Substance Use Disorders In the Geriatric Population

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Objectives

- Define Substance Use Disorders
- Understand ways in which to screen substances use disorder in the geriatric population
- Common substances of abuse or misuse
- Treatment of substance use disorders in the geriatric population
What is a Substance Use Disorder?

- Per the DSM–5:
  - Substance is often taken in larger amounts or over a longer period than intended
  - Persistent desire or unsuccessful efforts to cut down or control use
  - A great deal of time is spent in activities necessary to obtain the substance or recover from its effects

DSM–5 Continued

- Craving or a strong desire or urge to use
- Recurrent use resulting in a failure to fulfill major obligations at work, home, or school
- Continued use despite persistent or recurrent social or interpersonal problems caused or exacerbated by effects of use
- Important social, occupational, or recreational activities given up or reduced due to use

Recurrent use in situations in which it is physically hazardous

Use is continued despite knowledge of having ongoing or recurrent physical or psychological problems that are likely caused by or worsened by the substance use

DSM–5 Continued

- Tolerance: A need to increased amounts of alcohol needed to achieve intoxication or desired effect OR a diminished effect with continued use of the same amount of a substance
- Withdrawal: varies based on substance. For alcohol: autonomic changes, tremor, insomnia, GI upset, hallucinations, agitation, anxiety, possible seizures

Mild: 2–3 symptoms
Moderate: 4–5 symptoms
Severe: 6 or more symptoms

Substance Use Disorders in the Geriatric Population are often overlooked

- Patients are stereotyped as young
- Providers may be embarrassed to ask
- Patients may fear judgment and under report their use
Why should providers be concerned?

- Ongoing, undiagnosed substance use further complicates co-occurring medical problems

- Patients are at higher risk for falls and delirium

- Substance use worsens co-occurring psychiatric diagnosis and may increase the risk of suicide
Substance Use Breakdown

- Study by Dombrowski, Norrell and Holroyd
- Out of all geriatric psychiatric patients with SUD admitted between 1999–2009:
  - 73.3% alcohol related disorders
  - 11% sedative–hypnotic use disorders
  - 2.9% opioid use disorders
  - 1% cannabis use disorders

Dombrowski D, Norrell N, Holroyd S. Substance use disorders in elderly admissions to an academic psychiatric inpatient service over a 10-year period. Journal of Addiction. Volume 2016, Article ID 4973018
Understanding Alcohol Use

- Equivalent of 0.5 oz of alcohol is considered one drink
  12 oz of beer
  5 oz of wine
  1.5 oz of distilled spirits
- National Institute on Alcohol Abuse and Alcoholism in the elderly recommends the following for healthy people who do NOT take medication
  One drink a day on average for an elderly man.
  No more than 2 drinks at any one time
  People taking medication should further limit use or should not drink at all

Source: National Institute of Alcohol Abuse and Alcoholism, [www.niaaa.nih.gov](http://www.niaaa.nih.gov) and SAHMSA TIP 26
Alcohol Use Continued

- Early onset drinkers:
  - 2/3 of older patients
  - Psychiatric comorbidities are common
  - Severe medical complications secondary to heavy use

- Late onset drinkers:
  - Often triggered by stressful life event
  - Milder cases with fewer medical problems
  - More amenable to treatment
Increased Effects of Alcohol in the Geriatric Population

- Increased Blood Alcohol Concentration because:
  - Decreased lean body mass
  - Decreased total body water
  - Decreased gastric alcohol dehydrogenase
  - Alcohol and drugs more intoxicating in geriatric patients
Social Factors Contribute to Drinking

- Play an important role in the initiation of AUD
- Difficult experience filled with:
  - Loss
  - Physical limitation
  - Isolation
  - Loss of income
  - Loss of occupation
Medical Complications of Alcohol in Geriatric Patients

- Cirrhosis: 60% 1 year death rate > age 60 vs 7% in younger population
- Heart problems (coronary artery disease, and atrial fibrillation)
- Increase in cancers
- Thrombocytopenia
- Neurologic complications (stroke, dementia, Wernicke’s encephalopathy)
Assessment

- Skillful Interviewing, willing to ask difficult questions
- Psychiatric evaluation
- Neurological evaluation
- Social Evaluation
- Evaluation of motivational stage of change
- Functional Evaluation
Questions about quantity and frequency
  ◦ How many days does the individual drink?
  ◦ Maximum number of drinks on any given occasion

Instruments:

- CAGE
- AUDIT
- MAST–G
Protective Factors

- Married
- Supportive, safe living environment
- Gerontologist trained in addiction supervising diverse medications
- Adequate income to meet needs (medical expenses likely to far exceed those of younger adult)
- Annual substance abuse screening including psycho-education. (SAMHSA recommends for 60+)
- Wellness factors including eating, sleeping, exercise, spirituality.
- Linkage to age-specific groups and activities
- Access to transportation

Source: SAMHSA 2015
Treatment and Intervention

- Brief Advice
- Brief Interventions
- Time limited (20 minutes in 1–3 brief sessions)
- Facilitates treatment entry and change in behavior
- Referral Management
Interventions in Geriatric Patients

- Avoid confrontational approaches
- Communicate with empathy in a straightforward simple manner
- Pay attention to what is important to patients and motivate them (Motivational Interviewing)
- Involve family members or other social support whenever possible
Detoxification in Elderly Patients

- Confusion (rather than tremor) early withdrawal sign
- Duration of withdrawal/hallucinosis increased
- Rule out Delirium Tremens in confused patients
- Replace electrolytes in nutrients
- Use short acting benzodiazepines (lorazepam, oxazepam)
- Symptomatology monitored with Clinical Institute Withdrawal Assessment for Alcohol (CIWA)
- In the emergency setting, it is imperative to give thiamine, folate and multivitamins early.

Clinically the classic triad is: ocular findings, cerebellar dysfunction and confusion.

Thiamine needs to be given BEFORE glucose to avoid Wernicke’s encephalopathy because glucose depletes thiamine in the body.

If Wernicke’s is suspected, immediate, high dose thiamine is required, some suggest 200mgTID, IV or IM for 3–5 days.

Treatment Strategies

- Age specific psychosocial approaches are indicated for persons that are not affected with dementia
- Psychotherapy
- Medication management
- Self help groups
- Crisis Management may be needed
Pharmacology

- 3 FDA approved medications for AUD: naltrexone, acamprosate, disulfiram

- Disulfiram is generally not recommended in older adults
Sedative–Hypnotic Use

- 20% of patients in intermediate care facilities received benzodiazepines (87% as a standing order)
- 41% of psychotropic drug orders in nursing homes are antianxiety agents (mainly benzodiazepines)

Why are sedatives in the elderly concerning?

- Absorption: slower (peak levels 45min–3h)
- Protein binding: elderly patients with low albumin have increased sedation
- Volume of distribution: increased due to increase proportion of body fat to lean body
- Metabolism: slower hepatic metabolism in the elderly; several benzodiazepines have complicated liver metabolism
Why are sedatives concerning?

- Sedation
- Cerebellar toxicity
- Cognitive impairment
- Psychomotor impairment
- The longer a person is prescribed these medications, the more likely they are to develop misuse and abuse
How do discontinue Benzodiazepines

- Gradual taper of benzodiazepines
- Elderly patients report significantly less withdrawal symptoms
- Slower clearance of medication attenuates withdrawal symptoms
- Diminished neuronal capacity causes less rebound activity
Guidelines for Prescribing Benzodiazepines

- Prescribe only small dosages
- Prescribe short half-life benzodiazepines without active metabolite
- Avoid prescribing benzodiazepines to confused or demented patients
- Prescribe benzodiazepines for short periods of time
- Be aware of potential interaction between CNS depressant substances

Prescription drug use

- Elderly patients constitute 13% of population
- They account for 30% of prescriptions, mainly benzodiazepines and prescription opioids
- One forth of patients in intermediate care facilities are on benzodiazepines (Beers, Avorn et al. 1995)
Opioids

Opiates: Derived from Opium

Opioids: Initially referred to synthetics, now generally refers to synthetic, natural and semi-synthetic
Opioid Use, Most commonly abused opioid medications

- Oxycodone (OxyContin)
- Oxycodone/acetaminophen (Percocet)
- Hydrocodone (Vicodin)

(Prescription Drugs April 13, 2010)
Signs of Opioid Misuse

- Confusion
- Depression
- Delirium
- Insomnia
- Parkinson’s-like symptoms
- Weakness or lethargy
- Loss of appetite
- Falls
- Changes in speech; slurring
Signs of Opioid Misuse Continued

- Loss of motivation
- Memory loss
- Family or marital discord
- New difficulty with activities of daily living (ADL)
- Difficulty sleeping
- Drug seeking behavior
- Doctor shopping

****Always Check the Physician Monitoring Program (PMP) Before Prescribing! ****
Medication Assisted Treatment

- Naltrexone: Oral and Long acting injectable
  - Mu–receptor Antagonist
  - Although oral Naltrexone is FDA approved for opioid use disorder, its efficacy is questionable
  - IM Naltrexone has not been studied in older adults
Medication Assisted Treatment

- Buprenorphine: is a partial mu-receptor agonist with a very high affinity for the mu-receptor
  - Comes in several formulations
  - Must be prescribed by a provider with a waiver
  - Must be prescribed when patient is exhibiting symptoms of withdrawal
Medication Assisted Treatment

- Methadone: A full mu-receptor agonist
  - May only be dispensed from federally regulated opioid treatment programs “methadone clinics”
  - Monitored required for sedation and respiratory depression
  - May cause CNS depression if used with alcohol, sedatives, hypnotics, or opioids.
Naloxone

- All patients receiving MAT should have an emergency naloxone kid prescribed
- Helpful to engage the patient’s family on overdose risk and availability of Naloxone
Tobacco Use

- Tobacco use is the leading cause of cancer and death from cancer.
- There is no safe level of tobacco use.
- People who quit smoking, regardless of their age, have substantial gains in life expectancy compared with those who continue to smoke.
- The NCI quitline, 1–877–44U–QUIT (1–877–448–7848), is available Monday through Friday, 9:00 a.m. to 9:00 p.m. ET.

Thank you

- Questions?
References

- Dombrowski D, Norrell N, Holdroyd S. *Substance use disorders in elderly admissions to an academic psychiatric inpatient service over a 10-year period*. Journal of Addiction. Volume 2016, Article ID 4973018
References