MANAGEMENT OF ALCOHOL USE DISORDERS IN OLDER ADULTS:

What Doctors Need to Know



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Screening and Identification

Alcohol Consumption History

- Ask all elderly patients at baseline, annual physical
- Elicit a specific weekly consumption
- Convert patient's response into standard drinks: 12 oz. of beer, 5 oz. of wine, or 1.5 oz. of spirits.
- Ask about patients' maximum consumption on one day in the past one to three months
- Physical examination and screen for infections and any concurrent medical disorders (eg anemia, UTI, chest)

Screening questionnaires

Short Michigan Alcoholism Screening Questionnaire (Geriatric Version)

CAGE

- Have you ever felt you ought to CUT DOWN on your drinking?
- Have people ANNOYED you by criticizing your drinking?
- Have you felt bad or GUILTY about your drinking?
- Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (EYE OPENER)?

^{*}Screen is positive if 2 "yes" out of 4 (men), 1 "yes" for women.

^{*}CAGE is retrospective – may indicate a past problem not current

^{1.} Ewing, J.A. (1984). Detecting alcoholism: The CAGE questionnaire. *Journal of the American Medical Association*, 252 (14), 1905–1907. 2. Bradley, K.A., Boyd-Wickizer, J., Powell, S.H. & Burman, M.L. (1998). Alcohol screening questionnaires in women: A critical review. *Journal of the American Medical Association*, 280 (2), 166–171. 3. King, M. (1986). At risk drinking among general practice attenders: Validation of the CAGE questionnaire. *Psychological Medicine*, 16 (1), 213–217.

Laboratory measures

*Can be used to confirm clinical suspicion and monitor response to treatment.

GGT	 35-50% sensitive for detecting 4+ drinks/day Half-life four weeks Also elevated by hepatic enzyme inducers (e.g., phenytoin), diabetes, obesity etc.
MCV	 Somewhat less sensitive than GGT At least three months to return to baseline Also elevated by medications, folic acid and B12 deficiency, liver disease, hypothyroidism etc.

^{1.} Rosman, A.S. (1992). Utility and evaluation of biochemical markers of alcohol consumption. *Journal of Substance Abuse*, 4 (3), 277–297. 2. Sharpe, P.C. (2001). Biochemical detection and monitoring of alcohol abuse and abstinence. *Annals of Clinical Biochemistry*, 38 (Pt 6), 652–664.

Diagnosis

Most heavy drinkers are 'at-risk drinkers' or 'problem drinkers'. They drink above the low-risk guidelines, but are often able to drink moderately, have not suffered serious social consequences of drinking, and do not go through withdrawal. They often respond to brief physician advice and reduced drinking strategies.

Alcohol-dependent patients often have withdrawal symptoms, rarely drink moderately, continue to drink despite knowledge of social or physical harm, and spend a great deal of time drinking, neglecting other responsibilities. They generally require abstinence and more intensive treatment.

At-risk drinking vs. alcohol dependence

	At-risk drinker	Alcohol-dependent
Withdrawal symptoms	No	Often
Amount consumed	More than 14/week	40-60/week or more
Drinking pattern	Variable; depends on situation	Tends to drink a set amount in the same circumstances
Social consequences	Nil or mild	Often severe
Physical consequences	Nil or mild	Often severe
Socially stable	Usually	Often not
Neglect of major responsibilities	No	Yes

Management of Older Adults with alcohol issues:

Approach to office management

- See the patient frequently, with alcohol at the top of the agenda
- Always ask about alcohol and express concern about ongoing drinking
- When feasible, ask a spouse, relative of friend to attend the visits
- Routinely offer pharmacotherapy (see below)

Management of At Risk Drinking

- Review low-risk drinking guidelines
- Link alcohol to patient's own health condition if possible
- Emphasize that mood, sleep, energy level will improve with reduced drinking. Ask patient to commit to a drinking goal: reduced drinking or abstinence
- If unwilling to commit, continue to ask about drinking at every office visit
- If reduced drinking goal chosen:
 - > Have patient specify when, where and how much they intend to drink
 - > Give tips on avoiding intoxication (see below)
 - > Ask patient to keep a daily record of drinks consumed
- Monitor GGT and MCV at baseline and follow-up
- Identify triggers to drinking (e.g., emotions, social events), develop plan to deal with triggers
- Have regular follow up
- Consider referral to alcohol treatment program if problem persists
- 1. Fleming, M.F., Barry, K.L., Manwell, L.B., Johnson, K. & London, R. (1997). Brief physician advice for problem alcohol drinkers: A randomized controlled trial in community-based primary care practices. *Journal of the American Medical Association*, 227 (13), 1039–1045. 2. Kahan, M., Wilson, L. & Becker, L. (1995). Effectiveness of physician-based interventions with problem drinkers: A review. *Canadian Medical Association Journal*, 152 (6), 851–859.

Factors contributing to alcohol use in the elderly

- Grief due to loss of spouse, adult children moving away etc.
- Boredom due to retirement and loss of roles
- Chronic pain
- Depression
- Insomnia
- Loneliness and isolation: Difficult to leave house to attend treatment or participate in non-drinking activities
- Shame, especially among women, which may make them reluctant to disclose their drinking and seek help

Strategies to Avoid Intoxication (Harm Reduction Approach)

- Drink no more than one standard drink per hour, and no more than two drinks per day
- Sip drinks, don't gulp
- Avoid drinking on an empty stomach.
- Dilute drinks with mixer
- Alternate alcoholic with non-alcoholic drinks
- Put a 20-minute "time-out" between the decision to drink and taking the drink
- Avoid people and places associated with heavy drinking

Falls due to intoxication

- If cognitive or visual impairment or ataxia, recommend abstinence. If drinking have a sober person present
- For other patients, advise no more than one drink per hour (see strategies to avoid intoxication)
- Don't drink within one hour of bedtime
- Ask for assistance if need to walk while intoxicated
- Taper off benzodiazepines

Failure to thrive

- Due to combination of depression, cognitive impairment, chronic intoxication and withdrawal, poor nutrition etc.
- Often requires hospital admission and discharge to supportive environment or long term care home

Management of Alcohol Dependence

- Explain health effects of alcohol, linking them to patient's condition; reversible with abstinence
- Explain that within days and weeks of abstinence, most patients have improved sleep, mood, energy level
- Explain that alcohol dependence is a chronic illness: it can happen to 'good' people; effective treatments are available; prognosis is good with treatment
- Ask whether patient is willing to commit to a drinking goal (abstinence or reduced drinking)
- If the patient is not ready to commit, ask about drinking & readiness to change at each visit
- If ready to commit, negotiate a drinking goal in writing + daily log:
 - > Abstinence more likely to be successful
 - > If reduced drinking goal chosen, encourage a time-limited trial
- Consider planned detoxification if at risk for withdrawal (6+ drinks/day, morning or afternoon tremor/anxiety)
- Treat concurrent conditions e.g. anxiety, depression, hypertension, liver disease
- Encourage patient to keep away from people & places associated with drinking:
 - > Spend time with family, friends
 - Go for walk daily as health permits
 - Regular wake and sleep hours
 - > Regular activities outside the house as feasible
- Review options for formal treatment residential, day or outpatient
- Arrange follow-up; routinely monitor drinking through self-report, GGT, MCV

- Encourage access to local addiction services through:
 - > the Connex DART database or through a local directory
 - > Consider home alcohol treatment services if available
- AA provides group support, practical advice, helps to overcome loneliness and boredom
 - Or senior specific counseling program
 - > Alanon for families or caregivers
- Acknowledge successes, even if partial or temporary
- If relapse, encourage patient to contact you & reconnect with local addiction services including seniors program and or AA & aftercare

AA: Gossop, M., Harris, J. Best, D., Man, L.H., Manning, V., Marshall, J., et al. (2003). Is attendance at Alcoholics Anonymous meetings after inpatient treatment related to improved outcomes? A 6-month follow-up study. *Alcohol and Alcoholism*, 38 (5), 421–426.

Management of common alcohol-related depression, anxiety, insomnia, mood and anxiety disorders

- May be primary or alcohol-induced.
- Alcohol-induced disorders tend to resolve within weeks of abstinence/ reduced drinking, whereas primary disorders remain the same or improve only marginally.

Management

- Always ask about mood in patients with alcohol problems, and ask about alcohol use in patients with mood or anxiety problems.
- Treat alcohol and mood disorders concurrently.
- Consider a trial of antidepressant medication if:
 - > Symptoms persist after four weeks of abstinence
 - > Patient unable to sustain abstinence for several weeks
 - > Primary mood disorder: depression precedes drinking; strong family history
 - > Severe depression (suicidal ideation, hospital admissions)
- Long-term benzodiazepine use in heavy drinkers creates risk of accidents, overdose and misuse.

Nunes, E.V. & Levin, F.R. (2004). Treatment of depression in patients with alcohol or other drug dependence: A meta-analysis. *Journal of the American Medical Association*, 291 (15), 1887–1896.

Insomnia, non-restorative sleep

Cause	Comment	Management
Sleep apnea	May contribute to hypertension, accidents, arrhythmias	Abstinence
Alcohol withdrawal	Can cause night-time seizures	Abstinence, treat withdrawal
Subacute alcohol withdrawal	Common in first few weeks of abstinence	Anti-alcohol medications e.g. acamprosate, topiramate
Chronic night-time alcohol use	Causes rebound REM & fitful sleep	Abstinence Trazodone, tryptophan. Avoid benzodiazepines.

Alcoholic liver disease	
Fatty liver	First and most common phase of alcohol liver disease Usually asymptomatic, reversible with abstinence Large liver on exam and U/S
Alcoholic hepatitis	Usually asymptomatic but occasionally very severe Diagnose elevated AST > ALT Advise patient that repeated and prolonged hepatitis may lead to cirrhosis
Cirrhosis	
Risk	Over 10-20 years, 10–20% risk of cirrhosis with: 6 drinks/day (men), 3 drinks/day (women)
Physical signs	Spider nevai, gynecomastia(estrogen not metabolized) Ascites, peripheral edema, right heart failure (low albumin, portal hypertension) Firm liver edge Splenomegaly (portal hypertension) Asterixis, signs of encephalopathy
Diagnostic tests	↑ GGT (enzyme induction) ↑ AST > ALT (alcoholic hepatitis) ↑ INR, ↑ bilirubin, ↑ albumin (liver unable to synthesize protein) ↑ bilirubin, low platelets (due to splenomegaly & portal hypertension) U/S: unreliable, except if splenomegaly present (portal hypertension) Check for other causes of cirrhosis e.g. Hepatitis B, C If concerned about encephalopathy, check serum ammonia Biopsy if cause uncertain

Outpatient medical management of cirrhosis			
Prevent progression	Abstinence. 5-year survival in cirrhosis with complications: abstainers, 60%; still drinking, 34%. Risk of variceal bleed with recent heavy drinking 10x greater than with abstinence • Avoid NSAIDs, acetaminophen only in low doses • Immunize against Hepatitis B • Abstinence crucial if hepatitis C +ve (alcohol use greatly accelerates progression of cirrhosis)		
Liver transplant	 Most effective treatment for cirrhosis To get on transplant list, patients require abstinence of 6 months to 2 years + treatment program 		
Enceph-alopathy	 Avoid benzodiazepines Low protein diet Lactulose if at high risk or early signs: poor concentration, day-night reversal, inattention, slow responses Urgent intervention for triggers: electrolyte imbalance, blood loss, high protein meal, benzodiazepines, infection 		
Ascites	Low salt dietModerate fluid intakeJudicious use of diuretics		
Portal hypertension	Regular endoscopic measurement of portal pressuresNadolol if portal hypertension		

Lucey, M.R., Connor, J.T., Boyer, T.D., Henderson, J.M., Rikkers, L.F. & DIVERT Study Group. (2008). Alcohol consumption by cirrhotic subjects: Patterns of use and effects on liver function. *American Journal of Gastroenterology*, 103 (7), 1698–1706.

Other alcohol-related medical problems

Hypertension

- Consumption of 3+ drinks/day can cause or exacerbate hypertension
- Patients with alcohol-induced HTN tend to be refractory to antihypertensive medication
- HTN resolves within weeks of abstinence/reduced drinking

Neurological conditions

- Alcohol-induced dementia, cerebellar ataxia, peripheral neuropathy, parkinsonism
- Conditions often improve with abstinence, over weeks/months.

Dilated cardiomyopathy

- Presents with heart failure and arrhythmias
- Excellent prognosis; sometimes completely resolves within months of abstinence
- GI Bleed (gastritis, esophagitis, Mallory-Weiss tear, esophageal varices)

DELIRIUM DURING WITHDRAWAL

 Heightened sense of anxiety, tremulousness, visual, auditory hallucinations and other perceptual disturbance, fluctuating level of consciousness.

Guidelines for Withdrawal Management (Alcohol)

*Proviso: requires individual assessment of risks and benefits

At risk	 At least six drinks/day for 1+ weeks More severe in elderly If seizures or DTs in past, at risk for future seizures/DTs
Clinical features	 Starts 6-12 hours after last drink, peaks at 24-72 hours, resolves in 3 to 10 days or longer TREMOR is most reliable clinical feature Postural, intention, ataxic gait. NOT a resting tremor. Ask patient to hold arms extended, reach for an object, walk across room Other features: Sweating, vomiting, anxiety, tachycardia, hypertension
Monitoring of treatment response	 CIWA (see below*) If unavailable, monitor response by severity of tremor Treatment completed when patient has minimal postural/intention tremor or ataxia, and appears comfortable
Benzodiazepine treatment in the ED or hospital	 Lorazepam dose 2-4 mg SL/PO/IM/IV q 1-2 H for CIWA = 10+, If history of seizures, give at least 3 doses Lower dose (0.5 – 1mg) if in liver failure or respiratory failure, on high doses of opioids or other sedating drugs
Delirium tremens	 Late complication (day 3-7) of severe, inadequately treated withdrawal More common in patients with concurrent medical illness DTs with severe autonomic hyperactivity: treat with high doses of short-acting benzodiazepines If not respond or DTs severe, may need ICU admission for midazolam and propofol

* Sullivan JT, Sykora K, Schneiderman J, Naranjo CA & Sellers EM (1989) Assessment of alcohol withdrawal: The revised Clinical Institute Withdrawal Assessment for Alcohol scale (CIWA – Ar) In British Journal of Addiction 84:1353 – 1357 (www.cbhallc.com/Documents/4a-DETOX%2o Guidelines.pdf

Planned office mana	gement of withdrawal
Indications	 Patient socially stable No history of severe withdrawal (seizures, prolonged ED visits or hospitalization for withdrawal) Patient firmly commits to abstinence and a treatment plan (e.g., AA, disulfiram etc.) after office visit
Protocol	 Schedule morning office visit Advise patient to have last drink the night before. If shows up intoxicated, send home/WMS (withdrawal management service) If possible, have room set aside for patient Lorazepam 1-4 mg q 1-2 hrs for CIWA > 10, (Diazepam should be avoided in the elderly – prolonged duration of action) Send to ED if withdrawal not improving after 2-3 doses Send home or Withdrawal Management Services when CIWA < 8, or minimal tremor; should go home accompanied by family member or make arrangements for ongoing supervision Phone or office follow-up in one to two days
Indications	 Office management not feasible A spouse, relative or friend agrees to dispense the medication No history of severe withdrawal (seizures, delirium, hospital admissions) Treatment plan is in place (anti-alcohol medication, ongoing counselling, AA etc.) No hepatic decompensation (ascites, encephalopathy) Patient agrees not to drink while taking medication
Protocol	 Have last drink the night before Take lorazepam 1-2 mg PO/SL every 4 hours as needed for tremor Prescribe no more than 12 mg lorazepam Reassess the next day (by phone or in person) Office visit within 2-3 days

Treatment with Medications

Medications for at-risk drinking and alcohol dependence

- Anti-alcohol medications should be routinely offered to alcoholdependent patients. They reduce alcohol use, have a good safety profile, and help retain patients in psychosocial treatment.
- Disulfiram, naltrexone, acamprosate: Level I evidence of effectiveness
- Topiramate, gabapentin, (baclofen): Level II evidence, not officially indicated for alcohol dependence. Therefore Level I medications should be tried first. Document the clinical rationale for use of topiramate, baclofen. Secondly obtain coverage for naltrexone acamprosate (Section 8). Baclofen can cause or worsen depression
- Disulfiram causes a toxic reaction if patients drink. It is most effective
 when dispensed by a person who observes the patient taking the
 medication. Naltrexone reduces the reinforcing effects of alcohol, and
 alcohol cravings. Acamprosate may work by reducing cravings and
 subacute withdrawal symptoms such as insomnia and anxiety. The
 choice of medication is based on individual considerations (side effects,
 cost etc.).
- Titrate dose until cravings are mild and patient is abstinent, or troublesome side effects emerge
- Duration of treatment: Three to six months or longer. Discontinue when
 patient is abstinent for at least several months and remains confident
 that he or she no longer needs the medication to prevent relapse.
 Discontinue when patient remains confident that he or she no longer
 needs it to prevent relapse. Restart medication should the patient
 relapse.
- For patients on Ontario Drug Benefits, the physician must apply for an Individual Clinical Review to obtain coverage for naltrexone and acamprosate. Disulfiram is available as a compounded medication. The patient can ask his/her pharmacy to arrange for compounding.

	l medications	Side offeets	Drocautions	Doso
	Action	Side effects	Precautions	Dose
Disulfiram	Acetaldehyde accumulates when alcohol consumed	If drink alcohol: vomiting, flushed face, headache x several hours Without alcohol: Headache, anxiety, fatigue Garlic-like taste in mouth Acne Prolonged use: peripheral neuropathy	To avoid reaction: (i) Wait at least 24 hours between last drink & first pill. (ii) If stop disulfiram, wait at least 7 days before drinking Alcohol reaction can cause severe hypotension & arrhythmias, esp in patients with heart disease or on antihypertensives Psychosis at higher doses (500 mg). Recommended dose appears safe in schizophrenia	125 mg PO OD
Naltrexone	Competitive opioid/ endorphin antagonist	Nausea, headache, dizziness, insomnia, anxiety, sedation Blocks analgesic action of opioids Triggers withdrawal in patients on daily opioids Can cause reversible elevations in AST & ALT – order at baseline & 3-4 weeks		25 mg OD x 3 days then 50 mg PO OD; titrate to maximum dose of 150 mg OD
Acamprosate	Glutamate antagonist	Diarrhea	Renal insufficiency	666 mg tid
Topiramate	Modulates GABA system, may improve sleep and mood disturbance in early abstinence	Dose related neurological effects, resolve over time: Dizziness, ataxia, speech disorder etc. Sedation	Can cause weight loss – risk for underweight patients Lower dose needed in renal insufficiency Can cause glaucoma Can cause renal stones (carbonic acid inhibitor	Initial dose 50 mg OD; titrate by 50 mg to a maximum dose of 200-300 mg daily
Gabapentin	Similar to topiramate	Common side effects: Dizziness, sedation, ataxia, nervousness. Variety of CNS and GI side effects can occur.	Rare: suicidal ideation	Initial dose 300 mg BID, studies used up to 1500 mg/day
Baclofen	GABA agonist	Drowsiness, weakness Can cause or worsen depression	Lower dose with renal insufficiency Use with caution in patients on tricyclic anti-depressants or MAO inhibitors	Initial dose 5 mg tid, increase to 10 mg tid. Maximum daily dose 80 mg

Disulfiram: 1. De Sousa, A. & De Sousa, A. (2004). A one-year pragmatic trial of naltrexone vs disulfiram in the treatment of alcohol dependence. *Alcohol and Alcoholism*, 39 (6), 528–531.

2. De Sousa, A. & De Sousa, A. (2005). An open randomized study comparing disulfiram and acamprosate in the treatment of alcohol dependence. *Alcohol and Alcoholism*, 40 (6), 545–548.

3. Laaksonen, E., Koski-Jännes, A., Salaspuro, M., Ahtinen, H. & Alho, H. (2008). A randomized, multicentre, open-label, comparative trial of disulfiram, naltrexone and acamprosate in the treatment of alcohol dependence. *Alcohol and Alcoholism*, 43 (1), 53–61. 4. Mueser, K.T., Noordsy, D.L., Fox, L. & Wolfe, R. (2003). Disulfiram treatment for alcoholism in severe mental illness. *American Journal on Addictions*, 12 (3), 242–252. 5. Petrakis, I.L., Nich, C. & Ralevski, E. (2006). Psychotic spectrum disorders and alcohol abuse: A review of pharmacotherapeutic strategies and a report on the effectiveness of naltrexone and disulfiram. *Schizophrenia Bulletin*, 32(4), 644–654.

Natrexone: Anton, R.F., O'Malley, S.S., Ciraulo, D.A., Cisler, R.A., Couper, D., Donovan, D.M. et al. (2006). Combined pharmacotherapies and behavioral interventions for alcohol dependence: The COMBINE study: A randomized controlled trial. *Journal of the American Medical Association*, 295 (17), 2003–2017.

Acamprosate: 1. Snyder, J.L. & Bowers, T.G. (2008). The efficacy of acamprosate and naltrexone in the treatment of alcohol dependence: A relative benefits analysis of randomized controlled trials. *American Journal of Drug and Alcohol Abuse*, 34 (4), 449–461. 2. Rösner, S., Leucht, S., Lehert, P. & Soyka, M. (2008). Acamprosate supports abstinence, naltrexone prevents excessive drinking: Evidence from a meta-analysis with unreported outcomes. *Journal of Psychopharmacology*, 22 (1), 11–23.

Topiramate: 1. Baltieri, D.A., Daró, F.R., Ribeiro, P.L. & de Andrade, A.G. (2008). Comparing topiramate with naltrexone in the treatment of alcohol dependence. *Addiction*, 103 (12), 2035–2044. 2. Johnson, B.A., Rosenthal, N., Capece, J.A., Wiegand, F., Mao, L., Beyers, K. et al. (2007). Topiramate for treating alcohol dependence: A randomized controlled trial. *Journal of the American Medical Association*, 298 (14), 1641–1651. 3. Ma, J.Z., Ait-Daoud, N. & Johnson, B.A. (2006). Topiramate reduces the harm of excessive drinking: Implications for public health and primary care. *Addiction*, 101 (11), 1561–1568.

Gabapentin: Furieri, F. A. and E. M. Nakamura-Palacios (2007). "Gabapentin reduces alcohol consumption and craving: a randomized, double-blind, placebo-controlled trial." J Clin Psychiatry 68(11): 1691-700. Brower, K. J., H. Myra Kim, et al. (2008). "A randomized double-blind pilot trial of gabapentin versus placebo to treat alcohol dependence and comorbid insomnia." Alcohol Clin Exp Res 32(8): 1429-38. Anton, R. F., H. Myrick, et al. (2011). "Gabapentin combined with naltrexone for the treatment of alcohol dependence." Am J Psychiatry 168(7): 709-17

Baclofen: 1. Addolorato, G., Caputo, F., Capristo, E., Domenicali, M., Bernardi, M., Janiri, L., et al. (2002). Baclofen efficacy in reducing alcohol craving and intake: A preliminary double-blind randomized controlled study. *Alcohol and Alcoholism*, 37 (5), 504–508. 2. Addolorato, G., Leggio, L., Ferrulli, A., Cardone, S., Vonghia, L., Mirijello, A. et al. (2007). Effectiveness and safety of baclofen for maintenance of alcohol abstinence in alcohol-dependent patients with liver cirrhosis: Randomised, double-blind controlled study. *Lancet*, 370 (9603), 1915–1922.

Prescribing benzodiazepines and opioids

- Risk of overdose and accidents greatly increased when combining benzodiazepines or opioids with alcohol
- Both medications should be routinely tapered in to the lowest effective dose in the elderly

Brunette, M.F., Noordsy, D.L., Xie, H. & Drake, R.E. (2003). Benzodiazepine use and abuse among patients with severe mental illness and co-occurring substance use disorders. *Psychiatric Services*, 54 (10), 1395–1401.

KEY FACTS

Low-risk drinking guidelines for the elderly

No more than:

- 9 standard drinks per week for men
- 7 per week for women
- 2 drinks in one day (men and women)

Standard drink = 12-ounce (341ml) bottle of regular (5%) beer, five ounces (142 ml) of (12%) table wine or 1.5 ounces (43 ml) of 80-proof liquor.

Ask about size and alcohol content of beverage

Avoid alcohol or drink only under supervision if:

- Frail elderly
- At risk for falls (ataxia, cognitive or visual impairment)
- On sedating medications (e.g. benzodiazepines, opioids)
- Medical illnesses made worse by alcohol, e.g. gastritis or ulcer, pancreatitis, liver disease
- Mood disorder

Note: Light drinking in the elderly associated with delayed cognitive decline and reduced risk of heart disease and type II diabetes. However, heavy drinking is more hazardous in the elderly than in younger adults, because they have higher alcohol levels per drink, lower tolerance to the intoxicating effects of alcohol, and are at greater risk for falls and other harms.

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