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Substance Use Disorders in Late Life

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How to Participate in Q&A

Use the “Q&A” area of the attendee control panel

We will reserve 20 – 30 minutes for Q&A after the presentation

Webinar Faculty

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Disclosures

- Dr. Roberto D. Sanchez, fellow for this educational activity, has no relevant financial relationship(s) with ineligible companies to disclose.
- Dr. Ali Abbas Asghar-Ali, faculty for this educational activity, has no relevant financial relationship(s) with ineligible companies to disclose.

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.

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Target Audience

- The overarching goal of PCSS is to train healthcare professionals in evidence-based practices for the prevention and treatment of opioid use disorders, particularly in prescribing medications, as well for the prevention and treatment of substance use disorders.

Educational Objectives

- At the conclusion of this activity participants should be able to:
  - Gain awareness of the occurrence and impact of substance use disorders (SUDs) in late-life.
  - Employ appropriate screening tools to identify SUD in late-life.
  - Identify how SUDs in late-life differ from SUDs in younger adults.
  - Adapt pharmacologic treatments for older adults with SUD.
  - Implement recommendations for psychosocial treatments for the treatment of SUD.

Terminology and Language

- **Substance Misuse**: Use of a substance for a purpose not consistent with legal or medical guidelines. This includes both prescribed and non-prescribed substances.
- **At-risk Or Hazardous Use**: Substance use that increases the chances that one may develop future problems including physical and/or mental problems and complications.
- Person first language can help reduce the stigma that contributes to a reluctance to seek care.
- Stigmatizing language within members of the healthcare team can impact the care of the individuals they are caring for.

Hadland, S., et al. (2018), *Addiction science & clinical practice*

SAMHSA, (2020), *Substance Abuse Mental Health Services Administration.*

Yang, L., et al. (2017), *Current opinion in psychiatry*

The Older Adult: Prevalence, Historical Factors And Current Trends

The Baby Boomer Generation

- Adults above the age of 65 years are often referred to as older adults.
- Due to limited literature and prevalence data, studies that define older adults as >55 years old also included.
  - This age group currently represents about 30% of the US population.
- Baby Boomer generation refers to those born between 1946 – 1964.
  - Will be largest group of older persons in the history of the US.
  - As members of the generation age, more presentations of complications of substance use, including increasing hospital admissions.

Weber A., et al., (2022), *American Journal of Geriatric Psychiatry*

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Substance Use Disorders In Older Adults

- The number of older adults is projected to exceed **72.1 million** persons by 2030.
- Members of the Baby Boomer generation have the **highest** rates of **early life** substance use and are more likely to continue substance use into later life.
- Rate of SUDs in older individuals has **more than doubled** from 2007 to 2020.
- The rate of SUDs in current group of older adults is higher than any previous cohort of older adults.
- The number of older adults needing treatment for SUDs is increasing across genders and all racial/ethnic groups.

Yarnell S., et al., (2020), *American Journal of Geriatric Psychiatry*

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Substance Use Disorders In Older Adults

- Higher rates of medical comorbidities:
  - Hypertension
  - Hepatic disease
  - Chronic pain
- Even low doses of substances can exacerbate physical and mental health illnesses due to a diminished physiologic reserve.
- Admissions related to opioids (particularly heroin), stimulants (cocaine, methamphetamine), and cannabis have increased in older adults.
  - Cocaine and heroin are among the most frequently reported.

Weber A., et al., (2022), *American Journal of Geriatric Psychiatry.*

Yarnell S., et al., (2020), *American Journal of Geriatric Psychiatry*

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Substance Use Disorders In Older Adults

- Older adults are more vulnerable to the effects of substances as a result of physiologic changes:
  - Decreased percentage of lean body mass
  - Decreased total body water
  - Increased blood brain barrier permeability
  - Slower drug metabolism/excretion
  - Altered pharmacodynamics
  - Age-related changes in the brain

Yarnell S., et al., (2020), *American Journal of Geriatric Psychiatry*

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The Impact Of Substance Use Disorders In Late Life

- SUD in late-life leads to a greater risk of the following:
  - Mood & anxiety disorders (in particular, depression, anxiety, and PTSD)
  - Sleep disorders
  - Cognitive impairment
  - Hepatic complications
  - Sleep disruption
  - Drug interactions (slower metabolism, lower body fat)
  - Greater physical disability (liver disease, cardiomyopathy, falls)
  - More severe withdrawal
  - Interactions with medications

De Alba I., (2004), The American Journal on Addictions
Lofwall MR., (2005), Journal of Substance Abuse Treatment
Wu LT., et al., (2011), Journal of Aging and Health

The Older Adult's View Of Addiction

- Diverse range of opinions/attitudes towards substance use
- **< WWII**:
  - More "moralistic" attitudes towards substance use.
  - Lived through Prohibition and Temperance Movement resulting in more shame around their use.
  - Benefit more from screening/brief intervention that is part of overall assessment/annual visit
- **Baby Boomers (born 1946-1964):**
  - May see substance use as more culturally acceptable.
  - More willing to seek treatment.

Benshoff, J., (2003), *Journal of Rehabilitation*
National Evaluation Data Services. (2002), *Center for Substance Abuse Treatment*

Potential Explanations For Increased Diagnosis of SUDs

- Increased life expectancy.
- Heightened desire for personal gratification among many in Baby Boomer generation.
- Higher rates of substance use at younger age:
  - More exposure and higher risk of relapse.
- Changes in culture and shifting attitudes about substance use:
  - Coined the phrase, “sex, drugs, and rock and roll.” Represents shift in attitudes towards substance use.

Yarnell S., (2020), *American Journal of Geriatric Psychiatry*

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Epidemiology

- **Incidence and prevalence of SUDs in older adults in not well known:**
  - SUDs are underestimated, under-identified, underdiagnosed, and undertreated.
- **Reasons for variability**:
  - Prevalence varies greatly based on the substance.
  - Lack of consensus around nomenclature, screening, and diagnosis (e.g., abuse vs dependence, misuse, use disorder)
  - Lack of research on the topic.
  - Ageism (low index of suspicion).
  - Denial by caregivers/family members.

Blazer DG., et al., (2009), American Journal of Geriatric Psychiatry

Blow FC., et al., (2012),. *Current Psychiatry Reports*

Yarnell S., (2020), *American Journal of Geriatric Psychiatry*

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Treatment Episode Data Set - Admissions (TEDS-A) by SAMHSA*

- Any treatment facility that receives public funding is required to make data available to TEDS-A.
- There are evaluations of data from 1998-2018.
- **Key Findings**:
  - Percentage of older adults' admissions increased from 9.04% in 2008 to 15.64% in 2018.
  - Referrals to treatment facility:
    - Self: 42.30%
    - Healthcare system: 11.26%
  - The increase in admissions continued from 1998 to 2018.
  - Illicit substances (notably heroin and methamphetamine) surpassed alcohol use as primary reason for admission.

*Substance Abuse and Mental Health Services Administration

Weber A., et al., (2022) *American Journal of Geriatric Psychiatry*

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Diagnostic Criteria for Substance Use Disorder

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Considerations For Late-life Diagnosis

Table 1. Use of DSM-5 Criteria for the Diagnosis of Substance-Use Disorder in Older Adults.*

DSM-5 Criterion	Application of Criterion for Older Adult
Substance taken in greater amount than intended	Older adult may be impaired using the same amount taken when younger
There is persistent desire or unsuccessful effort to cut down or control use	Older adult may not realize use is problematic, especially with long-term use
There is excessive time spent to obtain, use, or recover from the substance	Same
There is craving for the substance	Same
Repeated use leads to inability to perform role in the workplace or at school or home	Role impairment is less pertinent; older adult may be retired and may be living alone
Use continues despite negative consequences in social and interpersonal situations	Same
Valued social or work-related roles are stopped because of use	Effect of substance use on social roles is less obvious if older adult is no longer working
Repeated substance use occurs in potentially dangerous situations	Same; older adult may be at increased risk for impaired driving
Substance use not deterred by medical or psychiatric complication	Same; medical consequences can be serious, including confusion, falls with injury, and psychiatric symptoms
Tolerance develops: increasing amount is needed to obtain effects	Symptomatic impairment may occur without an obvious need for increasing the amount
Withdrawal syndrome occurs or patient takes substance to prevent withdrawal	Withdrawal syndrome can occur with more subtle symptoms such as confusion

* DSM-5 denotes *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition.

Lehmann, S., et al., (2018), *New England Journal of Medicine.*

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Late-life Risk & Protective Factors For SUDs

- **Risk Factors**:
  - Previous history of SUD (including relapse)
  - Comorbid psychiatric illness
  - Cognitive impairment
  - Family history of SUD
  - **Retirement that is not voluntary**
  - **Loss (spouse, friend)**
  - Worsening physical health
  - Availability of substances
  - Male gender
  - Black and white races
  - High school education or beyond
  - **Chronic physical illness or pain**
  - Being a caregiver
- **Protective Factors**:
  - Married
  - Religious affiliation
  - **Late-life onset**
  - **Good social support**
  - Resiliency
  - Demonstrated ability to live independently
  - Good sense of identity & purpose

Kuerbis, A.., et al., (2014), *Clinics in Geriatric Medicine*

Satre, D., et al., (2012), *Journal of Studies on Alcohol and Drugs*

Substance Abuse and Mental Health Services Administration. (2019), *Substance Abuse and Mental Health Services Administration*

Wu L.T., et al., (2011), *Journal of Aging Health*

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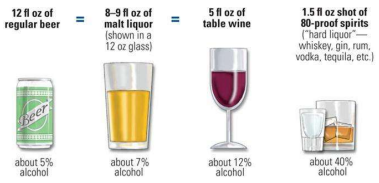
Substance-specific Overview

Alcohol

Alcohol Use

- **Alcohol**:
  - Most common substance misused.
  - There is an increase in alcohol consumption in those ≥ 50 years old in comparison to younger age groups.
  - > 10% of adults aged 65 years and older binge drink
  - 65% of people > 65 years old reported high risk drinking at least weekly over the previous year (2015-2017)
  - One standard drink has 14g of alcohol
- **Alcohol Use Disorder (AUD)**:
  - An estimated 4% of older adults struggle with AUD.



Grant BF., et al., (2017), *Journal of the American Medical Association Psychiatry*

Han B., et al., (2019), *Journal of the American Geriatrics Society.*

Sanna, M., et al., (2014), *Traffic Injury Prevention*

White A., et al., (2020), *Alcoholism Clinical and Experimental Research*

Alcohol – Current Recommendations

- **National Institute of Alcohol Abuse and Alcoholism's (NIAAA) and Centers of Disease Control (CDC) recommended limits**:
  - "Moderate alcohol use" is one drink per day for women or two drinks per day for men in those above the age of 65 years.
  - **More than 3 standard drinks** of alcohol is considered binge drinking in late life (in comparison to 5 standard drinks in younger adults).
  - Per SAMHSA, > 10% of adults ages 65 years and older reported having had at least one binge drinking episode over previous month.
- In those with dementia or sleep disorders, even 1-2 drinks may not be safe.

Important Considerations

- In young adults the liver metabolizes roughly one serving of alcohol per hour.
- Slowing metabolism of alcohol, less lean body mass, less total body water lead to:
  - Higher blood alcohol level (**by about 20%)**
  - Blood alcohol level stays higher, longer
- 78% of older adults in the US who drink alcohol are taking medications that interact with alcohol.

SAMHSA, (2020), *Substance Abuse Mental Health Services Administration.*

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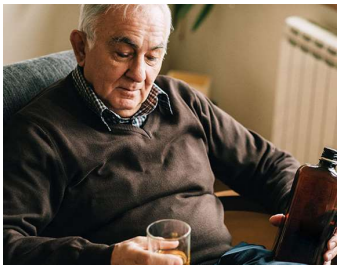
Early Versus Late Onset of AUD

- **Early Onset**: < 60yo
  - Associated with poorer outcomes and a more severe course.
  - Account for ~ 67% of late-life problem drinkers.
  - Due to length of use – more alcohol-related medical problems, legal problems, less social support.
  - More likely to have a family history/genetic predisposition.
- **Late Onset**:
  - Associated with better outcomes.
  - Fewer physiologic consequences of illness – shorter use.
  - Onset often after loss or stressful event.
  - Generally, more emotionally stable.
  - More social support.



Barry, K., et al., (2016), *Alcohol Research*

SAMHSA, (2020), *Substance Abuse Mental Health Services Administration.*

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Risk Factors For Alcohol Misuse In Late Life

- **Physical:**
  - Chronic pain
  - Physical disabilities
  - Change in living situation
  - Overall poor health status
  - Chronic physical illness
- **Mental:**
  - Avoidant coping style (drinking to cope)
  - History of alcohol misuse in past
  - SUD in past (or currently meet criteria for other SUD)
  - Past or current co-occurring mental illness
- **Social:**
  - Financial stressors
  - Bereavement
  - Unexpected/forced retirement
  - Lack of social support

Kuerbis A., et al., (2014), *Clinical Geriatric Medicine*

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Signs & Symptoms Of Alcohol Use Disorder (AUD) In Late-life

- **Mental/Cognitive Changes**:
  - Anxiety, depression, emotional lability
  - New social isolation
  - Disorientation, memory loss, difficulties w/ decision-making
  - Idiopathic seizures
- **Physical Health**:
  - Poor hygiene
  - Falls, bruises (rule out elder mistreatment)
  - Poor nutrition
  - New incontinence
  - New sleep problems
- **Alcohol and Medications**:
  - Increased alcohol tolerance (although not always seen in older adults)
  - Unusual medication response

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AUD Screening Tools

Table 1

Comparing screening tools for alcohol use disorders in the elderly

Screening tool	Characteristics	Clinical usefulness
CAGE	4 items; self-report; most widely used/studied alcohol use screen; specificity > sensitivity	First-line; most useful if goal is to identify alcohol dependence; may miss misuse or hazardous use
AUDIT-5	5 items; self-report; specificity > sensitivity; a shortened version of the 10-item AUDIT	First-line; helpful for identifying hazardous use; sensitive for a broader spectrum of alcohol misuse than CAGE
MAST-G	22-item yes/no self-report; questions specific to elderly	First-line; designed to identify a population that drinks less than heavy drinkers
SMAST-G	10 items; shorter version of MAST-G with similar characteristics	Less sensitive and specific than MAST-G; may be useful when time is limited
Cyr-Wartman	2-question screen ("Have you ever had a drinking problem?" "When was your last drink?"); specificity > sensitivity	Use for brief screening; follow up with more thorough screening in case of positive response
ARPS/shARPS	18 items in ARPS (shARPS is shorter); self-report; classifies patients as nonhazardous, hazardous, or harmful drinkers; good sensitivity	Focuses on relationship of alcohol and medical problems, medication use, and functional status

ARPS/shARPS: Alcohol-Related Problems Survey/short version of ARPS; AUDIT-5: Alcohol Use Disorders Identification Test, 5-item version; CAGE: Cut down, Annoyed, Guilty, Eye opener; MAST-G: Michigan Alcoholism Screening Test—Geriatric version; SMAST-G: shorter version of MAST-G

Drew, S., et al., (2010), *Current Psychiatry*

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Michigan Alcohol Screening Test – Geriatric (MAST-G)

- 24 yes/no questions.
- MAST-G incorporates changes in employment and social circumstances of someone in late-life.
- A score of 5 or more raises concern for alcohol use disorder and warrants further evaluation.
- One study showed specificity of 65% and sensitivity of 93% of detecting problematic alcohol use.
- SMAST-G is an abbreviated version:
  - Less sensitive and less specific than MAST-G
  - 10 yes or no questions
  - May be helpful when time is limited
  - Alcohol misuse: Two or more items as "yes"

Johnson RB., (2008), *Compendium of Continuing Education in Dentistry*

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Pharmacologic Treatments For Alcohol Withdrawal

- **Lorazepam (Ativan)**
  - PO, IM, IV forms available
  - Part of "LOT" (lorazepam-oxazepam-temazepam) group – not hepatically metabolized
  - Linear kinetics & well absorbed
- **Chlordiazepoxide (Librium)**
  - PO form only
  - Hepatically metabolized, has active metabolite
  - Longer half life than lorazepam, risk for "stacking"***
- ***Avoid benzodiazepine if individual is intoxicated (e.g. in situation in which individual is acutely agitated)

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Pharmacologic Treatments For AUD – Maintenance

- **Naltrexone**
  - 50mg PO daily (**Revia**)
  - 380mg IM q monthly (**Vivitrol**)
  - **Mechanism**: Competitive antagonist at mu opioid receptor.
  - **Potential side effects**: Dizziness, headaches, GI distress
  - **Other**: Use w/ caution in decreased liver function; check transaminases.
  - Shown to decrease relapse, increase days of before relapse and decrease heavy drinking days.
  - **Geriatric considerations**:
    - No change from adult dosing.
    - Avoid if individual is on opioid therapy or 7-14 days after last use.
    - Avoid with acute liver failure or concern for hepatotoxicity.
    - Safe to use in compensated cirrhosis.

Ayyala D., et al., (2022), *Hepatology Communications*

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Pharmacologic Treatments – Maintenance

- **Acamprosate (Campral)**
  - **Dose**: 333-666mg TID
  - **Mechanism**: Reduces glutamatergic transmission/increases GABA transmission "artificial alcohol"
  - **Potential side effects**: diarrhea, nausea
  - **Geriatric considerations**:
    - Dosing is same as adults
    - Can be used by individuals w/ severe liver disease.
    - Be cautious w/ creatinine clearance 30-50 mL/minute.
    - Contraindicated in creatinine clearance < 30 mL/minute.

Pharmacologic Treatments – Maintenance

- **Disulfiram (Antabuse)**
  - **Dose**: 250-500mg/day
  - **Mechanism**: Aldehyde dehydrogenase inhibitor
    - Use of alcohol leads to:
      - **Disulfiram reaction** (aversive therapy): Tachycardia, diaphoresis, nausea and vomiting if alcohol is used.
  - **Potential side effects**: Dermatitis, drowsiness, metallic taste, psychosis
    - Should not start for at least 12 hours after drinking.
  - **Geriatric considerations**:
    - Start at lower dose and use with caution.
    - Avoid with individuals with:
      - Cognitive impairment (may forget risk of disulfiram reaction)
      - Cardiac disease
      - Severe liver disease

Substance Misuse

- Older adults are vulnerable to misusing prescription medications.
- Misuse is common with medications prescribed to address sleep difficulties, pain and anxiety.
- Prevalence of substance misuse of substances including benzodiazepines and cannabis is unknown.
- With a higher prevalence of chronic pain in older adults, opioid misuse is a concern.
- 2019 study showed that the most misused medications were **pain relievers.**
- Currently no validated screening to assess over the counter medication misuse.

Aira, M., et al., (2008), *Family Practice*

Christie, M., et al., (2013), *Aging and Mental Health*

Center for Behavioral Health Statistics and Quality, (2020), *Substance Abuse and Mental Health Services Administration*

Levi-Minzi, M., et al., (2013), *Pain Medicine*

Nicotine/Tobacco

Tobacco Use Disorder

- The second most common substance used in adults > 65yo.
- 14.1% (30.2% in those 50-64).
- There are approximately 300,000 deaths related to smoking a year in those >65yo.
- Commonly overlooked as it is does not present with psychiatric manifestations.
- Tobacco use is associated with an increased risk of suicide up to 2.5x and screening should be a component of the suicide risk assessment.

Current cigarette smoking among adults in the United States fact sheet. Centers for Disease Control and Prevention. https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm

Centers for Disease Control and Prevention. Smoking and Older Adults. November 2008. https://www2c.cdc.gov/podcasts/media/pdf/HealthyAgingSmoking.pdf

Echeverria, I., et al., (2021). *International Journal of Environmental Research and Public Health*

Pharmacologic Treatments – Nicotine Replacement Therapy

- **Gum:**
  - **Dose:** 2mg, 4mg
    - Start at 4mg if first cigarette is within 30 minutes upon waking.
  - **Potential side effects:** Buccal mucous irritation, nicotine-related GI distress, headaches, palpitations
  - **Geriatric considerations:**
    - Avoid w/ poor dentition, TMJ disorders, or w/ dental appliances.
  - Good for breakthrough cravings/specific dosing for maximal results
- **Patch:**
  - **Dose:** 7mg, 14mg and 21mg
    - > 10 cigarettes a day: 21mg/day patch
    - ≤ 10 cigarettes a day: 14mg/day patch
  - **Potential Side effects:**
    - Skin irritation
    - Remove at bedtime if having nightmares.
  - **Geriatric Considerations:**
    - None specific to older adults.

Pharmacologic Treatments – Nicotine Replacement Therapy

- **Inhaler: Nicotrol**
  - **Dose:** 10mg
  - 6-16 cartridges daily for up to 12 weeks
  - No studies evaluating use after 12 weeks
  - **Potential side effects**: Sore throat, oral irritation, headache
  - **Geriatric considerations:**
    - Avoid in those with bronchospastic disease.
- **Nasal Spray: Nicotrol NS**
  - **Dose:** 10 mg/mL
  - Take as 1-2 doses an hour with no more than 5 doses (10 sprays) an hour
  - Not studied beyond 3 months of treatment.
  - **Potential side effects:** Nasal discomfort, rhinitis, dyspepsia
  - **Geriatric considerations**:
    - Avoid in chronic nasal disorders (sinusitis, rhinitis) and severe reactive airway disease.
- **Lozenges:**
  - **Dose:** 2mg, 4mg every 1-2 hours with max of 20 lozenges a day.
  - **Potential side effects:** Buccal mucous irritation, nicotine-related GI distress, headaches, palpitations
  - **Geriatric considerations:**
    - Better choice in those w/ poor dentition or dentures.
  - Good for breakthrough cravings/requires specific dosing for maximal results.

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Pharmacologic Treatments

- **Varenicline (Chantix)**
  - **Dose**:
    - **Day 1-3**: 0.5mg q day
    - **Day 4-7**: 0.5mg BID
    - **Day 8 on**: 1mg BID
  - **Mechanism**: Alpha4-beta-2 nicotinic acetylcholine receptor partial agonist
  - **Potential side effects**: Nightmares, GI upset, behavioral disturbance
  - **Geriatric Considerations**:
    - No adjustments needed for older adults unless there is a history of renal impairment.
    - Creatinine clearance < 30 mL/minute: Initiate with 0.5mg daily but maintenance remains 0.5mg BID.
    - History of end stage renal disease: maximum dose of 0.5mg daily.
- **Bupropion SR Formulation (Zyban)**
  - **Mechanism**: Weak inhibition of dopamine reuptake
  - **Dose**:
    - Day 1-3: 150mg daily
    - Day 4 on: 150mg BID
  - **Potential side effects**: Increased anxiety, irritability (typically w/ higher doses)
  - **Geriatric Considerations**:
    - Well-tolerated in older adults.

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Opioids

Opioid Use Disorder (OUD)

- Chronic pain is one of the most common contributors to misuse and potential OUD in late-life.
- 4-9% of older adults are prescribed opioids for pain.
- Multimodal treatment options for pain are not always available
- Risk of serious side effects increases with age, particularly when opioids are combined with alcohol or benzodiazepines.
- In 2013-2015 significant increase in the diagnosis of OUD in older adults.
- Older adults may be less inclined to accept OUD diagnosis when there is co-occurring chronic pain.

Food and Drug Administration, (2017).

Huhn AS., et al., (2018), *Drug and Alcohol Dependence*

Jones, C., et al., (2014), *Morbidity and Mortal Weekly Report*

Lehmann S., et al., (2018), *New England Journal of Medicine*

Common Characteristics Of Older Adults With OUD

- Multiple medical comorbidities.
- Chronic pain
- Mood and anxiety disorders (MDD, GAD, PTSD).
- History of misuse
- Multiple prescribing clinicians (must check prescription drug monitoring program).
- Family members who rationalize/deny individual's use.
- Emergency room visits for sedation (may be combined with benzodiazepines or alcohol).
- Women > Men

Dufort, A., et al., (2021), *Drugs and Aging*
SAMHSA, (2020), *Substance Abuse Mental Health Services Administration*
Wu L., et al., (2014), *International Journal of Epidemiology*

OUD Screening

- Screening and Opioid Assessment for Patients with Pain - Revised (SOAPP-R)*
- Current Opioid Misuse Measure (COMM)*
- Drug Assessment Screening Tool (DAST)*

- Screening tools for older adult medication prescriptions:
  - Screening Tool of Older Person's Potentially Inappropriate Prescriptions (STOPP)
  - Beers Criteria Medication List for Potentially Inappropriate Medication Use in Older Adult

*Not specific for older adults

American Geriatric Society (AGS) Beers Criteria

- Beers Criteria was updated in 2019 with the recommendation to avoid opioids for chronic pain.
- Use should be reserved for the management of severe acute pain.
- A review of opioid-related deaths from 2001-2016 found:
  - Older adults constituted the largest relative increase during this period.
  - Age 55-64: 754% increase.
  - Age > 65: 635% increase.

Fick DM., et al. (2019), *Journal American Geriatric Society*

Gomes T., et al. (2018), *JAMA Network Open*

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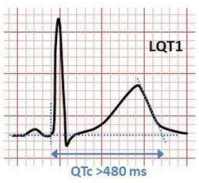
Pharmacologic Treatments - Methadone

- **Methadone**:
  - **Dose**: No higher than 30mg + 10mg on first day.
  - **Mechanism of action**: Full agonist at Mu opioid receptor.
  - **Potential side effects**: Constipation, restlessness, nausea/vomiting, shallow breathing, sexual dysfunction, hallucinations, erectile dysfunction
  - **Geriatric Considerations**:
    - Older adults may do **better** in treatment than younger individuals.
    - Increased risk of sedation w/ polypharmacy.
    - Increased risk of falls
    - Dose-dependent risk of QTc prolongation. Caution if also using antipsychotic or antidepressant.
    - Screen for constipation and develop bowel regimen.
  - **Other**: Naloxone has been shown to be safe and effective in older adults in overdose.



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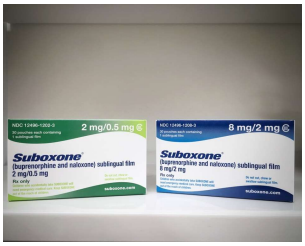
Pharmacologic Treatments - Buprenorphine (+ Naloxone)

- **Buprenorphine + Naloxone (Suboxone)**
  - **Dose**: Depends on formulation, for Suboxone film; 4mg, 8mg, 12mg
  - **Mechanism**: Partial agonist at Mu opioid receptor and antagonist at kappa opioid receptor
  - **Potential side effects**: Constipation, headache, trouble concentrating
  - **Geriatric Considerations**:
    - Lower misuse potential than methadone (ceiling effect, naloxone presence)
    - Half-life is **not** altered with impaired renal or hepatic function.
    - As effective as methadone for moderate use d/o.
    - Weak opioid effect when compared to methadone.
    - Not as much known when compared to methadone.
  - **Other:** One study of low-dose buprenorphine in older adults w/ depression found medication to be safe and well-tolerated.



Pharmacologic Treatments - Vivitrol

- Factors that influence use of Naltrexone (Vivitrol) for OUD:
  - Highly-motivated individual.
  - Recently detoxified from methadone maintenance treatment or buprenorphine maintenance.
  - Not eligible for methadone maintenance treatment or buprenorphine maintenance.
  - Individuals who do not want prescriptions to appear on PDMP.
  - Desire to avoid new dependence after being in recovery.
- Dose: 380mg injection every 28 days

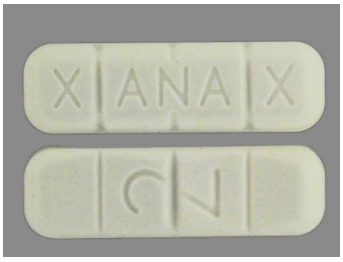
Other Substances

- **Cannabis, stimulants (cocaine, methamphetamine), inhalants, hallucinogens**:
  - Less common than tobacco and alcohol.
  - **Cannabis**:
    - In 2019 2.7 million individuals (5.1%) > 65yo had past year cannabis use.
    - Numbers are evolving with legalization.
    - Prescription numbers are unknown
  - Cocaine 0.04%, inhalants, methamphetamine <0.2%

Center for Behavioral Health Statistics and Quality, (2020), Substance Abuse and Mental Health Services Administration.
SAMHSA, (2020), *Substance Abuse Mental Health Services Administration*
Wu LT., et al., (2011), Journal of Aging and Health

Sedative Hypnotic Use Disorder In Late Life

- Benzodiazepines are commonly prescribed in late life and linked to several important risks:
  - Falls
  - Cognitive impairment – Results of 68 clinical trials:
    - **Regardless of how long benzodiazepines were used**, they can lead to cognitive impairment.
    - Dose-dependent effect.
  - Motor Vehicle Accident
  - Interactions with alcohol and opioids resulting in increased risk of injury and death.



Tannenbaum, C., et al., (2012), *Drugs and Aging*

Cannabis Use Disorder In Late Life

- Cannabis use changing with legalization.
- In 2013 & 2014 0.6% of those > 50yo used medical cannabis.
- Cannabis Use Disorder Identification Test-Revised (CUDIT-R):
  - Score of 12 or higher suggests need for further evaluation.
  - Not developed specifically for older adults.
- Risks:
  - Misuse of medical cannabis
  - Diversion (with consideration of it being forced/coercion)
  - Cognitive impairment
  - Psychomotor slowing
  - Increased risk of myocardial infraction, cerebrovascular accident, psychosis and suicide.
  - Increased potency of tetrahydrocannabinol through years has increased risk of side effects.

Center for Behavioral Health Statistics and Quality. (2020). Substance Abuse and Mental Health Services Administration.

ElSohly, M. A., et al., (2016), *Biological Psychiatry*

Minerbi, A., et al., (2019), *Drugs and Aging*

CUDIT-R

The Cannabis Use Disorder Identification Test - Revised (CUDIT-R)

Have you used any cannabis over the past six months? **YES / NO**

If YES, please answer the following questions about your cannabis use. Circle the response that is most correct for you in relation to your cannabis use *over the past six months*

1.	How often do you use cannabis?	Never 0	Monthly or less 1	2-4 times a month 2	2-3 times a week 3	4 or more times a week 4
2.	How many hours were you "stoned" on a typical day when you had been using cannabis?	Less than 1 0	1 or 2 1	3 or 4 2	5 or 6 3	7 or more 4
3.	How often during the past 6 months did you find that you were not able to stop using cannabis once you had started?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4
4.	How often during the past 6 months did you fail to do what was normally expected from you because of using cannabis?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4
5.	How often in the past 6 months have you devoted a great deal of your time to getting, using, or recovering from cannabis?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4
6.	How often in the past 6 months have you had a problem with your memory or concentration after using cannabis?	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4
7.	How often do you use cannabis in situations that could be physically hazardous, such as driving, operating machinery, or caring for children:	Never 0	Less than monthly 1	Monthly 2	Weekly 3	Daily or almost daily 4
8.	Have you ever thought about cutting down, or stopping, your use of cannabis?	Never 0	Yes, but not in the past 6 months 2			Yes, during the past 6 months 4

This scale is in the public domain and is free to use with appropriate citation:

Adamson SJ, Kay-Lambkin FJ, Baker AL, Lewin TJ, Thornton L, Kelly BJ, and Sellman JD. (2010). An Improved Brief Measure of Cannabis Misuse: The Cannabis Use Disorders Identification Test – Revised (CUDIT-R). *Drug and Alcohol Dependence* 110:137-143.

This questionnaire was designed for self administration and is scored by adding each of the 8 items:
- Question 1-7 are scored on a 0-4 scale
- Question 8 is scored 0, 2 or 4.

Scores of 8 or more indicate hazardous cannabis use, while scores of 12 or more indicate a possible cannabis use disorder for which further intervention may be required.

Psychosocial Treatments And Interventions

Psychosocial Interventions

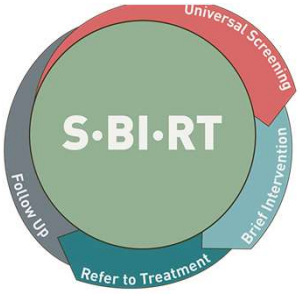
- **Cornerstone of all SUD** in older adults.
- Social support is a significant component of long-term recovery.
- Should be **age-specific** to be most effective:
  - **Only 18-23%** of SUD treatment programs offer services for older adults.
- Screen for, and address, issues of loss and isolation.
- Teach individuals skills on how to rebuild social supports.
- Screen for cognitive changes.
- Brief interventions can be done in the clinic.
- Efficacy demonstrated by:
  - Project Guiding Older Adult Lifestyles
  - Health Profile Project
  - Staying Healthy Project

Substance Abuse and Mental Health Services Administration (SAMHSA), (2020), *Treatment Improvement Protocol Ser No 26, SAMHSA Publ No PEP20-02-01-011.*

Substance Abuse and Mental Health Services Administration, (2020).

Screening BRief Intervention and Treatment (SBIRT)

- **Screening**:
  - Identify the use (or misuse) of psychoactive drugs.
  - Assess severity and identify appropriate level of intervention.
  - SAMHSA recommends yearly screenings for adults 60yo and above **AND** w/ major life changes.
- **Brief Intervention**:
  - Increase insight and awareness of substance use and the motivation to change
  - Motivational interviewing
  - Workbooks
  - Help individual produce next steps, find common-ground
- **Referral To Treatment**:
  - For those identified as needing more extensive treatment – find specialized care.
  - Refer to professional treatment, geriatric/addiction psychiatry.



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Florida - BRief Intervention and Treatment for Elders (BRITE)

- Florida Brief Intervention and Treatment for Elders – Modeled on SBIRT
  - Involved older adults who screened positive for needing brief SUD intervention.
- Components:
  - Education
  - Motivational interviewing
  - Age-appropriate information: Coping mechanisms, prevention, recognizing high-risk situations.
- Results:
  - Lower SMAST-G scores
  - Nearly 30% of participants had fewer flags for prescription misuse.
  - Large decrease in depression and suicide risk scores.

Florida BRITE Project

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http://brite.fmhi.usf.edu/

Creating A Treatment Environment Appropriate For Older Adults

- **Match Treatment To Individual's Needs**:
  - Provide services during daytime hours.
  - Assist with transportation.
  - In-home or telehealth services if homebound.
  - Residential Treatment Program for older adults should be easy to navigate, e.g., well-lit and accessible for individuals with assistive devices.
  - Accommodate for vision and hearing impairments.
  - Presentations should have slower pace, frequent repetition of important information and incorporated time for participants to ask questions.
- **Age-specific topics**: grief & loss, isolation, social pressure, life-stage, role transitions.

Substance Abuse and Mental Health Services Administration (SAMHSA), (2020), *Treatment Improvement Protocol Ser No 26, SAMHSA Publ No PEP20-02-01-011.*

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Creating A Treatment Environment Appropriate For Older Adults

- Consider how one may draw from their cultural background to improve health.
- Determine whether there is a prior history of SUD or if use occurred in response to a stressor.
- Harm reduction vs. abstinence
- Person-centered care: Use individual's values/preferences in decision-making.
- Stronger therapeutic alliance leads to greater retention and engagement.

Substance Abuse and Mental Health Services Administration (SAMHSA), (2020), *Treatment Improvement Protocol Ser No 26, SAMHSA Publ No PEP20-02-01-011.*

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Creating A Treatment Environment Appropriate For Older Adults

- Involve caregiver and family in individual's care (with permission):
  - Improves retention and outcomes.
  - Educate support system about impact of substance use/misuse on the older adult's mental and physical health.
- Coordinate care across clinicians – "warm handoffs"
- Hire/train staff members who have skills in, and are committed to, serving older adults.
- Use shared decision making – involve the individual in their care.
- Use motivational interviewing techniques:
  - Elicit change talk.
  - Develop discrepancy.
  - Identify conflicting feelings about their substance use.
  - Explore their reasons for why they may want to make a change.
  - Have a joint conversation about change based on reported goals.

Substance Abuse and Mental Health Services Administration (SAMHSA), (2020), *Treatment Improvement Protocol Ser No 26, SAMHSA Publ No PEP20-02-01-011.*

Disparities In Care For Older Adults: Gender And Race/Ethnicity Related

- Age-related stigma and discrimination are a barrier to receiving healthcare.
- Aging is impacted by the accumulated disadvantage experienced through life.
- Preconceived notions may lead to "care rationing."
- In older age there is a greater risk of disability, poverty, social isolation and poor health when compared to younger populations.
- Older individuals are more likely to receive fewer health screenings.
- Disparities increase when a diagnosis of SUD is present.
- Discrimination against LGBTQIA older adults contributes to reluctance to seek care.
- Older women at a higher risk for co-occurring mental health disorders and social isolation than men.
- Older women more likely to be prescribed medications that interact with alcohol and for longer periods of time.

American Psychological Association, Committee on Aging, (2009), *American Psychological Association*

Department of Economic and Social Affairs, 2016, *Program ageing focal point ageing United Nation Syst.*

Substance Abuse and Mental Health Services Administration (SAMHSA), (2020), *Treatment Improvement Protocol Ser No 26, SAMHSA Publ No PEP20-02-01-011.*

Shutte, K., et al., (2014). *Substance use and older people*

Barriers To Identification/Diagnosis

- **Healthcare system factors**:
  - Stereotypes about addiction & older adults.
  - Misattribute symptoms (e.g., falls, impaired sleep, cognitive impairment) to other causes.
  - Lack of training in screening, interventions, treatments, and prognosis.
  - Individual attributes symptoms to aging or does not consider use as problematic.
  - Shame and guilt may inhibit from seeking care .
  - Stigma with acknowledging illness and seeking care.
  - Unaware that SUDs are treatable.
- **Diagnostic Concerns**:
  - Co-morbid medical conditions may "mask" SUD presentation (i.e., listlessness attributed to CHF exacerbation and not intoxication).
  - Fewer overt warning signs (especially if chronic use).
  - DSM-5-TR criteria may not fully capture an older adult's presentation.
  - Most diagnostic criteria and screening tools for SUDs were developed and validated for younger persons.

Blazer DG., et al., (2009), *American Journal of Geriatric Psychiatry*
Blow FC., (2012), *Current Psychiatry Reports*
Yarnell S., et al., (2020), *American Journal of Geriatric Psychiatry.*

Reminders For SUD In Late-life

- Be supportive and nonconfrontational during your evaluation, assessment and treatment.
- Provide flexibility (e.g., make telehealth or in-home services available).
- Be culturally responsive.
- Adapt to accommodate changes in individual's physical and cognitive functioning.

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Questions?

Use the “Q&A” area of the attendee control panel

We will reserve 20 – 30 minutes for Q&A after the presentation

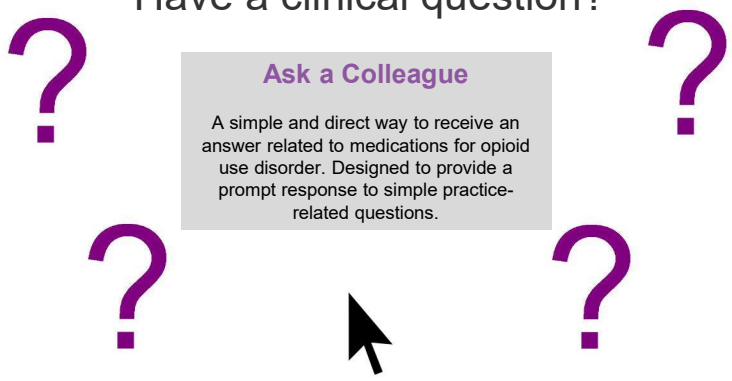
PCSS Mentoring Program

- PCSS Mentor Program is designed to offer general information to clinicians about evidence-based clinical practices in prescribing medications for opioid use disorder.
- PCSS Mentors are a national network of providers with expertise in **addictions, pain, 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 Discussion Forum

Have a clinical question?



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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.

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PCSS is a collaborative effort led by the American Academy of Addiction Psychiatry (AAAP) in partnership with:

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American Academy of Pediatrics	Council on Social Work Education
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