of such actions. Major funding decisions are made at the Congressional level, and HCV funding is woefully inadequate. Major directives for programs and providers that serve HIV/HCV co-infected patients within the Ryan White programs (RWHAP), Federally Qualified Health Centers (FQHC) and Substance Abuse and Mental Health Services Administration (SAMHSA) funded programs, also occur at the national level. Input from nurses and their ability to communicate on experiences, gaps and solutions, to these entities, is critical to success. Nurses should participate in advocacy for increased and on-going funding to AIDS Education and Training Centers (AETCs). These centers help develop, promote and widely disseminate localized training and resources for clinicians in RWHAP, FQHC and SAMHSA programs to address HIV/HCV co-infection.

Recommendation 2: Nurses and local nursing organizations (such as ANAC chapters) join local coalition efforts.

Rationale: Regional, state-based coalitions are where the action is. Scope of practice and most public and private payer regulations are influenced at the state level. State legislators, governors, professional boards, insurance regulators, education, and health authorities all function and make important decisions at the state level. When nurses join patients, community members and public health advocates in established coalitions, they form powerful partnerships to enhance relationships and dialogue with these state-level decision-makers. Building these coalitions and achieving shared goals are long-term efforts. Stellar examples are the activities and timeline outlined by HepCAP in Philadelphia.¹⁶

Recommendation 3: Nurses use various traditional and non-traditional platforms to amplify the messages of national and regional efforts in improving HIV/HCV health policy.

Rationale: Social media is an important tool for sharing social, economic and political concerns. Nurses have tremendous influence over the awareness and opinions of members of their communities. Elected officials hear from these community members. Nurses can educate the public about HCV rates, the efficacy and sustainability of the HCV cure, the evidence behind risk-reduction such as SSPs, HCV cure access as an equitable approach to health care and the need for policies and funding to support these efforts. Even simple strategies such as short letters to editors in local and community papers have value. Legislative staff at the State House and House of Representatives in Washington DC read local papers to

¹⁶ Medicaid Treatment Access Advocacy: <http://www.hepcap.org/medicaid-treatment-access-advocacy/>

keep in touch with constituent issues, and nurses can leverage this communication channel to bring awareness to various issues that impact HCV cure rates.

Tip: Nurses must use their credentials (RN, MSN, etc.) when identifying themselves in written and in-person communications to leverage the credibility and experiences of the nursing profession into health advocacy efforts.

Healthcare System Level

Nurses are often formal leaders (program directors/administrators, clinic managers or coordinators) or informal leaders of clinical sites. They have a great opportunity to initiate partnerships within their institutions and with external partners, implement new care protocols and patient flow strategies, reorganize staffing responsibilities, and provide capacity building and staff training.

Recommendation 4: Subscribe to, implement, promote and evaluate HRSA/HAB evidence-based resources on systems design and implementation.

Rationale: There are free and easily accessible resources on designing systems and approaches to facilitate HCV treatment and cure care that nurses and healthcare providers can disseminate and utilize, such as the publicly-available HRSA HAB Target site.¹⁷ On this platform, nurse clinical leaders and administrators can access information and tutorials on approaches to developing and improving systems of care to achieve the goal of curing HCV in Ryan White Programs.¹⁸

Recommendation 5: Healthcare systems, community health centers, Ryan White programs and other sources of care can expand the HIV/HCV care team.

“The ASCEND study highlighted that nurse led HCV treatment was more successful than that of doctors and physician’s assistants.”

Rationale: The ASCEND study¹⁹ highlighted that HCV treatments administered by non-specialist providers are as safe and effective as those provided by specialists. Nurse practitioners, primary care providers and physician assistants with appropriate training could substantially expand the availability of community-based providers to

escalate HCV therapy. This escalation can include access and cures for people co-infected with HIV/HCV.

Recommendation 6: Health systems must advocate for and develop or obtain easier and more streamlined processed for pre-authorization for HCV related procedures and treatment authorization for DAA.

Rationale: Key informants report that nurses and physicians spend an inordinate amount of time working with insurers for authorization for effective HCV therapies (DAA), both initially and on appeal after rejection. This is valuable time that could be spent with patients, deepening their understanding

¹⁷ <https://targethiv.org/ta-org/hcv-cure-poc>

¹⁸ <https://targethiv.org/library/using-a-jurisdictional-approach-cure-hepatitis-c-ryan-white-hiv-aids-program>

¹⁹ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5736381/>

of their illness and treatment, and expanding the number of patients seen. It also is a demoralizing aspect in providing care and serves no useful purpose in a shared agenda of curing HCV. Key informants advocated for the use of trained navigators as part of a multi-disciplinary team to handle most of the work of prior authorizations.²⁰ The cost of HCV treatment is now acceptable and significantly less than treating liver disease and its morbidity and mortality. This means an HCV cure is extremely likely and expected for all. A standard patient-centered approach to insurer approvals should reflect this.

Recommendation 7: Expand care delivery sites for HCV treatment and care to non-specialists, non-traditional sites, where PLWH and HCV are coming for services.

Rationale: Non-traditional sites, such as mobile vans, drug treatment centers, healthcare for the homeless and LGBT centers can support nurse-led care teams that can broaden the opportunities for engagement, education and HCV testing and treatment within their services offered. More traditional but non-specialized healthcare sites such as department of health clinics or Federally Qualified Health Centers (FQHCs) can also utilize nurse practitioner-provided engagement, diagnostic, prescriptive and retention services to expand access and completion of DAA therapy for persons with HIV/HCV.

Recommendation 8 – Facilitate greater involvement of *health departments in the cure* by supporting and encouraging nurses and other clinicians to make connections with their local health departments.

Rationale: Our interviews revealed that several health departments are interested in participating or supporting efforts to cure HCV for people living with HIV. However, health departments may not consider their facilities appropriate for treatment or know how to connect with clinical programs actively providing DAA therapy. Developing formal and informal partnerships to dialogue and mutually design and define these connections are important. Nurses serve as community bridge-builders and shared providers of curative treatment services for people co-infected with HIV/HCV.

Practitioner Level

Interviewees identified that provider knowledge gaps and the resulting messaging shared with patients who are HCV/HIV co-infected could be easily improved. However, provider bias and paternalism were identified as prevalent and tougher challenges to address. Primary care providers that are unaware of the expansion of allowable providers (generalist without specialist consultation or referral), improvements in authorization and the simplification and successes of treatment could delay a patient's treatment for months. Additionally, messaging from the providers to patients about treatments impact patient expectations and acceptance. We provide some sample messaging below

²⁰ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6862767/>

“Some providers worry that the cost of HCV treatment is expensive, but it’s not that expensive compared to other chronic treatments such as chemo for cancer treatment. This is likely a bias for many providers.”

The message “HCV treatment is very expensive. You may not get approved...” is the wrong message. Some patients will walk away from treatment because they do not feel they are “deserving.” Instead, providers have a responsibility to set expectations and acknowledge the importance of care “The treatment is expensive but we want to help you get treated, get cured and participate in follow-up.” Another message that “people in recovery

cannot adhere to an HCV treatment protocol” is wrong. Helping providers acknowledge and address implicit bias towards people who are current or former substance abusers are more complex. With better facts, we can dispel treatment complexity from old treatment paradigms for both the patient and provider. For many providers, training on de-stigmatizing and encouraging cues and patient-centered language is welcome. We can also uphold messaging that the HCV cure is obtainable and easier to accomplish than in the past. It is even easier than HIV treatment, with a shorter duration and little to no side effects.

Recommendation 9: Nurses and other healthcare leaders can disseminate and encourage current and expanded clinical information on HCV treatment paradigms and treatment availability with their healthcare colleagues.

Rationale: There are numerous resources for providers to get updated clinical information in easily accessible ways. The free, on-line National HIV Curriculum²¹ has a substantial section on HIV/HCV co-infection that is organized in easily accessible modules with CME and CNE available. Developed and hosted by the University of Washington with support from HRSA/HAB and the AIDS Education and Training Centers (AETCs), the curriculum is continually updated by national experts in HIV/HCV evaluation and treatment, including drug-drug interactions, advanced disease considerations and special populations.

Recommendation 10: Disseminate better information to providers to recognize the impact of implicit bias and the impact of language in their HCV conversations.

Rationale: Nurses and patient advocates can join to raise awareness of the opportunities for successfully treating people with current or past addiction, unstable housing or other challenging circumstances. These opportunities help complete the relatively short and side-effect free regimen of DAA to achieve HCV cure and celebrate success in these areas as an achievable personal accomplishment, which may facilitate other positive outcomes (e.g. drug treatment, risk reduction, engagement in HIV care). One suggestion is for collaborations that produce, promote and disseminate *professional guides* on HV/HCV language that is positive and strength-based to facilitate treatment and care, similar to consumer-driven efforts to destigmatize and person-center language around HIV.

²¹ <https://www.hiv.uw.edu/go/co-occurring-conditions/hepc-coinfection>

Recommendation 11: Develop & support interprofessional treatment teams that include nurses, pharmacists, physicians, case managers, navigators and peers to best support people living with HIV as they participate in the HCV cure processes.

Rationale: Each discipline is uniquely positioned to provide optimal services, which can help achieve the initiation and completion of the 6 or 8 or 12-week treatment regimens. Since these are short-course regimens, the treatment team can handle a revolving caseload to manage increasing patients. Navigators under the supervision of clinical staff may be trained to handle most pre-authorizations, freeing clinician time to support risk reduction and other clinical education and goal achievement.

Recommendation 12: Create a provider learning community to facilitate treatment of HIV/HCV co-infected patients.

Rationale: Interprofessional learning communities and peer-to-peer learning can help share solutions to accessing DAA and contribute to a wider uptake in curative treatment for people co-infected with HIV/HCV. Best practices in HIV diagnosis and prior authorization challenges will streamline and help achieve standardized and recommended approaches for engagement, diagnosis, and curative treatment. Simple tools, such as a checklist for common preauthorization factors could streamline the process and release time for clinician and patient education, risk reduction and other health-based interactions.

Recommendation 13: Nurses can promote and amplify the positive outcomes and ease of treatment regimen to all patients with HIV/HCV co-infection. Rationale: This is a win-win situation, as people living with HIV may be demoralized or struggling with a life-long treatment regimen. However, it's been reported in interviews that a short course of HCV treatment with little to no side effects and a very positive cure rate has been shown to re-engage people in their healthcare and wellness efforts. These treatment results can also provide a sense of accomplishment and lead to other healthier choices, such as substance-use risk reduction, addiction treatment, re-engagement with the healthcare system and a return to HIV services, including engagement as peer educators.

Recommendation 14: Leverage the trusting relationships nurses develop with their patients to foster judgement free dialogue and patient disclosures.

Rationale: Nurses have been continually rated by the American public as the most trusted profession and reliable source of healthcare information. Nurses typically have closer relationships with patients and more trust-based conversations. Because of this, nurses know the risks and behaviors that patients may be participating in and, therefore, the need for rescreening, risk reduction education and other factors to look out for in patients who initially test negative for HCV. Providing RN staffing, time and space for these relationships and dialogue to flourish benefits the patient population being served and the health outcomes of the individual and the clinic's patient panel.

Conclusion: HIV/HCV coinfection is associated with high morbidity and mortality rates without proper care and treatment. However, the diagnosis, treatment and care for people living with HCV has changed for the better over the past few years. The advent of highly effective, easy, and short regimens of direct acting antivirals has substantially changed the trajectory of care for co-infected patients and the

healthcare outcomes they experience. But while progress has been made, barriers in clinical knowledge, access to care and treatment acceptance remain. A major success with HCV treatment is that shorter treatment timeframes have promoted adherence and the cure rate has also promoted adherence. Curing HCV has become an important win, for HIV patients, and may set the path for better engagement in HIV care. While work remains to provide better guidance to patients and practices with paperwork, educate clinicians on current HCV treatments, and shape policies that further care, rather than inhibit it, we are optimistic about the progress made at the policy, healthcare system and practitioner levels over the past decade.

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- ³ Opioid Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5846578/>
- ⁴ Incarceration reference: [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(18\)30469-9/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(18)30469-9/fulltext)
- ⁵ The Affordable Care Act and HIV/AIDS <https://www.hiv.gov/federal-response/policies-issues/the-affordable-care-act-and-hiv-aids>
- ⁶ New 'treat all' hepatitis C guidelines learn from the HIV experience <https://www.who.int/hepatitis/news-events/hep-c-treat-all/en/>
- ⁷ Bajis, S., Dore, G. J., Hajarizadeh, B., Cunningham, E. B., Maher, L., & Grebely, J. (2017). Interventions to enhance testing, linkage to care and treatment uptake for hepatitis C virus infection among people who inject drugs: A systematic review. *International Journal of Drug Policy*, 47, 34-46.
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