



Alcohol Use Disorder and Other Common Addictions in the Elderly

- David Best, DO, ABAM
- March 24, 2024
- 2024 AOCOPM Midyear Educational Conference at Sam Houston State University College of Osteopathic Medicine in Conroe, Texas



Disclosures

None



#### Background

- Relevant Experience
  - · Best Medical Services 2012-present
  - Hospice Physician, HCR Manorcare, 2013-2021
  - Attending Physician, Meadowbrook ECF, 2005-2016
  - Bellaire Family Health Center 2005-2012
- Board Certified in Family Medicine, 2005
- Board Certified in Addiction Medicine, 2014
- Current Board Member with Novello Provider Organization, Des Moines University Alumni Association, Michigan Osteopathic Association



#### Objectives

- Review Common Addictions
- · Review mortality and morbidity risk from alcohol
- Review Screening tests, diagnostic criteria, and treatment options for AUD
- Review Case Studies

Food for thought: Relative risk of addictive substances

Tobacco kills more than 8 million people each year, including an estimated 1.3 million non-smokers who are exposed to second-hand smoke

480,000 Tobacco related deaths annually in the U.S.

140,000 alcohol related deaths annually

Deaths from Excessive Alcohol Use in the United States | CDC 2015-2019 data

105,452 Drug overdose deaths in 2022

57,000 Americans died from an overdose involving cocaine (24,000) or psychostimulants with abuse potential (33,000) in 2021

From the World Health Organization

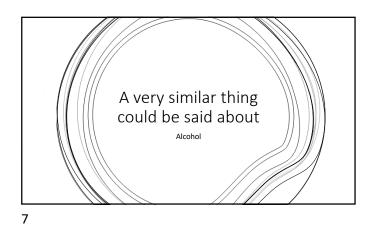
There is a fundamental and irreconcilable conflict between the tobacco industry's interests and public health policy interests.

The tobacco industry produces and promotes a product that has been proven scientifically to be addictive, to cause disease and death and to give rise to a variety of social ills, including increased poverty.

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Prohibition didn't really work, so now what?

LAST CALL

THE SIZE AND FALL OF PROHIBITION

DANIEL OKRENT

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Advertising works, influences behaviors

We are inundated with advertising and messaging that promotes alcohol consumption and fast food that are damaging to our health

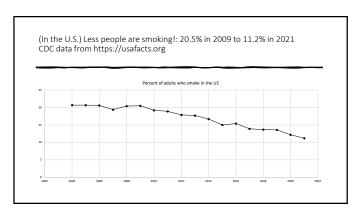
Example of the power of advertising; see Don Draper at work in the show Mad Men



The "Carousel" sales pitch

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Monitor	Monitor tobacco use and prevention policies.
Protect	Protect people from tobacco use.
Offer	Offer help to quit tobacco use.
Warn about	Warn about the dangers of tobacco.
Enforce	Enforce bans on tobacco advertising, promotion and sponsorship
Raise	Raise taxes on tobacco.





This should
be part of
every patient
visit

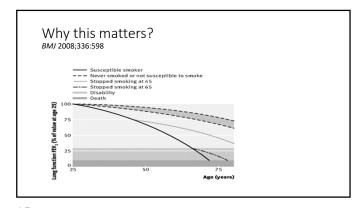
1.ASK about Tobacco use
2.ADVISE patient quit Tobacco, directly and clearly
3.ASSESS WILLINGNESS to quit Tobacco, prior attempts and current use
4.ASSIST the patient in cessation with support, resources, medications, and expected initial adverse symptoms on quitting
5.ARRANGE QUIT DATE and follow-up, and planned responses to difficult situations with risk of returning to Tobacco
www.fpnotebook.com

Efficacy of smoking cessation treatment

1. Smokers interested in quitting: 70%
2. Smokers who quit without additional help: 7.9%
3. Smokers who quit with only advice of physician: 10.2%
4. Smokers who quit with Nicotine Replacement: 26%
5. Smokers who quit with combined therapy below: 35%
1. Behavioral support 2. Bupropion 3. Nicotine Replacement

www.fpnotebook.com

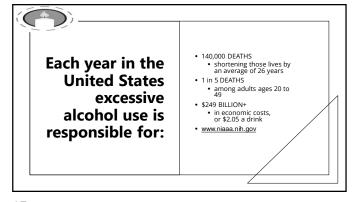
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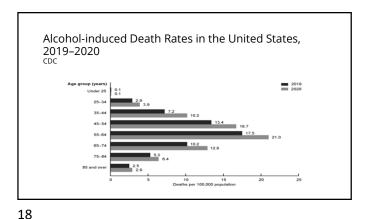


Lung Cancer
Screening

• Low Dose Lung CT indications
• Ages 50-80
• Pack year history (20 year minimum)
• Time since quit (within last 15 years)

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 Excessive alcohol use is a leading preventable cause of death in the United States. States.

Over centuries, alcohol has become the most socially-accepted addictive drug worldwide.

Excessive alcohol use includes:

Binge drinking, defined as consuming 4 or more drinks on an occasion for a coccasion for a more drinks on for a more drinks on an occasion for a man.

Heavy drinking, defined as 8 or more drinks per week for a woman or 15 or more drinks per week for a woman or more drinks per week for a man.

Any alcohol use by pregnant women or anyone younger than 21. When does alcohol use become a problem?

Re-evaluation of guidelines needed • Depending on the country, current guidelines (including those in the US) could allow levels of drinking high enough to shorten life expectancy.

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#### 2018 Study showed lives shortened even with "moderate drinking"

- The Study found that regardless of gender, higher alcohol consumption was associated with
   higher rate of stroke, fatal aneurysms, heart failure, and death.
- hen compared with people who drank less than seven drinks per week:

  Adults drinking seven to 14 drinks per week could expect, on average, a six-month shorter life expectancy (as of age

  - 40)
    Those drinking 14 to 25 drinks per week could expect a shorter life expectancy by one to two years
    Those drinking more than 25 drinks per week (×3.5 per day) could expect a shorter life expectancy by four to five years
    - "Risk thresholds for alcohol consumption: combined analysis of individual-participant data for 599,912 current drinkers in 83 prospective studies"
       The Lancet Viol 31 April 14, 2018

decreased total body water and increased body fat → Age-related contribute to higher blood physiological alcohol concentration and → changes prolonged alcohol effects in older adults compared to younger individuals

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From www.fpnotebook.com Prevalence • Alcohol Dependence: 8-14% lifetime Alcohol Use Disorder: 29% lifetime (14% one year), 14.5 Million in U.S. as of 2022 Age of symptom onset: 15 to 19 years Familial predisposition in Autosomal Dominant pattern

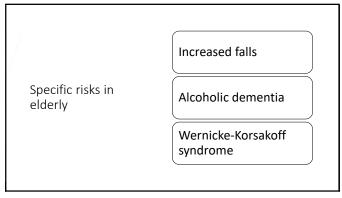
Chronic Health Effects of **Excessive** Alcohol Use



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# The American Osteopathic College of Occupational and Preventive Medicine 2024 Midyear Educational Conference



Wernicke-Korsakoff (WK) syndrome

• is a serious brain condition that is usually, but not exclusively, associated with chronic alcohol misuse and severe alcohol use discoter (AID).

• The prevalence of WK syndrome across populations is not well established, and researchers estimate that it may remain undiagnosed in approximately 80 percent of patients.

• Wernicke-Korsakoff syndrome affects more men than women, usually between ages 30 and 70 years. Most alcohol-related cases of WKS involve men and those over age 40.

• results from brain damage associated with AUD, combined with vitamin B1 (thiamine) deficiency. In people with severe AUD, poor nutrition decreases the ability of the gut to absorb thiamine

• NH/NIAAA website

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# Confusion Lack of energy, hypothermia, low blood pressure, or coma Lack of muscle coordination that can affect posture and balance and can lead to tremors Vision problems including: nystagmus, double vision, misaligned or crossed eyes, and eyelid drooping Wernicke encephalopathy may be present in the general population with a prevalence of around 2%, and is considered underdiagnosed Psychosomatics. 53 (6): 507–516

Symptoms of Korsakoff's psychosis include:

Potentially severe, irreversible memory impairments, including problems forming new memories (anterograde amnesia) and recalling memories

Making up inaccurate stories about events (i.e., confabulation) or remembering events incorrectly

Experiencing hallucinations

Experiencing hallucinationsRepetitious speech and actions

• Problems with decision making as well as planning, organizing, and completing tasks

· Lack of motivation and emotional apathy

Cancer
risk
increases
with
alcohol
alcohol

Cinking alcoholic beverages can contribute to cancers of the mouth and throat, larynx, esophagus, colon and rectum, liver, and breast (in women).

For some cancers, even less than one drink in a day can increase risk. The less alcohol a person drinks, the lower the risk of these types of cancer.

Excessive alcohol use has immediate effects that increase the risk of many harmful health conditions

Injuries, Violence, and Poisonings

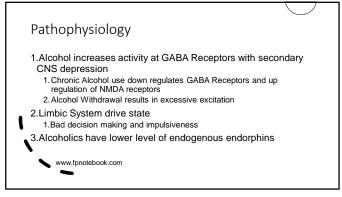
Injuries, Violence, and Poisonings

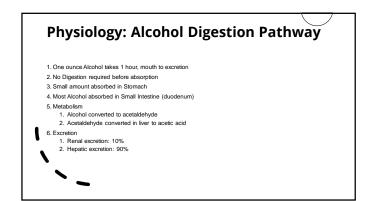
Drinking too much alcohol increases the risk of injuries, including those from motor vehicle crashes, falls, drownings, and burns.

It increases the risk of violence, including homicide, suicide, and sexual assault.
Alcohol also contributes to poisonings or overdoses from opioids and other substances.
A recent Us study found that more than 40% of people who died violently had alcohol in their bloodstream.

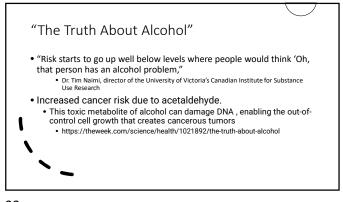
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Ethanol metabolites and oxidative stress (through accumulation of reactive oxygen species—ROS) are thought to be the main causes of alcohol-induced organ damage.

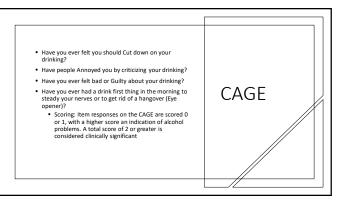
Mechanism of alcohol metabolized in the liver by the enzyme alcohol dehydrogenase (ADH) to produce acetaldehyde, which is then further metabolized to another less active byproduct, acetate, by aldehyde dehydrogenase (ALDH)

The enzymes cytochrome P450 2E1 (CYP2E1) and catalase also break down alcohol to acetaldehyde.

• Int J Environ Res Public Health, 2010 Apr; 7(4): 1285–1301.

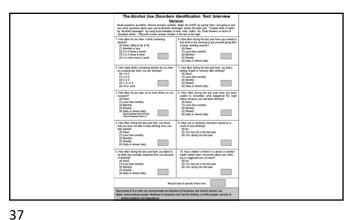
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# The US Preventive Services Task Force recommends that health care providers screen all adults for excessive alcohol use and provide brief intervention and referral to treatment as needed. QUESTION on Medicare Wellness Visit and Health Risk Assessment CAGE AUDIT-10



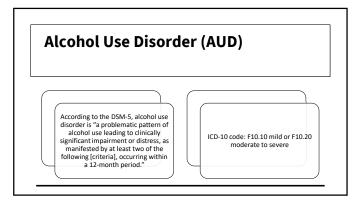


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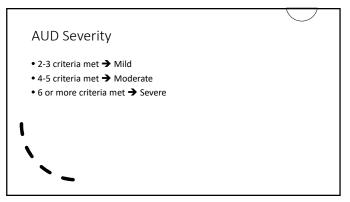
#### **AUDIT-10 SCORING**

- The range of possible scores is from 0 to 40 where 0 indicates an abstainer who has never had any problems from alcohol.
- A score of 1 to 7 suggests low-risk consumption according to World Health Organization (WHO) guidelines.
- Scores from 8 to 14 suggest hazardous or harmful alcohol
- A score of **15 or more** indicates the likelihood of alcohol dependence (moderate-severe alcohol use disorder).



DSM-5 AUD Criteria There is a persistent desire or unsuccessful efforts to cut down or common and a series of the A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects Craving, or a strong desire or urge to use alcohol. Recurrent alcohol use resulting in a failure to fulfill rote obligations at work, school, or home Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol. Important social, occupational, or recreational activities are given up or reduced because of alcohol use.
 Recurrent alcohol use in situations in which it is physically hazardous. Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol. Tolerance, as defined by either of the following: a. a need for markedly increased amounts of alcohol to achieve intoxication or desired effect b. a markedly diminished effect with continued use of the same amount of alcohol. The characteristic withdrawal syndrome for alcohol that is relieved with drinking alcohol or taking substance (such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms.

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**Protocol: Brief Intervention for Problem Drinking** (www.fpnotebook.com) 1. Chemical Dependency Brief Counseling in the office 2. Track patient progress 1. Metrics for the last month Number of Alcohol free days 2. Number of heavy drinking days 3. Maximum number of drinks in one day 1. Biomarkers of Alcohol Use 1. Urine Ethyl Glucuronide (eTG) 2. Urine Ethyl Sulfate Serum Gamma glutamyl transferase (GGT) 4. Carbohydrate deficient Transferrin



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#### **AUD Treatment** • Protocol: Alcohol Use Disorder 1.Initial Management 1. Alcohol Detoxification (outpatient or inpatient) 2. Alcohol Withdrawal Protocol 2.Long-Term Abstinence Programs (12 step programs appear most effective)

1. Alcoholics Anonymous

2. Sponsor

3. Treatment Program

Transition House

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#### Adjunctive Medications for abstinence (medication assisted treatment (MAT) for alcohol) Best evidence is for naltrexone, gabapentin and topiramate First line 1. Naltrexone (Vivitrol, Revia) 1.Blocks Opioid receptors 2. Decreases pleasure from Alcohol 3. Effective in reducing Alcohol use in non-abstaining patients Oral: 50 mg orally daily (\$50/month in 2019) IM: Vivitrol once monthly IM (\$1500/month in 2019)

Second Line: Gabapentin

- Gabapentin has been shown to be safe and effective for mild alcohol withdrawal but is not appropriate as mono-therapy for severe withdrawal owing to risk of seizures.
- · During early abstinence, gabapentin may improve sleep, cravings, and mood-factors associated with relapse
- Gabapentin is being used recreationally to achieve or enhance euphoria, but its misuse potential appears to be low when taken at therapeutic doses by patients without a history of drug abuse.
  - · "Gabapentin for alcohol use disorder: A good option, or cause for concern?"
  - Cleveland Clinic Journal of Medicine December 2019, 86 (12) 815-823

Dosing gabapentin for AUD

- Gabapentin significantly improved the rates of abstinence and no heavy drinking.
  - The abstinence rate was 4.1% (95% CI, 1.1 to 13.7) in the placebo group
  - 11.1% (95% CI, 5.2 to 22.2) in the 900 mg group
  - 17.0% (95% CI, 8.9 to 30.1) in the 1800 mg group (p = 0.04 for linear dose effect, NNT =
    - "Gabapentin Treatment for Alcohol Dependence: A Randomized Controlled Trial"
    - JAMA Intern Med. 2014 Jan 1; 174(1): 70–77.
- 300mg x1 day, then 300mg bid x1 day then 300mg tid
- · May titrate to 600mg tid

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Second Line: Topiramate

- · Decreases Alcohol use severity and heavy, binge drinking
- · Improves abstinence, well being, quality of life in Alcoholics
- Requires dose titration

 Start 25mg daily for 1 week, then increase by 25mg daily every week
 Target dose 100-150mg twice daily Johnson (2004) Arch Gen Psychiatry 61:905-12 [PubMed]

Other options for MAT ?Third Line

- 1.Disulfiram (Antabuse)
  - 1.Taken 250 to 500 mg orally daily
- 2. Negative side effects with drinking alcohol

2.Campral (Acamprosate)

- 1. Balances GABA and glutamate Neurotransmitters
- 2. Reduces anxiety from abstinence (with better efficacy in abstinence
- 3. May prevent relapse in one in 12 patients with 3-6 months of use 4.Dosing: 2 tabs orally three times daily (\$200/month in 2019)
  - Risk of lower compliance due to a very large tablet taken 3 times daily

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#### Baclofen, 4<sup>th</sup> line?

- A reduction of 13.6 heavy drinking days and an increase of 12.9 abstinent days over 16
  weeks compared to placebo is clinically meaningful and an indication of the progress that
  can build on patients' motivation to reduce or stop drinking
  - The trial tested it on 120 people with the condition
  - Neuropsychopharmacology volume 46, pages2250–2256 (2021)

#### • No different than a placebo

- A review of 12 clinical trials involving 1,128 participants with AUD.
  - Cochrane Database Syst Rev. 2018; 2018(11): CD012557.

Case Study 1

73 year-old female presented on 11-28-23 for initial visit at Catholic Human Services office. Her husband and her daughter are with her in the office.

In her words the reason for consultation: "I want to stop drinking"

She stated she had been a "social" drinker for many years and would have 1-2 drinks per day until a couple of years ago when her use escalated.

Multiple ER visits since 2021 when she has tried to quit and would end up having significant anxiety (?attributed to withdrawals)

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#### More history

- No inpatient treatments or legal consequences from AUD
- Has had counseling with Catholic Human Services therapist for a few months
- Is prescribed chlordiazepoxide for helping with withdrawals
- PMH: GERD, Barrett's esophagus, asthma/COPD, hyperlipidemia, hearing loss, HTN, allergic rhinitis, history of renal cell carcinoma 1999, breast cancer, colon cancer, renal artery stenosis, diverticulosis, anxiety
- PSH: hemicolectomy 2016, right RTC surgery 2010, left breast lumpectomy 2023
- $\bullet\,$  Social History: retired RN, lives with her husband

Screening tests

CAGE was positive

AUDIT-10 score was 22

Has 9 out of 11 criteria on DSM-5

51 52

#### Physical Exam

Wt.: 173 lb. Ht/Ln: 65 in BMI: 28.8 Pulse: 80

- GENERAL: WNWD; A&O times 3; NAD
- HEENT: PERRLA with EOMI bilateral; pupils 4mm bilateral; hard of hearing
- MUSC: normal gait; no tremors
- PSYCH: normal affect; good insight and judgment; she asks multiple times whether she can take another Librium this afternoon; we discussed how that she should discontinue this medication as it has addiction potential in the same way as alcohol; she agrees

# Continuous chronic alcoholism (F10.20):recent normal cbc, CMP

Assessment

# Anxiety disorder (F41.9): generalized vs. withdrawal induced; she has been on prn Xanax 0.5mg ½-1 tablet daily for 10+ years and now Librium has been added and she is taking this daily

 $\mbox{\tt\#}$  Benign hypertension (I10): at goal with recent office visits

# Body mass index [BMI] 28.0-28.9, adult (Z68.28): Exercise will help with both physical and mental health.



# Plan Reviewed medication options including acamprosate, disulfuram, naltrexone, gabapentin. The naltrexone daily tablet was determined to be the best fit for her. PRESCRIBE: naltrexone 50 mg oral tablet, take 1 tablet daily, # 15, RF: 0. (Transmitted by David Best, DO)

PROVIDED: Patient Education (11/28/2023): reviewed risks of continued drinking which includes hepatitis, memory loss, confusion and falls. She is also aware of risk of continued use of lubrium and how this should be discontinued.

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### Follow-up 4 weeks later

Naltrexone continues to help and she has much less interest in drinking now

Has 1-2 drinks per week now. She states they are "shooters" and she likes the taste. I have recommended she avoid all alcohol going forward.

She avoided any alcohol at events over the holidays. There is no alcohol in the house anymore and her family is supporting her in her AUD treatment.

She is continuing to be more active and is going to the senior center for exercise classes. Has more energy.

No longer taking Librium

### Follow-up 2 weeks later

She admitted to having drinks on a few days in the last two weeks.

Naltrexone seems to be helping and she is committed to not drinking anymore and is not having cravings

Was able to abstain from drinking at a holiday party where everyone else was drinking

She is feeling better, is less unsteady on her feet and is thinking more clearly.

#### 3 month Follow-up

- She has not had any alcohol in the last 18 days
- Is having more anxiety issues and realizes alcohol had been used in the past for emotional issues; still taking Xanax daily
- She was given re-assurance that her symptoms are not due to alcohol withdrawals; agrees that she needs to develop better coping mechanisms that could be facilitated with a long term (non-narcotic) medication.
- PHQ-9 Patient Depression Questionnaire completed. Depression Severity Score 12. Interpretation of Depression Severity - Moderate Depression, Consider Other Depressive Disorder

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#### Assessment & Plan:

- # Anxiety disorder (F41.9):
- # Depression (F32.9):
- # Chronic alcoholism (F10.21): in early remission
- Exercise will help with both physical and mental health.
- PRESCRIBE: escitalopram 10 mg oral tablet, take 1 tablet daily, # 30, RF: 2. (Transmitted by David Best, DO)
- PROVIDED: Patient Education (2/22/2024): She has previous Xanax Rx from her primary care physician and we discussed how limiting this medication is a longer term goal

#### Case Study 2

- 62 year old male with chronic pain
- I first saw him in June 2012 after the doctor he was seeing before left the practice. He had chronic left knee pain and pain from plantar fasciitis.
- He had initially injured knee while serving in the Vietnam War. He has had surgeries to both knees. He has had injections that did not help. He did not get enough pain relief from NSAIDs and had been on stable dose of OxyContin 30mg every 8 hours.

Also taking amitriptyline 25mg 1.5 tabs qhs

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# More History • Social History: ½ ppd smoking for 30 years; no alcohol use; self employed landscaper; enjoys woodworking • Family History: Dad died at age 73 from CAD • No AUD or SUD in family • DIRE Score is 20

DIREC Score: Partient Selection for Chronic Opicid Analgeria

For us of forty, out the partner; your ton't 1 house on the opicis score in the right share (plant)

SCORE | SACION |

DANDONCON |

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#### Pain Management

- In March 2013 he had reduction in OxyContin 30mg from q8 to q12 and at that time insurance would only cover 60 per month. He had been taking 1 Percocet 10/325 daily for breakthrough pain but with dose reduction of OxyContin required increased Percocet
- Insurance stopped covering OxyContin in April 2014; tried fentanyl patch but it was not effective
- Changed to MS Contin

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#### More Medication management

- Tolerance build-up to MS Contin and prn oxycodone IR eventually led to patient running out early and in January 2017 diagnosis of moderate Opioid Use Disorder was made
- Patient started on buprenorphine-naloxone at one 5.7mg-1.4mg tab daily and this was increased to 1.5 tab daily at next visit
- At follow-up he said his pain was a bit worse but he was feeling better overall and was glad to be off other opioids

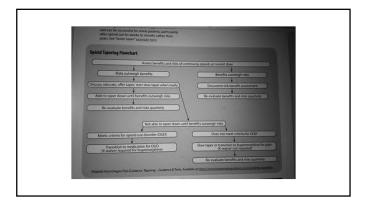


#### Forward to 2017-2023

- In 2017 he started having low back problems and required treatment for lumbar DDD with radiculitis that was initially managed with PT and injections but ultimately required IA-5 Fusion in May 2019.
- Buprenorphine-naloxone 8/2 dose now 1 tab daily
- Pain reasonably well controlled with PEG score of 3. Able to function well in daily activities.
- Not doing as much woodworking due to COVID-19 (no trade shows to go to).
- Serves as main caregiver for his wife
- Seen in Sept 2023: having lumbar radiculopathy and has been referred to PM&R clinic for consideration for injections

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#### Thank You

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