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VOLUME 5 - ISSUE 6

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Clinical Insights: HCV and Substance Use Disorder

In our second newsletter/podcast pair on Advances in HBV Therapies, our post-assessment showed an increase of 8% following the education. We will report the results of issues 5 and 6 in an upcoming podcast.

Our guest authors are Andrew Talal, MD, MPH, Professor of Medicine and Richard Blondell, MD, Professor of Family Medicine at the University at Buffalo, State University of New York.

After participating in this activity, the participant will demonstrate the ability to:

- Describe the recommendations for hepatitis C screening in persons with substance use disorders.
- Identify the most prevalent risk factors for hepatitis C in this population.
- Describe the correlation between addressing substance use disorders and receiving hepatitis C treatment.

Guest Faculty Disclosure

Dr. Talal disclosed that he has received research funding from Abbott Laboratories, AbbVie, Inc., Gilead Sciences, Inc., and Merck & Co., Inc., and that he has served as a consultant for Abbott Laboratories and Merck & Co., Inc. Dr. Blondell indicated that he has no financial interests or relationships with a commercial entity whose products or services are relevant to the content of this presentation.

Unlabeled/Unapproved Uses

Dr. Talal and Dr. Blondell have indicated that there will be no references to unlabeled or unapproved uses of drugs or products.

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Release Date:
August 11, 2017

Expiration Date:
August 10, 2019

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Podcast Transcript

MR. BOB BUSKER: Welcome to this eViralHepatitis Review podcast.

I'm Bob Busker, managing editor of the program. Joining us today are Dr. Andrew Talal, Director of the Center for Clinical Care and Research in Liver Disease in the Department of Medicine at the University at Buffalo; and Dr. Richard Blondell, Vice Chair for Addiction in the Department of Family Medicine, also at the University at Buffalo. Today's discussion is a follow-up to their recent newsletter issue, Expanding HCV Screening in Persons with Substance Use Disorders.

eViralHepatitis Review is jointly presented by the Johns Hopkins University School of Medicine and the Institute for Johns Hopkins Nursing. This program is supported by educational grants from Gilead Sciences, Inc., Merck & Co., Inc., and AbbVie, Inc.

Learning objectives for this audio program include:

- Describe the recommendations for hepatitis C screening in persons with substance use disorders.
- Identify the most prevalent risk factors for hepatitis C in this population.
- Describe the correlation between addressing substance use disorder and receiving hepatitis C treatment.

Dr. Talal has disclosed that he has received research funding from Abbott Laboratories, AbbVie, Inc., Gilead Sciences, Inc., and Merck & Co., Inc., and that he has served as a consultant for Abbott Laboratories and Merck & Co., Inc. Dr. Blondell has indicated that he has no financial interests or relationships with a commercial entity whose products or services are relevant to the content of this presentation. They have indicated that there will be no references to the unlabeled or unapproved use of any drugs or products in today's discussion.

Dr. Talal, Dr. Blondell, thank you for joining us today.

DR. TALAL: Thank you very much for having us. It's a pleasure to be doing this program with you.

DR. BLONDELL: It's a pleasure to be here, and I appreciate the opportunity to participate in this podcast.

MR. BUSKER: Doctors, I want to start out with something very basic — the idea of substance use disorder. When most clinicians hear the term substance use disorder, they're likely to immediately think of people who inject drugs — PWID. But clinically, substance use disorder goes beyond that. So, Dr. Blondell, please give us more information about the concept of substance use disorder.

DR. BLONDELL: Previously, in the DSM-5, substance use disorders were classified as substance abuse or substance dependence. That dichotomous classification has been replaced with a more continuous classification as a substance use disorder, mild, moderate, or severe, based on the assessment of 11 criteria in the DSM-5.

Among all those people who have a substance use disorder, there's a subset of people who inject drugs, often called PWID. Generally, they represent individuals who have a more severe form of a substance use disorder.

MR. BUSKER: Thank you, Dr. Blondell. From a case study perspective, what might hepatitis C and substance use disorder look like?

DR. BLONDELL: Let's look at a case of an individual who does not inject drugs. A male, employed factory worker born in 1961 was admitted to the hospital for the management of alcohol withdrawal syndrome. He denied ever using drugs intravenously, but he did admit to being sexually promiscuous in his youth. He initially resisted referral to an alcohol rehabilitation program, but when he was notified that his hepatitis C serology was positive, he grew concerned and accepted a referral to inpatient rehabilitation for his alcohol use disorder.

MR. BUSKER: Why would a patient with alcohol withdrawal syndrome have been screened for hepatitis C?

DR. BLONDELL: All patients born between 1945 and 1965 — in other words, baby boomers — should undergo screening for hepatitis C.

MR. BUSKER: Dr. Talal?

DR. TALAL: As we discussed in the newsletter, recent data suggest that the screening landscape has changed over the last 20 years. Initially, in 1998, risk factor-based screening was recommended by the CDC and the US Preventive Services Task Force, such that any individual who had a history of injection drug use was recommended to undergo screening. Indeed, recent data suggest that 68% to 80% of all hepatitis C cases in developed countries are associated with transmission via injection drug use.

More recently, specifically in 2012, the CDC initially and subsequently US Preventive Services Task Force, revised their recommendations to include birth cohort screening; in other words, screening of people born between 1945 and 1965. That was because the observation that 75% of those who were unaware of their infection status were born in that interval.

The recommendation stems from the promiscuous use of injection drugs in the late '60s, '70s, and early '80s, before the identification and recognition that injection drug use served as a route for transmission of hepatitis C virus infection.

MR. BUSKER: Dr. Blondell, you mentioned that this patient was sexually promiscuous in his youth. Does that constitute a risk factor for acquiring hepatitis C?

DR. BLONDELL: Yes, it does. People with promiscuous sexual behavior may be exposed to sexual partners who have engaged in behaviors like the injection of drugs that places them at risk for hepatitis C. Sexually promiscuous men may not be entirely heterosexual, and men who have sex with men are at increased risk for hepatitis B.

DR. TALAL: Rick, that's very true. Men who have sex with men are at risk for both hepatitis C and B. Hepatitis B, as you are well aware, can be sexually transmitted, but hepatitis C, particularly among the MSM population, has been shown to be transmitted quite effectively through sexual practices in which MSM engage.

Heterosexual transmission of hepatitis C among monogamous couples followed over several years is quite rare.

MR. BUSKER: To continue along those lines, Dr. Talal, is it possible that people without risk factors can become infected with hepatitis C?

DR. TALAL: Yes. In fact, there's a large minority of people who have no identified risk factors. Over the years we've continued to revise our definition of what a risk factor is.

DR. BLONDELL: You know, Andy, some people may not remember engaging in high-risk behaviors in the past. For example, sometimes people might have shared a straw they've used to take cocaine and blocked this out of their memory altogether. And at other times, they might remember, but they've moved beyond that in their lives and are reluctant to report this to the physician, even when asked. So sometimes the physician has to ask a couple of times and demonstrate to the patient that they are not going to be judgmental and are looking for honest answers.

DR. TALAL: Yes, Rick, I believe that that's true. In my work with this population, I've found that a lot of the patients face stigmatization, which prevents them from beginning the whole HCV evaluation and ultimately the treatment process.

MR. BUSKER: One last question on this patient you described. His diagnosis of hepatitis C was a motivator for him to seek treatment for his co-occurring substance use disorder. In your experience, doctors, have you found that happens frequently? Dr. Blondell?

DR. BLONDELL: I've seen this frequently. Somehow the diagnosis of hepatitis C serves as a wakeup call for some patients and can help motivate them to seek treatment, even when they've been reluctant to seek treatment for their substance use disorder. I'm not sure why this is true, but I think people are aware through publicity of the severity of hepatitis C, and when they receive that diagnosis it gets their attention.

I think it's important for the physician to use this information in a concerned and supportive manner by providing the patient some hope that hep C can be treated now and avoid focusing too much on the negative consequences of continued drinking that's delivered in sort of a pejorative or condescending tone, because that can drive patients away.

I think it's very important to be hopeful and positive and give the patient some sense that life can be better in the future, that they don't have to succumb to alcoholism or hepatitis C.

MR. BUSKER: Dr. Talal? Anything to add?

DR. TALAL: I agree entirely with what Rick said. I think creating a trusting relationship with the patient where they feel free to express concepts or even prior behaviors that they may not be particularly proud of is extremely important in engaging this population into treatment for hepatitis C. That is the environment we've tried to create through our telemedicine project for treating patients with hepatitis C.

MR. BUSKER: Thank you for that case and discussion, doctors. We'll return with Dr. Andrew Talal and Dr. Richard Blondell from the University at Buffalo in just a moment.

MR. BOB BUSKER

This is Bob Busker, Managing Editor of eViralHepatitis Review.

eViralHepatitis Review is a combination newsletter and podcast program delivered via email to subscribers. Newsletters are published every other month. Each issue reviews the current literature in areas of importance to hepatologists, infectious disease specialists, primary care physicians, nurses, nurse practitioners, and other clinicians caring for patients with viral hepatitis.

In the month following each newsletter, a case-based podcast discussion, like the one you're listening to now, is available to help translate that new clinical information into practice. These podcasts are also available as downloadable transcripts.

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Thank you.

MR. BUSKER: Welcome back to this eViralHepatitis Review podcast. I'm Bob Busker, managing editor of the program. Our guests are Dr. Andrew Talal and Dr. Richard Blondell, from the University at Buffalo. We've been discussing some of the practical aspects of HCV screening among the substance use disorder population. So, let's continue with another patient scenario, Dr. Talal.

DR. TALAL: A 28-year-old employed bank teller with a history of rheumatoid arthritis presented to a primary care office to begin opioid replacement therapy with buprenorphine for treatment of a prescription opioid use disorder. She denied ever using drugs intravenously. She was known to be hepatitis C positive, but failed to keep appointments with physicians who could evaluate her hepatitis status for potential pharmacotherapy.

After a month, she was stable on buprenorphine and was referred for an appointment to evaluate her hepatitis C, and she was eventually started on antihepatitis C therapy.

MR. BUSKER: Substance use disorder — our first patient was alcohol use; here we have prescription opioid use. How important is it for these patients to be screened for hepatitis C? Dr. Blondell?

DR. BLONDELL: It's important to screen all patients with a substance use disorder for hepatitis C, even those who do not have risk factors. As we mentioned before, patients may not report risk factors appropriately.

Also, we know that patients who are stable on opioid replacement therapy who are positive for hepatitis C should be referred for an evaluation for possible pharmacotherapy.

MR. BUSKER: Receiving appropriate treatment for a substance use disorder and having that act as a motivator to seek treatment for the co-occurring hepatitis C. What can you tell us about the dynamics of that?

DR. BLONDELL: Yes, people who are actively using drugs typically are not motivated to seek treatment for hepatitis C. This is because when they get up every day they may be in some opiate withdrawal, and the first priority is to treat their opiate withdrawal with more opiates. However, once they're stable on replacement therapy and not waking up every morning in withdrawal, they may be more receptive to referral and better able to keep their appointments.

So it's important that the physician use the information in a concerned and supportive manner by providing the patient hope

for a better life. Again, focusing too much on the negative consequences of their noncompliant behavior that's delivered in a pejorative or condescending way can drive patients away.

MR. BUSKER: Dr. Talal?

DR. TALAL: I think it's important that we discuss in some detail how to screen for hepatitis C, because that is a hugely important area. Conventionally, antibodies have been the primary screening method. However, it is very important, particularly for physicians in addiction medicine and primary care, as well as those who work in correctional facilities, to order a hepatitis C RNA test.

Hepatitis C RNA indicates active infection, and those people will be the appropriate candidates for effective anti-HCV therapy using a combination of the direct acting antivirals that have recently been released.

One of the key problems in the treatment of this population has been what we refer to as a cascade of care, which has failed to capture this population. Conventionally, the antibodies have been obtained, and people who are antibody positive are then referred for an HCV RNA test. In many situations, the HCV RNA test may be negative or their bodies may have spontaneously cleared the infection. Those people don't require any follow-up unless they continue to have potential exposures to hepatitis C.

One other point I'd like to make comes from the last article we reviewed in the newsletter, which indicates that people on buprenorphine for more than six months are more likely to comply with a request for an evaluation and to eventually start antiviral therapy for hepatitis C than are people in buprenorphine treatment for fewer than six months. I think these data, as well as others, speak to the evidence base that patients who are on opioid replacement therapy for longer periods do achieve stabilization and can then proceed with treatment of other medical problems such as hepatitis C.

DR. BLONDELL: Let me just say, Andy, that I agree with that, based on the patients that I see in my private office. I've noticed that people who are placed on buprenorphine are rather unstable for about three months as they deal with their drug use disorder. Then over the next three months or so they're dealing with immediate issues of child care, jobs, or whatever, and at about six or nine months they begin to take care of the other aspects of their lives. They get their teeth fixed because there's a lot of tooth decay, and they also become very interested in getting their hepatitis C treated. So, my clinical experience correlates with the research that's been done in this area.

DR. TALAL: That's great. It's always wonderful when there's a convergence of clinical and research findings that point to the same direction.

MR. BUSKER: Thank you for that case and discussion, doctors. We've got time for one more patient scenario, Dr. Blondell.

DR. BLONDELL: This is a 21-year-old unemployed woman who was admitted to the hospital for the medical management of opioid withdrawal. Two years previously, her serology was negative for hepatitis C; however, repeat serology obtained during this hospitalization showed that her hepatitis C serology was reactive.

MR. BUSKER: Opioid withdrawal — do we assume she's been injecting drugs?

DR. BLONDELL: Yes.

MR. BUSKER: Dr. Talal, how common is it that IV drug users who become infected with hepatitis C?

DR. TALAL: The seroconversion rate for those actively using IV drugs is somewhere between 16% and 42% per year. The likelihood of exposure depends on whether they're actively sharing not only needles but also the drug preparation equipment. And I think it's very important to emphasize that sharing of cookers, cottons, rinse water, et cetera, can also serve as an efficient source of hepatitis C transmission, so it's very important that we counsel patients on harm reduction techniques to avoid repeat exposures.

MR. BUSKER: Doctor Blondell? How should this patient be managed?

DR. BLONDELL: A patient like this who's injecting drugs is often treated in the detox unit and then sent home. We know that detox alone is not very successful in getting people to stop using injection drugs. So strong consideration should be given to starting some sort of opioid replacement therapy, either with buprenorphine in an outpatient setting, or in a methadone maintenance clinic. Because people who actively use drugs are typically not motivated to seek treatment for hepatitis C, it's important to try to get their drug use disorder under control first. Then, once they are stable on replacement therapy, they're typically much more receptive to a referral for an evaluation of hepatitis C.

Before making a referral, the clinician should consider checking the viral load and genotype, if not checked previously, as this will provide the consulting physician with more appropriate information.

DR. TALAL: One additional piece of information that might be important is the assessment of the stage of fibrosis. This can be done through FibroSure, a blood test that can be ordered at the site where the patient is being seen for their addiction treatment, and that information can be provided to the physician to whom the patient is referred.

MR. BUSKER: What about abstinence-based treatments? Talk to us about their effectiveness.

DR. BLONDELL: Even if the patient is not a candidate for opioid replacement therapy with either buprenorphine or methadone, certain medications can be added to an abstinence only based treatment that might be effective. For instance, oral or injection naltrexone may improve the treatment outcomes for abstinence based programs.

MR. BUSKER: In your experience, Dr. Talal, does a hepatitis C infection ever resolve completely on its own, without treatment?

DR. TALAL: Yes. That is what I meant when I said that up to 20% of individuals with hepatitis C antibody positivity will clear the virus on their own. One of the cases that I discussed highlights some of the factors that are associated with clearance.

It's important to realize, though, that patients who have been infected for more than six months are unlikely to clear the virus. In practice, if we suspect that somebody might have an acute infection, we follow them, and if the infection resolves, if the viral load continues to go down, it's highly likely that they may clear. In my clinical experience, young women, in particular, appear to have a greater predilection for clearance than other populations.

MR. BUSKER: Thank you both for today's cases and discussion. Let's wrap things up now by reviewing what we've talked about in light of our learning objectives. Our first learning objective: the screening recommendations for hepatitis C among people with substance use disorder. Dr. Talal?

DR. TALAL: Patients born between 1945 and 1965 — baby boomers — should undergo routine screening for hepatitis C. And as addressed in the second case, patients with any substance use disorder should be screened for hepatitis C.

MR. BUSKER: And the specific risk factors for hepatitis C in this population. Dr. Blondell?

DR. BLONDELL: As addressed in the case studies here, we pointed out that baby boomers are at particular risk for hepatitis C, as are people who have a substance use disorder, whether or not they have other risk factors for hepatitis C. In addition, there may be some other risk factors for hepatitis C; for example, veterans seem to be at an greater risk than the civilian population.

DR. TALAL: I'd like to add some of the less likely factors: blood transfusions, particularly before 1992, when the test for hepatitis C became available; noninjection drug use; and tattoos, particularly nonprofessional tattoos, such as those performed while people are incarcerated or in other unlicensed facilities.

So essentially any situation in which there can be blood-to-blood or body fluid exposure can transmit hepatitis C.

MR. BUSKER: And finally: the correlation between addressing substance use disorder and receiving hepatitis C treatment. Dr. Talal?

DR. TALAL: A diagnosis of a substance use disorder, as well as a diagnosis of hepatitis C, can both serve as important motivators for patients to pursue therapy for either disorder. As we described, as people are treated for substance use disorders, there is a gradation of stability over time that enables them to deal with their hepatitis C.

In the converse, in some patients a diagnosis of hepatitis C serves as a teachable moment and motivates them to enter into treatment of their substance use disorder.

MR. BUSKER: From the University at Buffalo, Dr. Richard Blondell, Dr. Andrew Talal, thank you both for participating in today's eViralHepatitis Review podcast.

DR. BLONDELL: It was a pleasure to participate. I'm glad to have this opportunity.

DR. TALAL: Thank you very much for the invitation and it was a real pleasure to have the opportunity to speak with you today.

MR. BUSKER: To receive CME credit for this activity, please take the post-test at www.eviralhepatitisreview.org/test.

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