



Andrew H. Talal, MD, is intent on creating new approaches to diagnosing and treating Hepatitis C virus in people with substance abuse disorders.

Solving the Hepatitis C Epidemic Among Population of Drug Users

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UB researchers are developing innovative ways to better diagnose and treat hepatitis C virus (HCV) in people with substance abuse disorders.

An editorial

“New approaches for people with substance use disorders are required at every step in the HCV care paradigm.”

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published online [<http://annals.org/aim/article/2622874/toward-optimal-control-hepatitis-c-virus-infection-persons-substance-use>] April 25 in the Annals of Internal Medicine notes that this population typically does not have easy access to conventional health care, so it is difficult to screen, diagnose and treat them.

Account for Up to 80 Percent of Infected Individuals

“People with substance use disorders can account for as much as 80 percent of infected individuals in developed countries, a direct result of the opioid epidemic in the United States,” says Andrew H. Talal, MD, [<http://medicine.buffalo.edu/content/medicine/faculty/profile.html?ubit=ahtalal>] the lead author of the editorial and professor of medicine [</departments/medicine.html>] in the Division of Gastroenterology, Hepatology and Nutrition [</departments/medicine/divisions/gastroenterology.html>].

Talal, a leading expert in liver disease, is a researcher with UB’s Clinical and Translational Science Institute [<http://www.buffalocrtrc.org/>], funded by a National Institutes of Health Clinical and Translational Science Award.

He is currently principal investigator with other UB faculty on a \$7 million Patient-Centered Outcomes Research Institute award

[http://medicine.buffalo.edu/news_and_events/news.host.html/content/shared/smb/news/2016/06/talal-telemedicine-hcv-5988.detail.html] dedicated to developing innovative ways to treat HCV in people with substance use disorders.

Many Factors Work Against Adequate Treatment

A combination of factors all work to prevent these patients from receiving the diagnoses and care they need, Talal notes.

Such factors range from discomfort in conventional health care settings and lack of HCV-related knowledge to fear of stigmatization that can result from an HCV diagnosis. That’s in addition to insurance barriers and physicians’ general reluctance to treat this population.

According to the editorial, “New approaches for people with substance use disorders are required at every step in the HCV care paradigm.”

The reason is that following a decade of fairly steady declines in this population, there have been recent sharp increases in the number of new HCV infections, particularly among people below the age of 35, as a direct result of the opioid epidemic.

“We’re seeing infection hot spots,” Talal says, noting that this is partly a result of the opioid epidemic, particularly where needle exchange programs are not available.

Such programs are key, Talal says, citing a report issued in April by the National Academies that found that people who inject drugs account for approximately 75 percent of all new HCV infections.

Improving Screening and Linkage Key Goals

To better reach persons with substance use disorders, the editorial states, HCV screening and linkage to care must improve.

Screening can be especially problematic because it typically requires two steps:

- confirmation that the person has been exposed to HCV through an antibody test
- additional blood work to determine if the infection is active

Currently, the second step must be conducted in a conventional laboratory, a setting these patients rarely access. Recent advances, however, are designed to assess whether all treatment services could be delivered on-site so that treatments are integrated into the substance use treatment facility.

Telehealth Techniques Used in Clinics and Prisons

Once a diagnosis is made, getting patients connected with providers is another major hurdle.

“At best, only 20 percent of these patients connect with a provider for treatment, and often it’s far less than that,” Talal explains.

Talal and his research partners have been developing promising ways to better connect these patients with the care they need by integrating HCV screening and treatment into methadone clinics that these patients already regularly attend and by reaching patients in the corrections system via telehealth techniques.

“Since patients already visit the methadone clinic between one and six times per week, it seems to make sense to have them get their HCV treatment at the same time,” Talal says. “We did this in a pilot study at a methadone clinic in Manhattan, and it has worked very well.”

Additional co-authors on the editorial are:

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- David L. Thomas, MD, professor of medicine in the Johns Hopkins School of Medicine
- Jag H. Khalsa, PhD, chief of medical consequences branch in the National Institute on Drug Abuse

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[Toward Optimal Control of Hepatitis C Virus Infection in Persons With Substance Use Disorders \(Annals of Internal Medicine, April 25, 2017\)](#)
[\[http://annals.org/aim/article/2622874/toward-optimal-control-hepatitis-c-virus-infection-persons-substance-use\]](http://annals.org/aim/article/2622874/toward-optimal-control-hepatitis-c-virus-infection-persons-substance-use)
[Telemedicine Seen as Way to Treat HCV in Drug Users in Recovery \(June 9, 2016\)](#)
[\[http://medicine.buffalo.edu/news_and_events/news.host.html/content/shared/smb/news/2016/06/talal-telemedicine-hcv-5988.detail.html\]](http://medicine.buffalo.edu/news_and_events/news.host.html/content/shared/smb/news/2016/06/talal-telemedicine-hcv-5988.detail.html)

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[\[/www.youtube.com/watch?v=ldo7N2JEgu8\]](http://www.youtube.com/watch?v=ldo7N2JEgu8)
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