



ASAM REVIEW COURSE 2023

Medical Co-Morbidities: Diagnosis, Prevention and Complications

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Financial Disclosure

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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



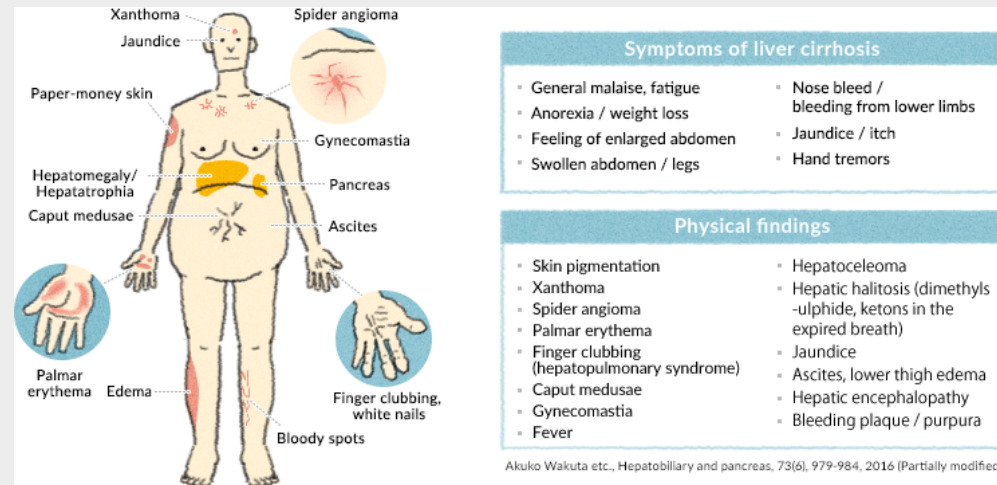
Chan Carusone, S., Guta, A., Robinson, S. et al. "Maybe if I stop the drugs, then maybe they'd care?"—hospital care experiences of people who use drugs. Harm Reduct J 16, 16 (2019).

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:

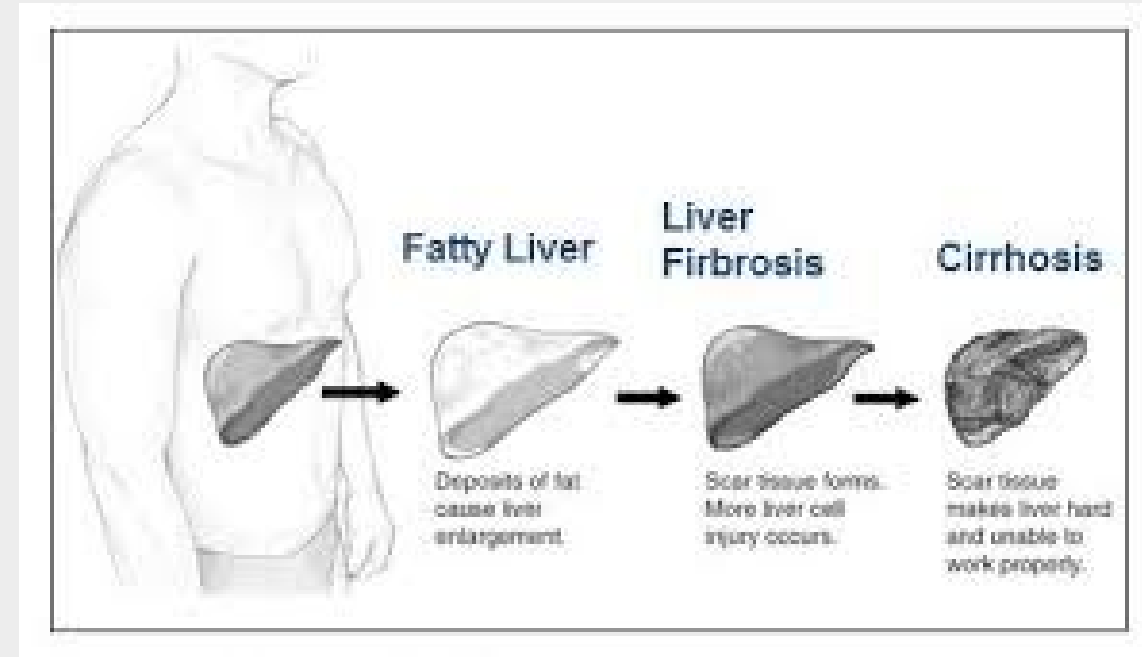


- Spider angiomas
- Palmar Erythema

- 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

I didn't survive drugs & alcohol
so I could die from lung cancer.

I had to stop smoking.

CIGARETTES ARE MY GREATEST ENEMY
TOBACCO CAUSES MORE DEATHS THAN AIDS, DRUGS, BREAST CANCER AND CAR CRASHES COMBINED

AMERICAN LUNG ASSOCIATION



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



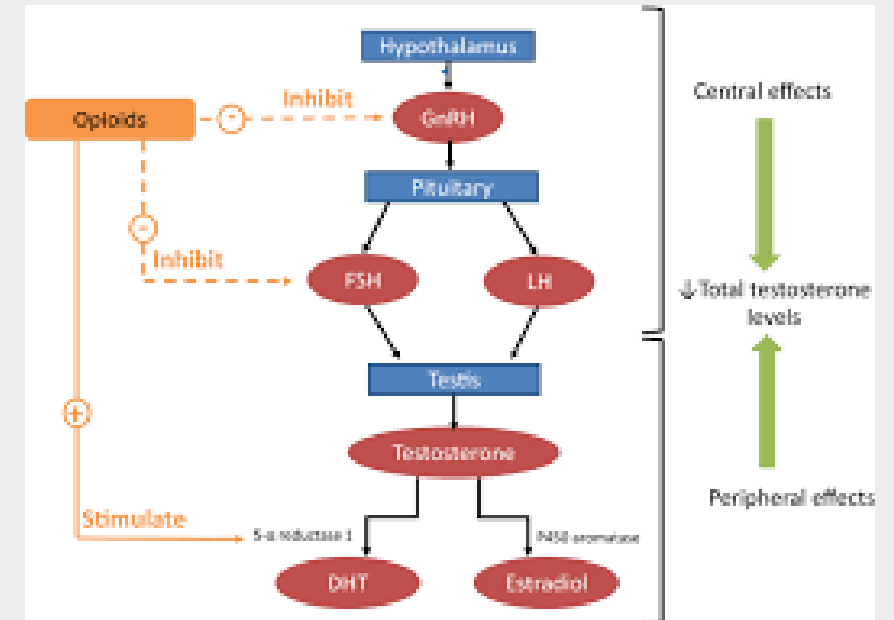
Weinberger AH, Platt J, Esan H, Galea S, Erlich D, Goodwin RD. Cigarette Smoking Is Associated With Increased Risk of Substance Use Disorder Relapse: A Nationally Representative, Prospective Longitudinal Investigation. *J Clin Psychiatry*. 2017 Feb;78(2):e152-e160.

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, FACLIP

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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)
 - No evidence cocaine associated with seizures
- 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

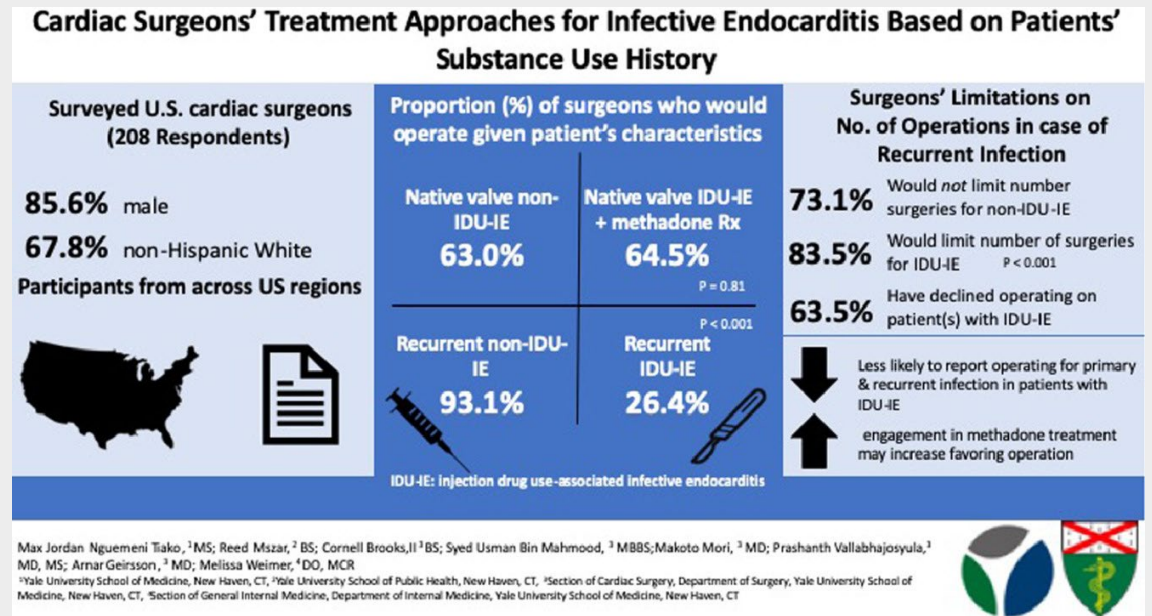
PrEP

- 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 on horizon?



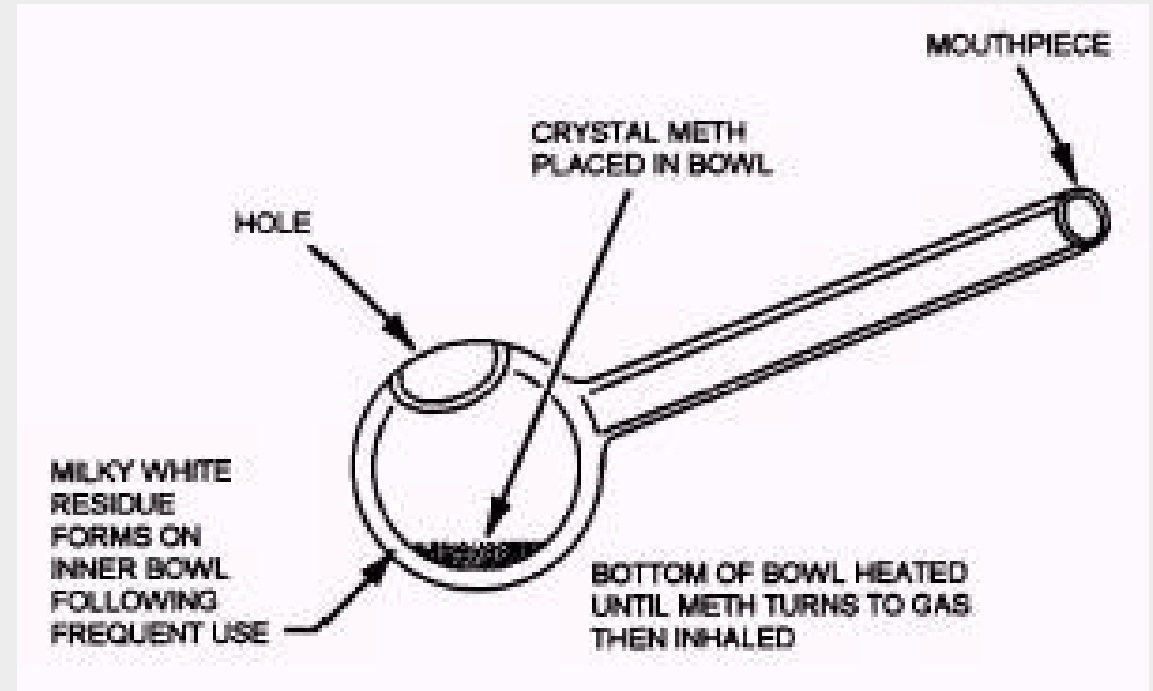
Medical Complications of IVDU

- 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 responds to THC
 - Symptoms refractory to pharmacotherapy
 - No SUD/psychological morbidity

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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