Alaska Infectious Disease ECHO

ALASKA NATIVE
TRIBAL HEALTH
CONSORTIUM

NPAIHB
Indian Leadership for Indian Health

HCV-HIV-PrEP-STIs

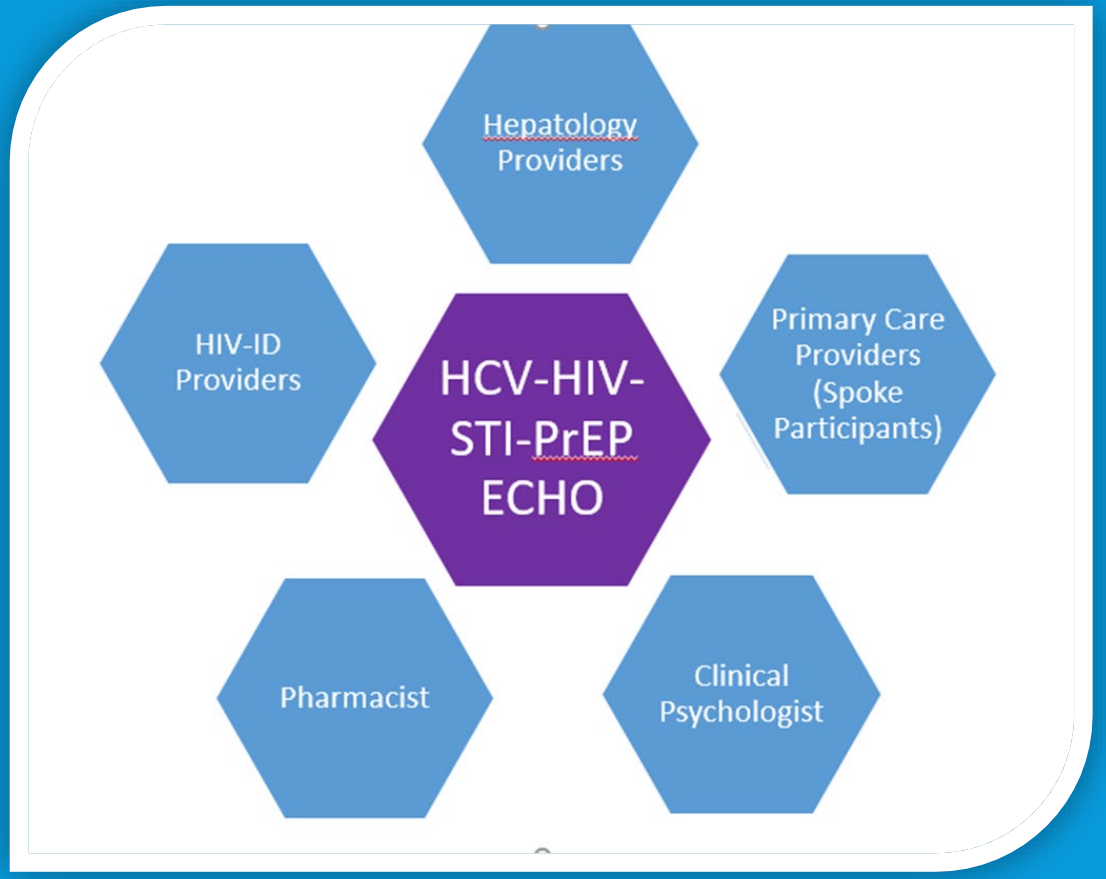
Alaska Native Tribal Health Consortium

WHAT WE DO

- We are accepting case presentations and questions pertaining to:
  - HCV
  - HIV
  - PrEP and Preventative Strategies
  - STIs
- Provide Expert Panelists
- Didactic Presentations pertaining to ECHO topics
- Provide CE/CME including pharmacotherapy credits

CONSULTANT TEAM

- Youssef Barbour, MD Hepatologist
- Leah Besh, PA-C HIV/Hepatology Provider
- Terri Bramel, PA-C HIV/STI Provider
- Rod Gordon, R.Ph. AAHIVP Pharmacist
- Lucia Neander, PhD Clinical Psychologist
- Jacob Gray, MD Infectious Disease Provider
- Annette Hewitt, ANP Hepatology Provider
- Brian McMahon, MD Hepatologist
- Lisa Rea, RN HIV/STI Case Manager
- Lisa Townshend, ANP Hepatology Provider



WELCOME TO AK ID ECHO: HCV, HIV, PREP, STI

Approved Provider Statements:
Alaska Native Tribal Health Consortium (ANTHC) is accredited by the Washington State Medical Association to provide continuing medical education for physicians.

ANTHC is approved as a provider of nursing continuing professional development by the Montana Nurses Association, an accredited approver with distinction by the American Nurses Credentialing Center's Commission on Accreditation.

The Alaska Pharmacists Association (AKPhA) in cooperation with ANTHC is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.

Contact Hours:
ANTHC designates this live activity for a maximum 12 *AMA PRA Category 1 Credit(s)* ™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
ANTHC designates this activity as meeting the criteria for one nursing contact hour credit for each hour of participation up to a maximum 12 hour(s).

To receive CPE credit, participants must complete an Evaluation/Attendance Form for each session attended. You will be required to enter your NABP e-profile ID number, & birthdate (mm/dd). CPE credit will be posted to the online CPE Monitor system within 60 days after completion of each activity. No credit will be reported to CPE Monitor for CEs that do not have a completed evaluation. There is no charge to process CPE credit for ANTHC employees and AKPhA members, but a fee may apply to participants not affiliated with either organization.

Conflict of Interest Disclosures:
Lisa Townshend-Bulson, faculty for this educational event, is the primary investigator in a study funded in part by Gilead Sciences. All of the relevant financial relationships listed for these individuals have been mitigated.

Requirements for Successful Completion:
To receive CE credit please make sure you have actively engaged in the entire activity, your attendance is recorded by the facilitator, and complete the course evaluation form found here: https://forms.gle/18t4EgvN2WdnM4P77

For more information contact
jlfielder@anthc.org or (907) 729-1387

ALASKA NATIVE TRIBAL HEALTH CONSORTIUM

TENTATIVE SCHEDULE AT A GLANCE

- April 13th: STI Epidemiology, Screening, Treating: HIV
- May 11th: STI Epidemiology, Screening, Treating: Syphilis
- June 8th: STI Epidemiology, Screening, Treating, Expedited Partner Therapy: Chlamydia/Gonorrhea
- July 13th: How to take an accurate sexual history
- August 10th: PEP-Post Exposure Prophylaxis
- September 14th: STI prevention programs, initiatives, harm reduction resources
- October 12th: Trauma Informed Care
- November 9th: Stigma with patient perspective
- December 14th: HCV Epidemiology, Alaska Elimination Plan

WHAT'S NEW IN HEPATITIS C?

Annette Hewitt, ANP

Liver Disease and Hepatitis Program

Alaska Native Tribal Health Consortium

ALASKA NATIVE TRIBAL HEALTH CONSORTIUM

OBJECTIVES

- Understand different paradigms for delivery of care to persons with HCV
- Recognize current HCV testing and treatment recommendations in women of childbearing age and pregnant women
- Identify children who should be tested for HCV and at what age should they be treated

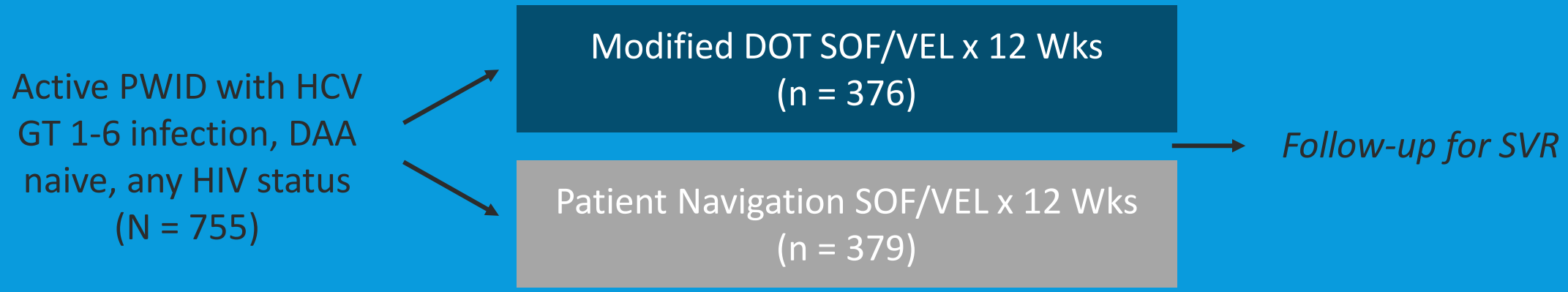
PRE-TEST POLL

In 2020 the CDC updated the HCV antibody screening recommendations to include:

1. Age group 21-45
2. Baby boomer age group, born 1946-1964
3. Adults age 18 and older and pregnant women with every pregnancy regardless of risk factors

HERO: ASSESSING DAA THERAPY FOR HCV IN PWID IN 'REAL-WORLD' SETTINGS

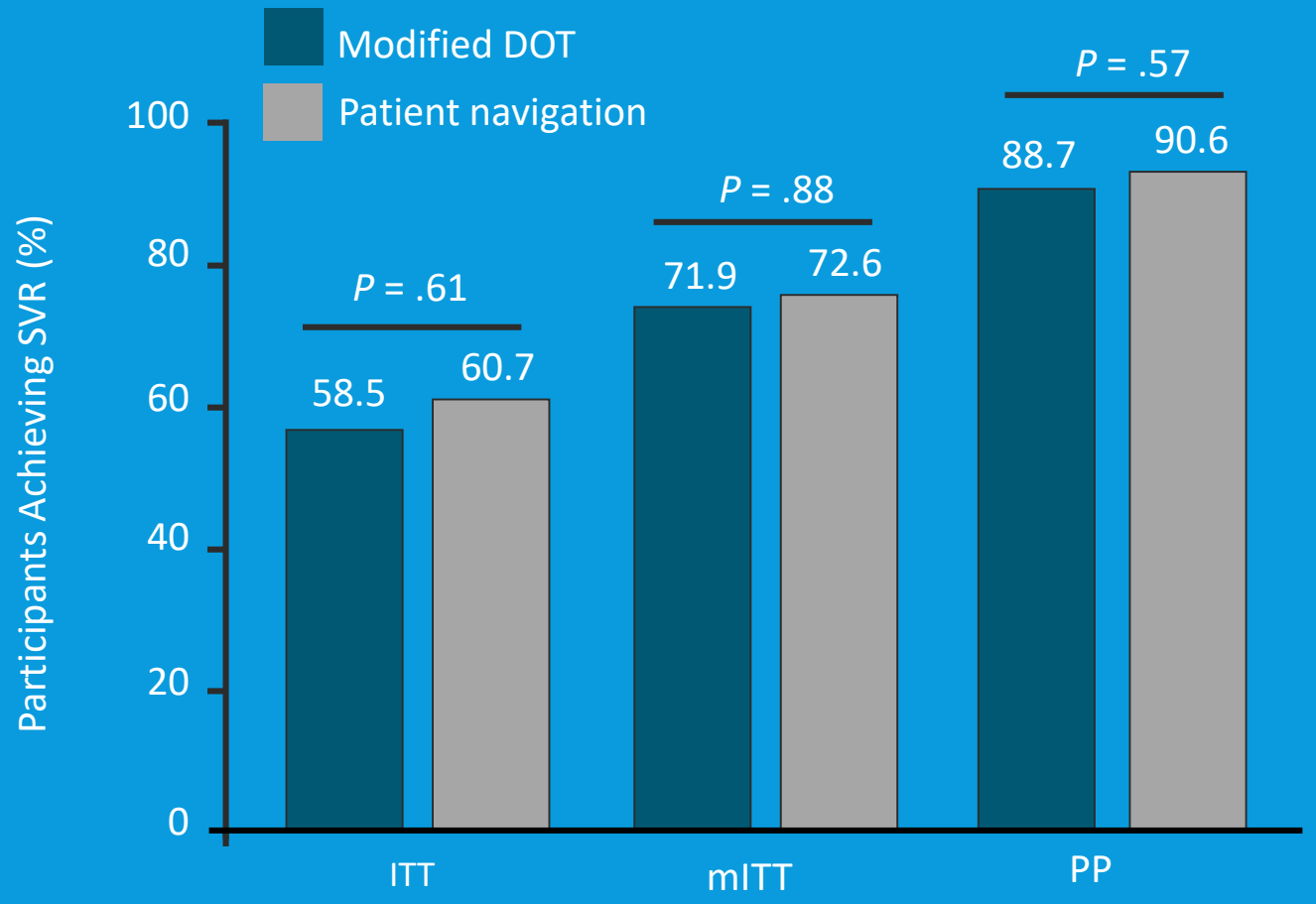
- US-based study of active PWID (IDU within prior 12 wks) receiving onsite HCV treatment with SOF/VEL for 12 wks at community-based center or opioid treatment program



- Primary outcome: SVR12
- Secondary outcomes: treatment initiation, adherence, completion

Litwin. AASLD 2020. Abstr LO10.

- Similar rates of treatment initiation (81.4% vs 83.6%; *P* = .414) and treatment completion (66.8% vs 69.7%; *P* = .392) with modified DOT vs patient navigation in mITT analysis



Litwin. AASLD 2020. Abstr LO10.

Slide credit: clinicaloptions.com

HERO:

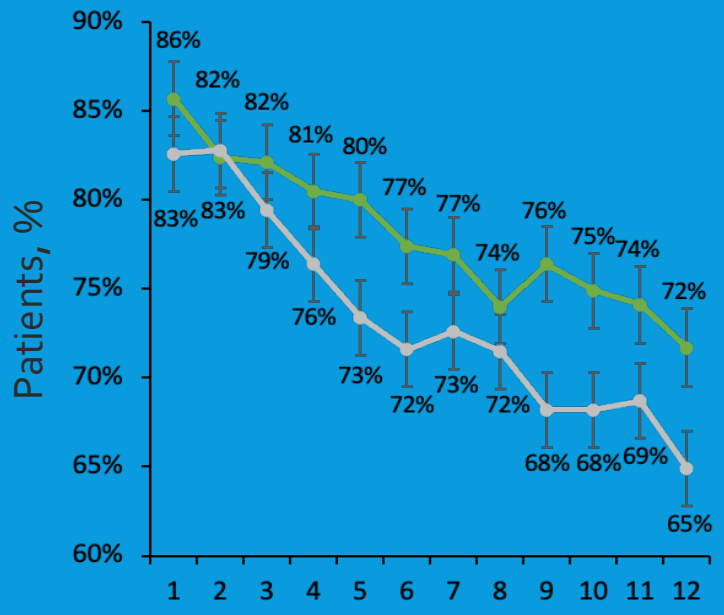
SVR predictors

- Positive predictors: **age ≥40** vs < 40 yrs (*P* = .004); **Latino** vs other ethnicity (*P* = .021); **stable** vs unstable housing (*P* < .001)**; OUD treatment with methadone vs buprenorphine** in previous 3 mos (*P* = .004); **less recent drug injection** 5-12 vs 0-4 wks (*P* = .001)
- Negative predictors: **injecting > 2** vs ≤ 2 times/day (*P* = .001); **injected ≥ 30** vs < 30 days in previous 3 mos (*P* = .035); **positive urine toxicology test** for methamphetamine (*P* = .016), cocaine (*P* = .024), opiate (*P* = .006)

Litwin. AASLD 2020. Abstr LO10.

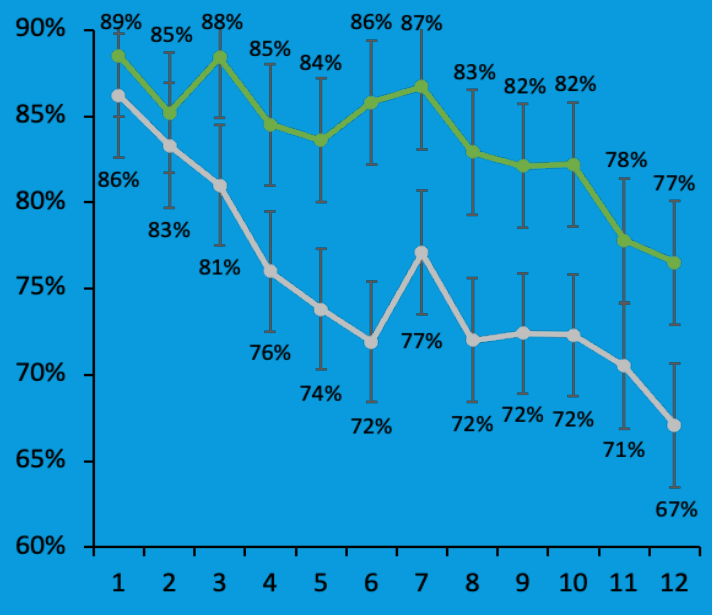
HERO: ADHERENCE IN mITT POPULATION

All Participants



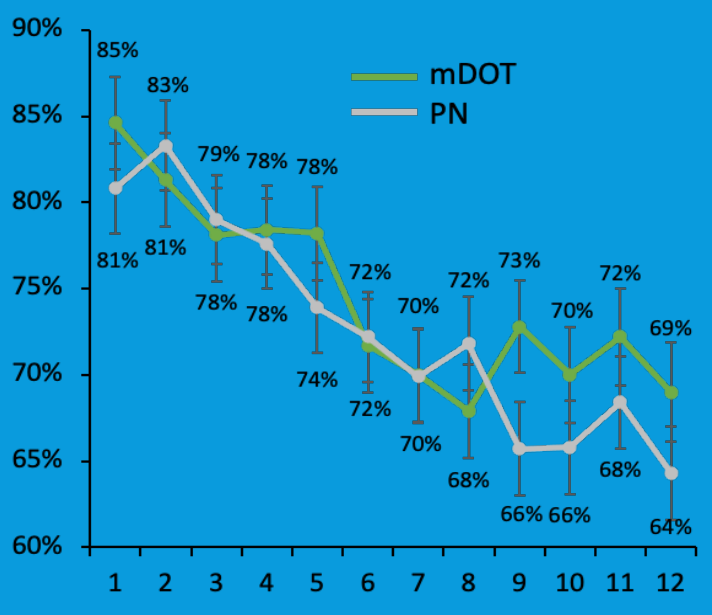
Comparison	Estimate	*P* Value
mDOT vs PN	78.0 vs 73.4	.001

Opioid Treatment Programs



Comparison	Estimate	*P* Value
mDOT vs PN	83.7 vs 75.3	< .001

Community-Based Clinics



Comparison	Estimate	*P* Value
mDOT vs PN	74.5 vs 72.7	.333

- Positive predictors of adherence: age ≥ 40 yrs, employed, last IDU 5-12 wks ago vs sooner
- Negative predictors of adherence: clinic type, IDU > twice daily, ≥ 30 days injecting during prior 3 mos, positive urine toxicology screen (meth/amphetamine, opiate, oxycodone)

Litwin. AASLD 2020. Abstr LO10.

HERO:

- HERO study demonstrates that actively injecting PWID can achieve high SVR in diverse settings with either mDOT or Patient Navigator support and that adherence and treatment completion matter.

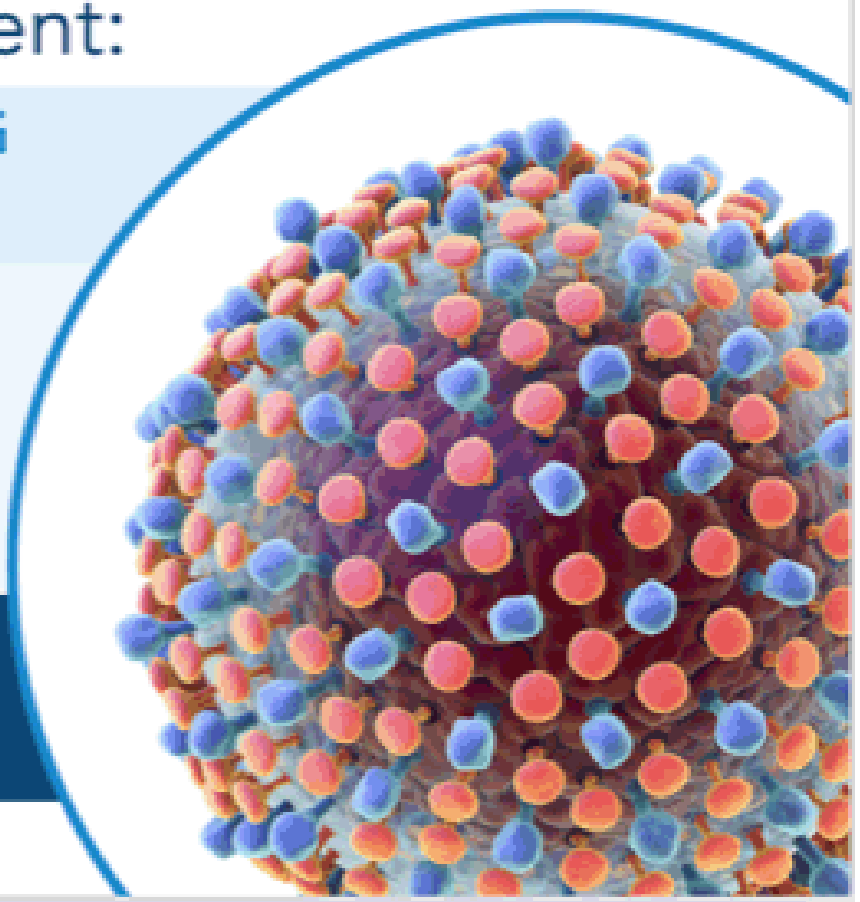
The "Keep It Simple and Safe" Approach to HCV Treatment:

Primary Outcomes from the ACTG A5360 (MINMON) Study

Sunil Solomon, Sandra Wagner-Cardoso, Laura Smeaton, Leonard Sowah, Chanelle Wimbish, Greg Robbins, Irena Brates, Nelson Cheinquer, Anchalee Avihingsanon, Ben Linas, Donald Anthony, Estevão Portela Nunes, Breno Riegel Santos, Khuanchai Supparatpinyo, Cissy Mutuluuza Kityo, Jaclyn Ann Bennet, Marije Van Schalkwyk, Jorge Santana-Bagur, Annie Son, Susanna Naggie, David Wyles, Mark Sulkowski

16 November 2020

The Liver Meeting Digital Experience (TLMdX) 2020; Abstract# LO7



AASLD 2020 Nov 11-16 virtual

Sunil Solomon, Sandra Wagner-Cardoso, Laura Smeaton, Leonard Sowah, Chanelle Wimbish, Greg Robbins, Irena Brates, Nelson Cheinquer, Anchalee Avihingsanon, Ben Linas, Donald Anthony, Estevao Portela Nunes, Breno Riegel Santos, Khuanchai Supparatpinyo, Cissy Mutuluuza Kityo, Jaclyn Ann Bennet, Marije Van Schalkwyk, Jorge Santana-Bagur, Annie Son, Susanna Naggie, David Wyles, Mark Sulkowski

https://www.natap.org/2020/AASLD/AASLD_68.htm

Study Design and Setting

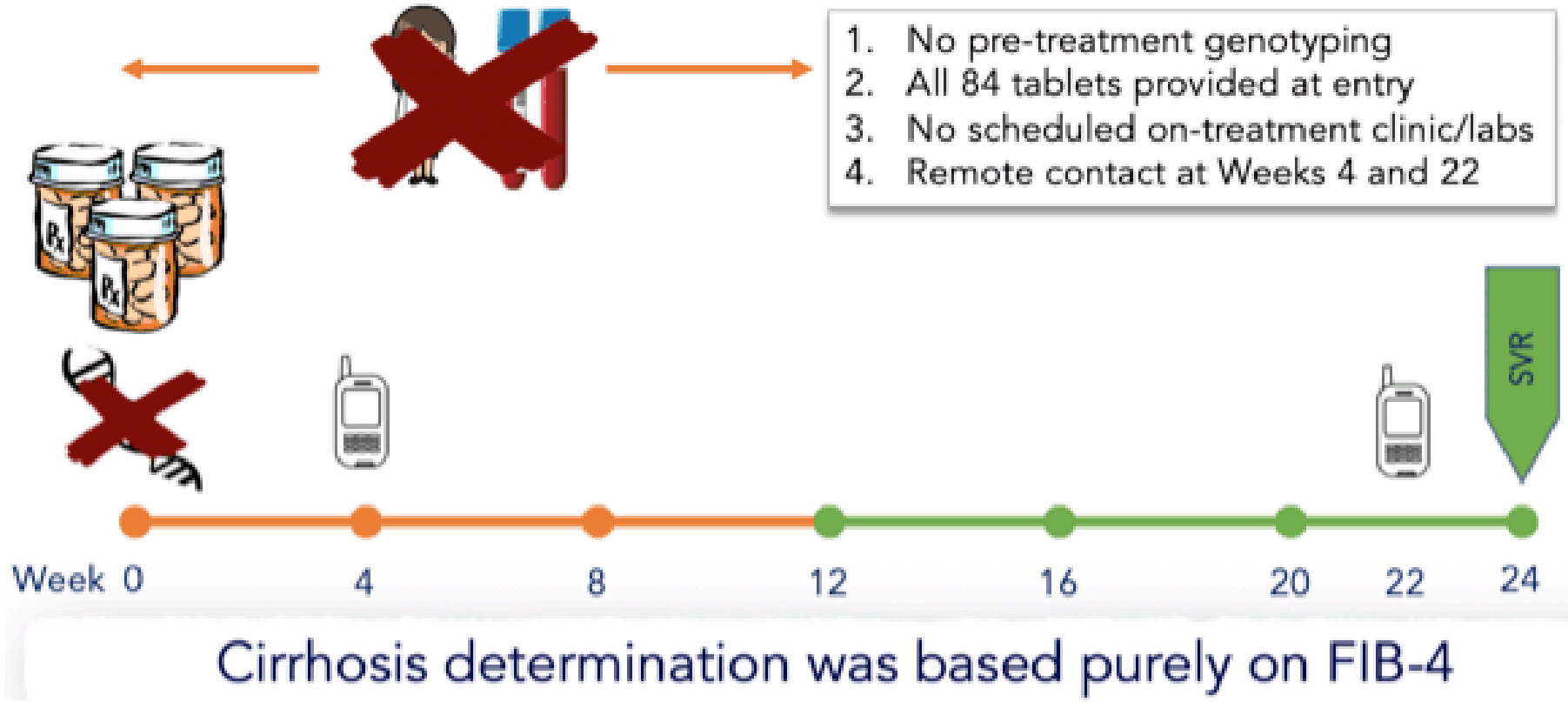
- Phase IV
- Open-label
- Multi-country
  - Brazil, South Africa, Thailand, Uganda, United States*
- Single-arm trial
- 400 participants
- 38 ACTG (DAIDS-certified) sites
- All participants received fixed-dose SOF (400mg)/VEL (100mg) one tablet once daily for 12 weeks

*Recruitment at US sites limited to 132 participants

ACTG

https://www.natap.org/2020/AASLD/AASLD_68.htm

The "MINMON" Approach



Cirrhosis determination was based purely on FIB-4

https://www.natap.org/2020/AASLD/AASLD_68.htm

Key Eligibility Criteria

1. Age≥18 years
2. Written informed consent
3. Able/willing to be contacted remotely
4. Active HCV infection (HCV RNA > 1000 IU/ml)
5. No prior HCV treatment
6. Persons with compensated cirrhosis were eligible (≤ 20% of

Exclusion Criteria

Pregnancy

Chronic HBV infection (HBsAg positive)

Decompensated Cirrhosis

https://www.natap.org/2020/AASLD/AASLD_68.htm

Study Population

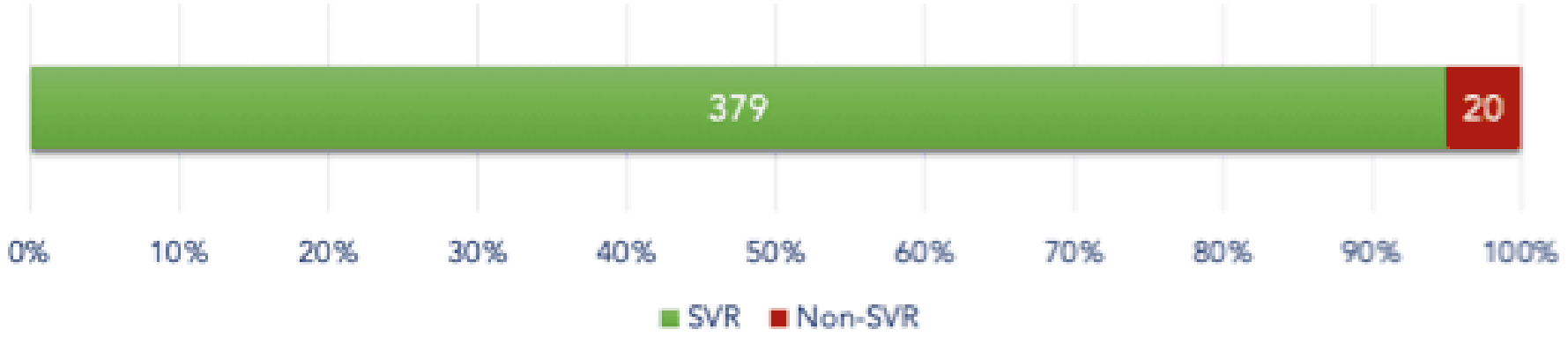
Baseline Characteristic	N=399
Median age in years (Range)	47 (20 – 82)
Female sex at birth, n (%)	139 (35)
Identity across transgender spectrum, n (%)	22 (6)
Race, n(%)	
White	166 (42)
Black	72 (18)
Asian	113 (28)
History of injection drug use, n (%)	
Current	12 (3)
Previous	124 (31)
Cirrhosis (FIB-4 ≥ 3.25), n (%)	34 (9)
Median HCV RNA in log10 IU/ml (IQR)	6.1 (5.6 – 6.6)
HIV co-infection, n(%)	166 (42)
*On cART, HIV RNA<400 copies/ml, n (%)**	164 (99)

*cART: combination antiretroviral therapy; *restricted to HIV/HCV co-infected participants*

https://www.natap.org/2020/AASLD/AASLD_68.htm

Efficacy: Sustained Virologic Response

- HCV RNA data at SVR were available for 396/399 participants
  - 383 samples collected at Week 24 (-2/+4 weeks)



Sustained virologic response: 95% (95% CI: 92.4, 96.7)

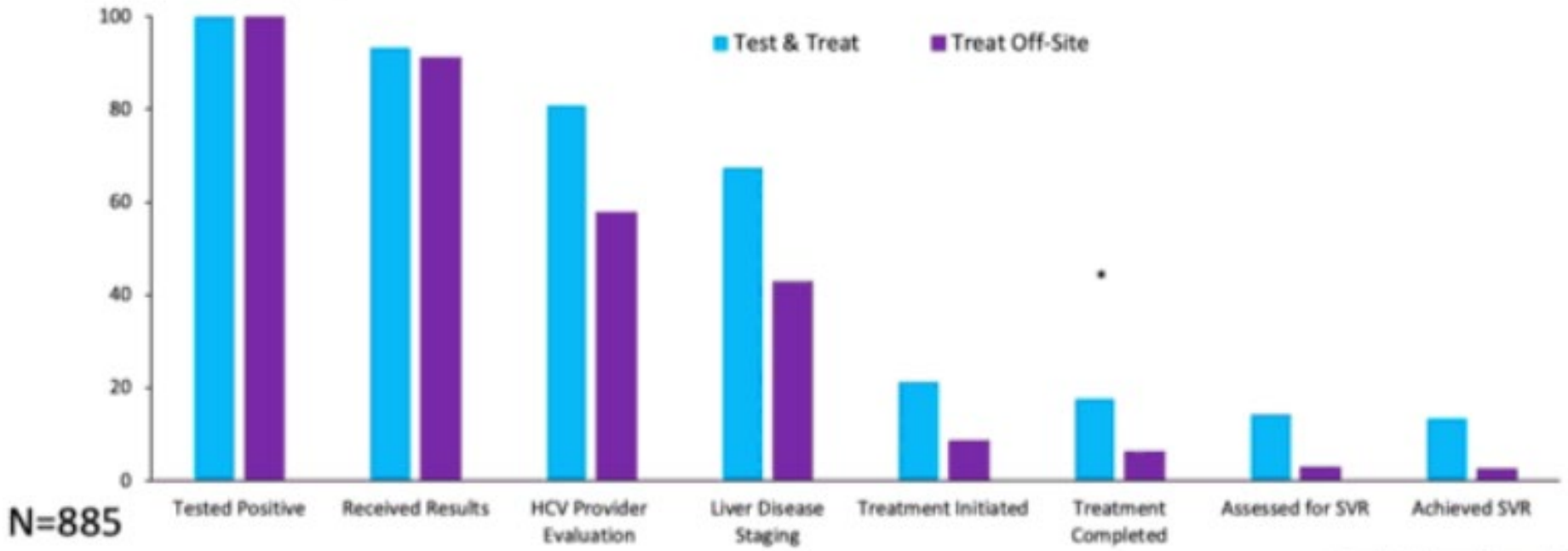
https://www.natap.org/2020/AASLD/AASLD_68.htm

MINMON

- The MINMON study demonstrates that high SVR rates can be achieved with minimal on therapy monitoring/ labs.

TEST AND TREAT

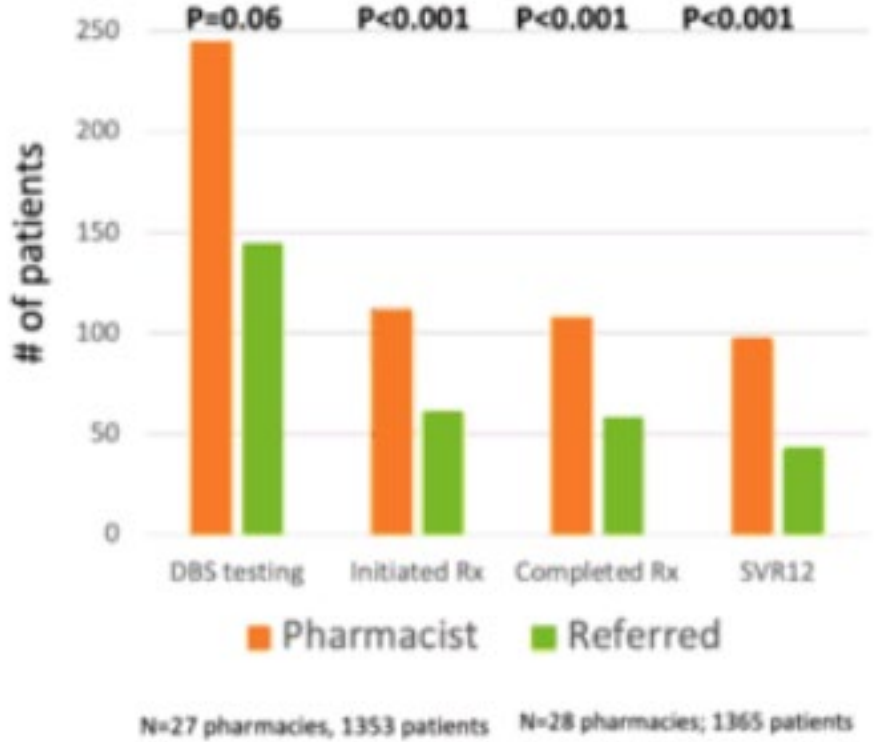
- **Continuum of care for patients with chronic HCV in 5 FQHC, Philadelphia 2012-2016**
- **Universal screening: diverse underserved populations**
- **Primary care providers: 2 models of care**



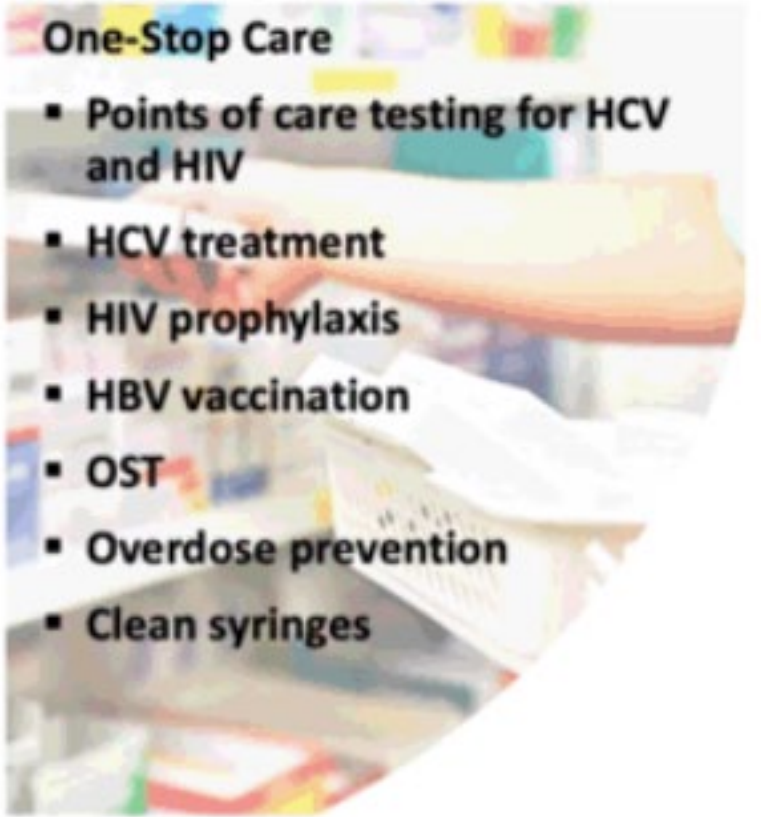
Coyle C, Hepatology, 2019

PHARMACIST LED TESTING AND TREATMENT

- Pragmatic test-and-treat trial based in community pharmacies in Scotland
- Target population is stable (>3 months) OST clients



Radley A, Lance Gastroenterol Hepatol 2020;9:809-818



https://www.thelancet.com/journals/langas/article/PIIS2468-1253(20)30184-9/fulltext

TAKING CARE TO THE STREETS OF LOS ANGELES

- Point-of-care HCV testing
- Linkage with local access to treatment

- Issues:
  - Competing priorities
  - Misinformation on side effects/efficacy
  - Lack of secure location for medications
  - Food insecurity

Photos courtesy of Shannon Fernando FNP-C

AND, THE STREETS OF SAN FRANCISCO

DeLIVER Care Van in San Francisco

- Began as a mobile HCV screening, fibrosis staging, and linkage project
- Evolved to offer on-site HCV treatment
- HCV provider provides telemedicine visit on the van

Slide courtesy of Jenny Price, MD

DeLIVER Care
MOBILE UNIT

USPSTF AND CDC HCV SCREENING RECOMMENDATIONS

Recommendation Summary

Population	Recommendation	Grade
Adults aged 18 to 79 years	The USPSTF recommends screening for hepatitis C virus (HCV) infection in adults aged 18 to 79 years.	B

Universal hepatitis C screening:

- Hepatitis C screening at least once in a lifetime for all adults aged ≥18 years, except in settings where the prevalence of HCV infection (HCV RNA-positivity is <0,1%
- Hepatitis C screening for all pregnant women during each pregnancy, except in settings where the prevalence of HCV infection (HCV RNA-positivity is <0.1%

UNIVERSAL TREATMENT OF ALL W/ HCV

- Treat all except those with a short life expectancy that can not be remediated by HCV therapy, liver transplant, or another disease directed therapy
- Includes persons with ongoing substance use (drugs or alcohol)
- Includes acute or chronic infection

https://www.hcvguidelines.org/evaluate/when-whom

ACUTE HCV

- Initiate treatment without waiting for spontaneous resolution
- Counsel those with acute infection to avoid hepatotoxic drugs (acetaminophen) and alcohol to prevent further liver insult.
- Refer to addiction medicine if substance using
- Offer harm reduction and education to prevent transmission to others

AASLD: TREATMENT OF WOMEN OF CHILDBEARING AGE

Recommendation Regarding HCV Treatment and Pregnancy	Rating
For women of reproductive age with known HCV infection, antiviral therapy is recommended before considering pregnancy, whenever practical and feasible, to reduce the risk of HCV transmission to future offspring	I, B

- Counsel about benefit of antiviral treatment before pregnancy
- If a woman becomes pregnant while receiving HCV DAA therapy, providers should discuss the risks vs benefits of continuing treatment
- Ribavirin is contraindicated in pregnancy due to teratogenicity (wait at least 6 mos after completion of ribavirin therapy to get pregnant)

Slide credit: clinicaloptions.com

AASLD STATEMENT: HCV TREATMENT DURING PREGNANCY

"Despite the lack of a recommendation, treatment can be considered during pregnancy on an individual basis after a patient-physician discussion about the potential risks and benefits."[1]

"For women on therapy who become pregnant, the decision to continue therapy requires careful consideration of (1) risk for virologic relapse; (2) risk of MTCT; (3) access and financial concerns; (4) patient and clinician preferences; and (5) limited safety data on DAAs in pregnancy."[2]

1. AASLD. HCV in Pregnancy. https://www.hcvguidelines.org/unique-populations/pregnancy. 2. Sarkar. Reproductive Health and Liver Disease: Practice Guidance by the American Association for the Study of Liver Diseases. Hepatology. 2020;[Epub].

WHY CONSIDER ANTIVIRAL THERAPY DURING PREGNANCY?

- Potential to reduce risk of MTCT; similar to HBV /HIV
- Pregnancy is often a time when women have health insurance; opportune time to treat HCV concurrent with pregnancy care
- Provides opportunity to cure HCV in women with high-risk behaviors to prevent transmission to others, including injecting partners

Slide credit: clinicaloptions.com

TREATING HEPATITIS C IN PREGNANCY

- Magee-Womens Hospital Pittsburgh, 7 pregnant women received Led/Sof (Harvoni) during 2nd trimester. 100% SVR. All adverse events related to LDV/SOF were ≤ grade 2. Chappell et al.
- Australia Sof/Vel (Epclusa) starting between 22 and 24 weeks gestation. Goal is to eval safety and pharmacokinetics during 2nd and 3rd trimester. Enrollment open 3/2/2020
- University of Pittsburgh Sof/Vel (Epclusa) treatment initiated during 2nd trimester. 10 participants. Enrollment started 10/22/2020

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7491553/
https://clinicaltrials.gov/ct2/show/NCT04382404?term=pregnancy&cond=HCV&draw=1&rank=4

SAFETY OF DAAS IN PREGNANCY

DAA	Pregnancy	Lactation	Fertility	Historical FDA Classification
Glecaprevir/ pibrentasvir	No birth defects reported in animal data	Detected in rat milk; no human data	No effect on fertility in rats; no human data	None assigned
Ledipasvir/ sofosbuvir	No birth defects reported in animal data	Detected in rat milk; no human data	No effect on fertility in rats; no human data	B*
Sofosbuvir/ velpatasvir	Increase in visceral malformations with velpatasvir alone in rabbits	Detected in rat milk; no human data	No effect on fertility in rats; no human data	None assigned

*Animal reproduction studies have failed to demonstrate a risk to the fetus and there are no adequate and well-controlled studies in pregnant women.

Slide credit: clinicaloptions.com

CHILDREN WITH HEPATITIS C

- Test all perinatal exposed
- 18 mo w/ HCV ab, then HCV RNA at ≥ 3 years old
- HCV RNA as early as 2 months
- No risk of participation in group activities, sports
- Universal precautions at home and school/daycare to prevent transmission

https://www.hcvguidelines.org/unique-populations/children

TREAT HCV INFECTED CHILDREN ≥ 3 YRS

- Ledipasvir/sofosbuvir (Harvoni)
  - ≥ 3 years of age
- Sofosbuvir/velpatasvir (Epclusa) - new in 2020!
  - ≥ 6 years of age and weighing at least 17 kg
- Glecaprevir/pibrentasvir (Mavyret)
  - ≥ 12 years old and weighing at least 45 kg

CONCLUSIONS

- HCV Care can be delivered successfully at alternative care sites and must move beyond specialty care to reach the goal of elimination
- Studies are underway to determine safety and efficacy of DAAs in pregnancy
- HCV treatment is currently recommended in children 3 years of age and older

POST-TEST POLL

In 2020 the CDC updated the HCV antibody screening recommendations to include:

1. Age group 21-45
2. Baby boomer age group, born 1946-1964
3. Adults age 18 and older and pregnant women with every pregnancy regardless of risk factors

Visit our website:
www.anthc.org/hep

Thank you!

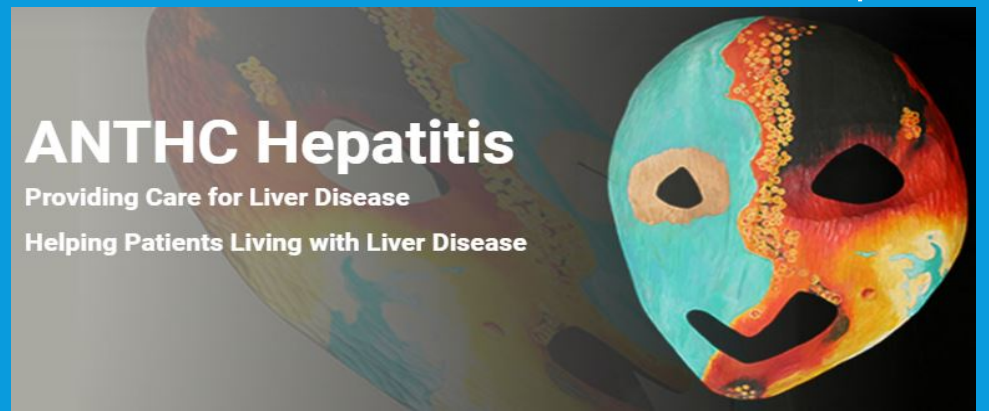
PROVIDER QUESTION:

- Patient started on HCV treatment on 2/16; then lost to follow-up. She may have taken anywhere from 1-7 days of medication. If she presents at what point cannot I not re-start her therapy? 1 month? 2?

QUESTIONS?

ADDITIONAL LEARNING OPPORTUNITIES

- ANTHC Liver Disease ECHO
  - The 3rd Thursday of every month from 12:00-1:00PM Alaska Standard Time
  - 1CE/CME offered per session
  - anthc.org/project-echo/alaska-liver-disease-echo
- ANTHC LiverConnect
  - Second Tuesday of every month 8:00-9:00AM Alaska Standard Time
  - Didactic topics on liver related disease with 1CE/CME offered
  - anthc.org/what-we-do/clinical-and-research-services/hep/liverconnect/



ID ECHO: HCV-HIV-STI-PREP TEAM CONTACTS

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