AETC AIDS Education & Training Center Program

Models of Hepatitis C Care for People with Substance Use Disorders: Creating Treatment Champions

A national webinar sponsored by the AIDS Education and Training Center Program

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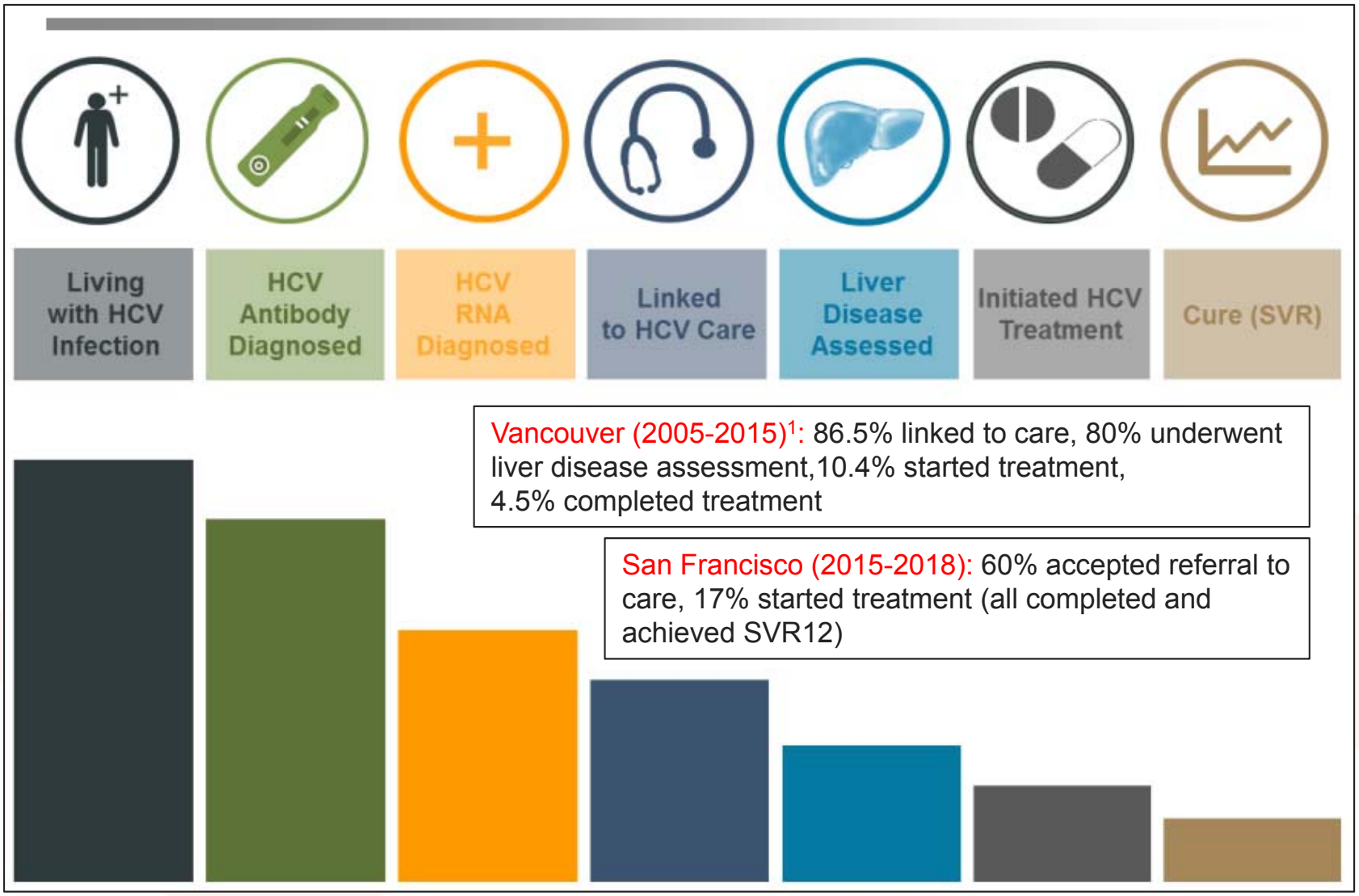
Faculty disclosures

The presenters have no relevant financial relationships or affiliations with commercial interests to disclose.

Learning objectives

- Understand and address common misperceptions about providing hepatitis C virus (HCV) treatment to people with substance use disorders
- Discuss the role of clinical champions in improving access to HCV treatment for persons with substance use disorders
- Describe emerging models of care for engaging people with substance use disorders in HCV treatment and support
- Describe considerations for special scenarios (including HIV and/or hepatitis B virus [HBV] co-infection, pregnant/parenting women, under/uninsured patients, and unstable housing)
- Identify available resources for additional information and clinical support

HCV Care Cascade: People Who Inject Drugs (PWID)



Infographic used with permission from J. Grebely

Young, et al. Subs Abuse 2018; Morris, et al. Drug Alc Dep 2019.

HCV and substance use: common misperceptions

- ***"People with substance use (including alcohol) are not eligible for HCV treatment.."***
- *"PWID are at high risk for reinfection and therefore should not receive HCV treatment.."*
- *"Treating HCV among people with substance use is not cost effective for health care systems.."*
- *"People with HIV-HCV co-infection must have HIV viral suppression on ART before initiating HCV treatment.."*

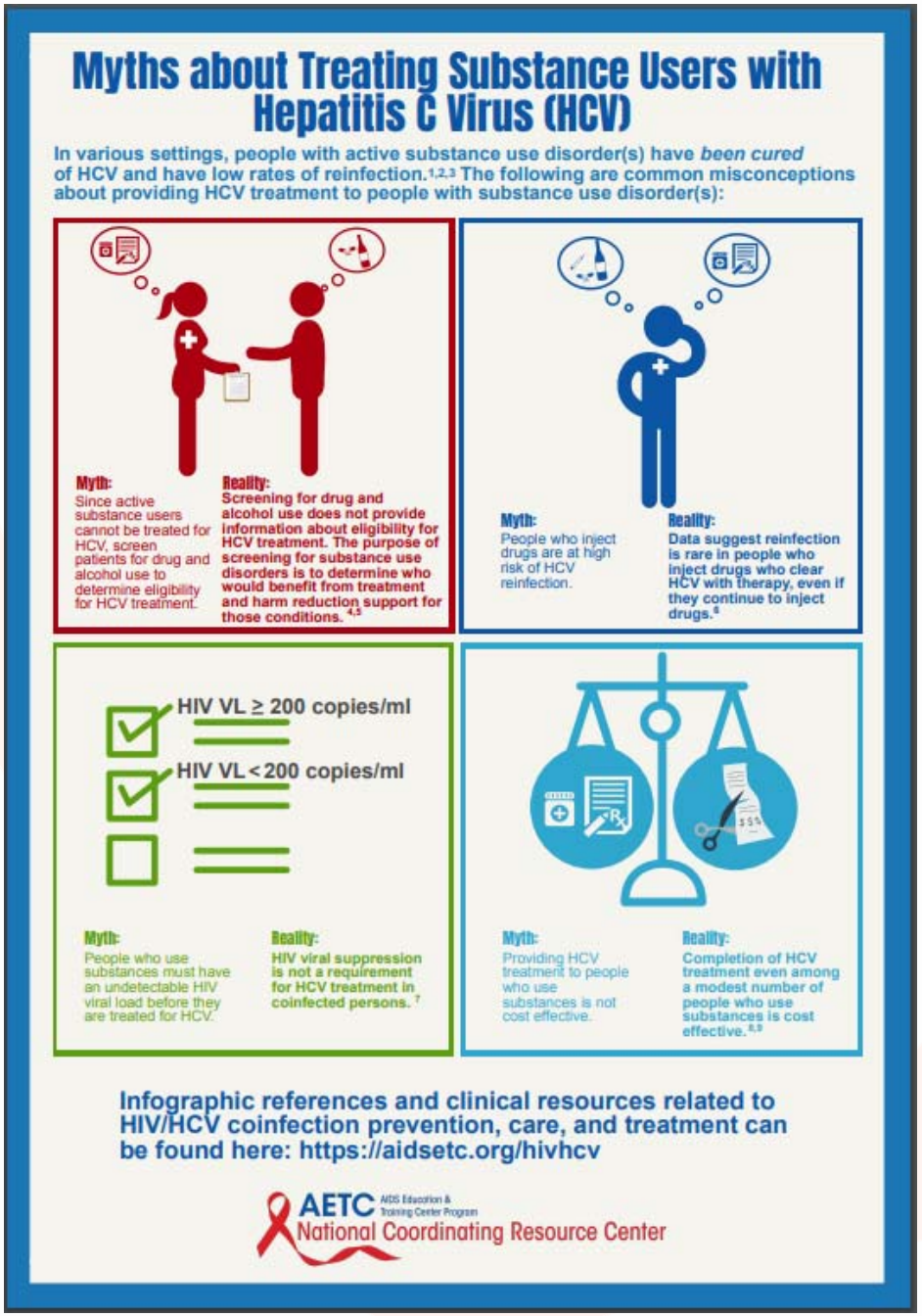
Download resources at: https://aidsetc.org/resource/myths-about-treating-substance-users-hepatitis-c-virus

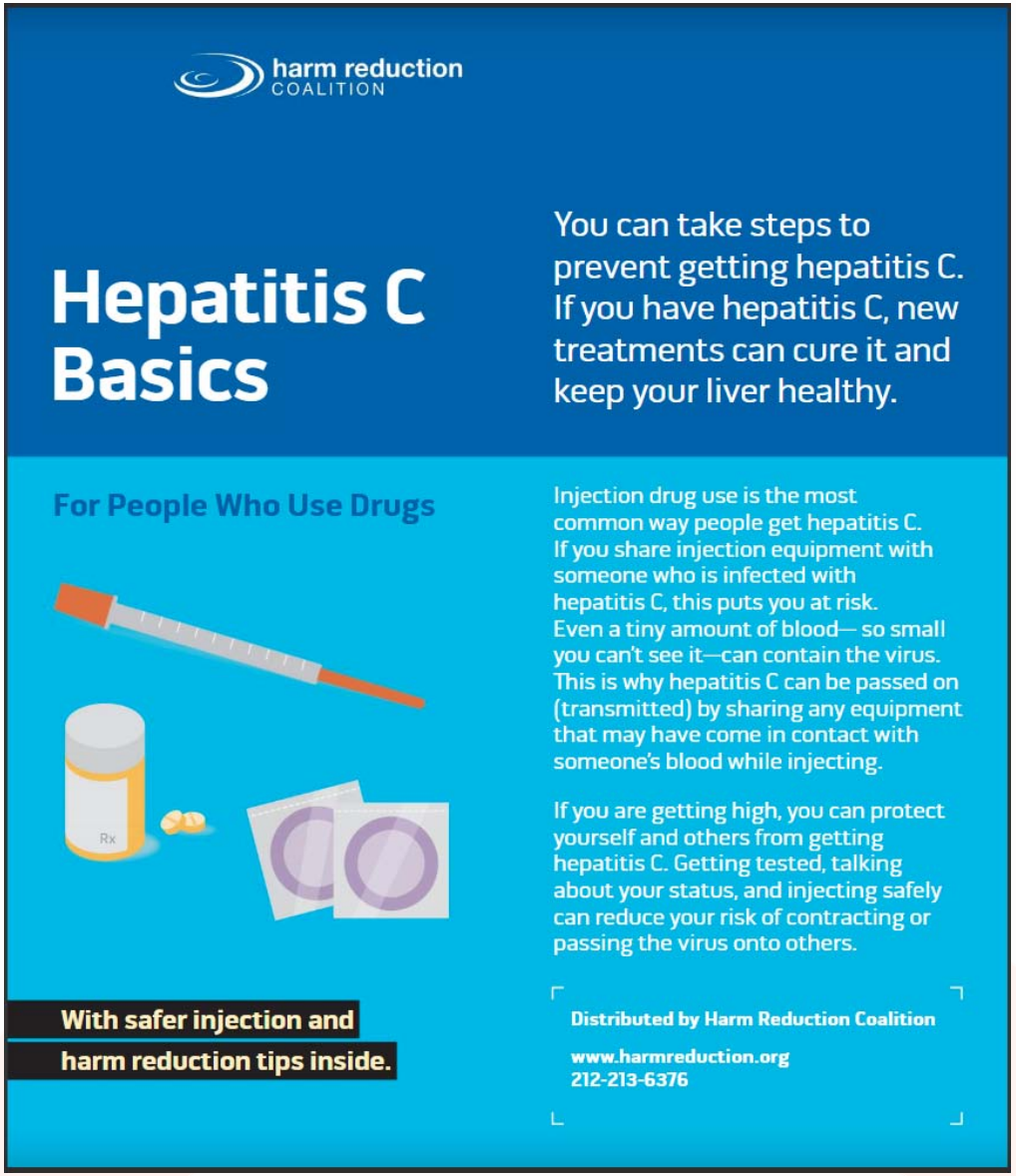
Myth:

Since active substance users cannot be treated for HCV, screen patients for drug and alcohol use to determine eligibility for HCV treatment.

Reality:

Screening for drug and alcohol use does not provide information about eligibility for HCV treatment. The purpose of screening for substance use disorders is to determine who would benefit from treatment and harm reduction support for those conditions.[4,5]





https://aidsetc.org/resource/myths-about-treating-substance-users-hepatitis-c-virus

https://harmreduction.org/hepatitis-c/hcv-basics/

Perceived barriers for patients on opioid agonist treatment

- Patient concerns: side effects, safety, effectiveness, timing
- Attitudes towards providers: "*Nobody has been monitoring my hepatitis C… they monitor everything but that. If I got a dirty urine… they monitor that before my liver or hepatitis.*"
  - Some patients felt discouraged against pursuing HCV treatment by their substance use providers, and felt this represented lack of provider concern for patients' health and well-being
  - Some also felt stigmatized because of their opioid use history
- System-level challenges: long wait times to specialty appointments, rigid scheduling processes (no open access)

Zickmund SL, Campbell SA, Tirado CF, et al. Perceived barriers to hepatitis C therapy for patients receiving opioid agonist treatment. J Addict Med. 2012; 6: 233-239.

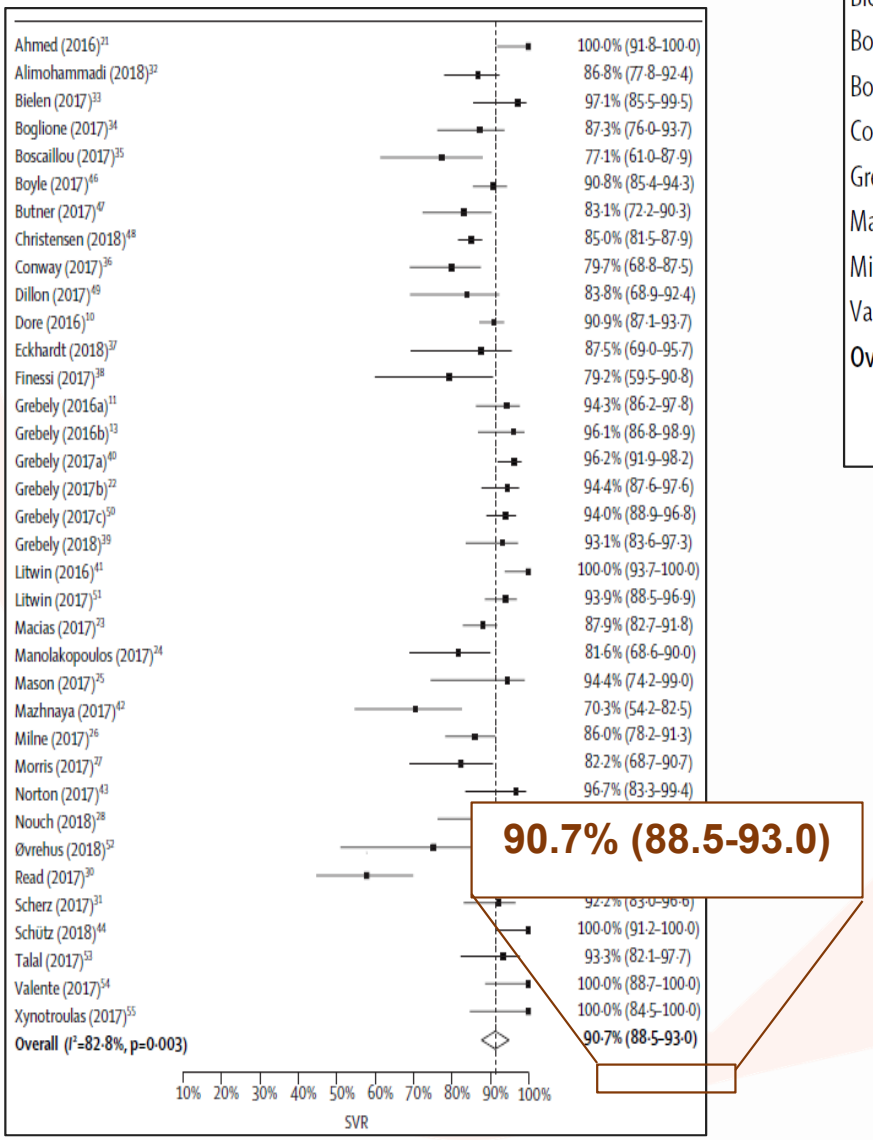
HCV treatment is highly effective for PWID

- Multiple clinical trials involving PWID who report current injection drug use (IDU) at treatment (tx) start and/or continued use during therapy: cure rates approaching 95%!
  - C-EDGE COSTAR: elbasvir (EBV)/grazoprevir (GZR) x 12 weeks (wks)
  - SIMPLIFY: sofosbuvir (SOF)/velpatasvir (VEL) x 12 wks
  - ION, ASTRAL, POLARIS: SOF-based treatment x 8-24 wks

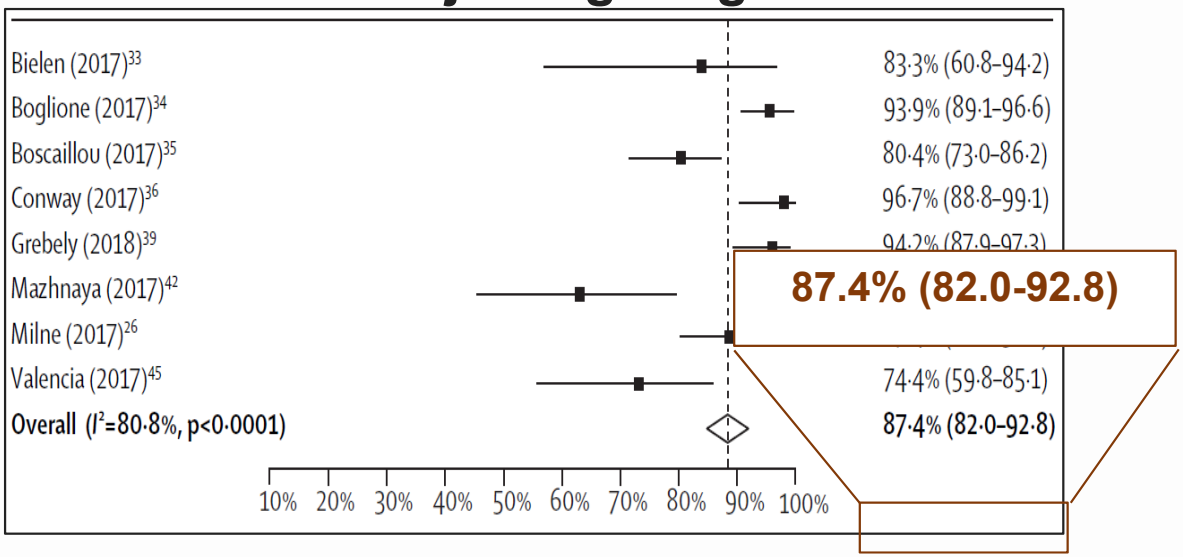
- "Real world" cohorts also demonstrate high cure rates
  - ANCHOR: SOF/VEL x 12 wks, based at D.C. harm reduction center
  - Bronx: HCV-addiction specialist + HCV care coordinator integrated within adult primary care setting
  - Veterans Affairs (recent European Association for the Study of the Liver [EASL] presentation): EBR/GZR x 12 wks
  - German Hepatitis C Registry (EASL): EBR/GZR-based tx

2018 systematic review & meta-analysis

Opioid Agonist Treatment or OAT (methadone/buprenorphine)



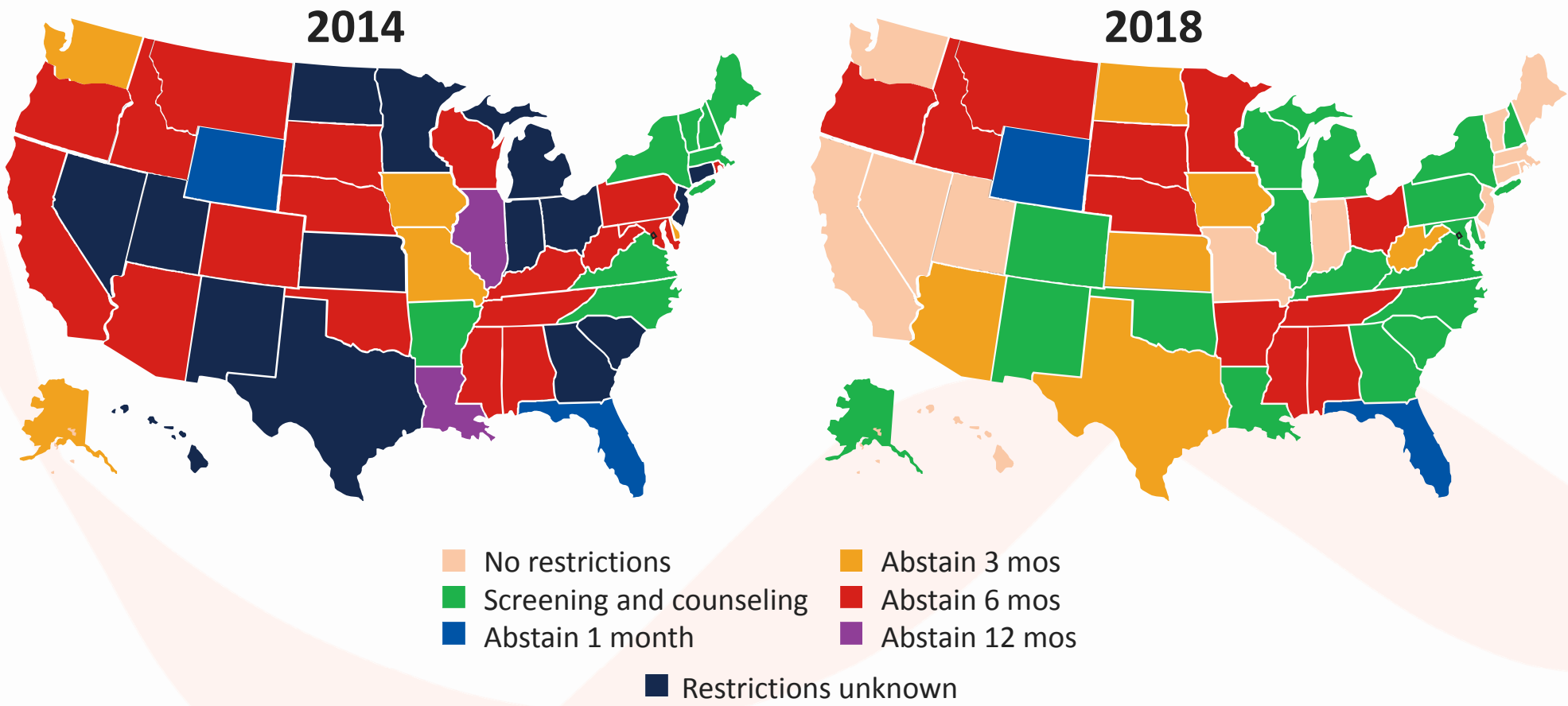
Recent injecting drug use



First systematic review & meta-analysis to estimate direct-acting antiviral (DAA) treatment completion, sustained viral response (SVR), long term follow-up (LTFU) among people with recent drug use and those on OAT: **DAA response is highly favorable**, and LTFU seems to be main driver for differences in treatment response (in observational studies, not clinical trials).

Hajarizadeh B, Cunningham EB, Reid et al. Direct-acting antiviral treatment for hepatitis C among people who use or inject drugs: a systematic review and meta-analysis. Lancet Gastro Hep 2018.; Images used with permission from J. Grebely

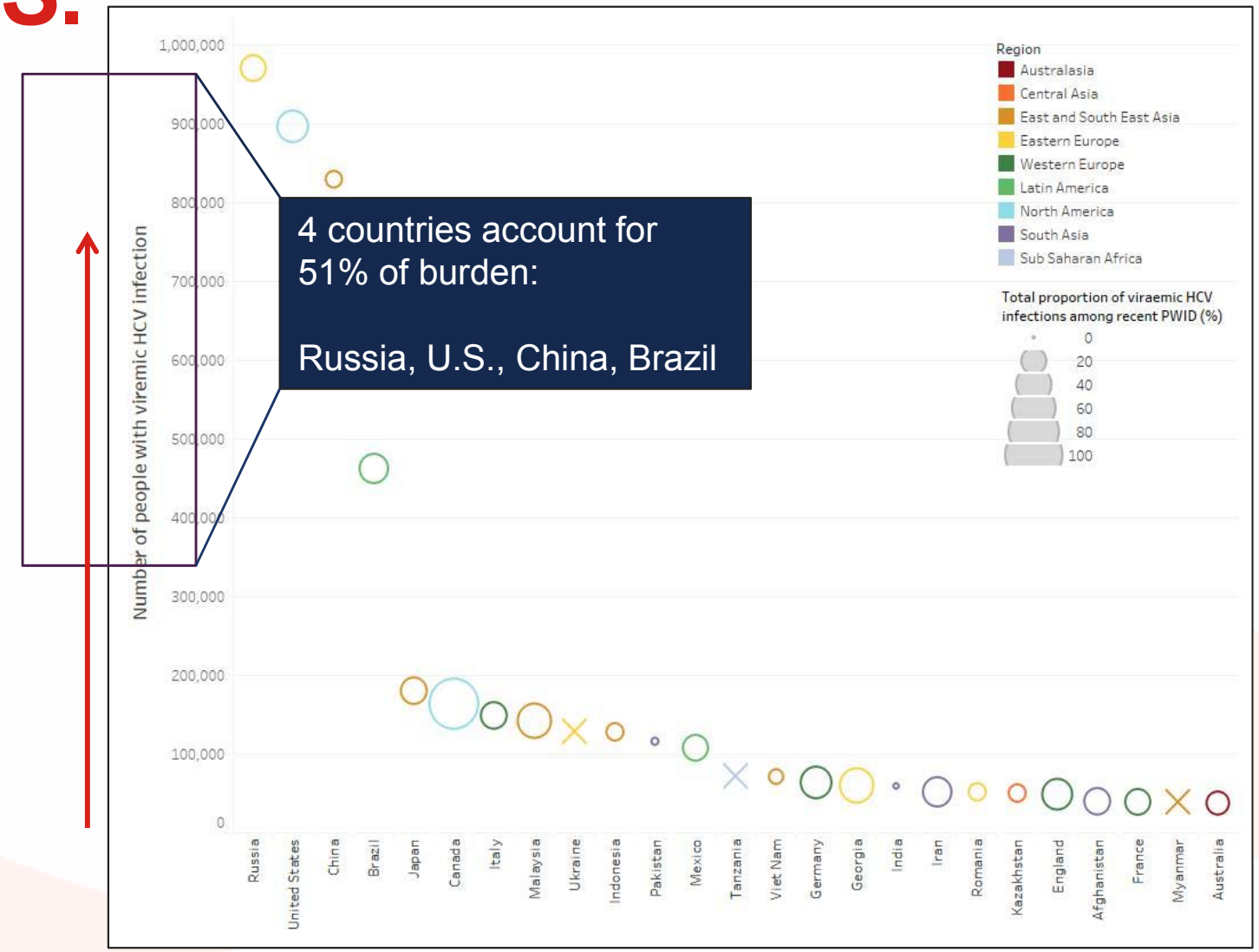
Why so important? Many states maintain restrictions based on substance use status!*



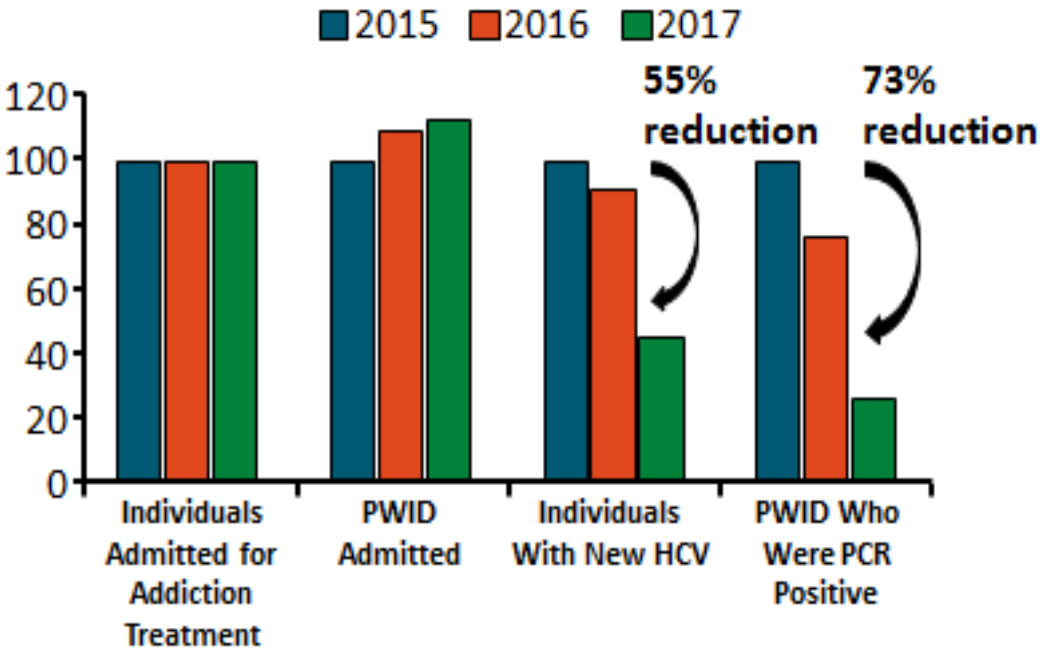
*Medicaid FFS
CHLPI and NVHR at https://stateofhepc.org/

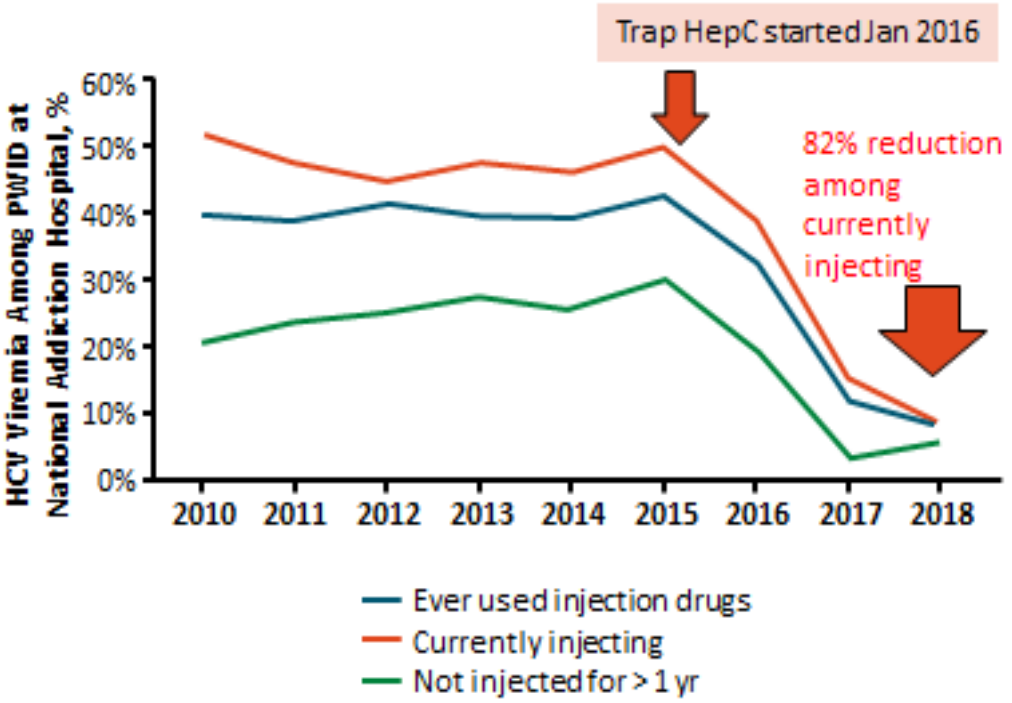
Slide credit: clinicaloptions.com

Global HCV elimination: a call to action for the U.S.



TraP Hep C: HCV "treatment as prevention" reduced incidence in Iceland over 2 years





- Major scale up with reasonable cure rates
  - Overall SVR: 89%; SVR for patients who completed treatment: 95%
- Dramatic reduction in community viral load and HCV incidence

Runarsdottir. AASLD/EASL HCV Special Conference 2019.

Slide credit: clinicaloptions.com

The role of “HCV Champions”

Lessons from Australia

Endorsement from Infectious Diseases Society of America (IDSA), American Association for the Study of Liver Diseases (AASLD)

Finding, recruiting, developing

Support from AETCs, the National Clinician Consultation Center (NCCC), and other resources

Australian Audacity

In March 2016, Australia embarked on an effort to eradicate HCV by 2030 (ambitious World Health Organization goal)

Barriers in Australia

- Undiagnosed infections
- Persons unaware or unconcerned that they are infected
  - HCV frequently asymptomatic
  - Other more pressing issues – addiction, homelessness, safety, food
- Providers unconcerned with HCV infection
- Stigma of HCV

…sound familiar?

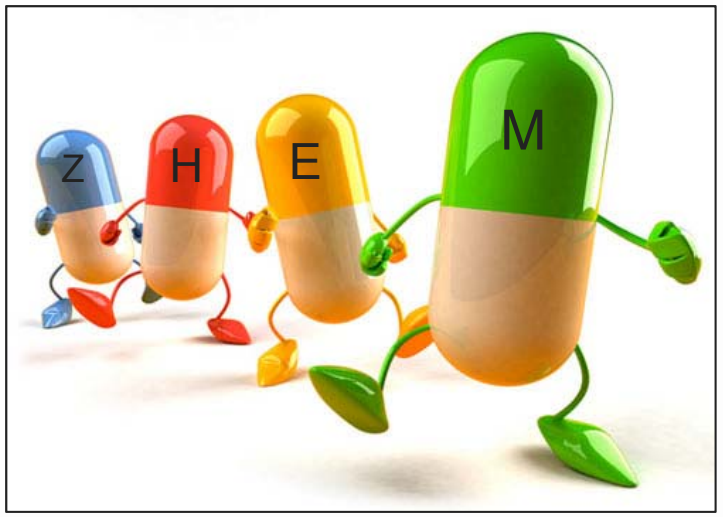
Richmond J and Wallace J. Implementation of Hepatitis C Cure in Australia: One Year On. J Virus Erad 2018 Apr; 4(2); 115-117.

"The Australian Experience"

- HCV DAAs listed on Pharmaceutical Benefits Scheme
  (i.e., available via national health insurance program)
- General practitioners (GPs) and nurse practitioners (NPs) encouraged to prescribe DAAs
  - GPs increased from 8 to 31% of DAA scripts in <u>one year</u>

Kirby Institute "Monitoring hepatitis C treatment uptake in Australia 2017". Available at: kirby.unsw.edu.au/report/monitoring-hepatitis-c-treatment-uptake-australia-issue-7-july-2017 (accessed February 2017).

Changes in Australia



- Allowed DAAs to be dispensed at community pharmacies
- 19% of HCV-infected Australians treated in first year

  (nearly 20x those treated in prior 20 years!)
- Target = 20k per year until 2030 to achieve eradication

Richmond J and Wallace J. Implementation of Hepatitis C Cure in Australia: One Year On. *J Virus Erad* 2018 Apr; 4(2); 115-117.

Lessons learned in Australia:
key stakeholders share their experience

- First 20% might be the easiest 20%
  (numbers already declining in 2017)
- Primary Health Networks are key to further success
- GPs need support to start or improve comfort w/ HCV treatment
  - Practitioner needs will vary greatly
  - Just-in-time / point-of-care support is essential
- Importance of multidisciplinary team

Richmond J and Wallace J. Implementation of Hepatitis C Cure in Australia: One Year On. J Virus Erad 2018 Apr; 4(2); 115-117.

Lessons learned in Australia:

key stakeholders share their experience

- Must have multiple points of entry into treatment:
  - Primary care clinics
  - Substance abuse centers and syringe services programs
  - Prisons/jails
  - Hospitals

Richmond J and Wallace J. Implementation of Hepatitis C Cure in Australia: One Year On. J Virus Erad 2018 Apr; 4(2); 115-117.

Lessons learned in Australia:

key stakeholders share their experience

- Critical role of “local champions” in promoting HCV treatment
  - Motivate action
  - Challenge inaction
  - Approach challenges from within their systems

Richmond J and Wallace J. Implementation of Hepatitis C Cure in Australia: One Year On. J Virus Erad 2018 Apr; 4(2); 115-117.

Lessons learned in Australia:

key stakeholders share their experience

- Paradigm shift: HCV treatment must move from specialty to primary care settings
- Champions understand setting-specific challenges and provide professional development to their peers

Richmond J and Wallace J. Implementation of Hepatitis C Cure in Australia: One Year On. J Virus Erad 2018 Apr; 4(2); 115-117.

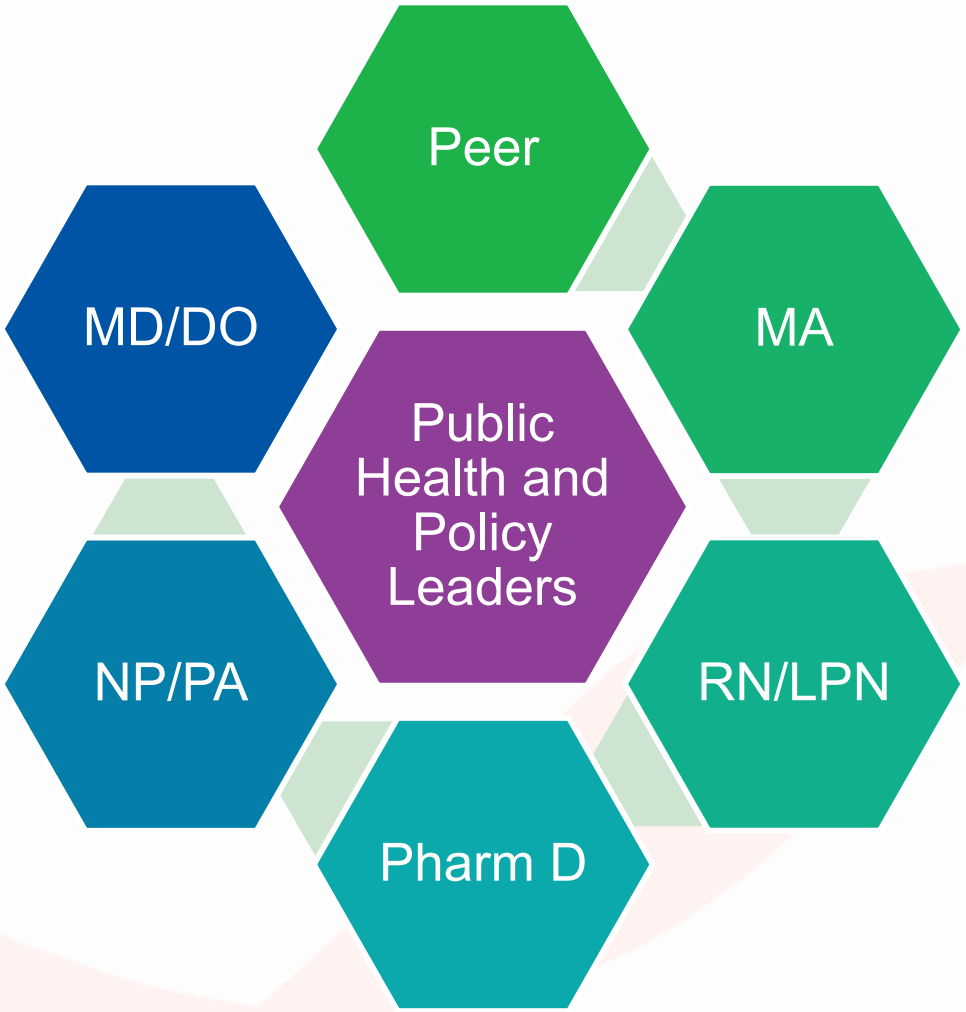
Lessons learned in Australia:

Champions should include PWID peers

- Dispel myths and misinformation about HCV
- Reduce HCV stigma and discrimination
- Help guide peers to care through connections and trust
- Significant evidence supports efficacy of HCV peers

Henderson C, Madison A, Kelsall J. Beyond the willing & the waiting' — The role of peer-based approaches in hepatitis C diagnosis & treatment. International Journal of Drug Policy. Vol 50, Dec 2017. Pages 111-115.

Who can be a HCV Champion?



Can I be a HCV Champion?

- "All persons with current active HCV infection should be linked to a practitioner who is prepared to provide comprehensive management."

- New potent and well-tolerated hepatitis C treatments present an opportunity to expand the number of advanced practice practitioners and primary care physicians trained in the management and treatment of HCV infection.

AASLD-IDSA. HCV testing and linkage to care. Recommendations for testing, managing, and treating hepatitis C. http://www.hcvguidelines.org/full-report/hcv-testing-and-linkage-care. Accessed April 17, 2017.

Finding and recruiting HCV Champions

- 2016 Family Medicine Residency Director Survey[1]:
  - 78%: HCV is a significant problem for primary care
  - 62%: Their program should build HCV treatment capacity
- Otherwise very limited literature on HCV workforce
  - Screening in primary care and HCV training in gastroenterology programs
- 2015 paper from Wisconsin: 1 provider per 340 HCV patients, and 51 of 72 counties had no HCV treating provider[2]

[1]*Webb Camminati C, Simha A, Kolb NR, Prasad R. Intent to Build Hepatitis C Treatment Capacity Within Family Medicine Residencies: A Nationwide Survey of Program Directors: A CERA Study. Family Medicine. 2016;48(8):631-634.*

[2]*Westergaard RP, Stockman LJ, Hyland HA, Guilfoyle SM, Fangman JJ, Vergeront JM. Provider Workforce Assessment in a Rural Hepatitis C Epidemic: Implications for Scale-up of Antiviral Therapy. J Prim Care Community Health. 2015 Jul;6(3):215-7*

Finding and recruiting HCV Champions

- Veterans Health Administration (VA) clinical pharmacists with "Scope of Practice" certification
  - Allows prescribing HCV medications
  - Includes 3,200 VA pharmacists nationwide (41%)

Ourth H, Groppi J, Morreale AP, Quicci-Roberts K. Clinical pharmacist prescribing activities in the Veterans Health Administration. Am J Health Syst Pharm. 2016 Sep 15;73(18):1406-15.

Developing HCV Champions

- The workforce must be built within every part of the team
  - Providers, pharmacists, nurses, medical assistants, peers, advocates, officials
- Develop champions with the passion to care and make change
- Use available resources:
  - https://aidsetc.org/hivhcv – Guidebook for HCV skill-building
  - https://www.hepatitisc.uw.edu/ – HCV self-study resource
  - www.hcvguidelines.org – Definitive clinical decision-making reference
  - https://nccc.ucsf.edu/clinician-consultation/hepatitis-c-management/ – Live (point-of-care) support for HCV management advice
  - Regional AETCs – Can link clinicians with local mentors for HCV care support

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BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

HCV care coordinator model: Low-threshold access, high-touch support

Marguerite Beiser, ANP-BC, AAHIVS
Boston Health Care for the Homeless Program

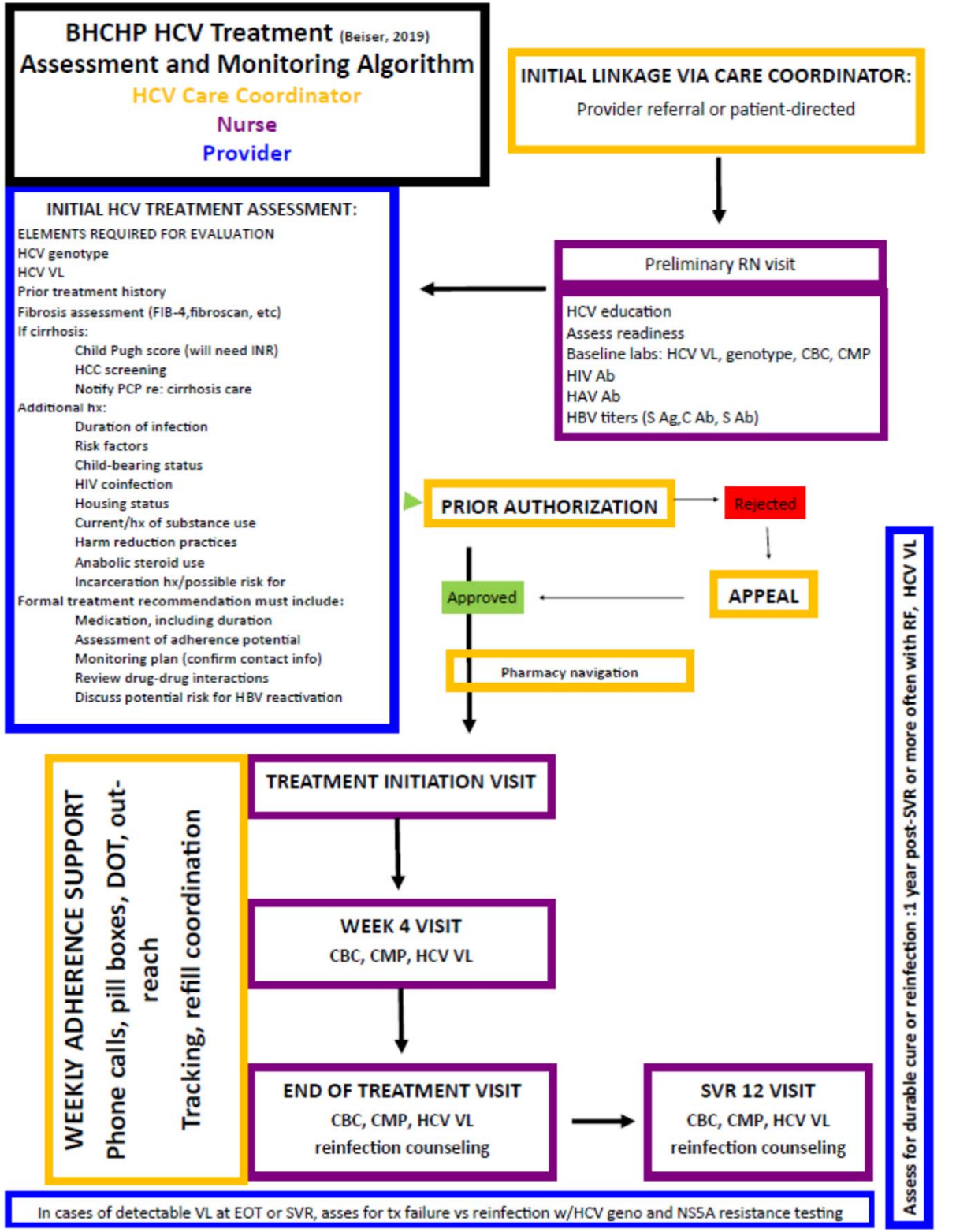
BHCHP

- Serving ~11,000 homeless and marginally-housed patients/year
- High prevalence of syndemic conditions
  - 23% HCV
  - 6% HIV
  - 60% any substance use disorder (SUD)
  - 48% Behavioral Health diagnosis and SUD

(Bharel et al., 2013)

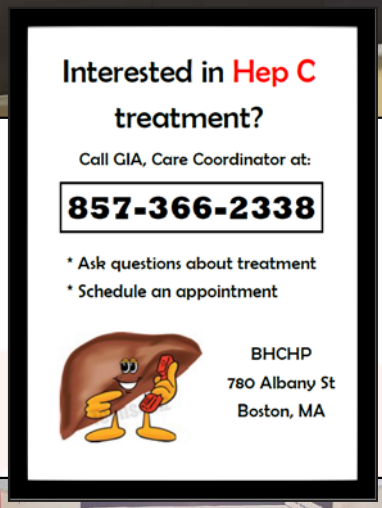
HCV Team

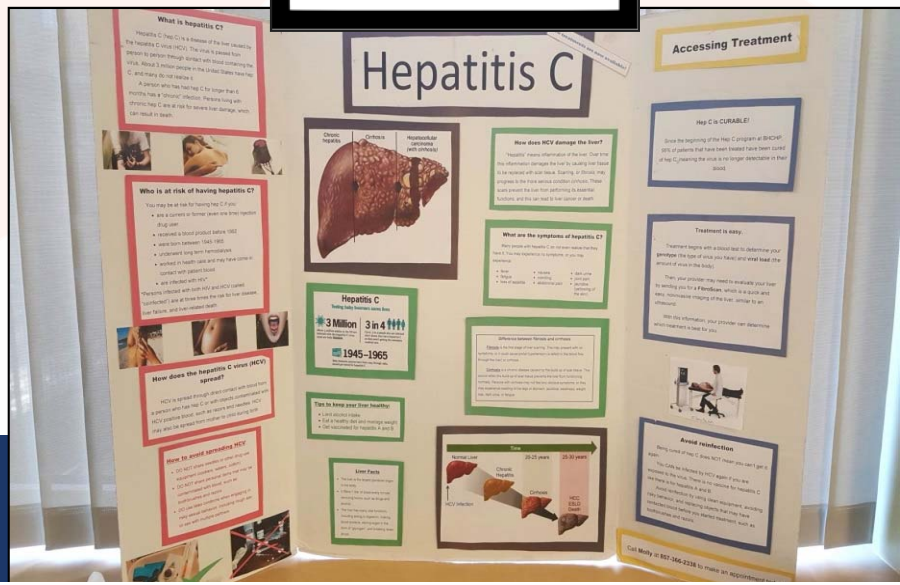
- Primary care providers with HCV expertise
- Care coordinator and RN are central to team
- Low-threshold tx access
- High-touch adherence support
- Acceptance of less than perfection
- Co-location with linked services
- Leverage existing patient engagement/relationships (street team, AHOPE, HH, red team, OBAT)



HCV care coordinator

- **Referral hub**
  - Singular referral point for all
  - Outreach education in SUDs
- **Insurance expertise/prior authorization (PA) navigation**
  - Pharmacy coordination
- **Adherence support**
- Maintains tracking document
- Communication across teams
- Reinfection counseling/harm reduction education
- Fibroscan escorting
- Participation in policy-making, advocacy





BHCHP Monthly HCV Treatment Initiations and Ongoing Caseload (since May 2017)

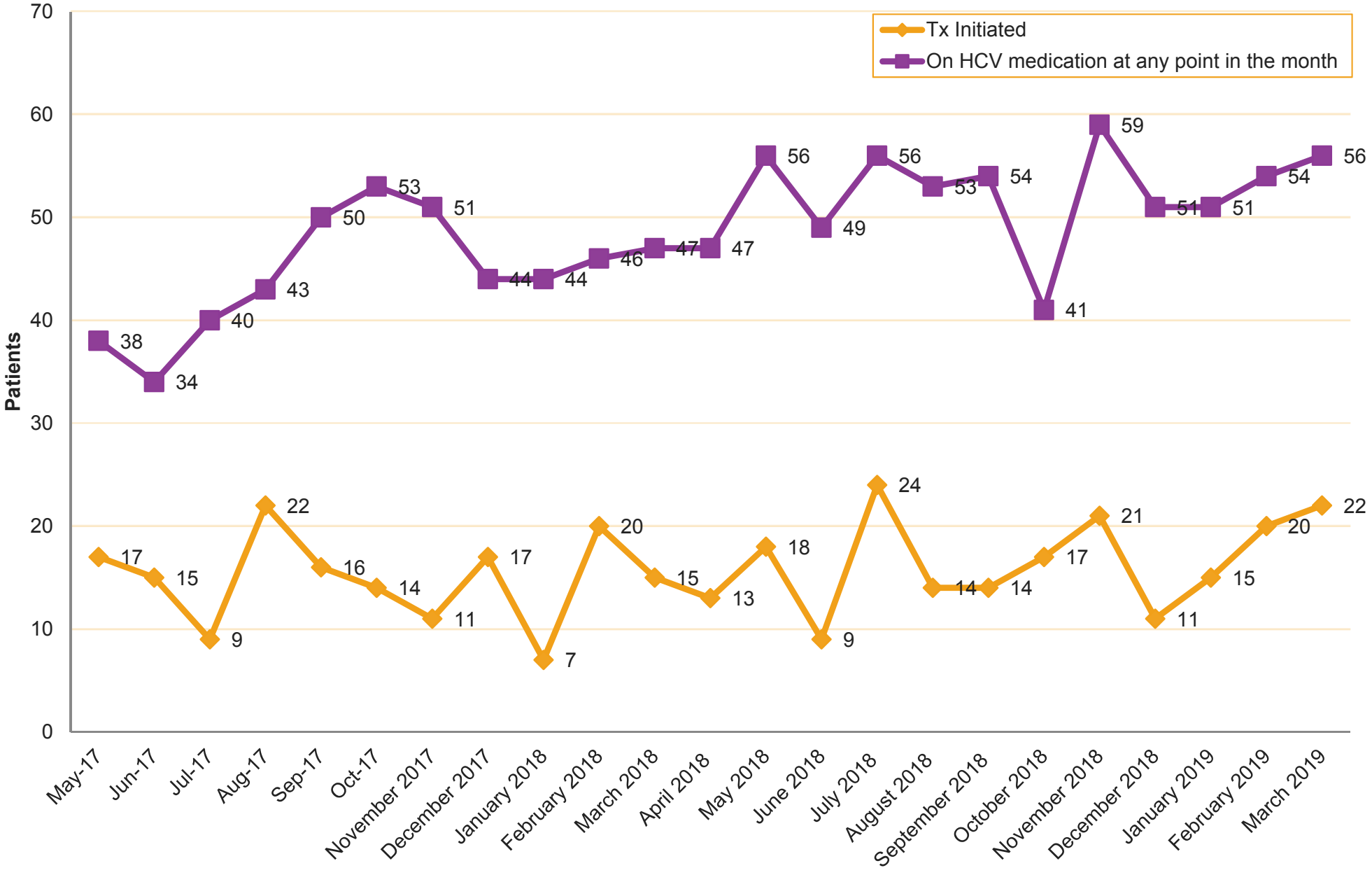
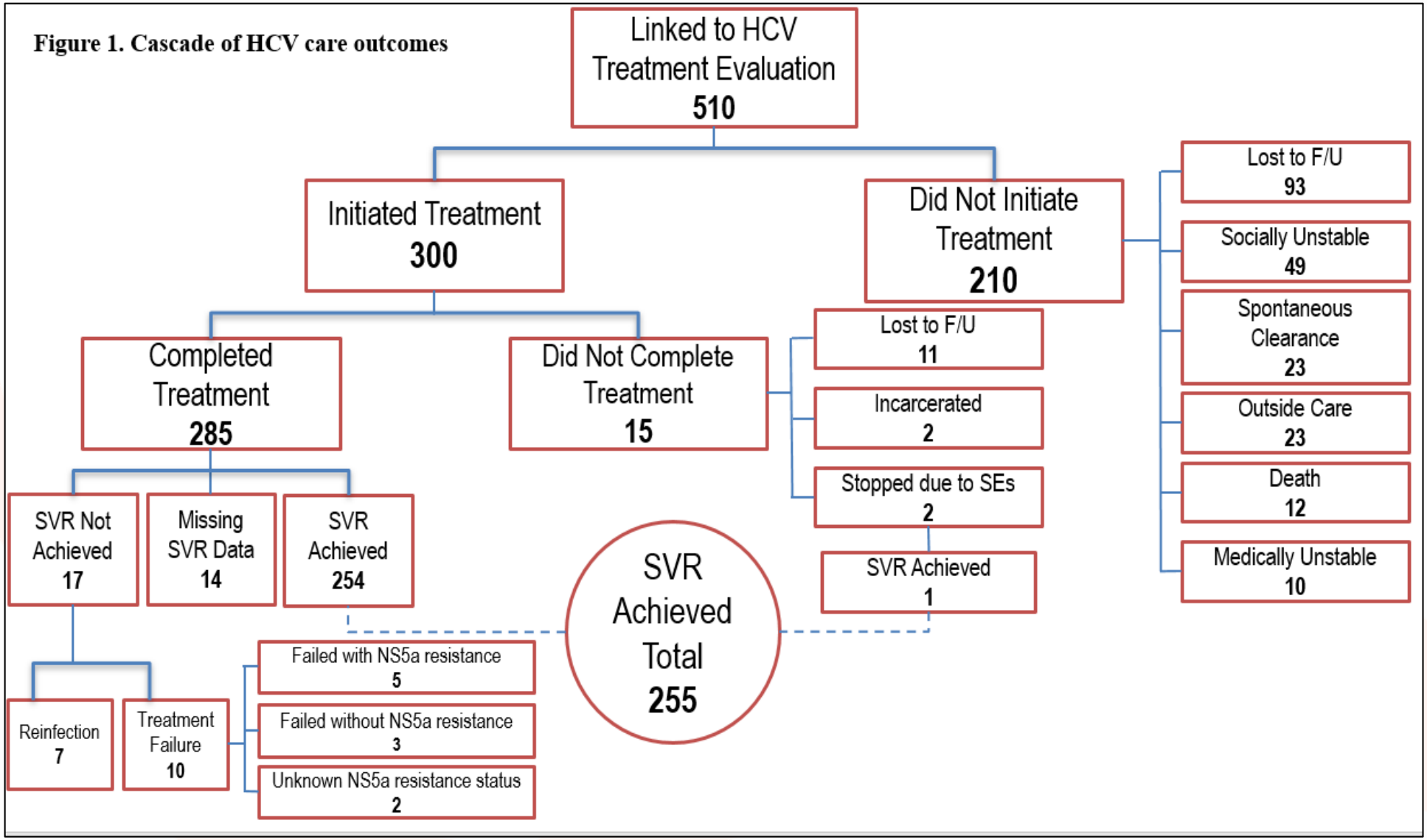


Figure 1. Cascade of HCV care outcomes



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Pharmacist-managed HCV treatment: integrated, inter-professional service delivery models

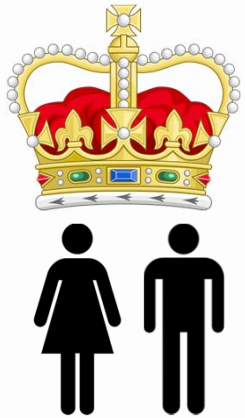
Betty J. Dong, PharmD, FASHP, FAPHA, FCCP, AAHIVP
University of California, San Francisco, Schools of Pharmacy and Medicine

Perceived barriers for patients on opioid agonist treatment: young PWID

- Lack of deservingness" of HCV treatment
  - Limited insurance coverage, cost of treatment
- Illness acuity
  - Lack of urgency; asymptomatic status reduces treatment as priority
  - Adverse side effects of treatment
- Dissatisfaction with provider interactions
  - Feeling uncared for or dismissed by healthcare providers
- Provider stigma
  - Lack of referral to care
- Policies that dis-incentivize HCV treatment (i.e., sobriety, fibrosis restrictions)

From: Skeer M et al. Drug Alcohol Depend. 2018 September 01; 190: 246–254; PanagiotoglouInt D et al. J Drug Policy. 2017 September; 47: 169–176

Principles and practice models for HCV care: shifting the paradigm



Patient education

Convenient, accessible: co-located, multi-disciplinary services

Address stigma

HCV Care Cascade: bridge the gap between diagnosis and treatment

Share the care/ Task shifting; integrating within non-specialty settings

Resources (e.g., Navigator, tele-health, specialty pharmacies, NCCC, ECHO)

DAAs – simple, effective, curative

Safe, non-judgmental, includes harm reduction interventions

Infographic used with permission from J. Grebely; additional sources: *Akyar E et al. Emerg Infect Dis. 2016;22:907; Dever JB et al. Dig Dis Sci. 2017;62:1472; Bajis S et al . Int J Drug Policy. 2017;47:34; Ford MM et al. Clin Infect Dis.2017;64:685. Kattakuzhy S et al. Ann Intern Med. 2017;167(5):311; Lasser KE et al. Ann FamMed. 2017;15:258; Sokol R et al. Healthcare (Amsterdam, Netherlands). 2017; Bruggmann P, Litwin AH. Clin Infect Dis.2013;57:S56–6; Rattay T et al. Gastroenterology.2017;153:1531–1543.e2*

SVR outcomes: pharmacist-managed programs

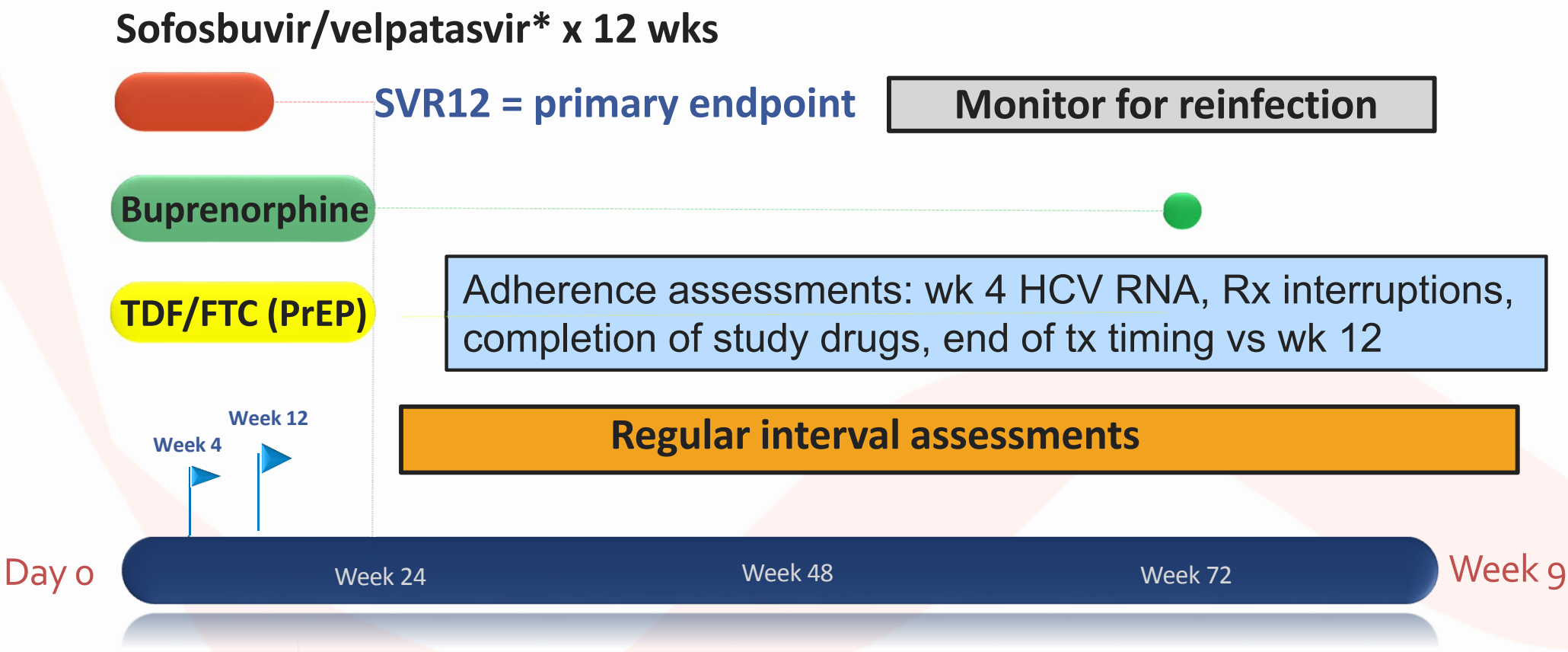
- Retrospective study to determine effectiveness of pharm-managed vs. pharm-assisted HCV clinic 1/2015-6/2017
- Pharm-assisted (n=63): DAA access assistance, 1 pharm visit before tx start: drug interaction screening, patient education/counseling, direct care from MD and NPs
- Pharm-managed (n=64): Direct care provision, decision making,↑ patient contact time, consistent F/U
  - Pre-treatment visit, medication teaching visit, q4wk F/U visits (avg: 5-10 visits)
- Predictors of enrollment: male, African American, incarceration history, presence or cirrhosis, intranasal drug use history
- Outcomes: no difference between groups
  - Tx completion: OR 1.1 (95% CI 0.1-13.8, p=0.93); SVR12: OR 1.0 (95% CI 0.2-4.5, p=0.62)
- Over 200 clinical pharmacists manage HCV in VA system
  - Durham, NC: VA retrospective study 10/1/14 - 9/30/15, n=372; SVR12= 97.5% (155/159) LDV/SOF+/-RBV; 94.8% (145/153) on ombitasvir/paritaprevir/ritonavir +/- ribavirin (RBV)
  - Nevada: VA retrospective 1 year study; n=132; SVR12 rates =94%; 93% (n=88) tx-naïve; 96% (n=44) tx-experienced, 93% (n=79) no cirrhotic, 94% (n=53) compensated cirrhosis; 95.5% adherence rates.
- Vanderbilt University (TN): ↓provider/clinic burden, time to medication approval/initiation, excellent patient/provider satisfaction, cost savings, optimal adherence, and overall improved continuity of care

Naidjate SS et al. Am J Health-Syst Pharm. 2019; XX:0-0; Yang S et al. Outcomes of pharmacy led hepatitis C direct-acting antiviral utilization management at a Veterans Affairs medical center. J Manag Care Spec Pharm. 2017; 23:364-9. Mikolas LA et al. J. Pharm Practice May 21, 2018; Bagwell A et al. J Manag Care Spec Pharm. 2017;23(8):815-20

Pharmacists with prescriptive authority

- Collaborative practice agreements (CPAs) between pharmacists and prescribers legal in 48 states
- Formal practice relationship between pharmacist and another health care provider (HCP) and specify what patient care services beyond the typical scope of practice can be provided
- Variability of prescriptive authority vary between states: e.g., community vs. institutional settings, pharmacist training, types of medical conditions
- 38 states allow pharmacists per CPA to initiate drug therapy, and 45 allow for the modification of existing therapy

Pharmacists can support and help optimize adherence: applying lessons learned from ANCHOR?



*Dispensed in 28-day increments at Day 1, week 4, week 8 (i.e., 3 bottles)

ANCHOR: weeks of DAA completed

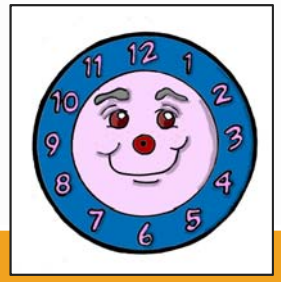
1 patient completed < 1 bottle; 0% SVR

5 patients completed 1-2 bottles; 0% SVR

7 patients completed 2-3 bottles;
71% SVR (85% per protocol)

80+ patients completed all 3 bottles;
85% SVR (93% per protocol)

Pharmacists with HCV prescriptive authority/Advanced Pharmacy Providers (APP) delivering HCV care



Start early

- Assess readiness
- Assess adherence
- Anticipate barriers
- Obtain med history
- Explain Tx logistics
- Identify/select DAA
- Eval comorbidities
- HAV/HBV testing and follow-up
- Medication/drug interactions

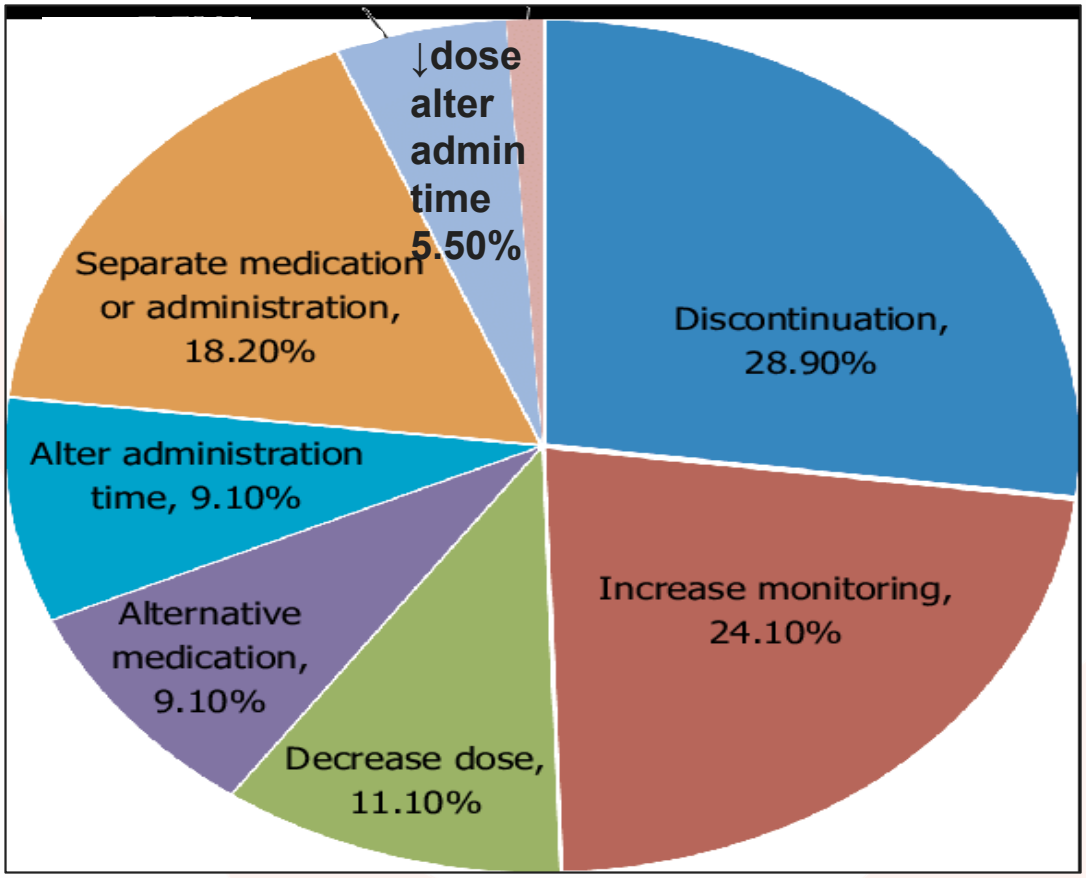
Prior authorization

- Submit PA, follow up on status
- HCV genotype
- Quant HCV RNA
- Fibrosis/cirrhosis
- Comorbidities
- HAV/HBV
- Prior HCV Tx
- Manage/mitigate medication interactions

Treatment Initiation

- Administration
- Manage drug interactions
- Pt education (ADR)
- Adherence
- Incentives (e.g., gift cards, transportation vouchers)
- Lab monitoring
- SVR/cure dates – coordinate testing
- Prevent reinfection

HCV drug interactions are common



- N = 664 at University of Colorado Hepatology Clinic; Pharmacist chart review ~30 min

- 5,217 meds reviewed (7.86 meds/patient)
- 781 interactions (1.18 intx/patient)

- Most common interactions (≥ 10%)
  - ✓ Vitamin and herbal supplements (284/781, 36.4%);
  - ✓ PPI/H2RA agents (117/781, 15.0%);
  - ✓ Other (126/781, 16.1%)

- Recommendations
  - ✓ Discontinue meds: 28.9%
  - ✓ Monitoring: 24.1%
  - ✓ Separate admin times: 18.2%

- Limitations/generalizability to other centers
  - Retrospective
  - Single center study
  - Less diverse patient population

Langness JA et al. World J Gastroenterol 2017; 23: 1618-1626

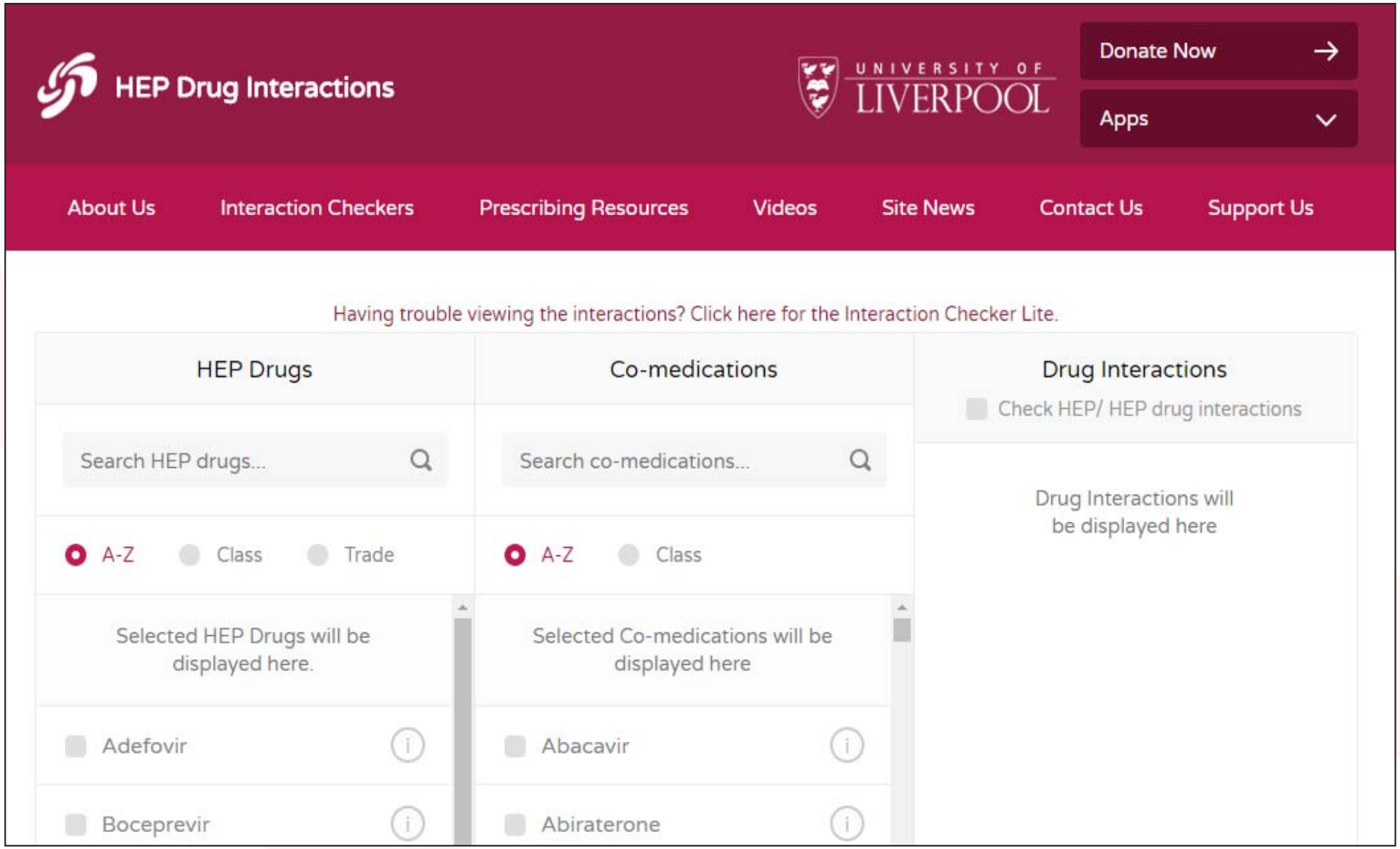
Drug-drug interactions with acid-reducing agents

HCV Regimen/Drug	Omeprazole 20 mg daily*	Antacids	H_2 Blocker†
Ledipasvir/sofosbuvir	Take LDV/SOF + PPI together on empty stomach	**Separate by 4 hrs**	Take LDV/SOF + H_2 blocker together or 12 hrs apart
Sofosbuvir/velpatasvir[2]	Not recommended, but if medically necessary, take SOF/VEL with food 4 hrs before omeprazole 20 mg	**Separate by 4 hrs**	Take SOF/VEL + H_2 blocker together or 12 hrs apart
Sofosbuvir/velpatasvir/ voxilaprevir[3]	Take SOF/VEL/VOX + PPI together with food	**Separate by 4 hrs**	Take SOF/VEL/VOX + H_2 blocker together with food or 12 hrs apart
Glecaprevir/pibrentasvir	No significant interaction	No intxn	Not significant
Elbasvir/grazoprevir	No interaction	No intxn	No intxn

*Contraindicated with BID PPI; other PPI not studied

†Not to exceed famotidine 40 mg BID

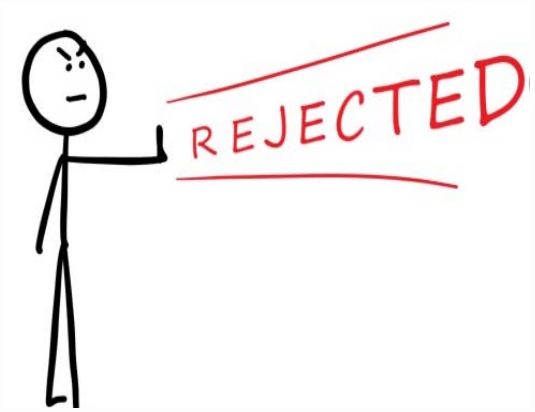
Https://www.hep-druginteractions.org/



Obtaining DAAs: treatment access

- Prior authorization (PA) almost always required!! Patient access to DAAs remains essential to improving outcomes
  - 2016 failure to start due to insurance denials
  - Most common reason for denial: insufficient information to assess medical need (36%), lack of medical necessity (35%)
- Successfully navigating the PA process is critical: benefits investigation if insured, PA request, possible appeals
- Employ assistance of specialty pharmacies
  - Use the preferred pharmacy benefits manager (PBM) pharmacy
  - Use the preferred (on formulary) DAA
- Rejections/denials: know how to follow-up

PA rejection and patient assistance programs



Rejection

Switch to preferred therapy if clinically appropriate

Submit letter of appeal with clinical documentation

Manufacturer Patient Assistance Programs/CoPay Cards

- Gilead LDV/SOF; SOF/VEL; SOF/VEL/VOX Support Path
- *AbbVie Gle/Pib* Patient Assistance Program
- *Merck EBR/GZR* Patient Assistance Program

Patient Advocacy Programs

- Patient Access Network Foundation https: //panfoundation.org
- Good Days https://www.mygooddays.org/
- The Assistance Fund (TAF) https://tafcares.org/
- Patient Advocate Foundation https://www.patientadvocate.org
- Healthwell Foundation https://www.healthwellfoundation.org/

AETC AIDS Education & Training Center Program

Wrapping up: Special considerations, unique populations

Special populations among PWID with HCV

- HIV co-infection: it's all about managing drug interactions
  - Immune status does not impact HCV treatment
  - An undetectable HIV viral load is not required for initiating HCV treatment
- HBV co-infection: monitor closely for HBV flare
  - During and after HCV treatment
- Medication-assisted treatment for opioid use disorder
  - Vital tool to retain patients in care and improve overall outcomes
  - Integrated medication-assisted tx (MAT)/HCV/primary/behavioral care is the ideal model
  - Very few DAA impacts on MAT meds (PROD may increase buprenorphine)
  - MAT meds do not significantly impact DAAs
- Mental illness: coordinate with mental health providers
  - Check for drug interactions between HCV and psych meds

HCV and pregnancy

- Alarming increase in HCV rates among pregnant women in U.S. (largely related to opioid use)
  - **89% increase in HCV among women at time of delivery:** 1.8/1000 live births in 2009 to 3.4/1000 live births in 2014
- Perinatal HCV transmission rate: 4-7%
- DAAs not currently approved for use in pregnancy, but…

  Conference on Retroviruses and Opportunistic Infections (CROI) 2019: first time data presented on DAAs in pregnancy

- Breastfeeding is ok, and C-section is not used for prevention of mother-to-child transmission (PMTCT)

  → women should avoid breastfeeding if nipples cracked or bleeding
- New treatment and care strategies urgently needed
- HCV eradication in pregnancy – coming soon for PMTCT?
- Remember to screen HCV-exposed infants at/by 18 months

Patrick. MMWR Morb Mortal Wkly Rep 2017;66:470. Smith. MMWR Recomm Rep. 2012;61(RR-4):1. AASLD-IDSA. HCV guidance. 2018.

Conclusions

- DAA therapies are safe and highly effective among people with substance use disorders, including PWID.
- Find and develop HCV Champions in your community and within your organizations to make things happen!
- Make it easy for your patients to get and stay on treatment: “low threshold” services that can help “compress” the HCV care cascade may be ideal care model.
- Threshold for optimal DAA adherence that predicts SVR not known at this time, however brief periods of interrupted treatment do not seem to impact SVR.
- Pharmacists can be highly effective HCV Champions and partners.

Resources

- IDSA/AASLD hepatitis C guidelines (hcvguidelines.org)
- Medication interaction resources
  - Liverpool (https:/hep-druginteractions.org/checker)
  - Toronto (https://hivclinic.ca/drug-information/drug-interaction-tables)
  - DHHS HIV Treatment Guidelines (includes DAA-ARV interaction tables)
- University of Washington HCV Web Study (https://www.hepatitisc.uw.edu)
- HIV/HCV Co-Infection- AETC National Curriculum: https://aidsetc.org/hivhcv
- CPNP Pharmacist Toolkit: Hepatitis C https://cpnp.org/guideline/hepatitis-c
- AETC program
  - NCRC: patient and provider resources (https://aidsetc.org/)
  - NCCC: HCV Warmline, HIV Warmline, Substance Use Warmline (nccc.ucsf.edu)
  - Regional AETCs: local trainings, regional webinars
- ECHO
- *Grebely J, Robaeys, G, Bruggmann P, et al. Recommendations for the management of hepatitis C virus infection among people who inject drugs. Int J Drug Policy. 2015 Oct; 26(10): 1028-1038.*

Find clinical resources related to HIV/HCV prevention, care, and treatment here: https://aidsetc.org/hivhcv

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2. Dore GJ, Altice F, Litwin AH, Dalgard O, Gane EJ, Shibolet O, et al. Elbasvir-Grazoprevir to Treat Hepatitis C Virus Infection in Persons Receiving Opioid Agonist Therapy: A Randomized Trial. Annals of Internal Medicine. 2016;165(9):625 - 634.

3. Norton BL, Fleming J, Bachhuber MA, Steinman M, DeLuca J, Cunningham CO, et al. High HCV cure rates for people who use drugs treated with direct acting antiviral therapy at an urban primary care clinic. International Journal of Drug Policy. 2017;47:196-201.

4. Madras, B.K. ; Compton, W.M. ; Avula, D. ; Stegbauer, T.; Stein, J.B.; and Clark, W.H. Screening, brief interventions, referral to treatment (SBIRT) for illicit drug and alcohol use at multiple healthcare sites: Comparison at intake and 6 months later. Drug and Alcohol Depend 99: 280-95, 2009. Available at: http://www.ncbi.nlm.nih.gov/pubmed/18929451

5. Bernstein, J.; Bernstein, E.; Tassiopoulos, K.; Heeren, T.; Levenson, S.; and Hingson, R. Brief motivational intervention at a clinic visit reduces cocaine and heroin use. Drug Alcohol Depend 77(1):49–59, 2005.

6. Falade-Nwulia O, Moon J, Chander G, Wansom T, Sutcliffe C, Mehta S, Thomas D, Moore R, Sulkowski M. High hepatitis C cure rates among black and nonblack human immunodeficiency virus–infected adults in an urban center. Hepatology. 2017;66(5):1402-1412.

7. 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. Key Populations: Identification and Management of HCV in People Who Inject Drugs. https://www.hcvguidelines.org/unique-populations/pwid Accessed 9/26/2018.

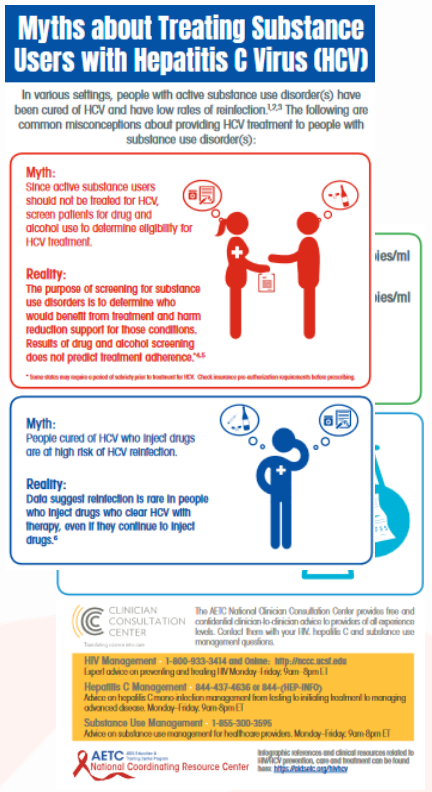
8. Martin NK, Vickerman P, Foster GR, et al. Can antiviral therapy for hepatitis C reduce the prevalence of HCV among injecting drug user populations? A modeling analysis of its prevention utility. Journal of Hepatology. 2011;54(6):1137-1144

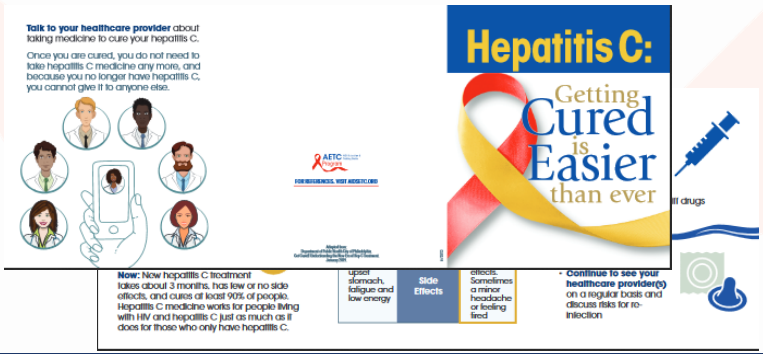
9. Martin NK, Vickerman P, Miners A, et al. Cost-effectiveness of hepatitis C virus antiviral treatment for injection drug user populations. Hepatology 2012;55:49-57.

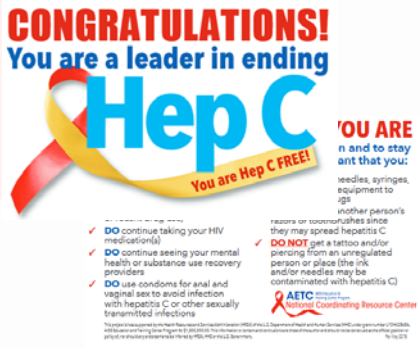
https://aidsetc.org/community/order

Last day to order printed resources: **Wednesday, June 26th**

- AETC National HIV Curriculum Postcard for Providers
- Myths about Treating Substance Users with Hepatitis C Virus
- Hepatitis C: Getting Cured Is Easier than Ever
- Passport to Cure Brochure for Clients (Spanish)
- Hep C Free Postcard for Clients (English & Spanish)
- Prescribing PrEP for HIV Prevention: A Guide for Medical Providers
- Non-Occupational Post-Exposure Prophylaxis (nPEP) Provider Pocket Guide
- nPEP Prescribing Myths
- nPEP Medication Assistance Program Postcard for Providers
- Immediate ART Pocket Guide







Thank you!

Panel Discussion: Q & A