CMEO Snack

# Linking Knowledge to Action: Empowering HCPs in Screening and Treatment of Patients Across the Viral Spectrum

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

*This activity is supported by an independent educational grant from Gilead Sciences, Inc.*

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# LEARNING OBJECTIVE

*Develop tailored strategies that address barriers to effective engagement with high-risk populations, including people who inject drugs (PWID) and other underserved groups, as part of the care continuum for HBV, HCV, and HDV*

# Key Highlights from AASLD 2025

- **New AASLD/IDSA Hepatitis B Guidelines** were released, emphasizing broader HBV screening – particularly one-time screening for all adults – along with simplified treatment initiation criteria and clearer recommendations for monitoring special populations
- Data presented highlight **promising progress toward an HBV functional cure**, with combination regimens such as siRNA- and capsid-inhibitor-based approaches, showing deeper and more sustained HBsAg declines than monotherapy. While still investigational, these regimens point toward a future of finite treatment courses
- For hepatitis C, updated studies of **ultra-short and long-acting DAA therapies showed SVR rates above 95%,** offering potential game-changers for difficult-to-reach populations, including individuals without stable housing and people who inject drugs
- **Real-world data for bulevirtide in HDV** demonstrated continued improvements in viral suppression and liver inflammation, reinforcing its role as a foundational HDV therapy

AASLD = American Association for the Study of Liver Diseases; DDA = direct-acting antiviral; HBsAg = hepatitis B surface antigen; HBV = hepatitis B virus; HDV = hepatitis D virus; IDSA = Infectious Diseases Society of America; siRNA = small interfering RNA; SVR = sustained virologic response.
AASLD The Liver Meeting 2025; Washington, DC. November 7-11, 2025..

# *Faculty Introductions*

# WHO Target for Viral Hepatitis Elimination

- By 2030 (compared to 2015 rates):
  - 90% reduction in new infections
  - 65% reduction in viral hepatitis-related deaths
  - Focus on five core areas:
    1. ↑ HBV vaccination coverage
    2. Prevent mother-to-child transmission of HBV
    3. Ensure blood and injection safety
    4. Implement harm reduction measures
    5. Expand testing and treatment

WHO = World Health Organization.

Schröeder SE, et al. *Liver Int.* 2019;39(10):1818-1836. World Health Organization (WHO). WHO Website. 2022. https://www.who.int/teams/global-hiv-hepatitis-and-stis-programmes/strategies/global-health-sector-strategies.

# People Who Inject Drugs (PWID)

- PWID remain underserved
- Marginalized in different settings
- Immigrants & refugees from Ukraine (includes PWID) in Germany, Europe
- Limited resources in Germany for treating addiction
- France relatively active in treating underlying addiction
- Stigma significant problem for PWID
- PWID often marginalized for other reasons beyond drug use

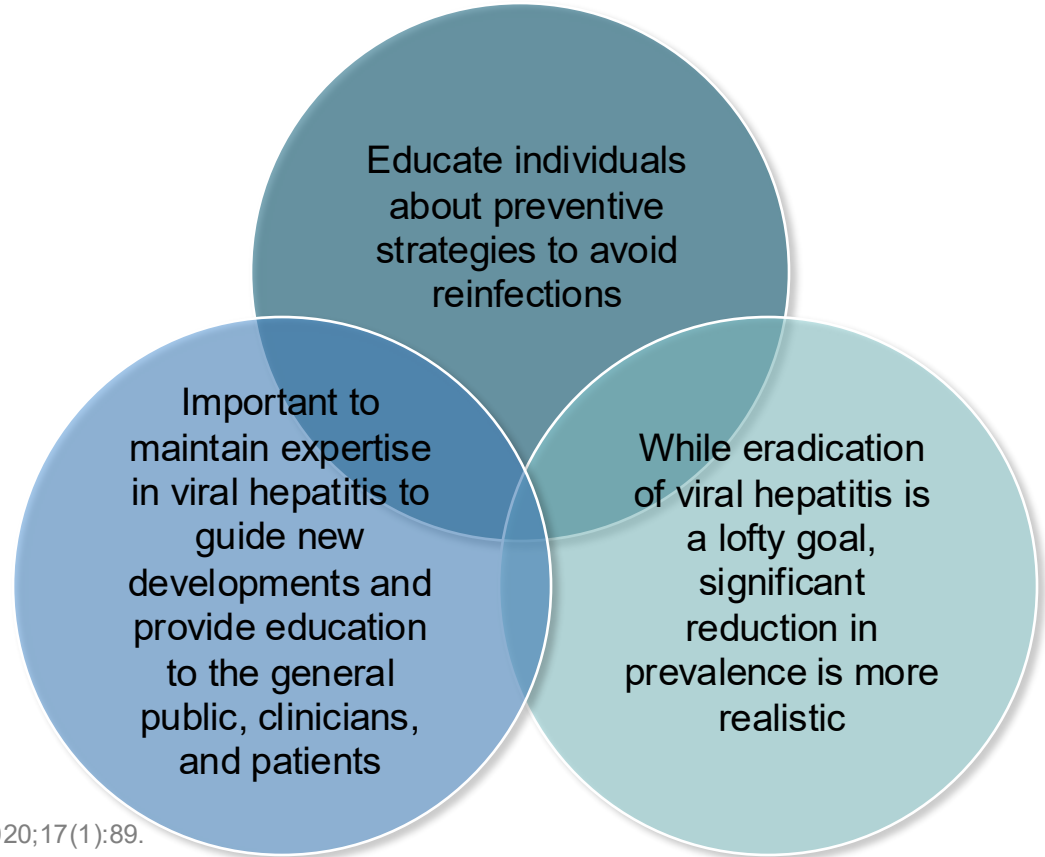
Horváth I, et al. *BMC Health Serv Res*. 2023;23(1):1352.

# Initiatives in France

- Partial efficacy
  - Low threshold care harm-reduction models
    - Quasi-unconditional access to services, anonymity, and immediate support (e.g., sterile syringe distribution, overdose prevention kits)
  - Mobile units and outreach teams
  - Peer support, community engagement
  - Digital tools (mobile phones)
  - Simplification and decentralization of treatment
  - Education on prevention and transmission

Delile J-M, et al. *Hepatol Med Policy*. 2018;3:7. Khatmi N, et al. *Harm Reduct J*. 2025;22(1):103.

# Treatment is Not Enough




Maticic M, et al. *Harm Reduct J*. 2020;17(1):89.

# Resistance-Associated Variants (RAVs) vs Resistance-Associated Substitutions (RASs)

- **RAVs:** mutations in the viral genome that can make the drug less susceptible to antiviral drugs
- Variants may exist before treatment begins or may be selected for during therapy

- **RASs:** amino acid changes in a pathogen (e.g., HCV) that confer resistance to antiviral drugs
- Substitutions can pre-exist in a virus population or emerge when the virus mutates under the selective pressure of a drug, leading to treatment failure

HCV = hepatitis C virus.

Pawlotsky JM. *Antiviral Res.* 2003;59(1):1-11. Pawlotsky JM. *Gastroenterology.* 2016;151(1);70-86. Popping S, et al. *Viruses.* 2021;14(1):16.

# Key Questions: Resistance Testing

Do we need genotyping?

Are these resistant-variant substitutions a clinically relevant problem?

Do you still perform resistance testing in distinct individuals?

# Increasing Diagnosis in Underserved Patients in Asia

- Viral hepatitis remains underdiagnosed in difficult-to-reach populations in Asia
  - HCV often detected through testing
  - HDV is not frequently seen but certain areas are notably impacted (e.g., Mongolia) – testing should be increased
    - Estimates suggest nearly 60% of HBV-infected individuals are also co-infected with HDV in Mongolia
    - Leads to more aggressive progression of liver disease
  - Controlling HBV may obviate need for HDV testing

Su CW, et al. *J Chin Med Assoc.* 2024;87(5):480-487.

# Hepatitis C in Underserved Asian Populations

- Varies by region
  - Low prevalence in Hong Kong
  - Significantly high prevalence in northern China
- Complete cure with all-oral, pangenotypic direct-acting antiviral (DAA) regimens
- Liver cancer screening: should continue even after hepatitis C cure to facilitate early detection
  - Depending upon level of fibrosis/cirrhosis early enrollment for transplant may be appropriate – especially in patients at younger age

Kaewdech A, et al. *Viruses.* 2025;17(1):34. Fassio E, et al. *Cancers (Basel).* 2025;17(6):1018.

***In vulnerable populations, is HIV-HCV coinfection still a concern?***

# HCV in the United States: Not “Game Over”

- In the United States, pace of cures is not keeping up with the pace of new infections for hepatitis C
- Significant reductions in HIV-HCV co-infection
  - Testament to integrated care models
  - Sporadic cases still exist

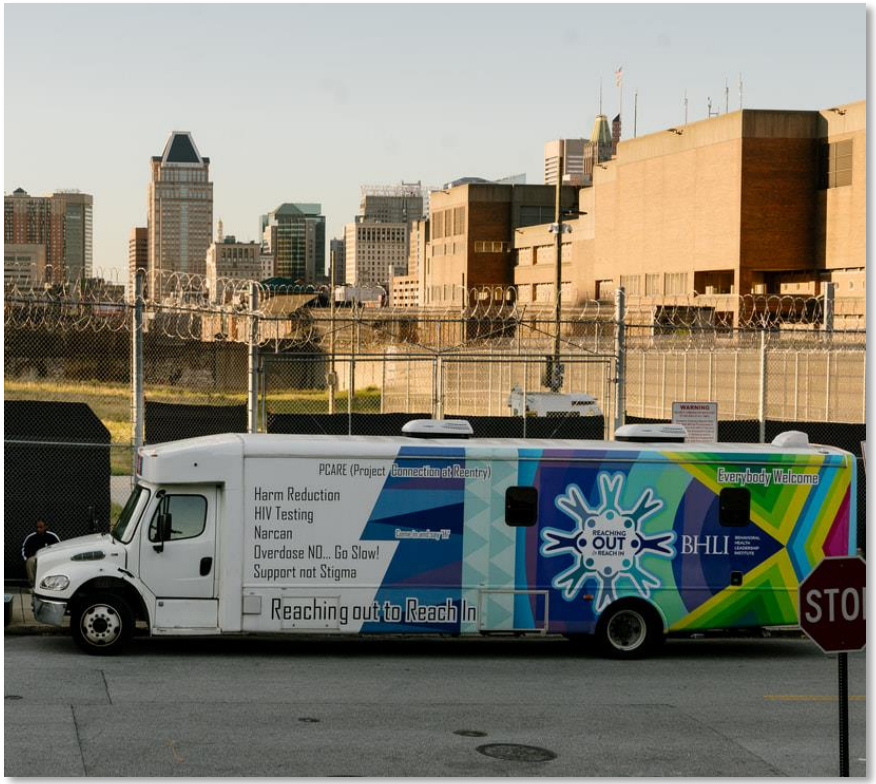
Centers for Disease Control and Prevention (CDC). CDC Website. 2025. https://www.cdc.gov/hepatitis-surveillance-2023/hepatitis-c/.
Centers for Disease Control and Prevention (CDC). CDC Website. 2022. https://www.cdc.gov/vitalsigns/hepc-treatment/index.html.

***For patients with multiple hepatitis C re-infections, what is your approach?***

# *Community Outreach: Mobile Van Testing and Linkage-to-Care Programs*

# Mobile Screening Programs in the United States

- Programs throughout the United States
- Opportunities for community screening, counseling, linkage to care
- Example: Behavioral Health Leadership Institute, Baltimore, MD USA




Behavioral Health Leadership Institute (BHLI). BHLI Website. 2018. http://www.bhli.org/the-pcare-van.html

# Addressing Underserved and Marginalized Groups in Spain: High-Risk Populations

- Number of PWIDs heterogeneous throughout Europe
- In some eastern European countries, still criminalized
- Portugal and Spain have active harm-reduction programs
  - Needle-exchange programs
  - Opioid substitution therapy clinics
  - Hepatitis B, C screening and treatment

Forns X, et al. *J Viral Hepat*. 2022;29(3):227-230.

# Harm Reduction Programs in Spain: Mobile Health Units

- Mobile health units support community outreach
  - Several units in Madrid
  - Balearic Islands
- Mobile unit services may include substitution meds, screening, vibration-controlled transient elastography [VCTE] (FibroScan)

Ryan P, et al. *Euro Surveill.* 2025;30(29):2500150.

# Which of the following can be diagnosed using dried blood spot testing?

A. HBV
B. HCV
C. HBV and HCV
D. HBV, HCV, HDV
E. I don’t know

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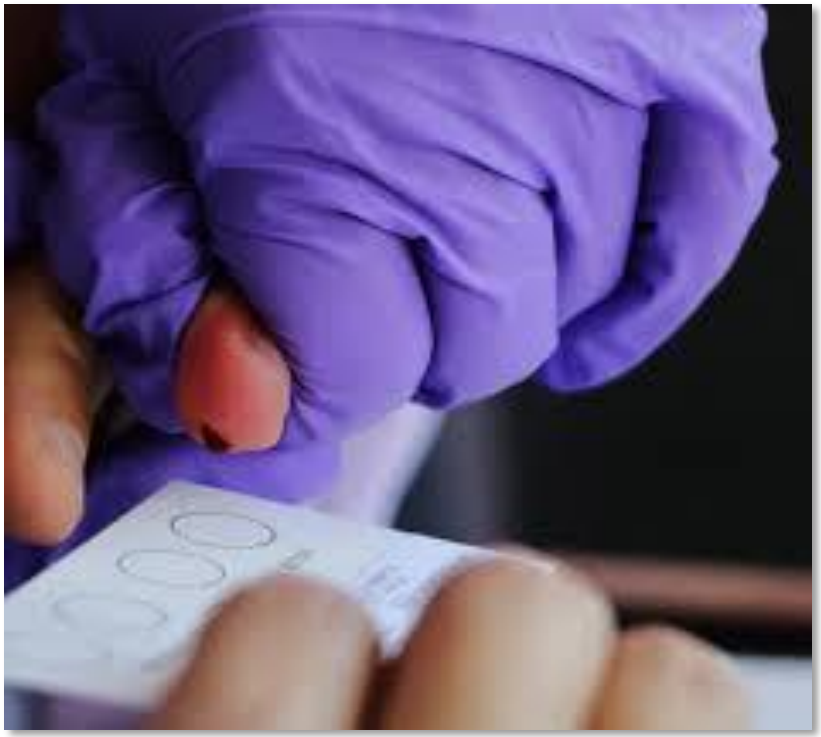
# Dried Blood Spot Testing (DBS)

- DBS facilitates community-based programs
- Implemented in local Mongolian communities in Spain



Grüner N, et al. *J Vis Exp*. 2015;97:e52619. Not A, et al. *J Med Virol.* 2023;95(2):e28544.

# DBS Testing in HBV, HCV, and HDV

- Point-of-care (POC) antibody testing provides results in minutes
- If positive, DBS sample used for more definitive viremia test
- Facilitates linkage to care
- For hepatitis D, all positive cases are confirmed at the hospital level

Martinez-Camprecios J, et al. *J Virol Methods*. 289:114039.

# SMART Goals

## Specific, Measurable, Attainable, Relevant, Timely

**Put information into action!** Consider the following goals; then *set a time frame* that fits with your work environment and *a reasonable improvement target* that aligns with your patient population.

- Within 6 months of completing this activity, incorporate at least one harm-reduction-based screening pathway (e.g., offering testing in opioid substitution therapy clinics or needle-exchange programs) to increase viral hepatitis screening uptake among people who inject drugs
- 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 increases timely linkage to treatment for marginalized populations

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Other activities in this series…

- Improving Time to Treatment Initiation for Viral Hepatitis (HBV, HCV, and HDV) through Screening and Diagnosis
- Incorporating Collaborative Care Strategies to Enhance Linkage to Care and Treatment Initiation in Viral Hepatitis
- Shared Decision-Making and Motivational Interviewing in the Care of Patients with HBV, HCV, and/or HDV

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