AETC AIDS Education & Training Center Program Southeast

Viral Hepatitis In People Living with HIV:
A Case-based Primer

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Faculty Disclosure

- Dr. Chastain has received prior grant/research support paid to his academic institution by Gilead Sciences, Inc.

Objectives

At the end of this session, the learner will be able to:

- Recognize the impact of viral hepatitis among people living with HIV;
- Discuss key concepts including hepatitis B virus (HBV) and hepatitis C virus (HCV) treatment eligibility, drug-drug interactions, and hepatocellular carcinoma screening in people living with HIV;
- Identify resources to assist with evaluation and management of viral hepatitis in the Southeast AETC region.


SVICC
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EDUCATION • TRAINING • CONSULTATIVE SUPPORT • CO-MANAGEMENT
Southeast Viral Hepatitis Interactive Case Conference
REGISTER
October 23rd, 2019
12:00 pm – 1:00 pm CST /
1:00 pm – 2:00 pm EST
ANNOUNCING A NEW SOUTHEAST AETC Regional Initiative:
Southeast Viral Hepatitis Interactive Case Conference (SVHICC)
Each week a HIV/HCV/PrEP telehealth topic will be presented with an opportunity to present cases and receive feedback or advice from experts in the Southeast.

Chat Box Word Cloud!

- What word or words do you associate with viral hepatitis in people living with HIV?

- *Enter these words in the chat box as a public comment!*

Outline

- Case 1 (Impact of Viral Hepatitis in PLWH)
- Case 2 (HCV in PLWH)
- Case 3 (HBV in PLWH)

Outline

- **Case 1 (Impact of Viral Hepatitis in PLWH)**
- Case 2 (HCV in PLWH)
- Case 3 (HBV in PLWH)

Case 1

Baseline Demographics					
Age: 35	**Race:** White	**Gender:** Male		**Primary Insurance:** Ryan White	
PMH/Comorbidities/Substance Use: HIV (CD4 950, recently started on ART with initial HIV RNA of 9,500)					
Pertinent Clinical Findings: None					
Weight (kg):	70	**Serum Albumin:**	4.0	**ALT:**	50
Hgb:	14	**Total bilirubin:**	0.9	**AST:**	45
PLT:	300	**INR:**	1.0	**SCr/CrCl:**	1.0 (CrCL >60)

Case 1

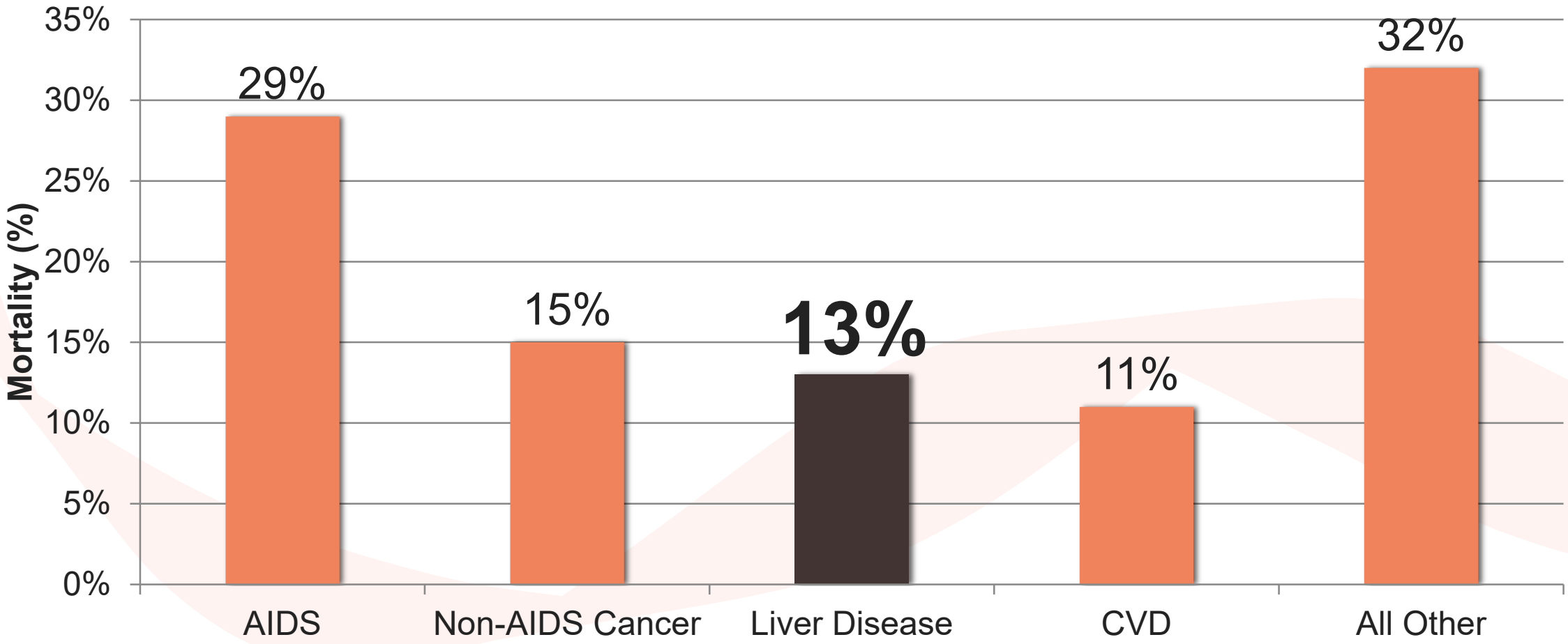
HCV Evaluation					
Ultrasound: N/A	**CT:** N/A				**MRI:** N/A
Signs of Cirrhosis:	No				
Staging Modality:	**Results:**	**Interpretation:**		**APRI:**	0.375
Fibroscan/Transient Elastography:		F0-F1		**FIB-4:**	0.74
Fibrosure:					
Treatment Naïve?:	Naïve	**If no, previous treatment:**		**HIV Antibody:**	+ (CD4 950, recent ART)
HCV Genotype:	1a	**HCV RNA:**	600,000	**HAV | Total Ab:**	+
HBV | sAb:	+	**HBV | sAg:**	-	**HBV | Total cAb:**	-
Requested Regimen:					

Case

- Medication List:
  - Bictegravir
  - Emtricitabine
  - Tenofovir alafenamide

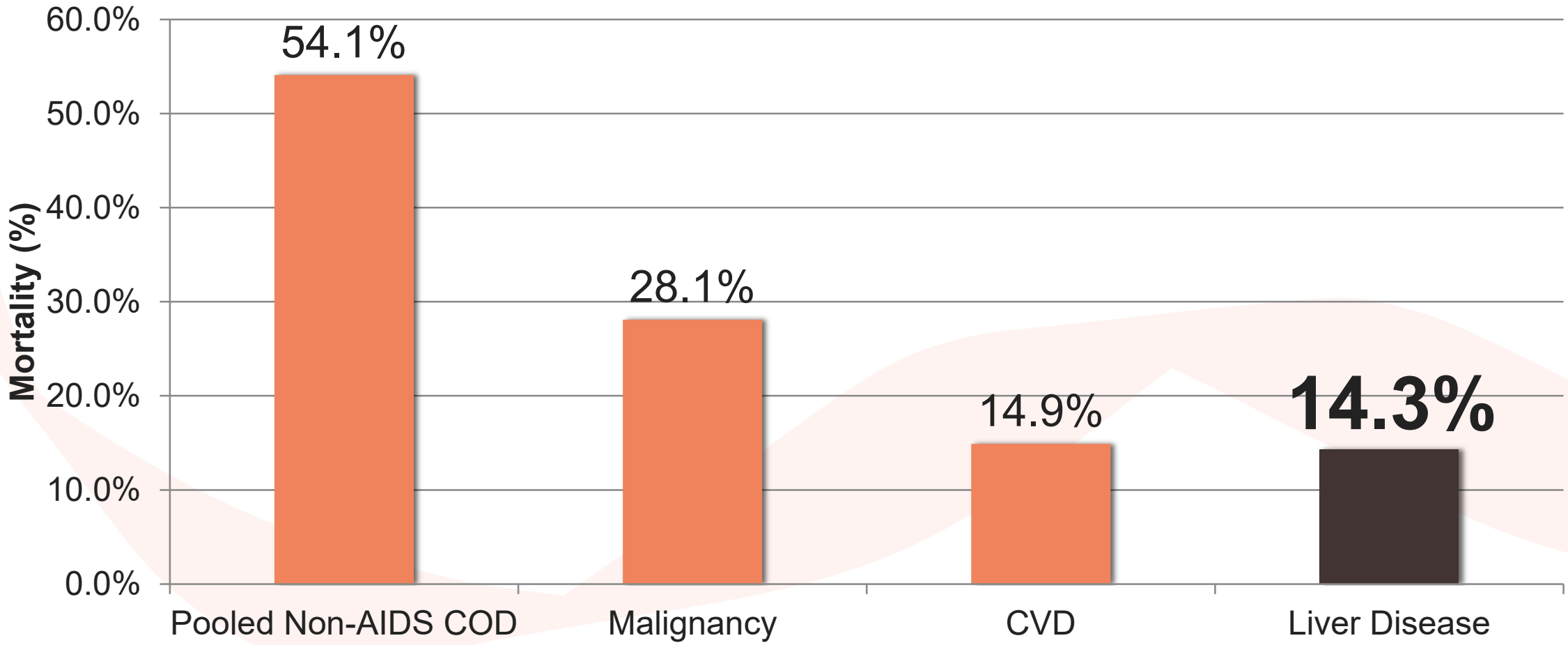
- Clinical Questions:
  - Is HCV treatment indicated in light of limited disease?
  - If so, when?

Cause of Death in D:A:D Cohort



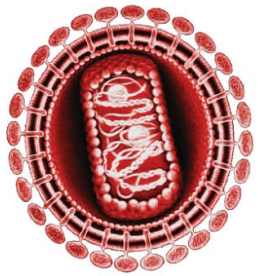
Smith CJ et al. *Lancet* 2014.

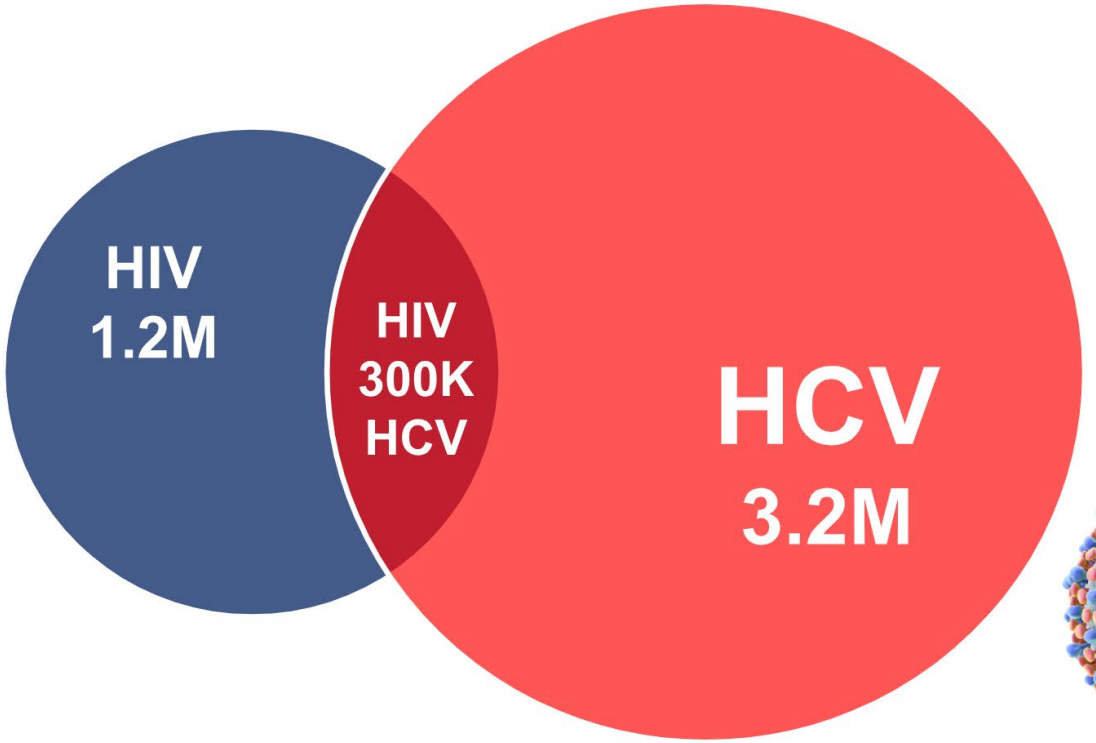
Non-HIV Cause of Death Among PLWH In High Income Countries in PLWH

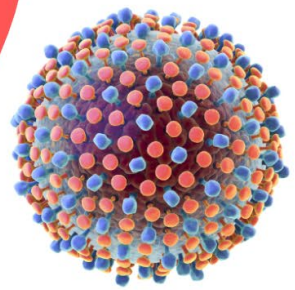


Farahani M et al. *Int J STD AIDS* 2016.

About 25% of PLWH in the U.S. also Have HCV Infection[17,21]





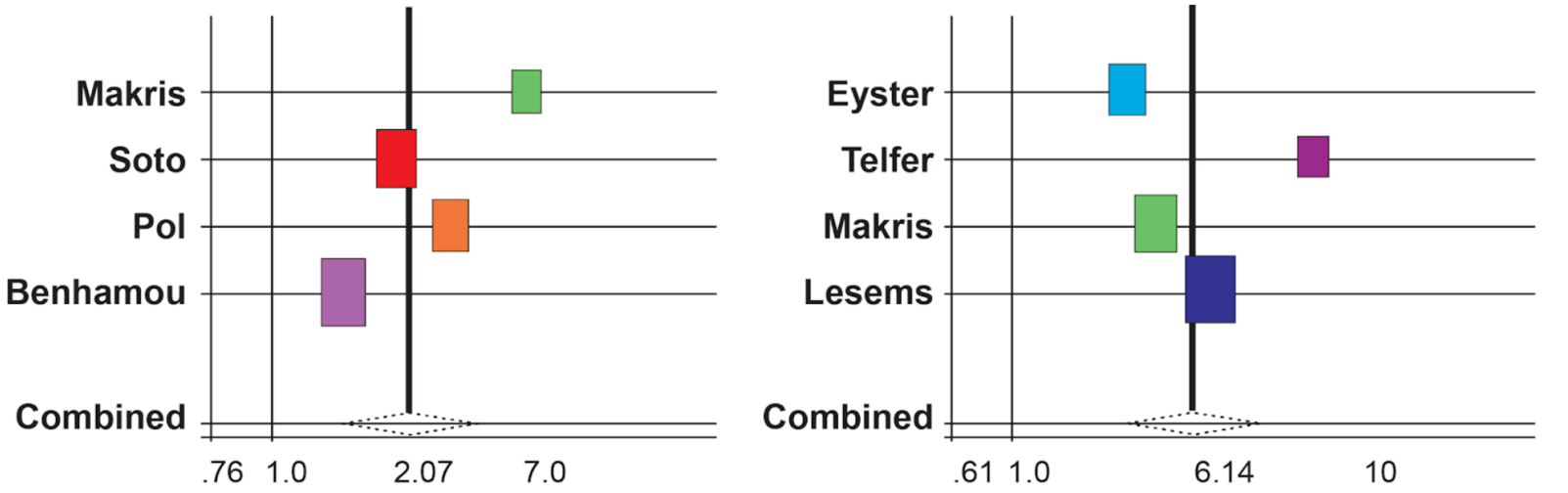


HIV/HCV Co-infection: An AETC National Curriculum

17. Hall HI, Song R, Rhodes P, et al. Estimation of HIV Incidence in the United States. JAMA: the journal of the American Medical Association. 2008;300(5):520-529. PMCID: PMC2919237.

21. Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, Sexual Transmitted Diseases and Tuberculosis Prevention, Centers for Disease Control and Prevention. HIV Mortality (through 2014). Accessed 6/16/2017.

Meta-analysis of the Impact of HIV Infection on the Natural History of Untreated HCV Infection[4]



RR of Cirrhosis

RR of End Stage Liver Disease

Fierer, 2013

3. Fierer DS, Dieterich DT, Fiel MI, et al. Rapid progression to decompensated cirrhosis, liver transplant, and death in HIV-infected men after primary hepatitis C virus infection. Clin Infect Dis. 2013 Apr;56(7):1038-43. PubMed PMID: 23264364.

4. Graham CS, Baden LR, Yu E, et al. Influence of human immunodeficiency virus infection on the course of hepatitis C virus infection: a meta-analysis. Clin Infect Dis. 2001 Aug 15;33(4):562-9. PubMed PMID: 11462196.

Factors Associated with Fibrosis Progression in Co-infected Persons[2]

- Nadir CD4 cell count
- Higher HIV VL
- Higher HCV VL
- Alcohol consumption
- Older age
- Higher BMI

2. Kirk GD, Mehta SH, Astemborski J, et al. HIV, age, and the severity of hepatitis C virus-related liver disease: a cohort study. Ann Intern Med. 2013 May 7;158(9):658-66. PubMed PMID: 23440167.

Effects of HIV Infection on HCV Progression: Non-hepatic Effects[5-12]

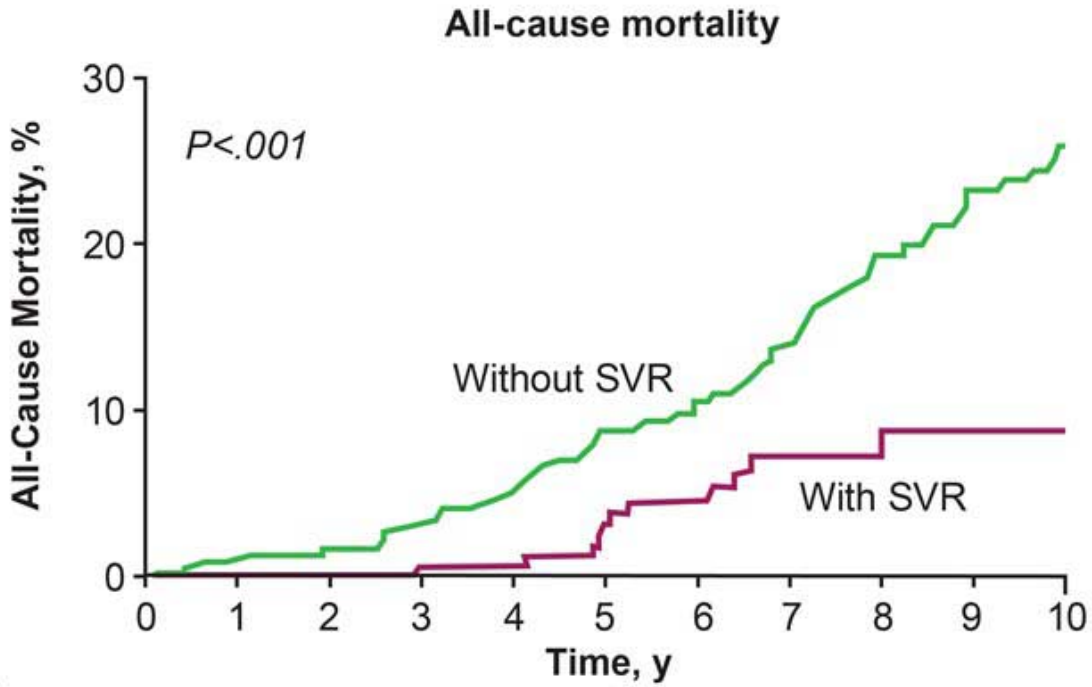
- Increased cardiovascular risk
- Increased stroke risk
- Increased renal disease risk
- Increased risk of fractures
- Cerebrospinal fluid HCV RNA correlates positively to neuroinflammation in PLWH

5. Slide modified from: Kim AY. Challenges in the Management and Treatment of HIV/HCV Coinfection. Slide 9: Nonhepatic effects of HCV in HIV. Presented at: An Advanced CME Live Course in HIV Pathogenesis, Antiretrovirals, and Other Selected Issues in HIV Disease Management, Washington, DC. 4/15/2016.

Factors Associated with HCV Accelerated Fibrosis Progression

Host	Viral
Nonmodifiable	HCV genotype 3
Fibrosis stage	Coinfection with hepatitis B virus or HIV
Inflammation grade	
Older age at time of infection	
Male sex	
Organ transplant	
Modifiable	
Alcohol consumption	
Nonalcoholic fatty liver disease	
Obesity	
Insulin resistance	

Effective Treatment Will Significantly Reduce Mortality from HCV Infection[14]



No. at risk

Without SVR	405	393	392	363	344	317	295	250	207	164	135
With SVR	192	181	168	162	155	144	125	88	56	40	28

van der Meer AJ et al. JAMA. 2012

Extrahepatic Benefits of HCV SVR

- Metanalysis by P Cacoub
  - Reduced **extrahepatic mortality** (OR 0.44; 95% CI 0.28–0.67)
  - Reduced **insulin resistance** (OR 0.42; 95% CI 0.33-0.53)
  - Reduced **diabetes incidence** (OR 0.34; 95% CI 0.21-0.56)
  - Remission of **cryoglobulinemic vasculitis** (OR 20.76; 95% CI 6.73-64.05)
  - Response of **B-cell lymphoma** (OR 6.49; 95% CI 2.02-20.85)

- ERCHIVES Study
  - Reduced **cardiovascular events** (OR 0.87; 95% CI 0.77-0.98)
  - Reduced **diabetes incidence** with DAA (OR 0.48; 95% CI 0.42-0.56)

Cacoub P et al. *Gut* 2018. // Butt A et al. *AASLD* 2018, San Francisco, CA. // Butt A et al. *CROI* 2019, Seattle, Washington. Abstract 570.

Case Recommendations

- Treatment is indicated once patient able to engage in and adhere to viral hepatitis care.

Take-Home Points from Webcast #1

- Viral hepatitis (in this case HCV) remains a major contributor to morbidity and mortality among people living with HIV.

- People living with HIV should be treated for HCV when appropriately engaged in care to mitigate HCV-related hepatic and extra-hepatic disease.

QUESTIONS?

Outline

- Case 1 (Impact of Viral Hepatitis in PLWH)
- **Case 2 (HCV in PLWH)**
- Case 3 (HBV in PLWH)

Case 2

Baseline Demographics					
Age: 55	**Race:** Black	**Gender:** Female		**Primary Insurance:** Ryan White	
PMH/Comorbidities/Substance Use: HIV (last CD4 550, HIV RNA <20), diabetes mellitus, coronary artery disease					
Pertinent Clinical Findings:					
Weight (kg):	60	**Serum Albumin:**	3.9	**ALT:**	125
Hgb:	13	**Total bilirubin:**	1.0	**AST:**	85
PLT:	250	**INR:**	1.0	**SCr/CrCl:**	0.8 (CrCl >60)

Case 2

HCV Evaluation					
Ultrasound: No abnormalities	**CT:** N/A				**MRI:** N/A
Signs of Cirrhosis:	No clinical evidence of disease				
Staging Modality:	**Results:**	**Interpretation:**		**APRI:**	0.85
Fibroscan/Transient Elastography:	8.5 kPa	F2		**FIB-4:**	1.67
Fibrosure:					
Treatment Naïve?:	Experienced	**If no, previous treatment:** IFN + RBV		**HIV Antibody:**	+ (CD4 550, HIV RNA <20)
HCV Genotype:	2a	**HCV RNA:**	9,500,000	**HAV | Total Ab:**	+
HBV | sAb:	+	**HBV | sAg:**	-	**HBV | Total cAb:**	-
Requested Regimen:	To be determined				

Case 2

- Medication List:
  - Clopidogrel
  - Cobicistat
  - Darunavir
  - Dolutegravir
  - Emtricitabine
  - Metformin
  - Omega-3 / fish oil
  - Tenofovir alafenamide

- Clinical Questions:
  - What is the most appropriate HCV treatment regimen?
  - Are there concerns for drug-drug interactions?

The American Association for the Study of Liver Diseases and the Infectious Diseases Society of America Present

HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C

Last Updated: May 24, 2018 | www.hcvguidelines.org

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HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C

Patients With HIV/HCV Coinfection

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Treatment Recommendations for Patients With HIV/HCV Coinfection

RECOMMENDED	RATING
HIV/HCV-coinfected persons should be treated and retreated the same as persons without HIV infection, after recognizing and managing interactions with antiretroviral medications (see *Initial Treatment of HCV Infection* and *Retreatment of Persons in Whom Prior Therapy Has Failed*).	I, B
Daily daclatasvir (refer to information above for dose) plus sofosbuvir (400 mg), with or without ribavirin, is a recommended regimen when antiretroviral regimen changes cannot be made to accommodate alternative HCV direct-acting antivirals. Refer to *Initial Treatment of HCV Infection* and *Retreatment of Persons in Whom Prior Therapy Has Failed* sections for treatment duration.	I, B

Regimens Not Recommended for Patients With HIV/HCV Coinfection

NOT RECOMMENDED	RATING
Ledipasvir/sofosbuvir for 8 weeks is **not** recommended, regardless of baseline HCV RNA level.	IIb, C

FDA Approved HCV Therapies

Nonspecific Antivirals

Interferon (IFN)
Ribavirin (RBV)
Pegylated Interferon (PEG-IFN)

NS3/4 Protease Inhibitors

Telaprevir (TPV)
Boceprevir (BPV)
Simeprevir (SMV)
Paritaprevir (PTV)
Grazoprevir (GZP)
Voxilaprevir (VOX)
Glecaprevir (GLE)

NS5A Inhibitors

Ledipasvir (LDV)
Ombitasvir (OBV)
Daclatasvir (DCV)
Elbasvir (EBV)
Velpatasvir (VEL)
Pibrentasvir (PIB)

NS5B Polymerase Inhibitors

Sofosbuvir (SOF)
Dasabuvir (DBV)

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HCV Guidance: Recommendations f
Testing, Managing, and Treating
Hepatitis C

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Start Here: Choose a patient profile from the menu above. ⤴ ×

Recommended and alternative regimens listed by evidence level and alphabetically for:

Peginterferon/Ribavirin-Experienced, Genotype 2 Patients Without Cirrhosis

RECOMMENDED	DURATION	RATING
Daily fixed-dose combination of glecaprevir (300 mg)/pibrentasvir (120 mg)[a]	8 weeks	I, A
Daily fixed-dose combination of sofosbuvir (400 mg)/velpatasvir (100 mg)	12 weeks	I, A
ALTERNATIVE	**DURATION**	**RATING**
Daily daclatasvir (60 mg)[b] plus sofosbuvir (400 mg)	12 weeks	IIa, B

[a] This is a 3-tablet coformulation. Please refer to the prescribing information.

[b] The dose of daclatasvir may need to be increased or decreased when used concomitantly with cytochrome P450 3A/4 inducers and inhibitors, respectively. Please refer to the prescribing information and the section on HIV/HCV coinfection for patients on antiretroviral therapy.

Drug Interactions Between DAAs and ARV Drugs—Recommended Regimens

Green indicates coadministration is safe; yellow indicates dose change or additional monitoring is warranted; pink indicates combination should be avoided.

	Ledipasvir/ Sofosbuvir (LDV/SOF)	Sofosbuvir/ Velpatasvir (SOF/VEL)	Elbasvir/ Grazoprevir (ELB/GRZ)	Glecaprevir/ Pibrentasvir (GLE/PIB)	Sofosbuvir/Velpatasvir/ Voxilaprevir (SOF/VEL/VOX)
Ritonavir-boosted atazanavir (ATZ)	▲ LDV ▲ ATZ[a]	▲ VEL ▲ ATZ[a]	▲ ELB ▲ GRZ ▲ ATZ	▲ GLE ▲ PIB ▲ ATZ	▲ VOX ▲ ATZ
Ritonavir-boosted darunavir (DRV)	▲ LDV ◄► DRV[a]	◄► VEL ◄► DRV[a]	▲ ELB ▲ GRZ ◄► DRV	▲ GLE ◄► PIB ▲ DRV	▲ VOX ▼ DRV
Ritonavir-boosted lopinavir (LPV)	No data[a]	◄► VEL ◄► LPV[a]	▲ ELB ▲ GRZ ◄► LPV	▲ GLE ▲ PIB ▲ LPV	No data
Ritonavir-boosted tipranavir (TPV/r)	No data	No data	No data	No data	No data
Efavirenz (EFV)	▼ LDV ▼ EFV[a]	▼ VEL ▼ EFV	▼ ELB ▼ GRZ ▼ EFV	No data	No data
Rilpivirine (RPV)	◄► LDV ◄► RPV	◄► VEL ◄► RPV	◄►ELB ◄►GRZ ◄►RPV	◄► GLE ◄► PIB ▲ RPV	◄► VOX ▼ RPV
Etravirine (ETV)	No data	No data	No data	No data	No data
Raltegravir (RAL)	◄► LDV ◄► RAL	◄► VEL ◄► RAL	◄► ELB ◄► GRZ ▲ RAL	◄► GLE ◄► PIB ▲ RAL	No data
Cobicistat-boosted elvitegravir (COB)	▲ LDV ▲ COB[a]	▲ VEL ▲ COB[a]	▲ ELB ▲ GRZ ▲ COB	▲ GLE ▲ PIB ▲ COB	▲ VOX ▲ COB[a]
Dolutegravir (DTG)	◄► LDV ◄► DTG	◄► VEL ◄► DTG	◄► ELB ◄► GRZ ▲ DTG	▼ GLE ▼ PIB ▲ DTG	No data
Tenofovir Alafenamide (TAF) / Emtricitabine (FTC) /Bictegravir (BIC)	▼ LDV ◄► BIC	No data	No data	No data	◄► VOX ▲ BIC
Maraviroc (MVC)	No data	No data	No data	No data	No data
Tenofovir (TFV) disoproxil fumarate	◄► LDV ▲ TFV[c]	◄► VEL ▲ TFV[b]	◄► ELB ◄► GRZ ▲ TFV	▲ TFV	▲ TFV[b]
Tenofovir (TFV) alafenamide	◄► LDV ▲ TFV[d]	◄► VEL ▲ TFV[d]	No data	◄► TFV	▲ TFV[b]

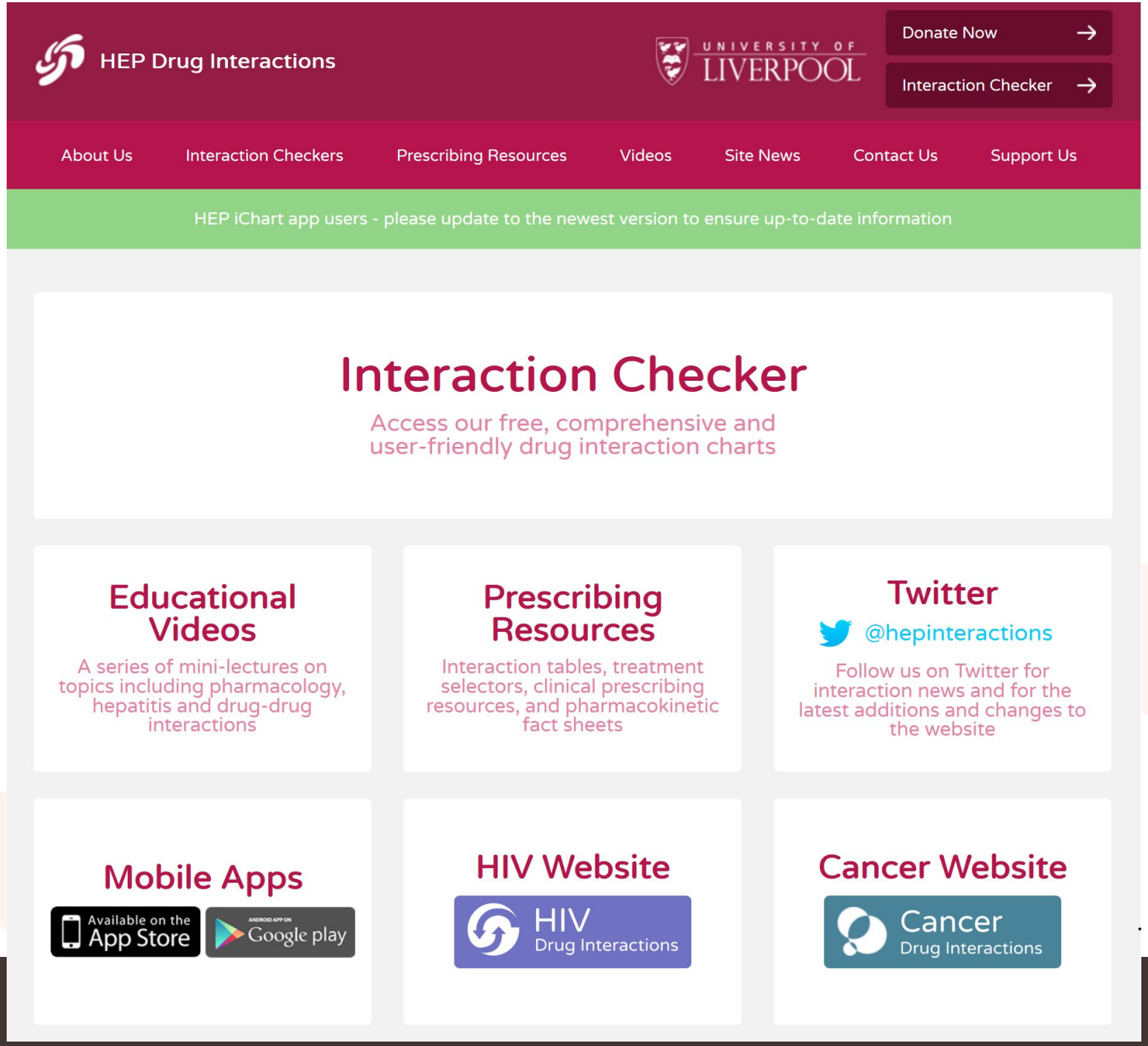
[a] Caution only with tenofovir disoproxil fumarate. [b] Increase in tenofovir depends on which additional concomitant antiretroviral agents are administered.
[c] Avoid tenofovir disoproxil fumarate in patients with an eGFR <60 mL/min; tenofovir concentrations may exceed those with established renal safety data in individuals on ritonavir- or cobicistat-containing regimens. [d] Studied as part of fixed-dose combinations with ledipasvir/sofosbuvir or sofosbuvir/velpatasvir plus TAF, emtricitabine, elvitegravir, and cobicistat.

ART and DAA Drug-Drug Interactions (DDI)

- HIV protease inhibitors, ritonavir and cobicistat
  - Can be part of frequent drug-drug interactions
- Tenofovir disoproxil fumarate (TDF)
  - Drug levels impacted by boosted protease inhibitors, dolutegravir, efavirenz, rilpivirine
  - May warrant additional renal function monitoring
- Older ART not studied with DAA therapy
  - Opportunity to update “older” ART when considering HCV treatment

Tools to Assess DDI

- hcvguidelines.org
- aidsinfo.nih.gov/guidelines
- hiv-druginteractions.org
- hep-druginteractions.org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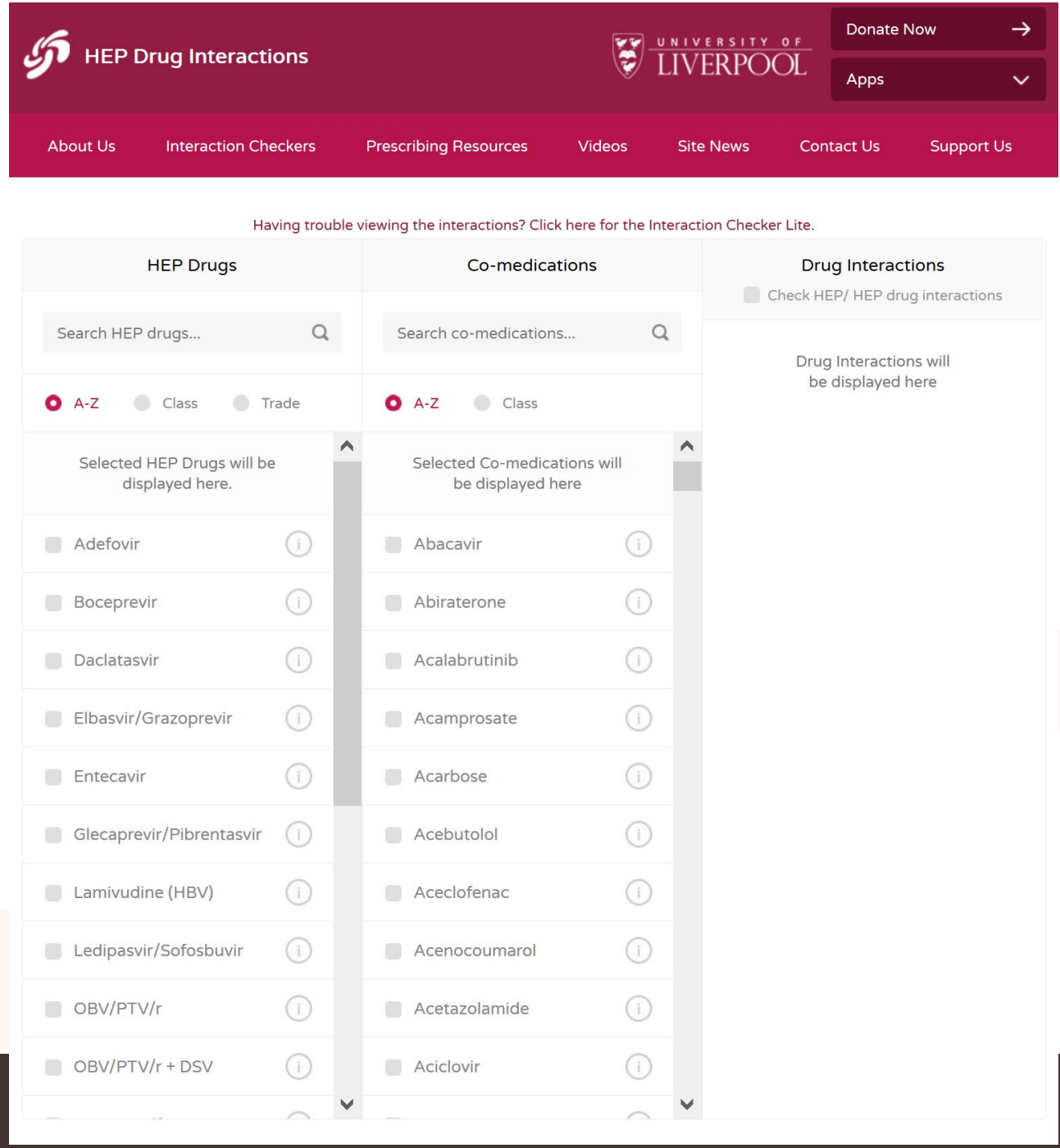
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Class
Trade
Selected HEP Drugs will be displayed here.
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Boceprevir
Daclatasvir
Elbasvir/Grazoprevir
Entecavir
Glecaprevir/Pibrentasvir
Lamivudine (HBV)
Ledipasvir/Sofosbuvir
OBV/PTV/r
OBV/PTV/r + DSV
Co-medications
Search co-medications...
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Class
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Abacavir
Abiraterone
Acalabrutinib
Acamprosate
Acarbose
Acebutolol
Aceclofenac
Acenocoumarol
Acetazolamide
Aciclovir
Drug Interactions
Check HEP/ HEP drug interactions
Drug Interactions will be displayed here

Drug Interactions Between DAAs and ARV Drugs—Recommended Regimens

Green indicates coadministration is safe; yellow indicates dose change or additional monitoring is warranted; pink indicates combination should be avoided.

	Ledipasvir/ Sofosbuvir (LDV/SOF)	Sofosbuvir/ Velpatasvir (SOF/VEL)	Elbasvir/ Grazoprevir (ELB/GRZ)	Glecaprevir/ Pibrentasvir (GLE/PIB)	Sofosbuvir/Velpatasvir/ Voxilaprevir (SOF/VEL/VOX)
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Efavirenz (EFV)	▼ LDV ▼ EFV[a]	▼ VEL ▼ EFV	▼ ELB ▼ GRZ ▼ EFV	No data	No data
Rilpivirine (RPV)	◄► LDV ◄► RPV	◄► VEL ◄► RPV	◄► ELB ◄► GRZ ◄► RPV	◄► GLE ◄► PIB ▲ RPV	◄► VOX ▼ RPV
Etravirine (ETV)	No data	No data	No data	No data	No data
Raltegravir (RAL)	◄► LDV ◄► RAL	◄► VEL ◄► RAL	◄► ELB ◄► GRZ ▲ RAL	◄► GLE ◄► PIB ▲ RAL	No data
Cobicistat-boosted elvitegravir (COB)	▲ LDV ▲ COB[a]	▲ VEL ▲ COB[a]	▲ ELB ▲ GRZ ▲ COB	▲ GLE ▲ PIB ▲ COB	▲ VOX ▲ COB[a]
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Tenofovir Alafenamide (TAF) / Emtricitabine (FTC) /Bictegravir (BIC)	▼ LDV ◄► BIC	No data	No data	No data	◄► VOX ▲ BIC
Maraviroc (MVC)	No data	No data	No data	No data	No data
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Tenofovir (TFV) alafenamide	◄► LDV ▲ TFV[d]	◄► VEL ▲ TFV[d]	No data	◄► TFV	▲ TFV[b]

[a] Caution only with tenofovir disoproxil fumarate. [b] Increase in tenofovir depends on which additional concomitant antiretroviral agents are administered.
[c] Avoid tenofovir disoproxil fumarate in patients with an eGFR <60 mL/min; tenofovir concentrations may exceed those with established renal safety data in individuals on ritonavir- or cobicistat-containing regimens. [d] Studied as part of fixed-dose combinations with ledipasvir/sofosbuvir or sofosbuvir/velpatasvir plus TAF, emtricitabine, elvitegravir, and cobicistat.

Case Recommendations

- SOF/VEL x 12 weeks preferred based on current drug-drug interaction profile

Or

- GLE/PIB x 8 weeks if HIV ART modified to mitigate drug-drug interactions

Take-Home Points from Webcast #2

- HIV/HCV coinfected patients should be treated the same as HCV monoinfected patients (other than accounting for drug-drug interactions with antiretroviral therapy).

- Multiple resources, including www.hcvguidelines.org and the University of Liverpool's drug interaction tools www.hiv-druginteractions.org and www.hep-druginteractions.org, can assist in treatment selection.

QUESTIONS?

Outline

- Case 1 (Impact of Viral Hepatitis in PLWH)
- Case 2 (HCV in PLWH)
- **Case 3 (HBV in PLWH)**

Case 3

Baseline Demographics					
Age: 60	**Race:** Black	**Gender:** Male		**Primary Insurance:** Ryan White	
PMH/Comorbidities/Substance Use: HIV (CD4 600, HIV RNA <20, on ART), HBV, prior alcohol use disorder					
Pertinent Clinical Findings: None					
Weight (kg):	80	**Serum Albumin:**	4.1	**ALT:**	45
Hgb:	15	**Total bilirubin:**	1.2	**AST:**	40
PLT:	100	**INR:**	1.0	**SCr/CrCl:**	1.0 (CrCl >60)

Case 3

HBV Evaluation					
Ultrasound: N/A	**CT:** Nodular contour consistent with cirrhosis; no mass				**MRI:** N/A
Signs of Cirrhosis:	None				
Staging Modality:	**Results:**	**Interpretation:**		**APRI:**	1.0
Fibroscan/Transient Elastography:				**FIB-4:**	3.58
Fibrosure:					
N/A		**N/A**		**HIV Antibody:**	+ (CD4 600, HIV RNA <20)
HCV Ab:	+	**HCV RNA:**	Not detect	**HAV | Total Ab:**	+
HBV | sAb:	-	**HBV | sAg:**	+	**HBV | Total cAb:**	+
Requested Regimen:	Management?				

Case 3

- Medication List:
  - Cobicistat
  - Darunavir
  - Emtricitabine
  - Tenofovir alafenamide

- Clinical Questions:
  - What interventions or management is needed in people coinfected with HBV and HIV?

HBV Risk Factors

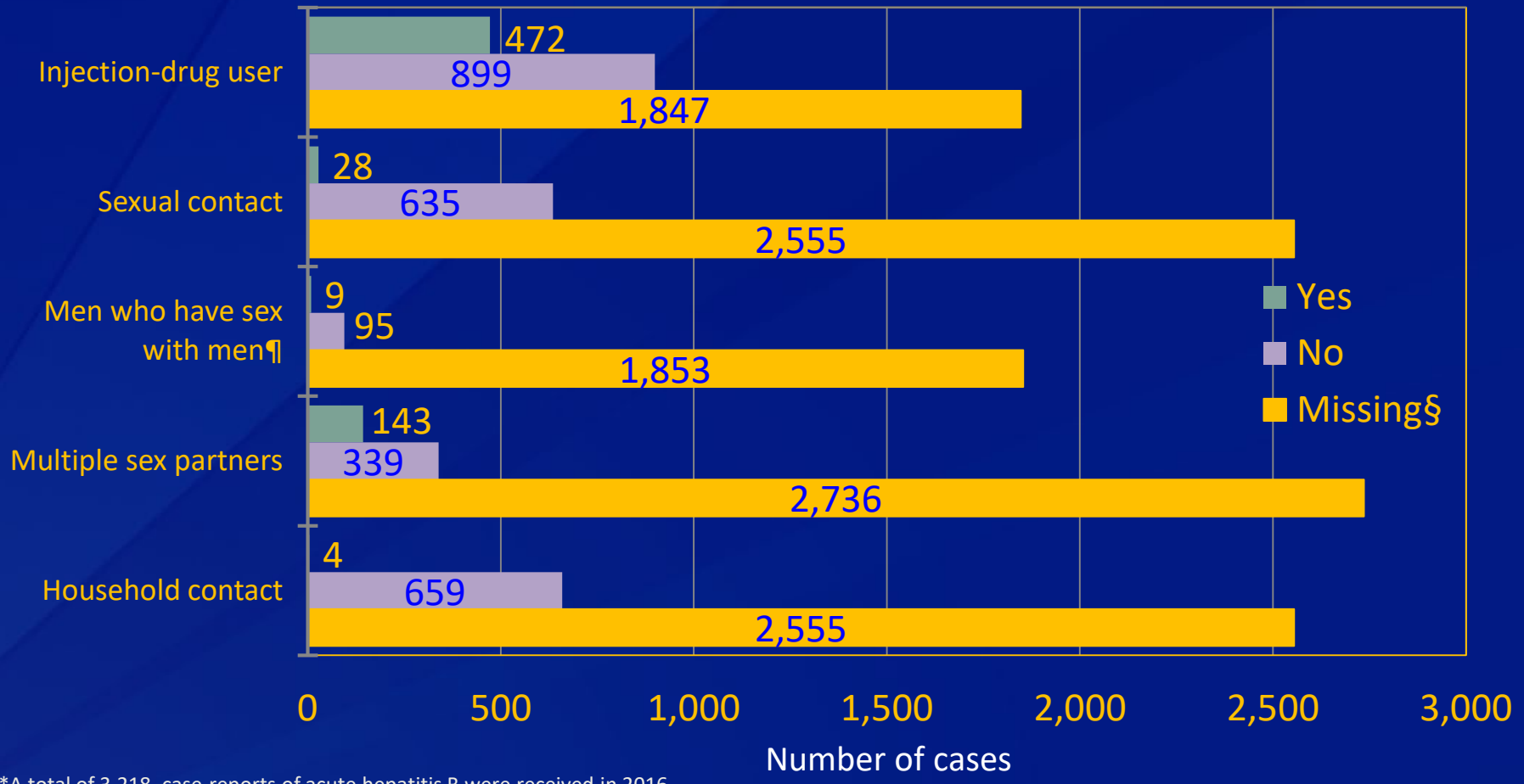
- Transmitted by blood and body fluids
- ~10% of HIV patients are co-infected with HBV

Who is at risk?

Although anyone can get Hepatitis B, some people are at greater risk, such as those who:

- Have sexual contact with an infected person
- Have multiple sex partners
- Have a sexually transmitted disease
- Are men who have sexual encounters with other men
- Inject drugs or share needles, syringes, or other injection equipment
- Live with a person who has Hepatitis B
- Are on hemodialysis
- Are exposed to blood on the job
- Are infants born to infected mothers

Figure 3.6a. Acute hepatitis B reports*, by risk exposure/behavior† — United States, 2016



*A total of 3,218 case-reports of acute hepatitis B were received in 2016.

† More than one risk exposure/behavior may be indicated on each case-report.

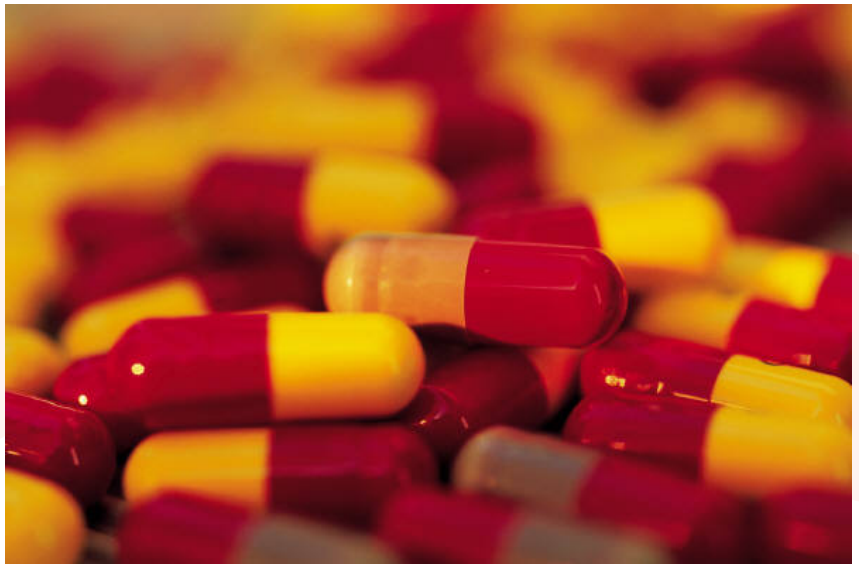
§ No risk data reported.

¶A total of 1,957 acute hepatitis B cases were reported among males in 2016.

Source: National Notifiable Diseases Surveillance System (NNDSS)

HBV Treatment

- Acute infection is not usually treated as most patients clear infection
- Chronic infection MAY require therapy in some patients.
- Available Agents:
  - Interferon alfa-2b (Intron A®)
  - Telbivudine (Tyzeka®)
  - Lamivudine (Epivir®)
  - Emtricitabine (Emtriva®)
  - Adefovir (Hepsera®)
  - Entecavir (Baraclude®)
  - Tenofovir (Viread® and Vemlidy®)



Chronic HBV Management Pearls

- Some patients with chronic HBV without active inflammation do not benefit from treatment.
- Patients with other chronic viral infections (i.e. **HCV** and **HIV**) should receive HBV treatment regardless of HBV disease activity.
- Patients with chronic HBV and **cirrhosis** should receive HBV treatment regardless of HBV disease activity.
- Patients with HBV should have liver fibrosis staged in order to determine appropriate liver-related care.

Indications for Hepatocellular Carcinoma (HCC) Monitoring

- AASLD
  - All patients with cirrhosis
  - Prior recommendations (2010) included:
    - HBV-infected Asian females > 50 years old
    - Asian men >40 years old
    - African and North American blacks
    - Those with family history of HCC.
  - Most recent guidelines (2017) have no recommendations for HCC surveillance in non-cirrhotic patients.

- EASL
  - All patients with cirrhosis
  - All patients with advanced fibrosis (F3)
  - Non-cirrhotic HBV patients at intermediate or high risk of HCC (based on scoring system)

Yilmaz N et al. *Hepatoma Res* 2018.

Hepatocellular Carcinoma (HCC) Screening

- Ultrasound every 6 months with or without alpha-fetoprotein

- Alternatives:
  - Computed tomography with triple-phase contrast every 12 months
  - Magnetic resonance imaging with contrast every 12 month

Does HIV Coinfection Impact HBV HCC Screening Recommendations?

- HIV associated with higher rates of HCC
- Mixed past opinion whether HIV alone is sufficient to warrant HCC screening
- **All patients with cirrhosis in any combination with HBV and/or HIV warrant HCC screening**
  - Study in the Europe demonstrated 14-18% appropriate screening rate even with these limited but definitive criteria. (Willemse S et al. *JVH* 2019.)

While on the subject… what about HCV?

- HCV → fibrosis → cirrhosis → HCC
- HCC screening is NOT recommended when limited fibrosis (F0-F2) present
- HCC screening IS recommended if advanced fibrosis is present (F3-F4) EVEN IF HCV has been treated

Gastroenterology 2018;155:1128–1139

No Association Between Screening for Hepatocellular Carcinoma and Reduced Cancer-Related Mortality in Patients With Cirrhosis

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Case Recommendations

- Check HBV DNA to ensure appropriate treatment goal achieved
- Ensure that future ART incorporates and addresses HBV
- Ensure appropriate HCC monitoring and advanced fibrosis care

Take-Home Points from Webcast #3

- HIV therapy often appropriately addresses HBV co-infection, but this should be specifically considered and addressed.

- Patients with HBV/HIV coinfection may warrant HCC screening depending on liver fibrosis status and other demographic factors.

QUESTIONS?


SVICC
HEPATITIS C
EDUCATION • TRAINING • CONSULTATIVE SUPPORT • CO-MANAGEMENT
Southeast Viral Hepatitis Interactive Case Conference
REGISTER
October 23rd, 2019
12:00 pm – 1:00 pm CST /
1:00 pm – 2:00 pm EST
ANNOUNCING A NEW SOUTHEAST AETC Regional Initiative:
Southeast Viral Hepatitis Interactive Case Conference (SVHICC)
Each week a HIV/HCV/PrEP telehealth topic will be presented with an opportunity to present cases and receive feedback or advice from experts in the Southeast.

Summary

- Viral hepatitis is a major cause or morbidity and mortality in people living with HIV
- Management of HBV and HCV can be combined with appropriate HIV care.
- There are AETC as well as other tools and resources to facilitate viral hepatitis care in people living with HIV

Cody.A.Chastain@vumc.org

THANK YOU!

QUESTIONS?