



ASAM REVIEW COURSE 2025

Medical Co-Morbidities: Diagnosis, Prevention and Complications

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Learning Objectives



1

Conduct an appropriate history and physical exam for persons with substance use disorder.

2

Identify key medical co-morbidities that can occur with substance use disorder.

Presentation Outline

Routine and Preventive Care

- History
- Physical examination
- Labs
- Preventative Care
- Preconception Care

Medical Consequences of Alcohol and Drug Use

- Alcohol
- Tobacco
- Opioids
- Stimulants
- Injection Drug Use
- Cannabis

SUD = Poor Medical Care

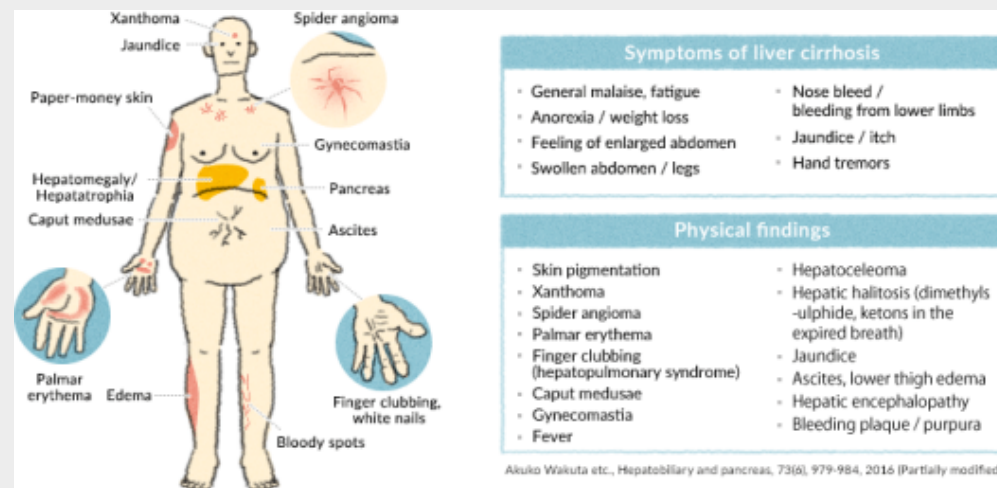
- Reasons
- Barriers
- Consequences

General Medical Evaluation

- Medical History
- Physical Examination
- Tests
- Preventative Counseling
- Preventative Screening
- Immunizations

Alcohol

- Affects every organ system
- Women>>Men
- Is any ETOH safe?
- Physical Exam Findings:

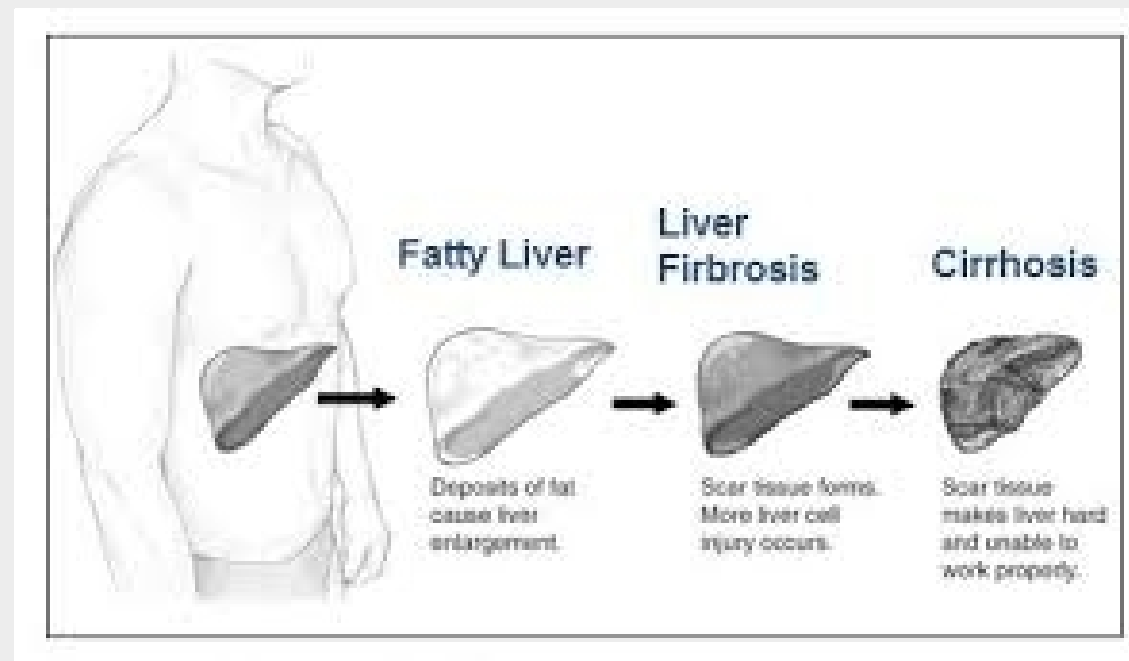


- Spider angiomas
- Palmar Erythema

- Jaundice
- Ascites

Alcohol

- GI-
 - Esophagitis/gastritis, Mallory-Weiss tears, esophageal varices
 - Pancreatitis (dose-related toxic effect)
 - Alcohol-related liver disease
 - AST/ALT >2
 - Fatty liver
 - Alcohol related hepatitis (ALH)
 - Cirrhosis-10-20%



Alcohol

- Respiratory
 - Aspiration
 - OSA
- Infectious
 - Hepatitis
 - SBP
 - TB
- Nutrition-vitamin and mineral deficiencies
 - B1, B6, riboflavin, niacin, Vit D, Mg²⁺, Ca²⁺, folate, PO₄, zinc

Alcohol

- CV
 - HTN-dose dependent
 - Cardiomyopathy-dilated
 - Atrial Fibrillation “Holiday Heart”
- Heme/Oncology
 - Anemia-macrocytic
 - Thrombocytopenia/pancytopenia
 - Coagulopathy
 - Increase CA: breast, oral, GI, hepatic (no safe threshold)

Alcohol

- Neurological
 - Neuropathy-peripheral/autonomic
 - Sleep
 - Cognition
 - Cerebellar dysfunction
 - Trauma

Wernicke Encephalopathy	Korsakoff's Syndrome
C-Confusion	R-Retrograde amnesia
O-Ophthalmoplegia	A-Anterograde amnesia
A-Ataxia	C-Confabulation
T-Thiamine Deficiency	K-Korsakoff psychosis

Alcohol

- Endocrine
 - Hypogonadism
 - Direct testicular effect
 - Hepatic dysfunction → reduction in gonadal hormones
 - Decreased fertility
 - Hyperlipidemia

Tobacco

- Leading cause of preventable death
- CV
 - HTN
 - CAD (multifactorial)
 - Peripheral vascular disease
- GI
 - GERD/PUD
 - Pancreatitis
 - Inflammatory Bowel Disease
 - Malignancy

Tobacco

- Respiratory
 - COPD
 - Malignancy
 - Asthma
 - PTX
 - Pulmonary HTN
 - Pneumonia/bronchitis

Tobacco

- Heme/Onc
 - 49% of cancer deaths related to tobacco use
 - Oral, gastric, lung, breast, cervical, bladder, kidney
 - DVT/PE
- Neurological
- Infectious Disease
- Reproductive/Endocrinology
 - Grave's Disease/hypothyroidism
 - Erectile Dysfunction/infertility



Tobacco Cessation and Recovery?

- Continued tobacco use predicted return to all substance use
- Should residential treatment programs allow nicotine use?
- Will patients leave prematurely?
- Philadelphia and NY experiences



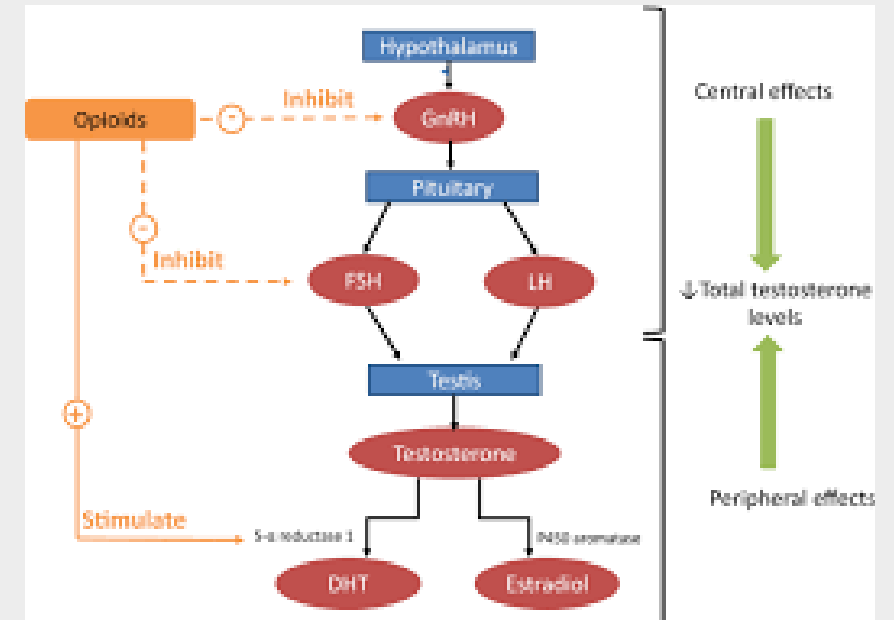
Weinberger AH, Platt J, Esan H, Galea S, Erlich D, Goodwin RD. Cigarette Smoking Is Associated With Increased Risk of Substance Use Disorder Relapse: A Nationally Representative, Prospective Longitudinal Investigation. J Clin Psychiatry. 2017 Feb;78(2):e152-e160.

Opioids

- ID
 - IVDA-endocarditis, osteomyelitis, Hep C and HIV
 - STD
- Respiratory-overdose, chest wall rigidity with FENT, pulmonary edema
- Endocrine-reduction in steroid hormones
- Trauma-rhabdomyolysis, compartment syndrome
- Respiratory-OSA,
- GI-constipation

Opioid Induced Hypogonadism

- Low libido
- Muscle wasting
- Increased adiposity
- Depression
- Osteoporosis
- Treatment: Testosterone replacement



QT Prolongation

- Normal: <430 ms-men, <450 ms-women
- Medications: methadone, quinolones, ondansetron, macrolides, hydroxyzine, citalopram
- ↓ Mg²⁺, K⁺, Ca²⁺
- Screening:
 - Good family and medical history-look at all medicines
 - EKG at higher doses of methadone?
- Flockhart Table/APP-IUSOM

Risk Factors for TdP

A CARLAT PSYCHIATRY REFERENCE TABLE

Risk Factors for Torsades de Pointes	
Nonmodifiable	Modifiable
Female sex	Multiple QT-prolonging medications
Older age	Drug toxicity
Structural or functional heart disease	Drug-drug interactions
Congenital long-QT syndrome	Severe acute illness
Personal history of drug-induced QT prolongation	Bradycardia
Family history of sudden (or aborted) cardiac death	Hypokalemia, hypomagnesemia, hypocalcemia
Poor metabolizer at CYP enzymes	Hepatic or renal impairment

Adapted from Funk MC et al, Am J Psychiatry 2020;177(3):273–274

From the Article:
“Cardiovascular Psychiatry Part 1”
with Margo C. Funk, MD, MA, FACP

The Carlat Psychiatry Report, Volume 21, Number 4&5, April/May 2023

www.thecarlatreport.com

LFT's and Naltrexone

- Indication OUD/AUD-baseline higher risk of hepatic disease
- No need to check LFT's prior to initiating treatment
- HCV, HBV not a contraindication
- Elevated LFT's no greater than placebo

Stimulants

- CNS
 - CVA-5X increased risk hemorrhagic (METH), also ischemic (COC)
- CV
 - MI
 - HTN
 - Aortic dissection
 - Ventricular arrhythmia
 - Supportive treatment: β 1blocker not associated with unopposed α activity
- GI
 - Ischemic bowel
 - Colitis

Do I get an EKG prior to starting a prescribed stimulant?

- Kids, young adults-no
 - Low pretest probability
 - Look at EKG if one is available
- Older Adults-poor data
 - Risk of RX stimulants is hypertension, tachycardia, vasospasm
 - BP and HR every 6 months
 - EKG annually? Look for QRS widening, ventricular conduction delay, arrhythmia

Stimulants

Toxicity	Emergency Presentation	Cause of Death
VASCULAR	Cardiac, stroke	Cardio/cerebrovascular
PSYCHIATRIC	Trauma, psychosis	Traumatic

Medical Complications of IVDU

- HIV
 - PWID=10% of new HIV cases since 2012
 - Reduction:
 - SSP-reduction in HIV by 50%
 - PrEP, overdose prevention sites
- Hepatitis
 - 65% PWID-->anti HCV +
 - SSP, MOUD-reduction in HCV
 - DAA regardless of stage of recovery
 - IVDU most common risk factor for new HBV

PrEP

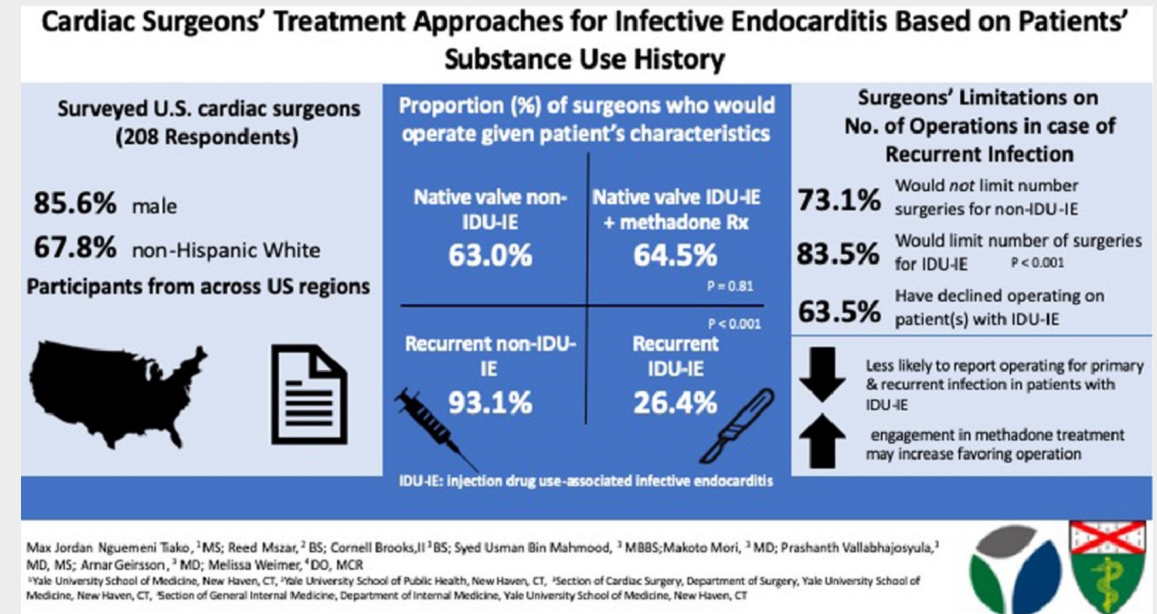
- Public Health Goal: reduce new HIV infections by 75% by 2025 and 90% by 2030
- CDC, FDA endorse PrEP as effective strategy to reduce new HIV infections among PWID
- Fewer than 1/500 PWID filled RX for PrEP
- LAI forms of PrEP-q 2 months



Streed CG, Morgan JR, Gai MJ, Larochelle MR, Paasche-Orlow MK, Taylor JL. Prevalence of HIV Preexposure Prophylaxis Prescribing Among Persons With Commercial Insurance and Likely Injection Drug Use. JAMA Netw Open. 2022;5(7):e2221346

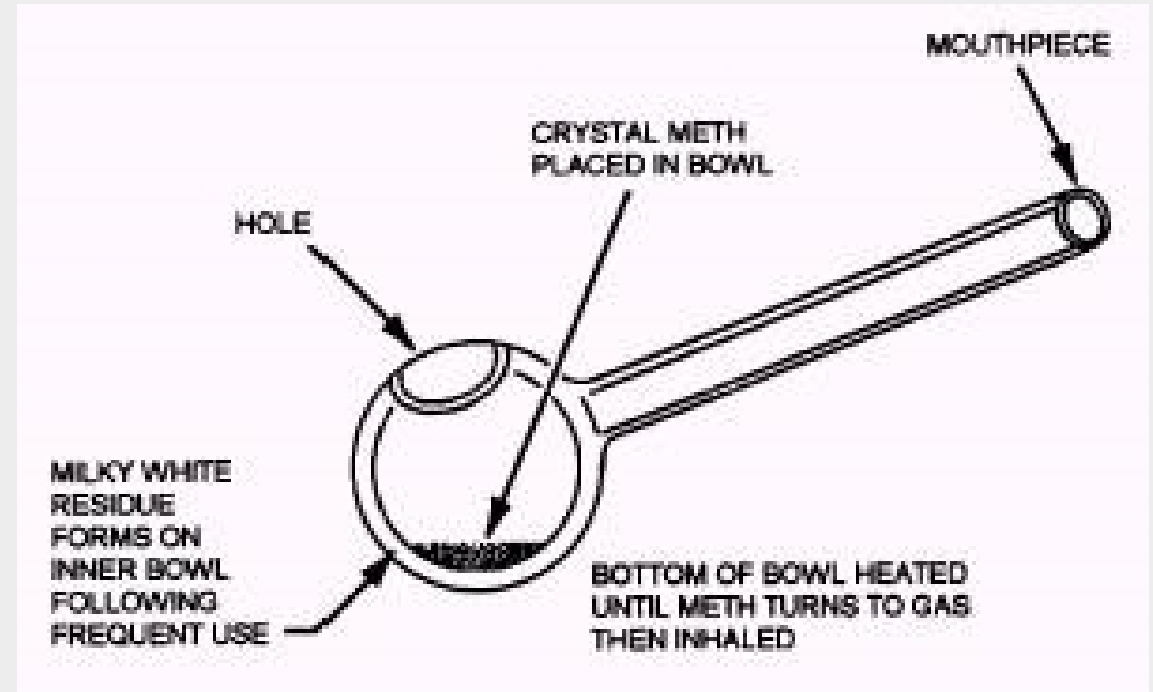
Medical Complications of IVDU

- SBI
 - Osteomyelitis
 - Endocarditis
 - *S. aureus* (often methicillin resistant)
 - Osler nodes, Roth spots, splinter hemorrhages



Medical Complications of Inhaling Drugs

- Inhalation and insufflation
- Shared equipment-->risks of ID
- Poor adherence to barriers during SI
- Trauma-burns, cuts
- Harm reduction



Cannabis

- Hyperemesis Syndrome
 - Downregulation of CNS CBD R and upregulation of gut CBD R
 - Chronic cannabis use
 - Relieved with hot showers
 - Resolved with cessation
- Medical Cannabis
 - Medical condition with RCT suggests response to THC
 - Symptoms refractory to pharmacotherapy
 - No SUD/psychological morbidity

Hill KP. Medical Marijuana for Treatment of Chronic Pain and Other Medical and Psychiatric Problems: A Clinical Review. JAMA. 2015;313(24):2474–2483

Gabriel P. A. et al. (2024) The impact of cannabis on non-medical opioid use among individuals receiving pharmacotherapies for opioid use disorder: a systematic review and meta-analysis of longitudinal studies, The American Journal of Drug and Alcohol Abuse, 50:1, 12-26, DOI: 10.1080/00952990.2025.2287406

Conclusion

- Targeted history and physical exam
- Physical health
- Teach patients to advocate for themselves
- Tobacco and alcohol most toxic substances
- Partnership with primary care colleagues



Get in Touch



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