Actionable Strategies to Engage with High-Risk Patient Populations in HBV, HCV, and HDV

CMEO Podcast Transcript

Faye Jackson:

Hello, and welcome to Actionable Strategies to Engage with High-Risk Patient Populations in HBV, HCV, and HDV. This is the fourth CME Snack in our four-part series on Linking Knowledge to Action Across the Viral Hepatitis Spectrum. I'm your avatar host, Faye Jackson.

After participating in this activity, learners should be better able to develop tailored strategies that address barriers to effective engagement with high-risk populations, including people who inject drugs, and other underserved groups as part of the care continuum for HBV, HCV, and HDV.

Please note, this program was recorded prior to the November 2025 Liver Meeting held in Washington DC. Key takeaways relevant to our continuing medical education program today are shown on your screen for reference.

In today's program, you'll hear from six renowned experts in viral hepatitis, including co-chairs, Su Wang of the United States and Heiner Wedemeyer of Germany, as well as faculty panelists, Jean-Michel Pawlotsky of France, Maria Buti of Spain, George Lau of Hong Kong, and Debika Bhattacharya of the United States.

Su Wang, MD, MPH, FACP:

My name is Dr. Su Wang, and I'm the Medical Director for viral hepatitis programs and the Center for Asian Health at Cooperman Barnabas Medical Center which is in New Jersey, USA.

George Lau, MD:

I'm George Lau. I graduated from the University of Hong Kong in 1987. I have been working as a hepatologist for more than 30 years. And I also work in China. I'm Chair Professors in Beijing and also Shanghai. And I operate my private clinical trial center now in Hong Kong and working on advancements of drug discoveries and so on in liver diseases. And in addition, in the past few years, we set up the Asian Pacific Association for the Study of the Liver (APASL) Viral Elimination Task Force, and I was elected as the chairman. And right now, I'm working on the guidelines for APASL chronic hepatitis B with a lot of friends in Asia-Pacific regions, more than 48 members from 26 countries or special administrative regions.

Heiner Wedemeyer, MD:

My name is Heiner Wedemeyer. I have the privilege to Chair the Department of Gastroenterology, Hepatology, Infectious Diseases, and Endocrinology here at Hannover Medical School in Germany. And at this center, we have a long interest in liver diseases, but in particular in viral hepatitis.

Jean-Michel Pawlotsky, MD, PhD:

My name is Jean-Michel Pawlotsky. I'm a hepatologist by training. I became a virologist by profession, and doing both jobs together as well as I could. Currently, I'm the Head of the Department of Biology and Pathology in the Henri-Mondor University Hospital which is one of the major university hospitals in the Paris area. And I'm also Head of a research unit related to Inserm, our National Institute for Health. And the title of our research unit is Viruses, Hepatology, Cancers, so we're right in the right topic.

Maria Buti, MD, PhD:

I am Maria Buti. I am a hepatologist based in Barcelona in Spain in Hospital Universitario Valle de Hebron, and I have been working in the field of viral hepatitis for many, many years, particularly in screening, diagnosis, linkage to care, and treatment for hepatitis B, C, and Delta.

Debika Bhattacharya, MD, MSc:

My name is Debika Bhattacharya. I'm a physician scientist who does infectious diseases, and I'm based here at University of California Los Angeles (UCLA) in the great state of California in the United States. And my work is largely around directing a viral hepatitis program in a large integrated healthcare system. And then my research is focused on HIV and viral hepatitis co-infection, primarily HIV and hep B co-infection, and with a focus on pregnancy and outcomes within pregnancy. However, we do do a lot of hepatitis C screening, linkage to care, and treatment in our setting, and I'm really excited to be able to talk to you all about it today.

Faye Jackson:

The World Health Organization's 2030 target for viral hepatitis elimination is a 90% reduction in new infections and a 65% reduction in viral hepatitis-related deaths compared to 2015 levels. To achieve this, the strategy includes a focus on five core areas. Increasing HBV vaccination coverage. Preventing mother-to-child transmission of HBV. Ensuring blood and injection safety. Implementing harm reduction measures and expanding testing and treatment. Today's activity will focus on reaching populations at high risk for infection. Here now is Dr. Heiner Wedemeyer and Dr. Jean-Michel Pawlotsky.

Heiner Wedemeyer, MD:

It's very nice talking to you, Jean-Michel, and talking about viral hepatitis is obviously an important topic. Jean-Michel, let's come back to these really high-risk populations, and let's spend some time on people who inject drugs (PWIDs). They are still underserved. They are marginalized in different settings. And when I see now in our country, obviously we have many immigrants from the Ukraine these days, refugees from the Ukraine, and this includes also people who inject drugs, and they are largely underserved.

I'm still thinking which lessons we can learn from this experience. We've been taking care about these patient groups for 10, 15 years. But as you mentioned, these are other patients, other people, than we've been used to 10, 15, 20 years ago. And at least in my country, the resources to take care and treat the underlying addiction are extremely limited. That is actually one of my biggest problems here. Quite frankly, I don't have a good answer at this stage.

Jean-Michel Pawlotsky, MD, PhD:

I think France has been pretty active on this. One of the main problems is probably the stigma. The population, the people, who pay for the social security, they think that people use drugs, their fault, and people who drink alcohol, and that there is no need to really invest in this. And this combined with the fact that people inject drug are very often marginalized for other reasons, it's not just using drugs, it's many different things and vulnerable. It's been complicated.

What have we done in France with some kind of great ... It's not perfect, but it's partial efficacy? Low-threshold care models have been very helpful. Harm reduction centers have been helpful. There have been many initiatives with mobile units and outreach teams. The small cars that goes in a place where there are people and other vulnerable or marginalized populations and would propose and take care of. Low-level but efficient for some patients.

Peer support is very important and community engagement. Having the help of other patients, other people, who went through the same experience who can help. Forwarding the medical messages and supporting these people, I think, is very important. Again, it does not solve everything, but it provides some help.

Digital tools we just mentioned can be helpful as well because PWIDs and marginalized population, they have an iPhone or Samsung, and they can be reached this way. It can be helpful, especially for the youngest of them.

And simplification of treatment is also important. The simpler, the better. Decentralization. It's not mass medicine. We have to try to bring patients one by one in this. Also, a very important need for education on prevention of transmission because we see more and more patients who are cured reinfect themselves one time, two times, three times, five times. Come with different virus. I think treating and curing is not the only thing which is needed. We also need to educate these people about prevention. And try every time we cure patients in a group of PWIDs who share needles and materials, try to make sure that they will not be reinfected and that, at the end, the load of infection in that group of people will be decreased. These are, again, not miracle options, but a bunch of options that have been working decently, I would say, in my country and probably in yours as well and in many other countries. We have to keep on doing it.

I think thinking that we will cure everybody and eradicate the virus from our countries is a fantasy. It's an illusion. It will not happen. What will happen is probably that we have gone down tremendously from the prevalence we had 30 years ago to what we have now. And probably we're plateauing. We have new patients treated and cured replaced by patients coming to the country from other places and reinfections. And we'll have a low-level number of patients with these infections, B, C, D. And I share with you this fear that people get less interested in viral hepatitis, whereas we will still need to have at least some experts and some expertise remaining to guide the new developments and to educate people, doctors, patients, nurses, etc. in taking care of these patients.

Heiner Wedemeyer, MD:

If I'm speaking with Jean-Michel Pawlotsky, we have to at least once mention the issue of resistant-associated variants.

Jean-Michel Pawlotsky, MD, PhD:

Substitution.

Heiner Wedemeyer, MD:

And the question is really variants and substitutions. The old resistance-associated variants (RAVs) versus resistance-associated substitutions (RASs) discussion. The younger people will remember a symposia where we have been talking about this for a long time. You mentioned just the treatments of acute hepatitis C in persons who inject drugs, maybe even with limited adherence to therapy. They start only for 4 weeks. They stop

treatment. They interrupt treatment. It's the fifth therapy after the, I don't know, 10th infection. And again, 15 years ago, we were really afraid that we generate monster variants that could then be transmitted to other people and lead to a new wave of hepatitis C virus infections which can no longer be treated. Some people were really afraid of this scenario.

Few words from Jean-Michel Pawlotsky. Do we need genotyping? Are these resistant-variant substitutions a clinically relevant problem? Do you still perform resistance testing in distinct individuals? What are your thoughts?

Jean-Michel Pawlotsky, MD, PhD:

I think for hepatitis C, the European Association for the Study of the Liver (EASL) guidelines are pretty clear. Simplified treatments. Straightforward. Sustained virological response at 12 weeks (SVR-12) assessment is not necessary. If you cannot do it, it will not be a problem. And I think we should not make simplified things more complicated.

But the other information in the guideline is that if you have access to sequencing, do it because it's interesting. It can help you retreat the patient with a more adapted treatment and also document the epidemiology of resistance. So, I would say that everywhere where people don't do it, don't do it. In our place in Paris where we receive in my center, we receive samples from patients in failure. We sequence them all, and we generate information for epidemiology. We generate information for the patient re-treatment. But I would not recommend it universally. But I would like to make it broader. I think we all thought that resistance would be a big problem for all viruses, B, C, and D. And I remember having this discussion for B many years ago. And it actually was a problem with the first generations of drugs.

Today, I would not consider this as a major public health problem. There is resistance in some patients who fail on treatment. It happens rarely for hepatitis B. It happens rarely for hepatitis C. It does not happen for hepatitis D, with the drugs we have. There is no specific resistance to interferon or to bulevirtide. I think it's important that people like us get interested in it, but I don't see it as a major threat.

Su Wang, MD, MPH, FACP:

All right, I want to shift a little bit to talk about how do we reach some of the harder-to-reach patients. And this may be more about hepatitis C, but people who inject drugs or really underserved patients. And then Delta. If you could talk about Delta and some of your ideas for how we diagnose more people because we know it's still really underdiagnosed.

What are some ideas for testing in some of these more difficult patient populations?

George Lau, MD:

That's another good point. In my practice, I seldom test Delta because I cannot see any Delta.

Su Wang, MD, MPH, FACP:

I have to say, in my population, too, we've done quite a number of pilots and have not found hardly any.

George Lau, MD:

It's not part of the algorithm. But in places like Mongolia, they have a lot of delta. My colleagues, they are also in part of the working party for the current consensus meetings.

Su Wang, MD, MPH, FACP:

Oh great.

George Lau, MD:

Make some recommendations. In those places where you have Delta, then you should test for it. But then to simplify the algorithms in many of the parts of Asia-Pacific, we don't test for Delta. And if you control the B, if the surface antigen is gone, and it's controlled, then Delta …

Su Wang, MD, MPH, FACP:

Then you can't get the Delta. Right. Good point. That's another reason.

George Lau, MD:

That's right. But if you have additional Delta, of course that depicts the liver disease more severe and more aggressive.

Su Wang, MD, MPH, FACP:

Right. Yeah. That's a good point.

Any thoughts about … we've mostly been talking about hepatitis B, but anything you want to add in terms of hepatitis C and some of the populations that hep C affects?

George Lau, MD:

Yes, yes. Hepatitis C are in places like Hong Kong is low, but in some places is pretty high, especially in the northern part of China. But the good thing is, for C, now we have total eradication, complete cure with pan-oral therapy. Very similar to hepatitis B. We know when the drugs come out with the pan-oral, it's $94,000 U.S. dollars.

Su Wang, MD, MPH, FACP:

It's $1,000 a pill.

George Lau, MD:

Unbelievable. Now, in China, in Asia-Pacific region, it's all generics. It costs you about 2,000 to 3,000 yuan. That's about $250 U.S.

Su Wang, MD, MPH, FACP:

Of course. That's amazing.

George Lau, MD:

Talk about the and pan-genotype two. It's not a big issue at that time. At the very beginning, it's a genotype-dependent …

Su Wang, MD, MPH, FACP:

I remember that.

George Lau, MD:

Now, it's pan-oral, so we don't bother too much, and it usually is eradicated easily. But having said that, it's important that those patients, even after exceeding eradication, they should be still on surveillance. We have quite a few patients after eradication-

Su Wang, MD, MPH, FACP:

Yes. With liver cancer, right?

George Lau, MD:

Yes. We have-

Su Wang, MD, MPH, FACP:

I've seen that too. It's a shame, actually. You think it's over. And then I think it's hard to keep them in care for the liver cancer screening, right? That's almost a whole other conversation. How do we do better liver cancer surveillance? Because we're finding them too late, right?

George Lau, MD:

They have the risk, especially if they have advanced fibrosis and cirrhosis as well as reflected by liver stiffness imaging or the low platelet count. Platelet is important. If they have a low platelet count, then I think we should keep them on surveillance because, if they start to have liver cancer, then we can go for transplant because I think this is the only way to go for small liver cancer in cirrhotic patients, even after eradication, is liver transplant. Otherwise, they recur. It's very difficult to treat. Rather than putting them earlier on transplant list, could be very helpful, especially when they are young and not at old age.

Su Wang, MD, MPH, FACP:

Yeah. No, that's a good point.

Faye Jackson:

In vulnerable populations, is HIV-HCV co-infection still a concern? Doctors Wedemeyer and Bhattacharya weigh in.

Heiner Wedemeyer, MD:

In the personalized approaches, but hepatitis B virus infection is the first thing we should target. It may cause disease hepatitis, but we again get rid of the virus. We don't have to talk about all these additional, let's say, things, making things unnecessarily complicated. Debika, talking to you, we have to talk about HIV co-infection in this setting. And let's start with C.

Do you still see, my first question would be, co-infected individuals where C has not been treated? And the second question is, is acute hepatitis C in the HIV population that you are seeing still an issue, or has it been something we've been talking about 5, 6, 7 years ago, it was quite interesting, but in the end game over?

Debika Bhattacharya, MD, MSc:

Well, it's never game over with hepatitis C. I thought it was going to be. But if you actually look at the U.S., I would, just a general statistic to say ... I heard this from Norah Terrault the other day, is that essentially the pace of cures is keeping up in the United States with the pace of new infections for hepatitis C, which is unbelievable if you think about it. We have this groundbreaking therapy where we can actually cure a chronic viral disease.

But with that being said, I will say that I have not seen somebody with HIV and hepatitis C that needs to be treated. We have done, I think, such a fantastic job, and I think this is really a testament to integrated care models everywhere. I think HIV is the model for that. Because we always bring in psych. We bring in gastroenterology (GI) or hepatology for hepatitis B and C. And so, there, I have not seen that. We are still seeing sporadic cases, I'm just again saying anecdotally, of men who have sex with men who are HCV positive and who will sometimes get reinfected. Again, I don't know that we have the data yet to say if those trends are decreasing over the last 5 years, but we do still see occasional individuals with HIV and hep C.

Heiner Wedemeyer, MD:

What is your approach? The week before, I saw a patient being co-infected showed up, I think, with his fourth or fifth episode of acute hepatitis C.

And do you treat these guys always right away? Do you wait? Is infection the reason? Or you say, This guy has been now been infected so many times, so let's wait before he is clearing the treatment spontaneously, and we have at a certain stage to stop re-treatment, re-treatment, re-treatment?

Debika Bhattacharya, MD, MSc:

That's a very interesting question. I haven't been in that situation with four unique infections yet, but I will say that I tend to re-treat right away. And it is more about prevention of transmission than it is about disease progression or trying to figure out if they're going to clear by themselves. That's what it's about.

Heiner Wedemeyer, MD:

We do the same thing even though, obviously, people then keep asking what about resources, it's expensive, etc. And individuals are also responsible. And you should rather, before starting treatment again and again, make sure that you have, let's say, motivated people, the environment, etc. But I think if you have a chance to prevent transmission of a virus, because this individual, as it's his fifth infection, has a risk profile. Probably he's

exposing other individuals, and I think it's our responsibility, really, to make sure that he's not harming other individuals.

Faye Jackson:

There are several examples of mobile van programs for hepatitis and HIV screening in the United States providing an opportunity for community screening, counseling, and importantly, linkage to care. Lee Gilman, a nurse practitioner at Johns Hopkins School of Medicine, talks about this community outreach program in inner city Baltimore.

Lee Gilman, CRNP:

Essentially, everyone that we see is at risk for a viral infection such as HIV, hepatitis B, and hepatitis C. Even if they do not have histories of injection drug use, a lot of them have multiple risk factors that put them at increased risk, including unstable housing, food insecurity, history of intranasal substance use, history of under-the-table tattoos, histories of incarceration where tattoos while incarcerated. These are individuals who are at some of the highest risk of viral infection for what we're talking about when we're talking about pan-viral testing.

Those that actually have, are infected with the virus and maybe at risk of spreading the virus as well as poor outcomes from being infected with the virus, there are a lot of challenges to actually making it in the door in clinic. That includes access to transportation, unemployment, housing instability, food instability, histories of trauma and violence, histories of skepticism about the healthcare system, or trauma related to the healthcare system. And a lot of them have co-occurring psychiatric or mental health conditions that may be impacting their judgment and able to access care, their overall stability. And then also their addiction and substance use disorders that often take prominence when thinking about their own day-to-day livelihoods. And so, lowering the barriers to accessing testing by having more community sites, having … figuring out ways to have tests with a blood draw for hepatitis B in more community and mobile settings, is really the key to spreading information but also making people aware and allowing them to access care and treatment.

Faye Jackson:

Thank you, Mr. Gilman. Now, let's return to Dr. Su Wang and Dr. Maria Buti.

Su Wang, MD, MPH, FACP:

All right. Now, we're going to move on to high-risk populations. And you kind of have talked about this already, but I give you an opportunity to kind of delve more into that if you want. But how are people who inject drugs, the PWIDS, other underserved or marginalized groups being reached and supported in your setting? And what lessons, I think, from what you've learned could be shared globally? So, you've touched on some of this, but maybe if you want to expand on a little bit more of what's happening maybe at your center or in Spain.

Maria Buti, MD, PhD:

Yeah, as I mentioned before, in Europe it's very heterogeneous. The approach, a large amount of people who inject drugs. Even in some Eastern European countries, it's still criminalized. So, Portugal, that it's a country near

to Spain, has been very, very active with decriminalization programs so that it's good that this has been impact also in Spain. And in Spain and particularly in big cities like Barcelona or Madrid, we have a very active harm-reduction programs. Such as needle exchange services and opioid substitution therapy clinics. And PWIDs that attend these clinics, usually they are screening for viral hepatitis for B and for hepatitis C. And we can give, in these clinics, we can give treatment for this population, that it's a big advantage because usually PWIDs usually don't attend the medical consultations.

In some centers that they don't have this opportunity to give treatment at the community level, they have immediate referral. This is good because they have a preference to start treatment and easy linkage to care. And in addition, we have mobile health units. We have a bus, and we have running some programs in different places in Madrid, also in Balearic Islands. A bus that not only give the substitution medication also allows a screening. And even some of these bus have a mobile FibroScan, and people can be diagnosed with hepatitis C or hepatitis B and also support these needle change programs. So, I think for PWIDs, harm-reduction programs are extremely, extremely important.

Su Wang, MD, MPH, FACP:

Yeah, no, I'm glad you brought up the mobile van. We hadn't talked about that, but I think in Europe you guys definitely have a very successful mobile van program with the FibroScans too, right?

Maria Buti, MD, PhD:

Did you go to-

Su Wang, MD, MPH, FACP:

Yes. Yes. I saw the van outside-

Maria Buti, MD, PhD:

Did you see the long queues people on line from 6:00 AM for a FibroScan? And it was the majority general population or vulnerable population or people that has some degree of stigma, and they prefer to have a FibroScan outside the clinics.

Su Wang, MD, MPH, FACP:

Yeah, no, I think that's a great model to adapt. It’s been used, like in the U.S., we have mobile vans for mammograms. So, it's similar, but you can do a lot with the mobile vans for sure. No, I love that.

Faye Jackson:

Before we continue, let's get our audience involved. Which of the following can be diagnosed using dried blood spot (DBS) testing? Is it choice A, HBV, choice B, HCV, choice C, HBV and HCV, choice D, HBV, HCV, and HDV? Or select E if you're not sure.

And the answer is D. Screening for hepatitis B, C, and Delta can be performed using DBS testing. Let's return now to our faculty discussion.

Su Wang, MD, MPH, FACP:

Yeah, one of the things that I think you've been involved with, which we haven't talked about is, but I was thinking about with the diagnostics, is the dried blood spot testing. Do you want to talk about that and how you do that in the communities?

Maria Buti, MD, PhD:

Yeah, because we are running different programs at the community level, we are doing the dry blood spot testing in some of these programs. For example, we have run a program in the Mongolian community living in Spain because we have, in Barcelona and in the north of Spain, a large community of people from Mongolia. And we did during the weekends testing for all, for hepatitis B, C, and Delta, because Mongolia was or still is one of the countries with the highest prevalence of viral hepatitis. And in these programs, we test by point of care for hepatitis B, for hepatitis C. And those cases positive, then we test by dried blood for viremia. And it works very well because this allows to identify in the same testing, like a reflex testing, not only antibodies, also viremia. And this facilitates linkage to care.

Su Wang, MD, MPH, FACP:

Well, and you don't need a phlebotomist, which is difficult sometimes for community people to access a phlebotomist. I didn't realize you're able to do DBS for viremia for both hep B and hep C. Is that what you're saying?

Maria Buti, MD, PhD:

And also for Delta.

Su Wang, MD, MPH, FACP:

And for Delta.

Maria Buti, MD, PhD:

Yeah, we have also included Delta antibodies. And in case of Delta antibodies positive, we also are doing HDV and RNA viremia. In the case of Delta, there is less information. All the positive cases were confirmed at the hospital level. But for B and for C, we use DBS positivity as a criteria for treatment.

Su Wang, MD, MPH, FACP:

Well, this has been a great conversation with you, Professor Buti. I really learned a lot, and I think we covered so many important topics related to hepatitis B, C, and Delta. Thank you again for spending your time with us. And to the audience, thank you for joining us. And I highly encourage you to check out the other three talk shows that we've got going on for this series on viral hepatitis.

Faye Jackson:

This concludes today's program. Thank you to our international faculty and to our global audience for joining us today. By way of summary, here are two SMART goals. SMART stands for specific, measurable, achievable, relevant, and timely.

SMART goal one. Within 6 months of completing this activity, incorporate at least one harm reduction-based screening pathway. For example, offering testing and opioid substitution therapy clinics or needle exchange programs to increase viral hepatitis screening uptake among people who inject drugs.

SMART goal two. Over the next year, work with at least one community partner, for example, mobile outreach teams, primary care centers, to implement or refine a standardized referral and follow-up process that increase timely linkage to treatment for marginalized populations. And don't forget to check out the other programs in this series now listed on your screen.

For more educational activities and resources for both clinicians and patients, please visit www.cmeoutfitters.com to access the CME Outfitters Liver Hub. To receive credit for this activity, complete the online post-test and evaluation. Thank you and have a great day.

