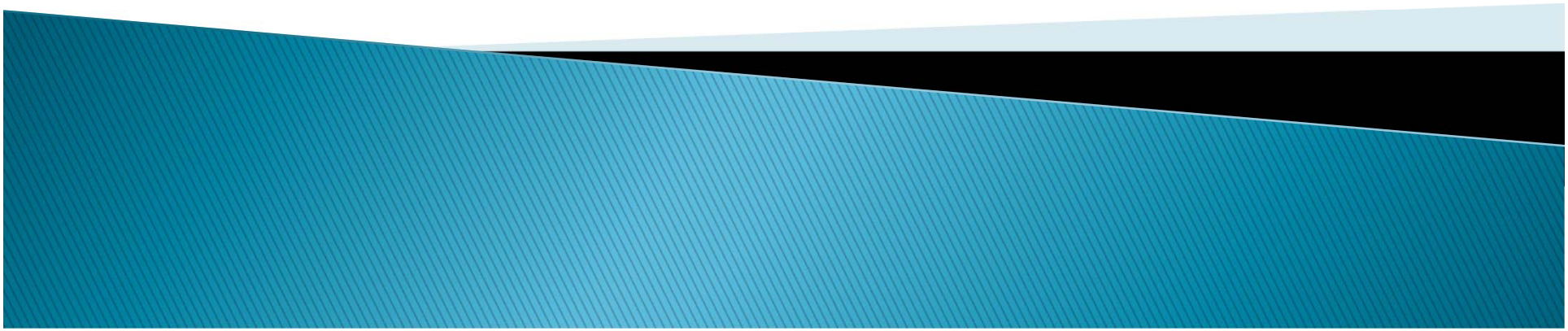
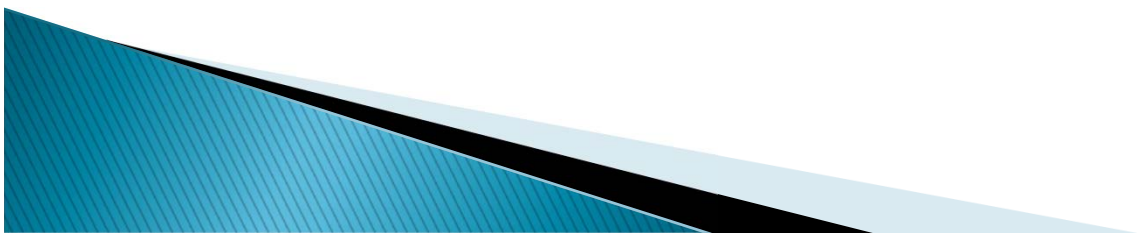
Alcohol Use in the Geriatric Population

Dr. Michelle Davids DO
Broadlawns Medical Center
ABPN Board Certified in Psychiatry and Addiction Psychiatry



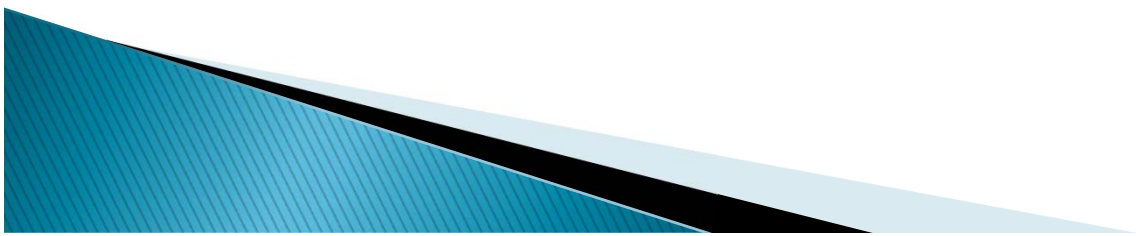
Financial Disclosures

- I have no financial disclosures or conflicts of interest



Objectives

- Define Alcohol Use Disorder
- Understand ways in which to screen for alcohol use disorder in the geriatric population
- Treatment of alcohol use disorder in the geriatric population



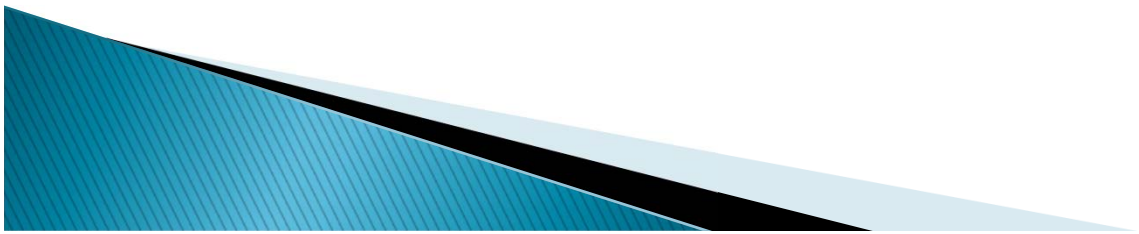
What is Alcohol Use Disorder (AUD)

- 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

Source: American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA: American Psychiatric Publishing.

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



DSM-5 Continued

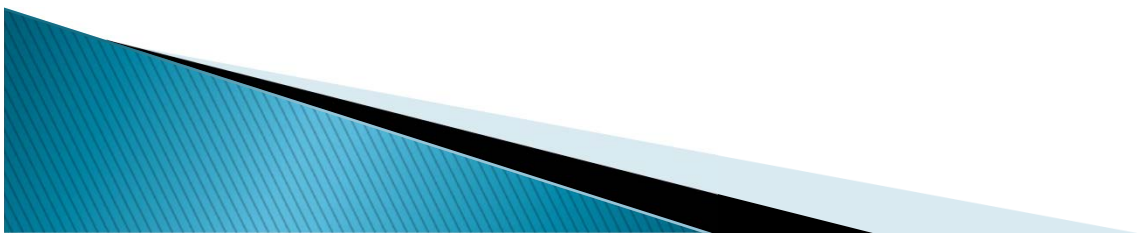
- Recurrent use in situations in which it is physically hazardous
- Use is continued despite knowledge of having ongoing or recurrent physical or psychological problems that are likely caused by or worsened by the substance use

DSM-5 Continued

- **Tolerance**: A need to use 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

DSM-5 Continued

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



Who is drinking?

- About 56% of adults aged 50-64 years and 43% of adults aged 65 and older reported drinking in the past year
- Of those who drank, 7.4% ages 50-64 years had an AUD and 3.4% of those 65 and older had an AUD

Based on NSDUH 2005-2006 survey

Substance Use Disorders in the Geriatric Population are often overlooked

- Patients are stereotyped as young
- Patients may fear judgment and under report their use
- Providers consistently under-detect use and under-deliver interventions to older people

- Source: Reid M, Tinetti M, Brown C, Concato J. Physician awareness of alcohol use disorders among older patients. J Gen Intern Med. 1998;13(11):729-34.

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
- Increased risk of unintentional injury

Early vs late onset drinking

- Two thirds of older drinkers are thought to be early onset, meaning drinking started in 20's and 30's

- One third begin drinking in 50's and 60's

Age-related changes

- Percentages of lean body mass and total body water decrease
- The ability of the liver to process alcohol and medications may change
- The blood-brain barrier permeability and receptor sensitivity in the brain may change

Reported reasons for drinking

- Socializing, leaving the house
- Co-occurring mental health concerns
- Physical pain and insomnia
- Bereavement
- Retirement/loss of work
- Isolation/Boredom

- Source: Kuerbis A, Moore A, Sacco P, Zanjani F. (2016) Alcohol and Aging, Clinical and Public Health Perspectives. Springer International Publishing.

What makes One drink?

- Beer: 12 oz regular
- Wine: 5oz table wine, 3-4 oz of fortified wine
- Spirits: 1.5oz of 80 proof liquor

Low Risk Drinking

- NIAAA Guidelines
- For Men: No more than 4/day, 14/week
- For Women: No more than 3/day, 7/week
- Once over the age of **65**, both men and women fall under the same 3/day, 7/week guideline
- NIAAA research shows that only about 2 in 100 people who drink within these limits have AUD

- Source: https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/moderate-binge-drinking

At Risk Drinking

- Older adults with higher incomes and education are more likely to have at-risk drinking patterns
- Those who are widowed, divorced or separated are 50% more likely to be at-risk drinkers

- Source: https://nsduhweb.rti.org/respweb/homepage.cfm

Co-Occurring Psychiatric Illness

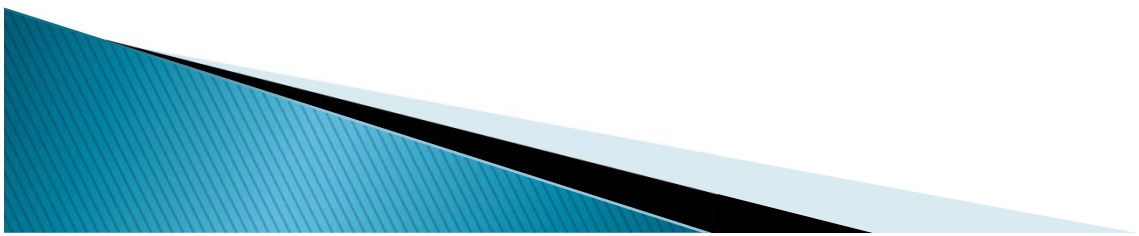
- Many patients have co-occurring depression and anxiety and some have serious mental illness
- Depression in middle age is a risk factor for dementia
- Middle aged adults with depression may also use alcohol to try to cope with illness leading to a synergistic effect on the brain

- D Barnes, K Yaffe, A. Byers, M McCormick, C. Schaefer, R. Whitmer. Midlife vs Late-Life Depressive Symptoms and Risk of Dementia
- Differential Effects for Alzheimer Disease and Vascular Dementia. Arch Gen Psychiatry. 2012;69(5):493-498

Metabolism

- Ethanol is metabolized to acetaldehyde through alcohol dehydrogenase then to non-toxic acetate

- Acetaldehyde is a cytotoxic, genotoxic, mutagenic and clastogenic compound. It damages DNA.



Medication-Alcohol Interactions

- Common Meds and Interactions with EtOH:
  - Acetaminophen: Increased risk of liver damage
  - Opioids: Over sedation
  - NSAIDS: GI bleeding
  - Metronidazole: Disulfiram-like reaction
  - Warfarin: decreased metabolism of warfarin= more bleeding

Common Medication Interactions

- Insulin: unpredictable blood glucose
- Many Antihypertensives: Increased risk of postural hypotension
- Atypical Antipsychotics: sedation and postural hypotension
- Statins: Increased risk of liver damage

Source: Kuerbis A, Moore A, Sacco P, Zanjani F. (2016) Alcohol and Aging, Clinical and Public Health Perspectives. Springer International Publishing.

Cancer

- Alcohol is a risk factor for cancer
- Implicated in up to 44% of cancers
- Classified as a carcinogen since 1988
- Types of cancer: liver, pancreas, esophageal, breast, GI, lung.
- Related to life-time use.
- Risk increases when in combination with tobacco use
- Source: Cancer Prevention and control [Internet]. World Health Organization [cited 2018, Sept 4] http://www.who.int/nmh/a5816/en/

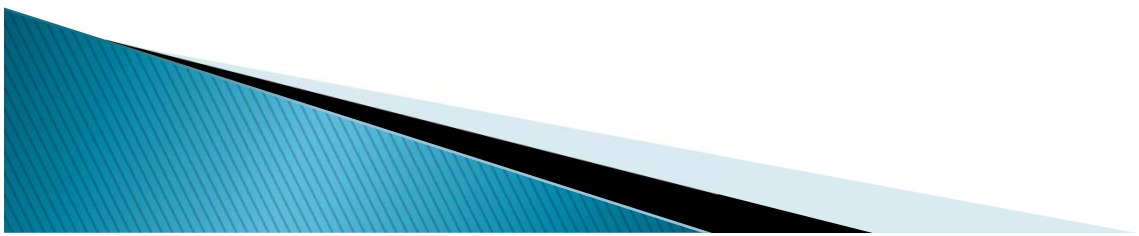
Cancer, EtOH and Tobacco

- Effects of alcohol and tobacco use are potentiated
- Smoking increases oral yeasts and bacteria to produce acetaldehyde from ethanol
- Cigarette smoke contains acetaldehyde
- This increases the risk of upper GI Cancer
- The risk of head and neck cancer is increased 35-fold for people who have a 2PPD history combined with more than 4 alcohol drinks per day

- Source: Kuerbis A, Moore A, Sacco P, Zanjani F. (2016) Alcohol and Aging, Clinical and Public Health Perspectives. Springer International Publishing.

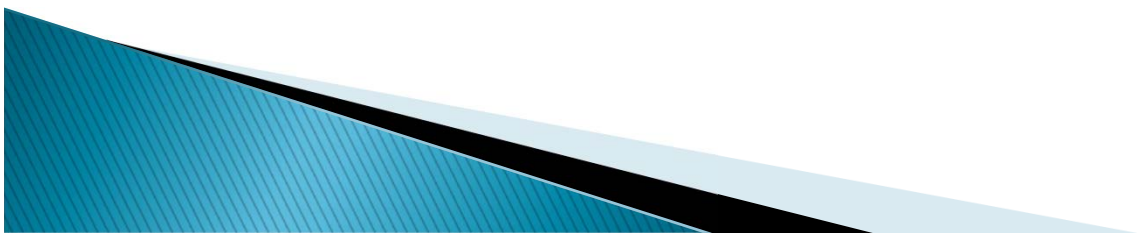
Breast Cancer

- Over half (55-66%) of all alcohol-attributable cancer deaths in females are from breast cancer
- Median age of diagnosis is 61 yrs
- Even low-risk alcohol use increases the risk of breast cancer



Cognition

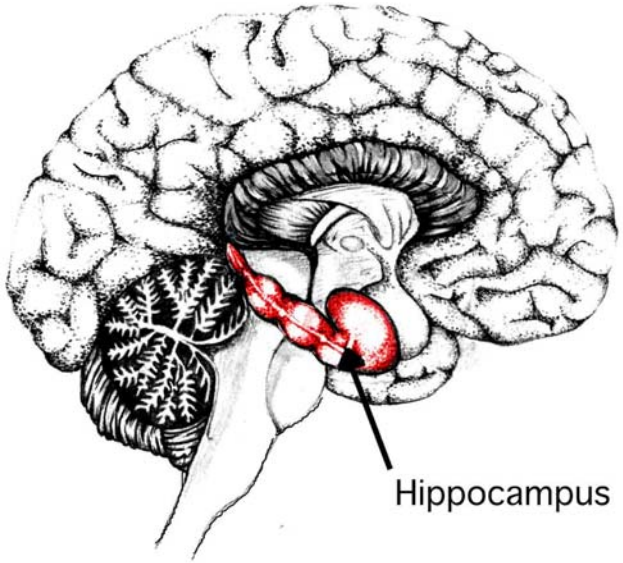
- Heavy alcohol use is detrimental
  - Severe Brain Atrophy
  - Behavioral Changes
  - Dementia



Cognition

There have been animal studies suggesting benefits of drinking but these findings are difficult to generalize to humans

Further investigation is warranted



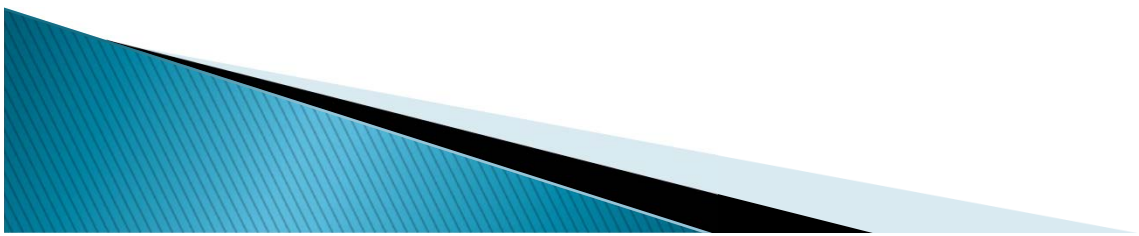
What about red wine?

- Often part of the Mediterranean diet
- Contains low concentrations of Resveratrol
- Resveratrol, in animals, prevents oxidative stress and reduces dementia pathology
- The amount of Resveratrol available in the human diet is unlikely to be beneficial

- Claudine Manach, Augustin Scalbert, Christine Morand, Christian Rémésy, Liliana Jiménez; Polyphenols: food sources and bioavailability, The American Journal of Clinical Nutrition, Volume 79, Issue 5, 1 May 2004, Pages 727–747, https://doi.org/10.1093/ajcn/79.5.727

Screening

- Questions about quantity and frequency
- How many days does the individual drink?
- Maximum number of drinks on any given occasion
- Instruments:
- CAGE
- AUDIT-C
- MAST-G



Audit-C

AUDIT-C

Please circle the answer that is correct for you.

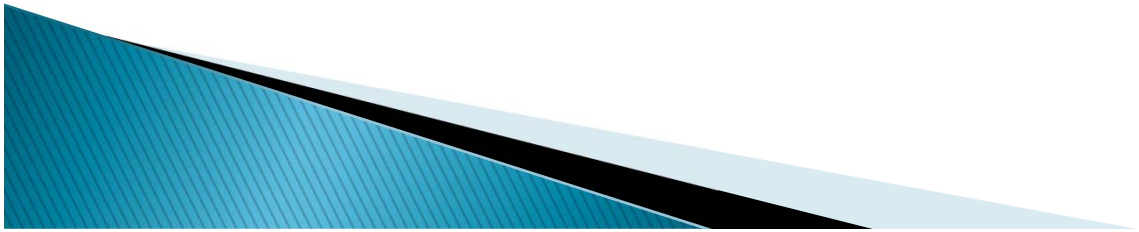
1. How often do you have a drink containing alcohol?					**SCORE**
Never (0)	Monthly or less (1)	Two to four times a month (2)	Two to three times per week (3)	Four or more times a week (4)	_____
2. How many drinks containing alcohol do you have on a typical day when you are drinking?					
1 or 2 (0)	3 or 4 (1)	5 or 6 (2)	7 to 9 (3)	10 or more (4)	_____
3. How often do you have six or more drinks on one occasion?					
Never (0)	Less than Monthly (1)	Monthly (2)	Two to three times per week (3)	Four or more times a week (4)	_____
TOTAL SCORE Add the number for each question to get your total score.					_____

Maximum score is 12. A score of ≥ 4 identifies 86% of men who report drinking above recommended levels or meets criteria for alcohol use disorders. A score of > 2 identifies 84% of women who report hazardous drinking or alcohol use disorders.

CAGE

- 1.Have you ever felt you needed to Cut down on your drinking?
- 2.Have people Annoyed you by criticizing your drinking?
- 3.Have you ever felt Guilty about drinking?
- 4.Have you ever felt you needed a drink first thing in the morning (Eye-opener) to steady your nerves or to get rid of a hangover?[2]

- Two "yes" responses indicate that the possibility of alcoholism should be investigated further



MAST-G

- Michigan Alcohol Screening Test
- 24 questions
- 5 or more “yes” answers prompts further investigation

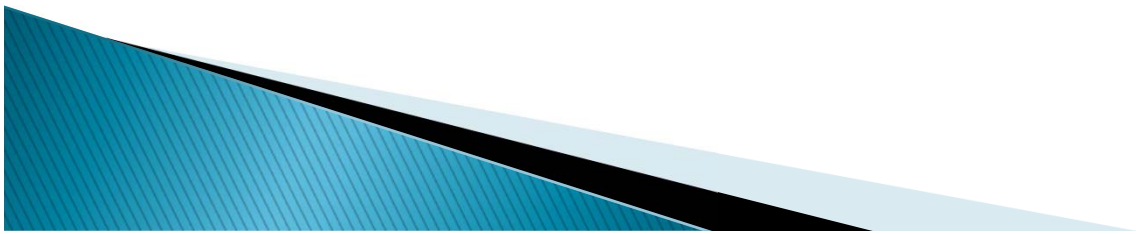
Protective Factors

- Married
- Supportive, safe living environment
- A provider with knowledge of addiction supervising diverse medications
- Adequate income to meet needs (medical expenseslikely 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

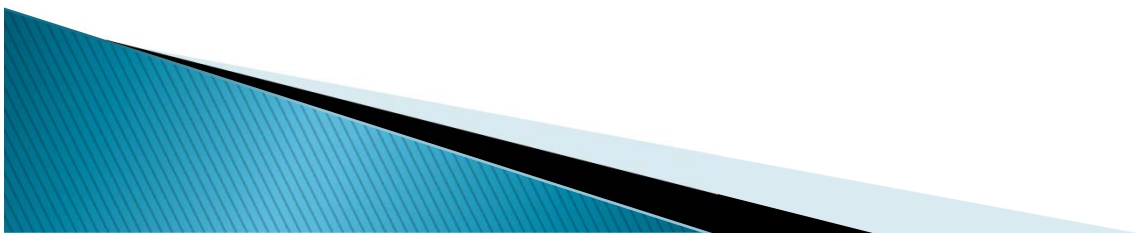
Treatment and Intervention

- Brief Advice
- Brief Interventions
- Facilitates treatment entry and change in behavior
- Referral Management



Brief Interventions

- Brief interventions aim to identify a real or potential alcohol problem and motivate an individual to do something about it
- Used to reduce at-risk drinking
- Not designed to treat people with serious dependence



Brief Interventions

- Avoid the use of pejorative, labeling words such as “alcoholic”
- The WHO (World Health Organization) has a manual online Example Script: "I have looked over the results of the questionnaire you completed a few minutes ago. If you remember, the questions asked about how much alcohol you consume, and whether you have experienced any problems in connection with your drinking. From your answers it appears that you may be at risk of experiencing alcohol-related problems if you continue to drink at your current levels. I would like to take a few minutes to talk with you about it.”
- Source: WHO: http://www.who.int/substance_abuse/activities/sbi/en

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) is an early sign
- Duration of withdrawal/hallucinosis increased
- Rule out Delirium Tremens in confused patients
- Replace electrolytes and 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 mutivitamins early.

- Source: LeRoux C, Tang T, Drexler K. Alcohol and Opioid Use Disorder in Older Adults: Neglected and Treatable Illnesses. Curr Psychiatry Rep(2016) 18:87

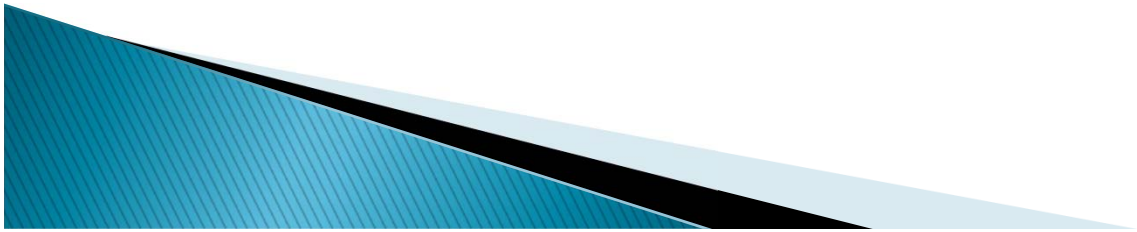
A note about Wernicke's Encephalopathy

- 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

- Source: Gavin et al. EFNS guidelines for diagnosis, therapy, and prevention of Wernicke encephalopathy. Eur J Neurol. 2010;17(12):1408-18.

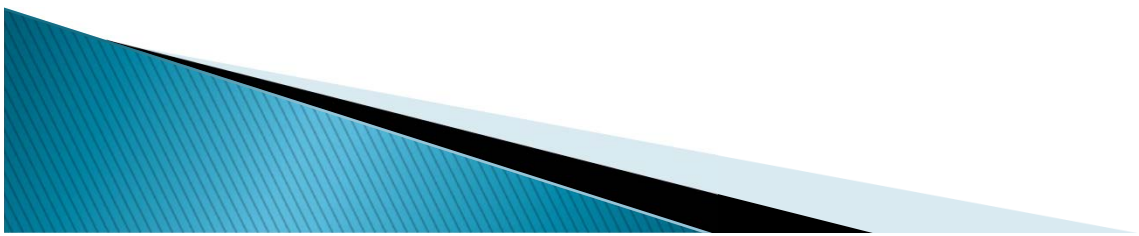
Pharmacology

- 3 FDA approved medications for AUD: naltrexone, acamprosate, disulfiram
- Disulfiram is generally not recommended in older adults



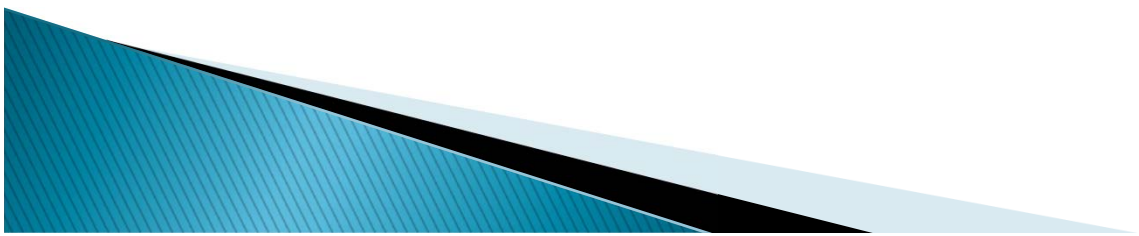
Naltrexone

- Naltrexone: Oral and Long acting injectable
- Mu-opioid 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



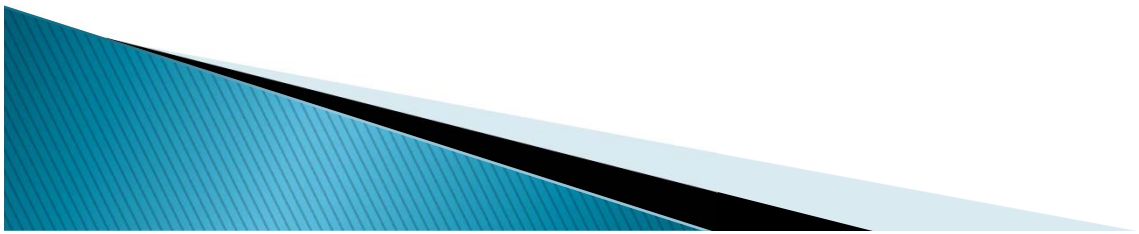
Acamprosate

- Acamprosate calcium helps maintain abstinence to alcohol through a mechanism that may involve an interaction with glutamate and GABA neurotransmitter systems centrally.
- It possesses dose-dependent reduction of alcohol intake without exhibiting anticonvulsant, antidepressant, or anxiolytic properties



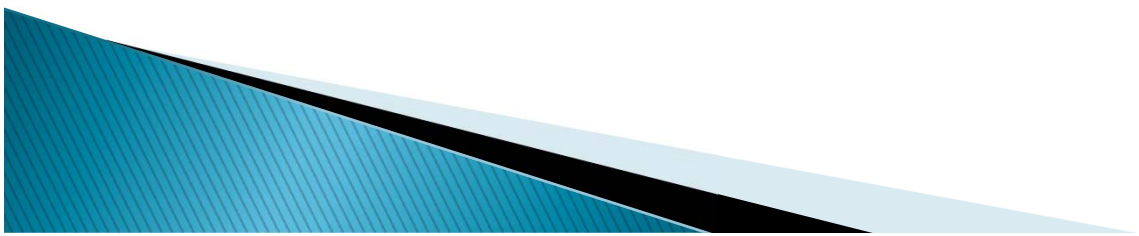
Treatment Strategies

- 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



Areas for further study

- Genetics
- Online and Mobile Health Interventions
- Better quantifying Medication and alcohol use risk



References

- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Reid M, Tinetti M, Brown C, Concato J. Physician awareness of alcohol use disorders among older patients. J Gen Intern Med. 1998;13(11):729-34.
- Kuerbis A, Moore A, Sacco P, Zanjani F. (2016) Alcohol and Aging, Clinical and Public Health Perspectives. Springer International Publishing.
- https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/moderate-binge-drinking. Accessed on 8/29/18

References

- https://nsduhweb.rti.org/respweb/homepage.cfm. Accessed on 8/29/18
- Cancer Prevention and control [Internet]. World Health Organization [cited 2018, Sept 4] http://www.who.int/nmh/a5816/en/
- D Barnes, K Yaffe, A. Byers, M McCormick, C. Schaefer, R. Whitmer. Midlife vs Late-Life Depressive Symptoms and Risk of Dementia

  Differential Effects for Alzheimer Disease and Vascular Dementia. Arch Gen Psychiatry. 2012;69(5):493-498
- Claudine Manach, Augustin Scalbert, Christine Morand, Christian Rémésy, Liliana Jiménez; Polyphenols: food sources and bioavailability, The American Journal of Clinical Nutrition, Volume 79, Issue 5, 1 May 2004, Pages 727–747, https://doi.org/10.1093/ajcn/79.5.727
- WHO: http://www.who.int/substance_abuse/activities/sbi/en

References

- LeRoux C, Tang T, Drexler K. Alcohol and Opioid Use Disorder in Older Adults: Neglected and Treatable Illnesses. Curr Psychiatry Rep(2016) 18:87
- Gavin et al. EFNS guidelines for diagnosis, therapy, and prevention of Wernicke encephalopathy. Eur J Neurol. 2010;17(12):1408-18.