



Providers
Clinical Support
System

Integrating Care: The Role of MOUD in Addressing Opioid Use Disorder and Infectious Disease

January 29, 2025

Daniel Rosa, MD, FASAM

Housekeeping

- Today's webinar is being recorded and all participants will be kept in listen only mode. There will be an opportunity to ask questions at the end of the webinar, so we encourage you to please submit your questions throughout the webinar in the Q&A box located at the bottom of your screen.
- The recording and slides will be made available on the PCSS-MOUD website within 2 weeks.
- Within 24 hours of today's session, you will receive an email from granteducation@aaap.org with evaluation and certificate claiming information.



*The content of this activity may include discussion of off label or investigative drug uses.
The faculty is aware that is their responsibility to disclose this information.*

Funder Information

- This event is brought to you by the Providers Clinical Support System – Medications for Opioid Use Disorders (PCSS-MOUD). Content and discussions during this event are prohibited from promoting or selling products or services that serve professional or financial interests of any kind.
- The overarching goal of PCSS-MOUD is to increase healthcare professionals' knowledge, skills, and confidence in providing evidence-based practices in the prevention, treatment, recovery, and harm reduction of OUD.

Disclosure to Learners

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Presenter(s), planner(s), reviewer(s), and all others involved in the planning or content development of this activity were required to disclose all financial relationships within the past 24 months

All disclosures have been reviewed, and there are no relevant financial relationships with ineligible companies to disclose.

All speakers have been advised that any recommendations involving clinical medicine must be based on evidence that is accepted within the profession of medicine as adequate justification for their indications and contraindications in patient care. All scientific research referred to, reported, or used in the presentation must conform to the generally accepted standards of experimental design, data collection, and analysis.

Educational Objectives

- Examine the connection between OUD and infectious disease.
- Discuss increased risk for infections among individuals with OUD.
- Describe the benefits of MOUD and integrated healthcare services in preventing and treating OUD and infectious disease.
- Identify unique barriers and solutions for access to MOUD services and infectious disease care.

Today's Speaker



Daniel Rosa, MD, FASAM

Senior Medical Director, Acacia Network NYC
Attending Physician in Emergency Medicine,
Philadelphia VA Medical Center

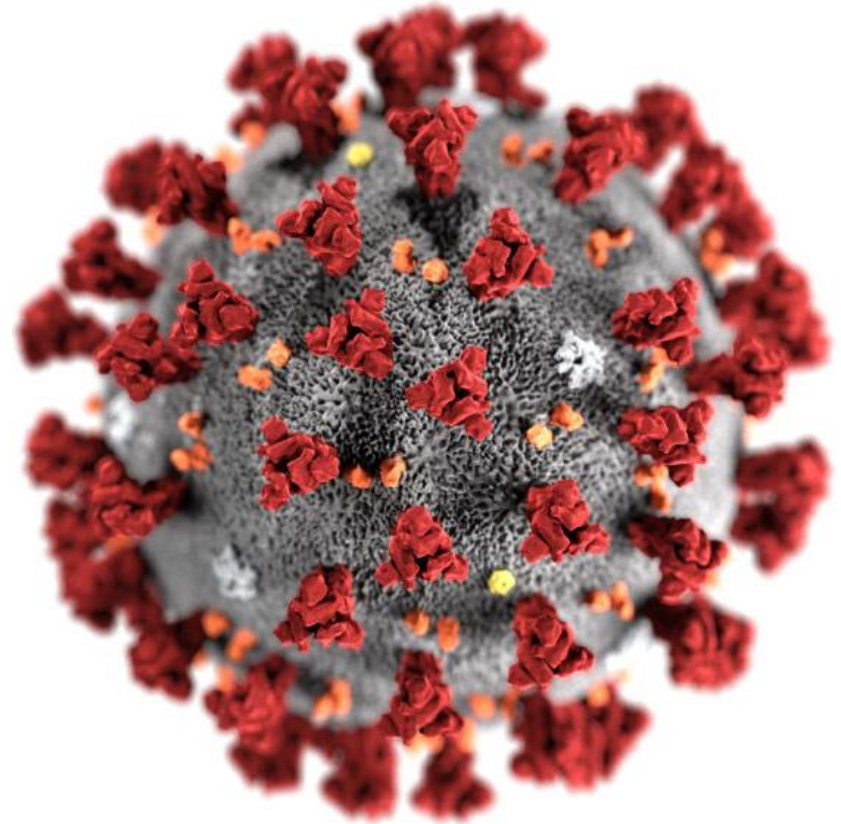
Professional Background



Image sources: Dr. Daniel Rosa

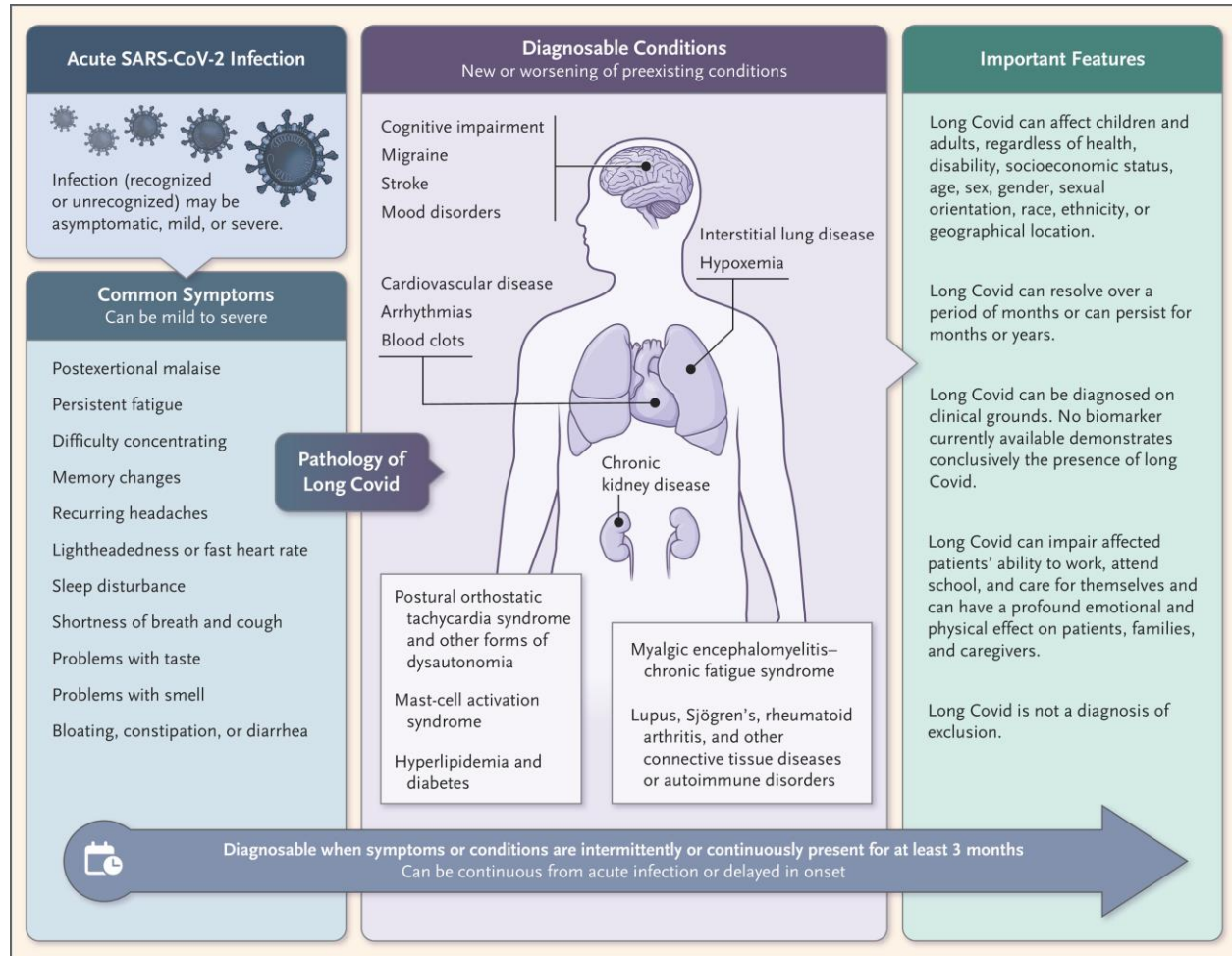
COVID-19 and Substance Use

- Having SUD increases the risk of COVID-19 infection.
- Individuals with SUD have an increased risk of severe complications from COVID-19 infection.
- Having SUD increases the risk of death from COVID-19 infection.



Long COVID Infection

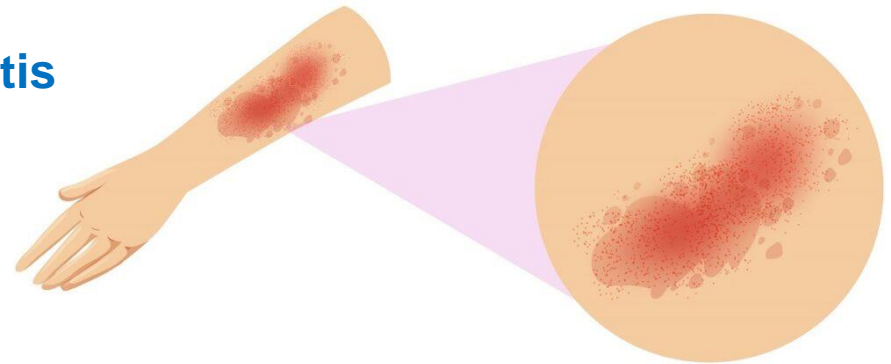
- Long COVID is defined as a chronic condition that occurs after SARS-CoV-2 infection and is present for at least 3 months.
- Long COVID can include a range of symptoms and conditions which can persist for weeks, months, or even years after COVID-19 illness.



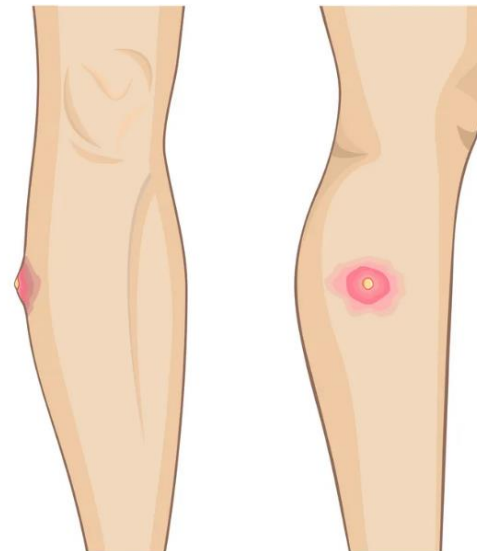
Skin Infections and Substance Use

- Skin infections either locally at sites of injection or at sites remote of injection can lead to local consequences or life-threatening blood infections (sepsis).
- These pathogens can cause death within hours.

Cellulitis



Abscess



Opioid: Xylazine

- The adulteration of the current drug supply with the veterinary drug Xylazine has led to a much more complicated approach to the management of OUD.
- Some individuals develop deep-seated necrotic ulcerative skin lesions either at sites of injection or distant to those injections.







Xylazine

*Intended for **veterinary use only***

Xylazine is a veterinary tranquilizer and not approved by the United States Food and Drug Administration (FDA) for use in humans in any form.

Xylazine side effects

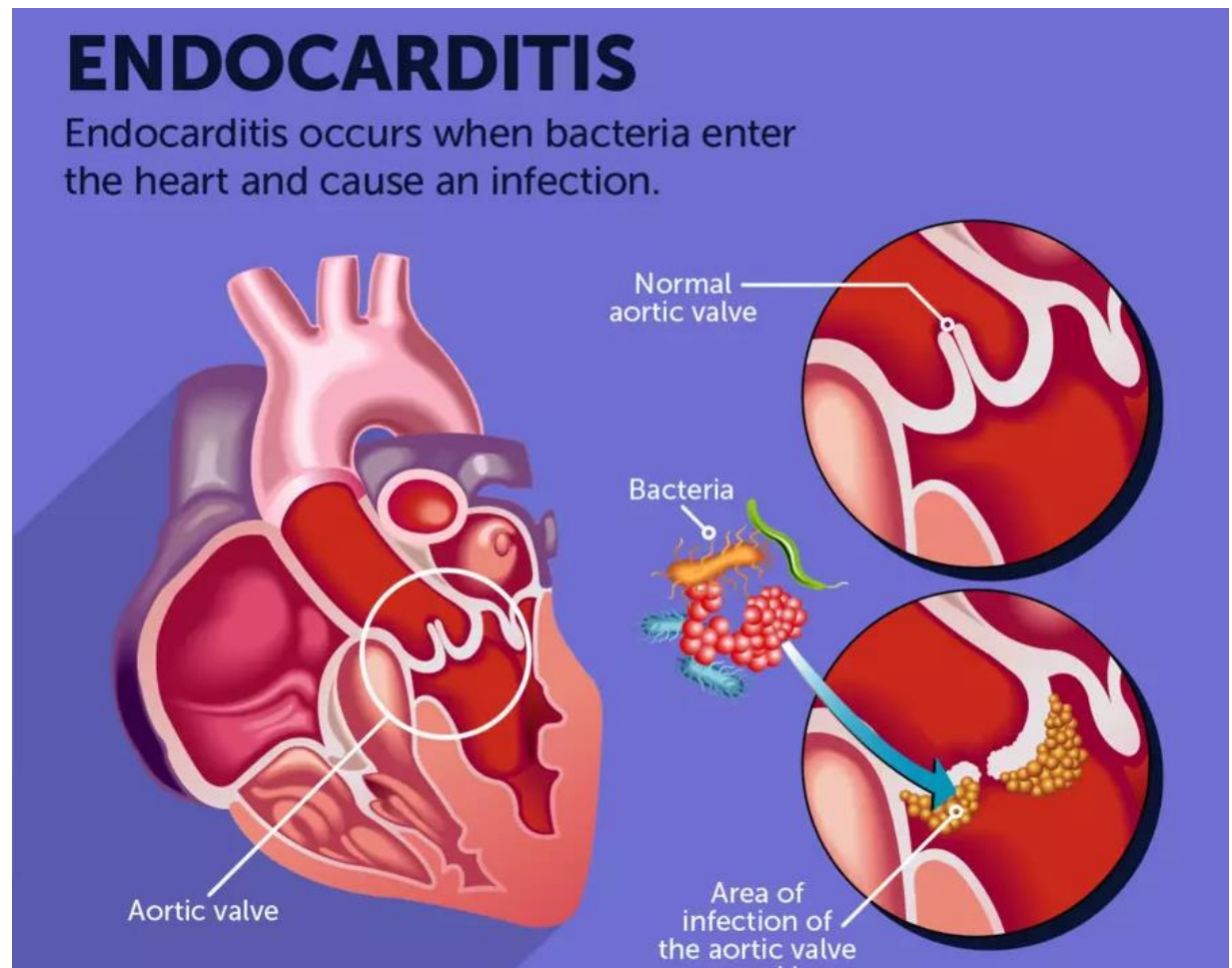
While xylazine isn't an opioid, it has similar effects. In some cases, xylazine use may lead to coma.

 Disorientation	 Shallow breathing	 Drowsiness
 Physical staggering	 Skin wounds and infections	 Decreased blood pressure

Warning: Xylazine can be incredibly harmful to skin tissue causing infection and disfiguration.

Endocarditis and Opioid Use Disorder

- A very serious complication that may come from OUD is infection of the valvular structures of the heart called endocarditis.
- Endocarditis occurs when bacteria enter the heart and cause an infection.

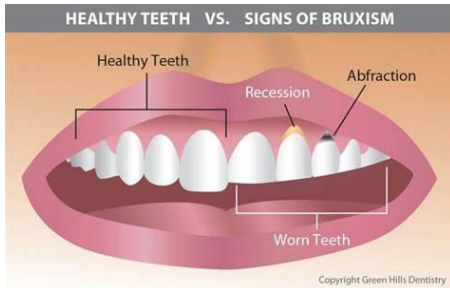


Oral Hygiene, SUD, and Infectious Disease



Image source:
Wikipedia, n.d.

Xerostomia



Bruxism



shutterstock.com · 1527336284

Poor Oral Hygiene

- There is an association between poor oral health and SUD.
- Oral conditions in patients with SUD (e.g., poor oral hygiene, changes in salivary pH) can lead to progressive cavities and maxillofacial infections.
- Opioid use can lead to salivary hypofunction which can cause xerostomia, cavities, burning mouth and taste impairment.
- Opioids also induce a preference for sweet foods.
- Its important to note that MOUD can also impact oral health.

Source: Cuberos et al. (2020);

Infectious Disease: Chlamydia versus Gonorrhea



Image source: Medasia, 2023

Source: Brookmeyer et al. (2019)
<https://pmc.ncbi.nlm.nih.gov/articles/PMC6816039/>

- Research indicates that people who inject drugs (PWID) are at an increased risk for acquiring STDs.
- Modern testing techniques are quick and non-invasive and provide sensitivity and specificity in the high 90%.

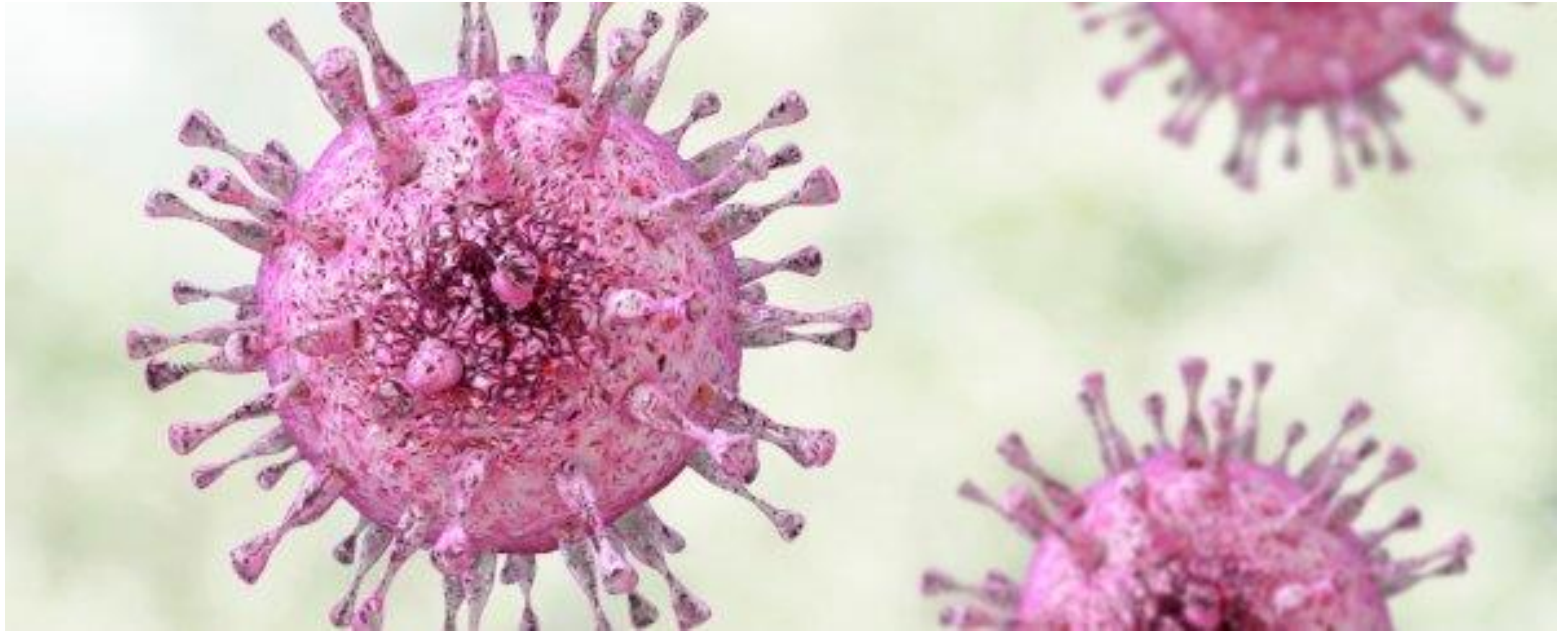
Infectious Disease: Syphilis

- In 2023, there was a total of 210,921 cases of syphilis in the United States.
- Simple blood tests should be routinely performed in those at high risk.



Image source: Select Family Practice, 2023

Infectious Disease: Herpes



- According to recent data from World Health Organization, The Herpes Virus Type 2 has infected around 846 million people aged between 15 and 49 globally.

Source: [World Health Organization, 2024](#)

Image source: Dr_Microbe/iStock, n.d.

Infectious Disease: Yeast Candidiasis - Oral Thrush



Image source: Shutterstock, 2024

- Individuals who report oral drug use have almost 7x higher odds of experiencing oral thrush than other routes of administration
- Oral drug use may cause dry mouth, disrupting saliva's natural defense against thrush
 - Saliva contains antibodies and enzymes that control oral yeast levels

Infectious Disease: Human Immunodeficiency Virus (HIV)

- Though HIV can now be treated with a once daily regimen, it is still very much a concern for people who use drugs.
- Sharing of needles and unprotected sex places individuals at high risk for infection.

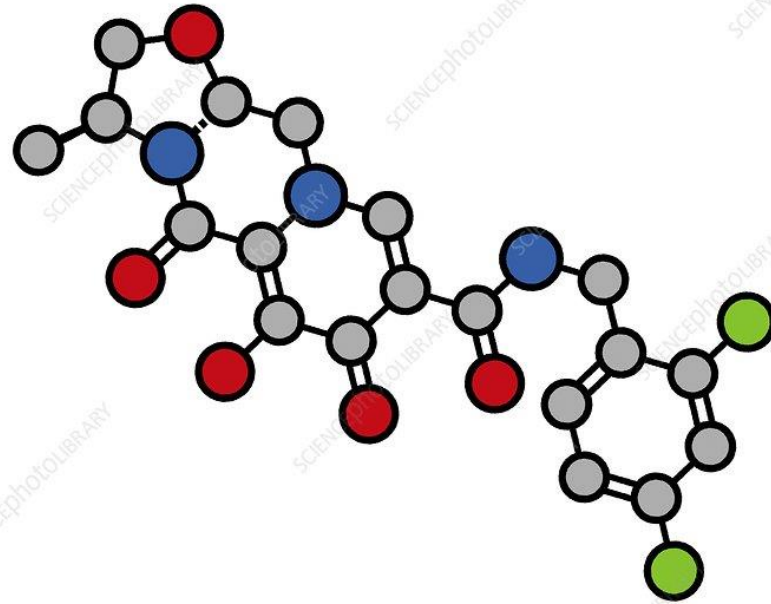


HIV Treatment

- In high-risk populations it is important to be hyperaware that the best practice is to identify those at risk and offer Pre-Exposure Prophylaxis.



HIV Treatment Continued



cabotegravir

2019 National Institute of Health (NIH) Trial



NIH Trial evaluates long-acting HIV medication in people unable to adhere to strict daily regimens.



Date: March 9, 2019



LATITUTDE study compares monthly injectable antiretroviral therapy to daily oral drugs



Author:
National Institute of Allergy and Infectious Diseases (NIAID)



Means of Study:
Compares monthly injectable antiretroviral therapy to daily oral drugs



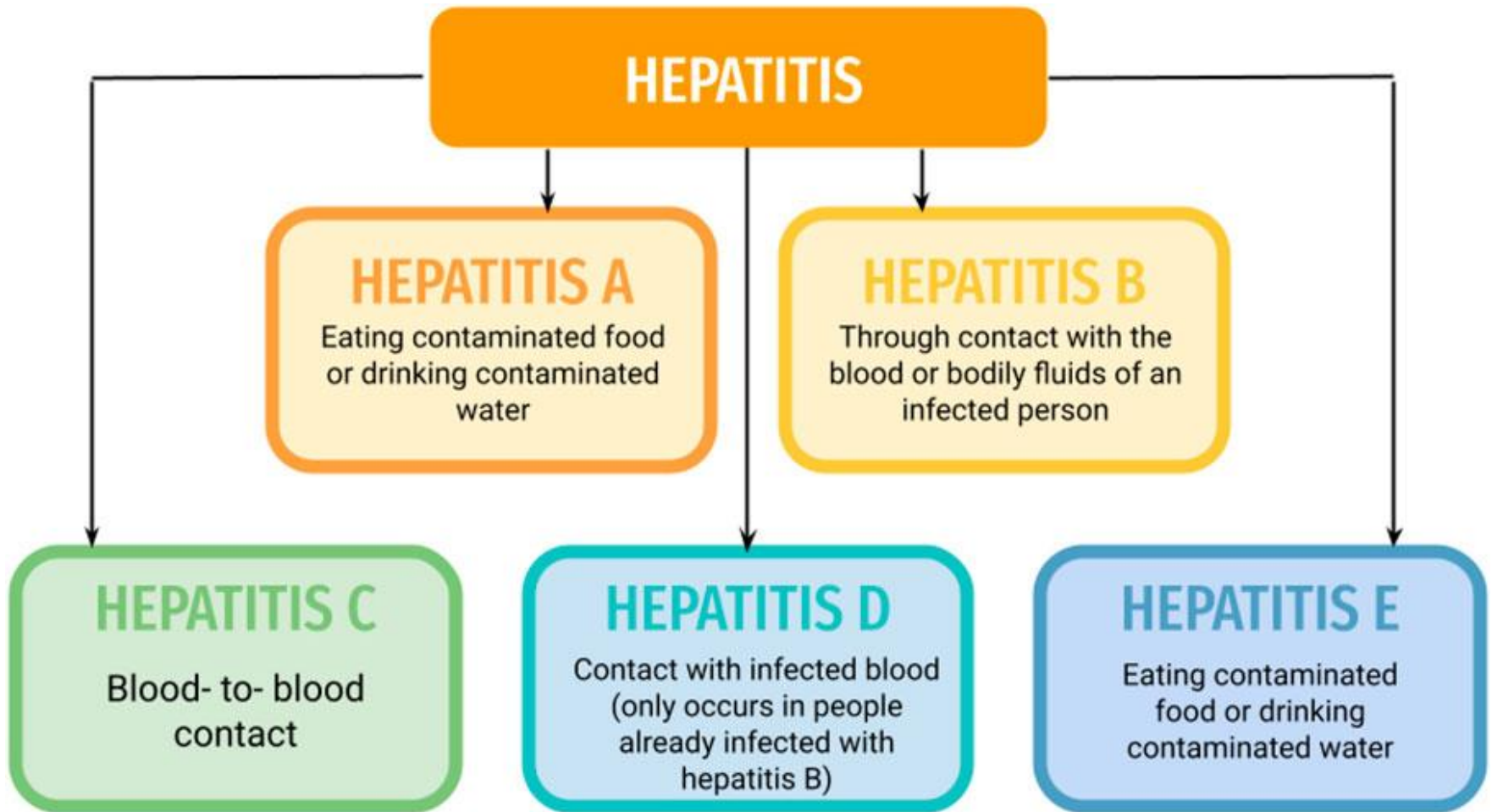
Source:
National Institute of Health (NIH)

Harm Reduction and Preventative Health Care for OUD, SUD and Infectious Diseases



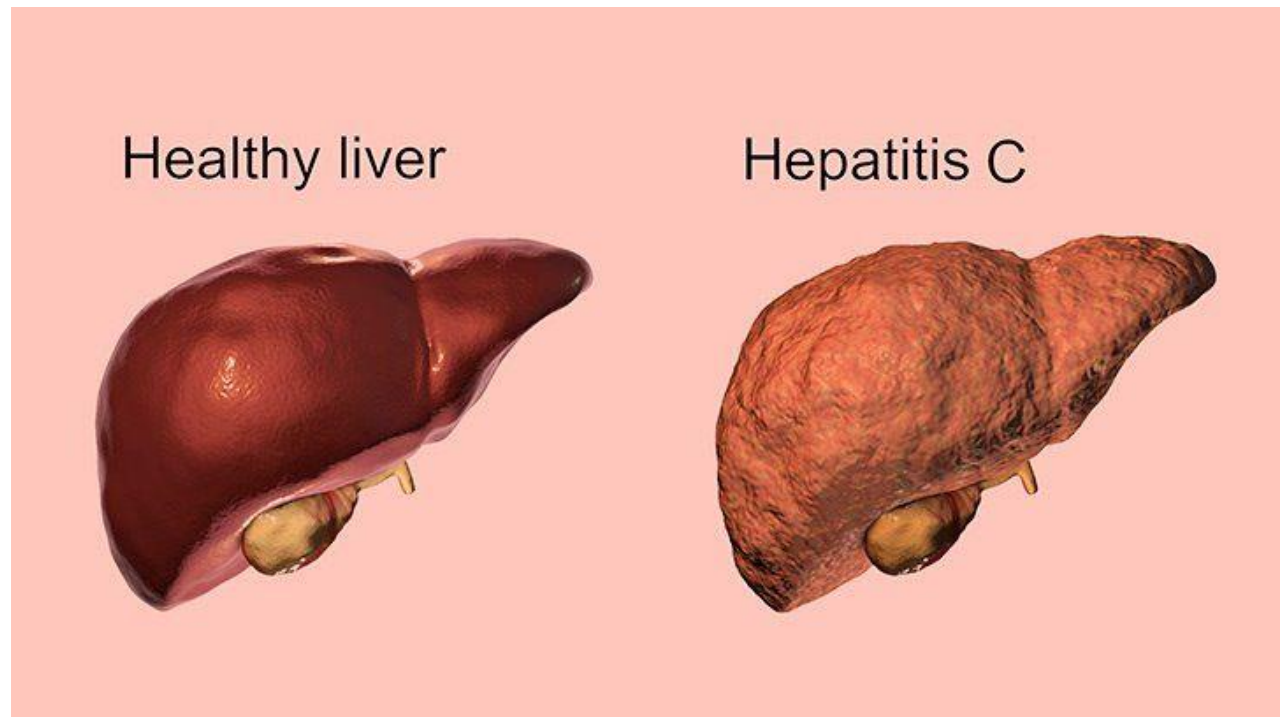
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Infectious Disease: Hepatitis



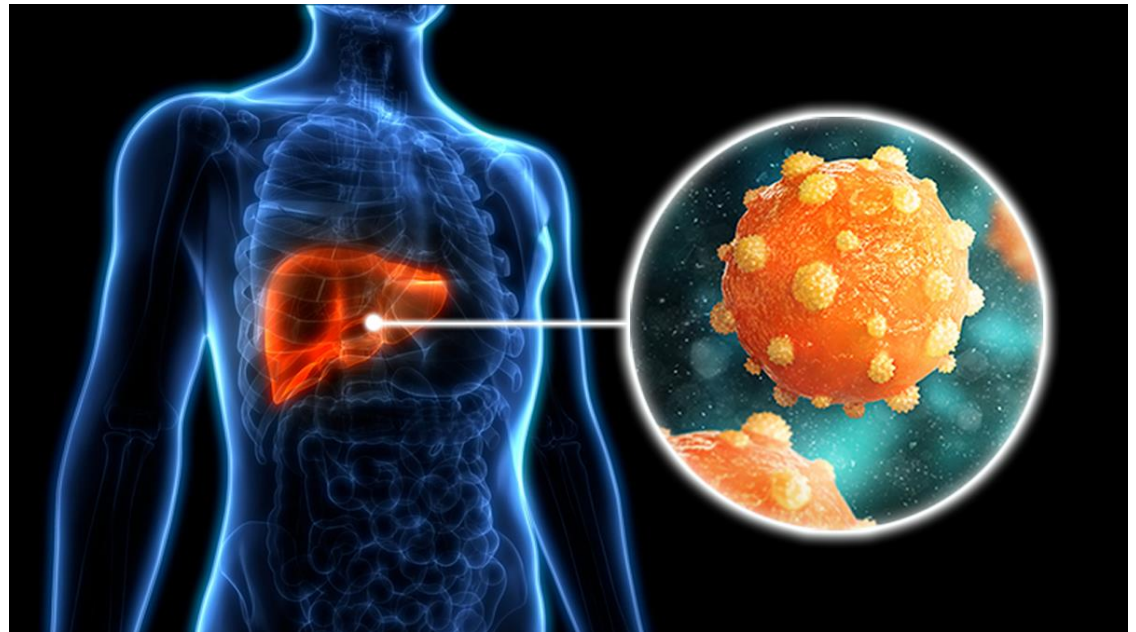
Infectious Disease: Hepatitis

- 2.4 million people are estimated to be living with Hepatitis C in the United States.
- If left untreated, healthy livers become increasingly fibrotic and scarred.



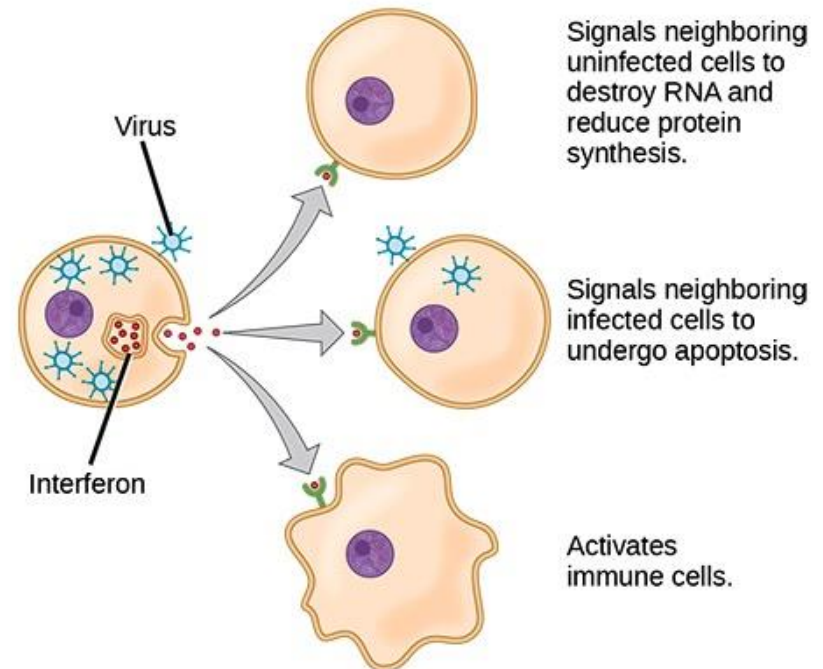
Hepatitis Treatment: HepB Vaccination

- Studies indicate that immunity persists for at least 30 years among healthy people who initiate HepB vaccination at less than 6 months of age.
- Vaccine schedule:
 - 1st dose on presentation
 - 2nd dose one month later
 - 3rd dose 6 months after 1st dose



Interferon in Hepatitis C

- Monotherapy
 - Standard interferon: 3 million units of injection 3x per week (Low sustained virologic response)
- Combination Therapy
 - Standard interferon: Ribivarin
 - Pegylated interferon with Ribivarin
- 99% cure rates with either 2 or 3 month pill regimen options



Hepatitis Treatment: Antivirals

- Though Hepatitis B is not curable, Hepatitis C is.
- Hepatitis C virus is an RNA virus and does not integrate into the liver cell DNA.
- 99% cure rates with either 2 or 3-month pill regimen options.

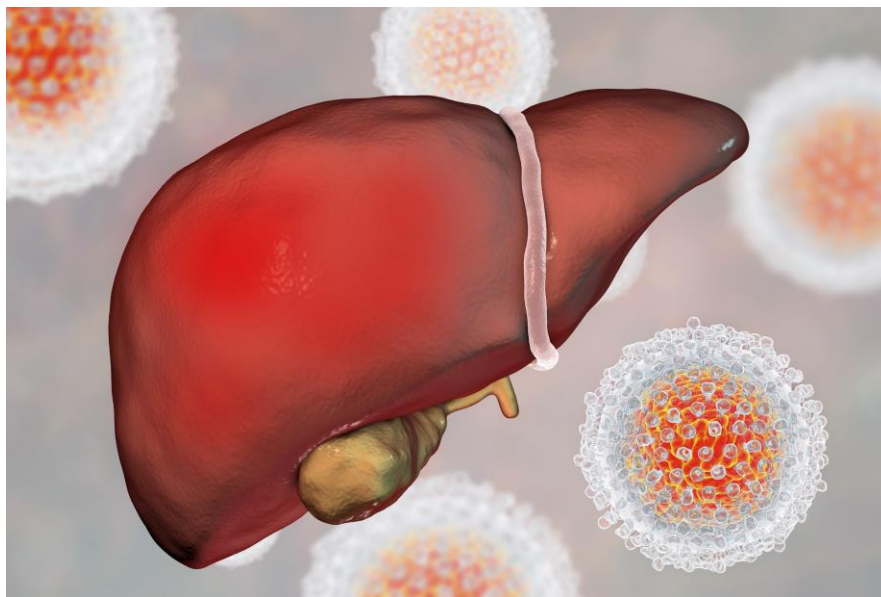


Image source: Haymarket Medical Network, 2021

[Source: Re-treatment of Hepatitis C Infection After Multiple Failures of Direct-Acting Antiviral Therapy - PubMed](#)

Infectious Disease: Tuberculosis

- According to the CDC, approximately 13 million individuals in the United States are positive for latent Tuberculosis and are not aware of it.

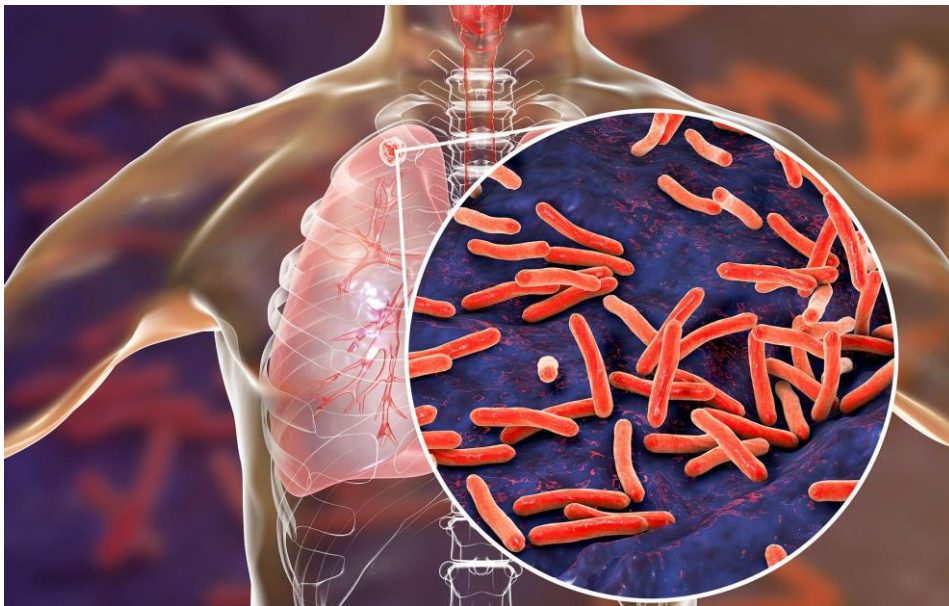


Image Source: University of Florida Emerging Pathogens Institute, 2024

Image Source: MedlinePlus, National Library of Medicine

Tuberculosis: Testing

- The Purified Protein Derivative Test (PPD): injecting a small amount of purified protein derivative under the skin.
- Individuals must return 2 or 3 days following for a reading.
- Easier testing solution: single blood draw.

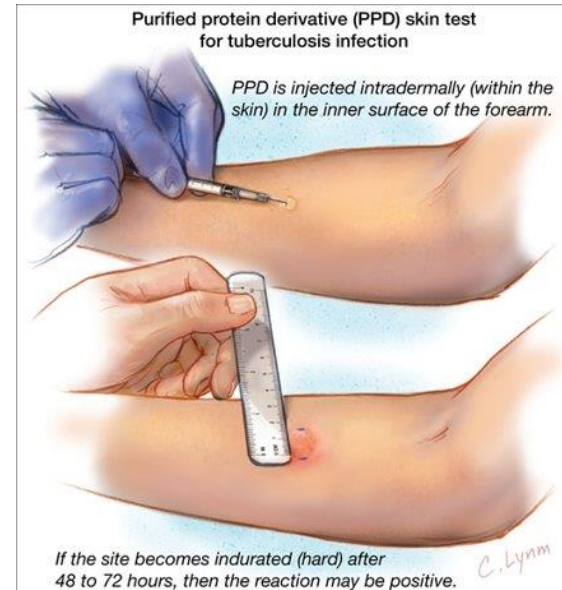


Image Source: Berrien County Health Department



Image Source: NMS Health

Questions?



Thank You!!!

Daniel Rosa: drosa@promesa.org

PCSS-MOUD Mentoring Program

- PCSS-MOUD Mentor Program is designed to offer general information to clinicians about evidence-based clinical practices in prescribing medications for opioid use disorder.
- PCSS-MOUD Mentors are a national network of providers with expertise in **addictions, pain, and evidence-based treatment including medications for opioid use disorder (MOUD)**.
- 3-tiered approach allows every mentor/mentee relationship to be unique and catered to the specific needs of the mentee.
- No cost.

For more information visit:
<https://pcssNOW.org/mentoring/>

PCSS-MOUD Discussion Forum

Have a clinical question?

Ask a Colleague

A simple and direct way to receive an answer related to medications for opioid use disorder. Designed to provide a prompt response to simple practice-related questions.

<http://pcss.invisionzone.com/register>

Addiction Policy Forum	American College of Emergency Physicians*
Addiction Technology Transfer Center*	American College of Medical Toxicology
African American Behavioral Health Center of Excellence	American Dental Association
All Rise	American Medical Association*
American Academy of Child and Adolescent Psychiatry	American Orthopedic Association
American Academy of Family Physicians	American Osteopathic Academy of Addiction Medicine*
American Academy of Neurology	American Psychiatric Association*
American Academy of Pain Medicine	American Psychiatric Nurses Association*
American Academy of Pediatrics*	American Society for Pain Management Nursing
American Association for the Treatment of Opioid Dependence	American Society of Addiction Medicine*
American Association of Nurse Practitioners	Association for Multidisciplinary Education and Research in Substance Use and Addiction*
American Association of Psychiatric Pharmacists	Black Faces Black Voices
American Chronic Pain Association	Coalition of Physician Education

Columbia University, Department of Psychiatry*	Northwest Portland Area Indian Health Board
Council on Social Work Education*	Partnership to End Addiction
Faces and Voices of Recovery	Physician Assistant Education Association
Mobilize Recovery	Project Lazarus
NAADAC Association for Addiction Professionals*	Public Health Foundation (TRAIN Learning Network)
National Alliance for HIV Education and Workforce Development	Sickle Cell Adult Provider Network
National Association of Community Health Centers	Society for Academic Emergency Medicine*
National Association of Social Workers*	Society of General Internal Medicine
National Council for Mental Wellbeing*	The National Judicial College
National Council of State Boards of Nursing	Veterans Health Administration



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