Week 11 (edited)- Tobacco and Overview

Fri, Oct 13, 2023 12:49PM 54:24

SUMMARY KEYWORDS

nicotine, naltrexone, answer, people, smoking, treatment, tobacco, addiction, cigarettes, withdrawal, years, study, question, day, substance, medications, patients, tobacco smoking, shown, nicotine gum

---

00:02

Okay, hello, and welcome everyone, I see a whole lot of familiar names. So welcome back. And thanks for joining us. As a reminder, if you are comfortable with it and able to, please feel free to turn your cameras on and join us, it makes for much more fun session if we can see all. As you all I know, a lot of you have been coming in each week, but just to run through it again. As you all know, we'll go through some practice questions first. But as we go through if you have any follow up questions or clarifying questions, or even random questions that come up, this is our last office hour session. So it'd be the perfect time to ask, sorry, Dr. Avery, to put you on that spot to answer them all...

00:43

I'll be monitoring the chat. And as you know, as we go through, please put your answers in there so we can see how everyone's doing. And then at the end, we'll probably have some time left over to cover any questions that are still lingering. I just mentioned it, but I'll mention it again, this is our last office hour session of this year. So we have our chair here to handle all of the questions that you might have held on to for the last 10 weeks. So without further ado, I'll turn it over to Dr. Avery to introduce himself.

01:10

Yeah, thanks for for all of you for participating in the course and making it to the end here. Exam time right around the corner. It's exciting. Yeah, feel free to interrupt me with with anything as we as we go through these questions about this or anything in, in addiction. I'll do my best to answer any any any curveballs, I might not be able to answer what the insular cortex does in the addiction pathway, but I'll I'll try my best for whatever so. So feel free to interrupt or tell me and yeah, as I was saying, when I gave the talk on nicotine, it's sort of like, it's sometimes it feels like worst for last in some ways, but nicotine's still got it.

01:49

I mean, it's still something that at least is on the exam. And I think it's something we should be paying more attention to. Almost in the world of addiction, it's like it is the last thing we pay attention to sometimes, you know. They go through rehab, we take care of the opiates, the alcohol, and nicotine

sort of hangs on stubbornly. It's also one of the first things that emerges typically too. It's one of those, you know, real predictors of future substance use. We think it's, you know, more a gateway than, than marijuana and, you know, stronger evidence in the animal studies, but certainly gateway, just like hard alcohol, maybe more than marijuana. So it starts and ends things and it ends this course. So feel free to interrupt with anything.

02:32

Starting with the softball. What's the main, what's the main metabolite of nicotine? Acetylcholine, cotinine, benzoylecgonine, norcotinine... struggling over them. As you may have guessed, B is correct. It's the primary metabolite of nicotine. Benzoylecgonine is a metabolite of cocaine. Acetylcholine is a neurotransmitter, of course, involved in a variety of activities. Norcotinine is also a metabolite of nicotine, but it's a much, much lower percentage, I think it's less than 1%. And so it's cotinine that we're, you know, picking up in the urine, you know urine screens, especially among adolescents are increasingly common part of treatment, especially if you're using sort of a contingency management approach where you're rewarding people for negative urine screens. And, you know, there's a lot of question if pediatricians should be routinely screening or not, as the as a as a regular clinical practice.

03:41

All right, we all got that one- the softball. Let's see, this one's a little trickier. A 25 year old woman who has just given birth is concerned that her child has inherited a predisposition for smoking. She and the child's father have recently quit smoking, but many of their first and secondary family members smoke, or, that should be "and" many of her first and secondary members smoke. The risks that has been attributed to genetic factors, the ability, has been estimated to be at, like similar numbers for most substances of misuse-60%.

04:15

And Dr. Avery, sorry to interrupt, but would you mind reading the answer choices for folks that are catching just the audio?

04:22

1%... the, the options were 1%, 10%, 30%, 60%. And the answer was 40 to 60%. More heritable than a lot of mental illness, right? And then bipolar, schizophrenia, even depression. I famously got this wrong on the boards, on my regular boards. I... it's by going to addiction. I said one of the mental illnesses and it was addiction that's really, you know, heritable and something that I always tell my patients as well in terms of understanding the disease model of addiction and and you know, the factors that result in substance use disorders. So the answer again for those on audio was 60% and the range and the study is somewhere between 40 and 60%.

05:12

Alright, question number three: genome-wide association studies of tobacco use disorder have most

Alright, question number three: genome-wide association studies of tobacco use disorder have most compellingly identified associated single nucleotide polymorphisms in the genes encoding: A- dopamine-2 receptor subunits, B- alpha-adrenergic receptor subunits, C- GABAA receptor subunits, or D- acetylcholinergic receptor subunits?

05:41

And the answer was D- acetylcholinergic receptor subunits. You know, they're essentially important to the effects of nicotine, which is why one of our go to medications, varenicline or chantix, a nicotinic receptor partial agonist can be very effective for smoking cessation. Effects on the other neurotransmitter systems are likely present. But you know, they're more more indirectly impacted. And it's and it's D for this one. Audience is silent, but but chirp up if you have any, any questions about any of this.

06:19

All right, among 12 to 17 year old students in the US Monitoring the Future. 8th, 10th, and 12th graders, Monitoring the Future being one of the big studies that we routinely do yearly, the following trend is seen in the past decade: A- more cigarette smoking, B- the same amount of tobacco smoking, C- less tobacco smoking and more smokeless tobacco use, or D- less tobacco smoking and less smokeless tobacco use. So not a word of vaping here, as we're talking about tobacco smoking and smokeless tobacco, and those have gone down as they have since the 1950s. And why we were in some ways caught off guard by the, the increases we've seen recently by the the electronic cigarettes and the vape devices. But overall, in a positive trend here in the, in the United States.

07:26

Sort of a similar question here. Over the past decade, what has been the overall trend for cigarette smoking in the general population: A- prevalence of past month tobacco cigarette smoking has remained roughly the same over the past decade. B- prevalence of past month, tobacco cigarette smoking has declined in the population as a whole in the past decade, but has not changed among adolescents and young adults. C- the prevalence of past month tobacco cigarette use has increased for some age groups. Or D- prevalence of past month tobacco cigarette smoking has had a consistent decline among youth under the age of 18 in the general population.

08:10

We're getting lots of Ds in the chat. But we did get a follow-up question to the previous question. Which is are e-cigarettes/vaping considered smokeless tobacco or not?

08:23

No, I don't believe so. Not, not for these studies. I think vaping was, was teased out. It wasn't tracked in Monitoring the Future for a long time. But then they added it I think it was in in 2019 as a, as a separate category. So it's yes and no. Because before that, it wasn't really separated. But it was and

those do have, I don't I think they are they considered smokeless? They're, they're not... I'm not sure to be honest. I have to, I have to follow up on that. It's a good question. But I know in the Monitoring the Future, it wasn't included until the last couple of years. That's a good question. I can't see the chat on my end. Were there other, other chat? Oh, here. Here we are.

We're getting responses when...

I see... a lot of people are guessing in the chat. Yes. Okay. Looks like acing it all. That's bold to guess publicly- very good. But I'll figure out what, how it's changed over. We'll get back to you on that. That's a good question.

We were answering this one over: the past decade what has been the overall trend for cigarette smoking in the general population? And the answer was D. The prevalence has declined among among the adolescents.

Okay. A 35 year old patient presents to your clinic with her 15 year old daughter, whom she has just learned has started smoking cigarettes and ask that you provide her with some information as to why smoking cigarettes is harmful to her health. With respect to tobacco smoking, which of the following is most accurate? A- smoking attributable to deaths have rapidly increased in the past five years. B- deaths in young children below the age of five are never attributable to events related to tobacco smoking. C- smoking causes more premature deaths than all other preventable health risk behaviors in the United States, or D- raising the cost of tobacco has had very little effect on reducing the prevalence of tobacco smoking.

And the answer was C. Smoking-attributable deaths have remained steady or declined in the past five years with decreasing prevalence in tobacco use. Deaths in young children have been attributed to tobacco smoking in the home, you know, secondhand effects of respiration linked to respiratory illness. You know, one of the big efforts we've made to decrease tobacco has been raising the cost of tobacco products, and that's certainly been shown to decrease the prevalence. And then passive smoking or secondhand smoking has been shown to contribute significantly to morbidity and mortality with an increase in lung cancer risk of 1/1000 to 1/100 for heart disease, for salivary cotinine levels above four, so you know, there is risk for for secondhand smoke as well.

11:27

All right. Let's see if maybe we'll we'll get some wrong answers here. Select the one true statement about tobacco use disorder: caffeine's interaction with nicotine reduces morning nicotine withdrawal. B- smokers that report smoking their first cigarette 30 minutes after awakening are moderately nicotine dependent and may need tobacco treatment medications to succeed in quitting. C- smokers who use less than 10 cigarettes per day are not nicotine dependent. And D- users of electronic cigarettes almost never become addicted to nicotine. And the answer is B- smokers that report smoking their first cigarette 30 minutes after awakening are moderately nicotine dependent and may need tobacco treatment medications to succeed in treatment. It's a good question to ask people when, when taking the history- time till first cigarette- a good indicator of level of dependence. Even those who use low numbers of cigarettes, sort of addressing the "C," per day can show evidence of dependence. The tars in tobacco smoke, not nicotine. It's a key reminder of why electronic cigarettes don't necessarily impact the people or the system but the tars, the hydrocarbons cause induction of the liver 1A2 enzyme as well as some of the other P450 enzymes causing important interactions with some medications and caffeine.

12:53

Electronic cigarettes can deliver high doses of nicotine that result in dependence of course, and treatment for tobacco can occur at any time and should not be unnecessarily delayed. I always tell the story about caffeine, nicotine and that in our unit at, at our psychiatric hospital, we have a second chance unit for people with chronic psychosis and they were giving rewards, natural rewards on the unit. And historically it was cigarettes but once you couldn't smoke in, in the hospital anymore, they started giving people caffeine breaks and caffeine increases the P450 system. Nicotine drives it down and so you went from a more naturalistic environment where, where people were smoking and you could get a sense of their antipsychotic medications, that I think is the next question, which nicotine can or the hydrocarbons in cigarettes can drive down the levels of those. Whereas caffeine can increase the levels. And so people are getting caffeine, falsely elevating the levels of antipsychotics and they went out and they smoked again and it decreased the levels. And we saw more readmissions than before we had banned cigarettes at the hospital. Get back to that later.

14:04

A 14 year old boy comes to the office for an annual physical. During the interview he tells his physician that he has switched from smoking cigarettes to using smokeless tobacco, chewing tobacco, that's what we mean I think with smokeless and not the e-cigarettes, because he does not want to get lung cancer. The physician should tell the patient that he has now an increased risk for cancer of which of the following: A- colon, B- esophagus, C- gallbladder, D- stomach and the answer is B - esophagus.

14:39

We're curious about some of these other products that exist these days as in pouches and the other smokeless tobacco products that exist; it will be interesting to see what happens, what comes out about them with time but esophagus is the answer here.

14:57

All right, which one of the following intervention has shown efficacy in the treatment of nicotine dependence, A- aromatherapy, B- buspirone, C- fluoxetine or D- physician advice.

15:14

We're getting a mix of Ds and Bs in the chat. I promise, folks are engaging with you.

15:21

People come to be challenged here... we need some, we need some...the answer is D- physician advice. People who receive a simple recommendation to quit smoking from a physician, believe it or not, are 2.2 times more likely to be tobacco free at five months as compared to people who received no recommendation. There's definitely an art to doing it, and you want to learn motivational interviewing and figure out how to, how to do that in a way that doesn't feel finger-wagging but physician advice isn't information dumping. It's sort of therapeutically, you know, making people aware of the risks and the fact- if you're telling a doctor that you're smoking you're asking, you're asking for advice in some ways.

16:02

We'll go over the meds that have been shown to be effective for stopping nicotine use for tobacco use disorder, nicotine use disorder. Unfortunately, it's not aromatherapy, it's not buspirone,. You know better for anxiety and fluoxetine, the SSRI, we know is helpful for a range of of psychiatric conditions but not strong evidence for the treatment of nicotine dependence.

16:33

Little bit about the tobacco withdrawal syndrome. Which of the following is, is expected during tobacco withdrawal syndrome: A- nausea and vomiting, B- feeling hungry, increased appetite, C- decreased urge to smoke, D- increased somnolence.

16:54

Lots of Bs coming through the chat and a couple of Ds.

17:00

The answer's B, and it's the thing that really bothers people- the weight gain. I mean, in some ways is why people keep smoking nicotine I feel in early recovery to combat some of those urges around weight gain that people are always combating. So it's why people like naltrexone and and wellbutrin as meds for alcohol... you know, naltrexone on for alcohol and opioids and wellbutrin for, for nicotine

cessation, which we'll talk about is that it helps with some of this increased appetite. Of course, naltrexone and bupropion have been combined to form a medi-, a weight loss medication that's been studied specifically for that.

17:42

People also with eating disorders, you'll you'll find you know, there's a high incidence of nicotine use in folks with eating disorders because it does help with, with weight gain. So it's feeling hungry, increased appetite. Nausea, vomiting are an effect of excess nicotine, not... rather than symptom of withdrawal. They used to do those aversion therapies where they would have people smoke a ton of cigarettes until they got really nauseous so that they wouldn't smoke in the future. That was pre-IRB. I believe.

18:15

Increased appetite is expected during tobacco withdrawal, and increased urge to smoke and an increase in wakefulness and agitation are also expected during tobacco withdrawal. It's the anxiety, the insomnia, the appetite- none of it wasn't. And you know, as much as it's the hijacked reward path, pathways that perpetuate use, it's the how uncomfortable withdrawal is that also have a negative effect and then the stress that comes with withdrawal that also propels use forward. And people- it's really helpful when you're creating motivation to quit, be it marijuana or nicotine, to have people document the subtle ways they feel withdrawal during the day because often they're unaware of why they're so, why they're not morning people or why they you know, are really anxious and destroyed as they leave work and school because they haven't gotten enough nicotine during those, those, those timeframes and they're in relative withdrawal states. And if you can get them to tease out that they're in withdrawal that's another good way to really flesh out that hey, this is this is becoming a problem that that maybe we can do something about.

19:27

So which is which of the following statements is most true regarding studies of smoking cessation efforts with nicotine gum: advice to quit is as effective as nicotine gum, as A. B- as an adjunct, nicotine gum double success rates. C-placebo gum is just as effective in clinic settings as nicotine gum, or D-behavioral treatment alone is the best treatment.

19:59

And the answer is B. It's effective- under-prescribed, frequently under-dosed. Inferior... placebo is obviously statistically inferior to the active gun in nearly all symptoms related to withdrawal. And while not wanting to spoil the answers to other questions that are coming up, I mean, the meds and treatments we... that have been best studied with folks are to use your sort of motivational interviewing to set a quit date. And then about a week before the quit date to try one of the two FDA-approved meds, which are bupropion, the dopaminergic antidepressant or varenicline, the partial nicotine agonist and then on the quit date, and studies have shown that either tapering down before the quit date or keeping the same amount of smoking is is is, has similar outcomes, but on the quit date, then you put on the patch and the gum.

And then you often do, you know, decrease the patch dosing from 21 milligrams to 14 to seven over months and try to decrease the gum, which comes with either two or four milligram options generally, although there's some commercial products that have different dosing, and then you try to just taper them off over over four, four months.

And the best evidence is each of the treatments increase the success rate. And patients will often opt for one or the other to start. But the best outcomes are with combination treatment- that is combining one of the medications with nicotine replacement products, the patch and then the immediate release gum or lozenge. And the general board question is that people underdose it, they don't feel comfortable. And it's really the- doctors were much more comfortable in the past. And then because of the statistics we talked about beginning, the numbers got down and now pediatricians feel like they can't manage it. Internists aren't routinely doing it but it's easy to do and it's actually sort of fun.

Next question: a 32 year old woman comes to the office seeking assistance with smoking cessation. She has smoked two packs of cigarettes daily for the past eight years. She has attempted to quit twice before but was unable to overcome the withdrawal symptoms. She's using a nicotine transdermal system- that description of it... to assist her in smoking cessation, which of the following is a side effect she should still expect to experience during her withdrawal of nicotine: A- loss of appetite, B- drowsiness, C- euphoric mood, D- impaired concentration. It's a messy question. You have to think about it.

We're getting lots of Ds.

And that's right. It's smoking cessation- nicotine withdrawal would have a rebound effect causing increased appetite, restlessness, insomnia, irritability, overreaction and impaired concentration. But hopefully, it's less- for using the nicotine transdermal system.

Which of the following is true of nicotine replacement therapies, NRT... I think I've spoiled this question already. A- most people who use NRT become long-term users of it. B- these medications produced serum nicotine levels which are higher than that of a smoked cigarette. C- most people use

NRT incorrectly. D- Medicaid insurance never pays for coverage of over the counter products like nicotine patch or gum.

23:49

And the answer is C- most use it incorrectly. Nicotine replacement therapy products- those are the gum, the lozenges, the patches, the patches, the inhalers are good options, but the vast majority of patients who use nicotine replacement do not become long term users of NRT, but rather, but are rather able to stop smoking and use of nicotine products. Because most people use NRT incorrectly or at too low dose, serum levels are not in fact higher than that of a smoked cigarette. And it's important to remind folks who are intimidated by the over the counter pricing and need to continue to buy it that Medicaid does cover products such as gum and patches in order to assist with smoking cessation. Most states also have free services, which they especially do in New York, that'll ship these products to your home for you.

24:45

Alright, which of the following statements regarding cigarette smoking and psychiatric medications is true? A- polycyclic aromatic hydrocarbons found in cigarettes are responsible for inhibition of the cytochrome P450 1A2 isoenzyme, CYP1A2, which can affect metabolism of some psychotropic medications responsible for inhibition. B- nicotine is also metabolized by the 1A2 and use of cigarettes thereby increases the effective blood level of nicotine via competitive inhibition between polycyclic aromatic hydrocarbons and nicotine on the CYP1A2 isoenzyme. C- haloperidol, fluphenazine, thiothixene, olanzapine and clozapine are all affected by changes in cigarette smoking status. Spoiled this one. D- use of nicotine replacement therapy in the form of a transdermal nicotine patch, nicotine lozenges, nicotine gum, do induce the CYP1A2 enzyme system and are likely to affect metabolism of psychotropic medications.

25:55

And the answer is C. So nicotine primarily metabolized by 2A6 enzyme system does not induce most enzymes but may increase CYP2E1 that's nicotine and inhibit CYP2A6 enzymatic activity. As such B is false because nicotine is not metabolized by the 1A2 system that metabolizes the polycyclic aromatic hydrocarbons found in the cigarette tobacco smoke. Again, the responsible for the difference in medication metabolism between the e-cigarettes and the tobacco products. And then it's the induction, not the inhibition of the system by polycyclic aromatic hydrocarbons, in answer A, that produces most of the interactions between cigarette smoking and psychotropic medications. And all those listed in C. And then nicotine replacement therapy in the form of transdermal patches lozenges, and gum do not contain the aromatic hydrocarbons and don't induce the 1A2 enzyme system. Any questions about that? Or is that clear at this point?

27:02

Looks like we had a lot of confidence in the Cs, which is reassuring. We're, we're strictly testing your ability to pronounce all the hardest words in this field today.

27:14

To incorrectly pronounce all of them. Alright, so which of the following interventions has shown efficacy? Did I go back or is this a repeat? Which of the following interventions has shown.... yep that's a repeat... The following substances or medications are associated with known drug-drug interactions when combined with antipsychotic medications? This is saying again, A- smoked tobacco, B- naltrexone, C- vaporized THC, D- acamprosate. And again, it's the smoked tobacco.

27:49

Alright, unhealthy substance use and substance use disorders addiction is America's number one health problem as of 2016, with regards to global ratings of health in developed countries. Where does the US rank among other developed nations with one being best and 37 being worst?

28:16

It's a real test of patriotism. No... not good... US currently is not doing very well with regards to the global ratings of health. And as of 2016, it was listed as 36 of 37 developed countries in the world- it's that grouping of the unhealthy substance use and addiction.

28:42

Which of the following is recognized as a risk factor in promoting the development of a substance use disorder? A- initiating drug use at an early age, B- parental disapproval of substance use, C- weak or immoral personality structure, D- decreased tolerance to the drug's adverse effects. And then the answer is A- early, early use.

29:10

Another important history question is we often ask when they last used, but we sometimes forget, especially as they get older, when they first used. You know, a real predictor of of future substance use and also an indicator of some of the other risk factors, you know, a family environment that's or a social environment that you know, has easy access to substances or it has a lot of trauma, mental health and addiction as well. You know, other risk factors include trauma, mental health, we talked about the genetic risk factors at the at the outset.

29:51

All right. A 35 year old patient presents to your clinic with her 15 year old daughter... so different 15 year old daughter than the previous one, who she had just learned has started smoking cigarettes and ask that you provide her with some information as to why smoking cigarettes is harmful to her health. With respect to tobacco smoking, which of the following is most accurate? A-smoking attributed attributable deaths have rapidly increased in the past five years... oh, that's the same one.

B- deaths in young children below the age of five are never attributable to events related to tobacco smoking. C- smoking causes more premature deaths than all other and D- raising the cost of tobacco has little effect? Yep, we did this one and it's C.

All right. I think that's it for our nicotine questions. It's pretty straightforward. And I'm sure you guys got it. But I'm happy now to answer, since it's our very last session, any outstanding questions in general or talk about anything that you want to talk about in addiction, I will see if I can try to stop sharing my screen.

As a reminder, everyone has the ability to unmute themselves and chime in or if you don't feel comfortable with that you can also type questions into the chat.

I guess to get us started. I know I mentioned a few weeks ago about some of the court cases that you might want to be familiar with, as told by some other Addiction Medicine docs who have taken the exam. So I'll throw those into the chat.

Perfect. There's a question to find out what score is needed to pass? I don't know that. Do you know that, Giulia?

I believe it's 70%. But let me double check on that. I know it also gets adjusted. So there's, for example, if once they, we finished all test-taking seasons, they start grading the test, if there's a question that is particularly difficult for everyone, it'll get thrown out. So it's a little bit hard to predict because they will do some adjustments afterwards.

The other frequently asked question on nicotine is about the EAGLES study showing that, you know, the neuropsychiatric side effects of bupropion or varenicline are, you know, have been exaggerated, and we should still prescribe them in folks with co-occurring mental, mental health issues. And so you know, we've went through a whole arc on our concerns about varenicline and bupropion in those with mental illness from being more worried about it to now being sort of assured that we should be treating folks with with nicotine you know, wherever we capture them and including those with mental health issues, of course, being mindful of the interactions between other medications.

33:08

For those who have just joined, we're taking any final questions in our very final ASAM review course. Give you guys a little space if there's anything else...

33:25

Brought up a few weeks ago- are there specific research studies that are important to be aware of for the exam? I mean, at least, a couple always come to mind for me. One is the EAGLES study that I mentioned on the safety of varenicline and and bupropion in nicotine. For alcohol use disorder there's Project COMBINE which compared naltrexone and acamprosate and found that naltrexone had better efficacy than acamprosate and combining them then added additional benefit. There's the MOTHER study. It's showing the safety of buprenorphine in pregnancy for women with opioid use disorder.

34:25

Those are the big ones that come to mind but as I remember from the test, there's not a not a lot of like asking, "Do you know this this study?" but more just sort of understanding the, the medications.

34:36

Someone said they didn't get my explanation about varenicline. The it's a, it's a partial nicotine agonist. So it's, for some it's the silver bullet that helps you address nicotine, and often started a week before a quit date. Comes in starter kits and continuation packs it's most commonly prescribed . There had been concerned that there were neuropsychiatric side effects from it. There are a couple of dramatic case reports and reports in the media about aggressive and violent behavior for people that was attributable to newly starting varenicline. And like a slight uptick in some of the initial studies on sort of mood and agitation. But in further examination of the... one, there was just a lot of media stuff. And, you know, further examination and further study showed that they were safe in people with co-occurring psychiatric conditions, including psychosis and bipolar disorder, which were looked at in the EAGLES study. And so the whole idea was that there are a lot of reasons that people don't get nicotine treatment, nicotine replacement, and these meds, and one of them historically had been, you know, we need to address the mental illness first, or these, these treatments may make mental illness worse, when in fact, we should be giving them to folks, wherever we see them.

36:15

I looked and I cannot find a specific percentage, and I don't think we've ever been given a specific number. That being said, they always make a point to say that you should never leave anything unanswered, because you don't get penalized for any wrong answers. But you get no points for unanswered questions. So that's a frequent tip that we get is just to, at the end, if you're running out of time to just fill in answers for the last few questions.

36:48

I noticed that a couple of folks joined us a little late. Just to recap, we covered some practice questions about nicotine. And now we're just trying to tackle any lingering questions as this is our last office hour session of the year. So if you have anything you know that you haven't gotten a chance to ask yet, this is your moment to shine. So feel free to unmute and chime in or just type it into the chat.

37:13

Hi, I have a question. I started a patient on varenicline, varenicline couple of weeks ago. And today he told me he had two episodes of nightmare where there was very vivid that his father was molesting him. I, it did not interfere with anything else. So I told him since mutual decision, he said he wanted to stay on it, it has helped him quit smoking. He wanted to stay on it. And I said, keep it on for about a week. And if it continues, then we'll have to just switch over- just do a nicotine patch and then add the gum. What would you do in that case? If patients are having nightmares, but it's not frequent enough to interfere with their sleep? Would you just have them continue like I did? Or is there any recommendation?

38:17

Yeah, I would probably continue with it in that case, I mean, if they're causing distress, and this happens even with antidepressants, and you know, where it changes the REM cycle, and you get more vivid, vivid dreaming, and, and sometimes that's pleasant, and sometimes especially for those who have, you know, had trauma experiences that it can cause them to remember some of their their dreams. Also, it's not uncommon in early recovery and partly formed by withdrawal states and that sort of hyper, the body sort of alert to get either substance use dreams or dreams that are sort of out of the norm. And so I tend to tell people to stay the course. For the, the other culprit in nicotine treatment that can cause vivid dreams and insomnia is leaving the patch on at night. And so you have to remember if you put the patch on in the morning to take it off before bed, and then to start it the next, the next morning. Because if you continue overnight, you can get vivid dreams and insomnia. Some people do keep it on at first just because they've been using so much nicotine that the withdrawal prevents sleep, but but mostly we're for taking it off before bed. But yeah, if it's just dreams- continue. You know, monitor his mood and anxiety. Make sure his psychiatric treatments are fine, but I think it would be fine to continue. Thank you. Sure. No great question.

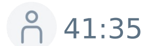
39:52

We're getting some thank yous for the sessions and for putting the lectures together. It was our pleasure you know. As I, as I mentioned in the course, there's you know, there's so few addiction professionals, you guys are joining a small group that is really doing good work and it's, I look forward to meeting you all at the meetings and in an ongoing way and and yeah, even though the test is coming and these courses are ending, always feel free to reach out for anything. You know, I think once, once you're in it, you're in it together to tackle this so...

40:31

So there was a question about the MOTHER study if we can... it's about buprenorphine and let me see if I can get a link, link to it for you. It's one of the all-time best- Maternal Opiate Treatment, Human

Experiment, Research approach... This is a summary of it. Let's see. So it's, I mean, there's been a lot of different stuff, but it's Maternal Opiate Treatment Human Experimental Research study. So, and I think I'll go over actually, because that almost always comes up. The... let's see if I can find the original one. Here it is. And it was in the New England Journal of Medicine. I'll put it in the chat. I don't know if...I'll send that just to Giulia.


41:35

I don't know how to send that to everybody. Can you do that? Can you forward that on?

41:38

Yes, I can.

41:39

For some reason I can't.

41:48

But the results were compare, comparing 131 neonates whose mothers were followed to the end of pregnancy, hm, according to the treatment, showed that, basically the people on buprenorphine compared to methadone showed significantly less morphine use, had significantly shorter hospital stay, and had a significant short duration of treatment for neonatal abstinence syndrome, basically showing that buprenorphine was safe during pregnancy, and perhaps has even better outcomes than, than methadone.

42:18

And you know, we're in the process now of modifying a lot of how we treat neonatal abstinence syndrome in the era of buprenorphine having less side effects on infants. And, you know, I'm working with a number of hospital systems that are no longer taking the infant to the ICU, which had been the standard for a very long time. But then you don't get the skin-to-skin and you know, we were a little too exaggerated in our worry about withdrawal. And so even though the the infants are mostly required to be in the hospital for five days still in a mother who uses opioids, allowing the skin-to-skin and not taking the child to the, to the NICU is has been a hopefully something that other hospitals adapt.

43:02

Do I recommend using two 21 milligram pat-, patch for patients that smoke one pack per day, or more than one pack per day? I do. I'm super aggressive. And the evidence, I mean the evidence all shows that people under, underdose, and it's a major reason people leave treatment, I feel is that they feel underdosed on nicotine. And so I will, if they're smoking one pack, more than one, certainly

if it's two packs per day, start with the two of the 21 if it's too much, you just, the next day, you just do 21. And I might do that, if I'm doing two patches, for two to four weeks, then go down to the 21, then the 14 and seven by month and then the last month have nothing off. And then I tend to try to get them to use less and less gum over the course of the month to sort of get out of that behavioral, behaviorally learned process of, of constantly taking something in your mouth, you know, and see if you can break some of that habit. That goes a long way but yeah, definitely I'm definitely prone to two 21 milligram patches. And patients will tell you if it's too much, I mean you get that headache, you feel a little nauseous as we sort of mentioned in one of the question stems, and so if you're overdosing they know, the patient will know right away and if you're underdosing they'll know. So I would really use the first days as as just a little bit of an experiment to see what where they settle.

44:37

Can you can, you link us to that naltrexone, acamprosate study you, you just referred to? Yeah, thanks.

44:57

Let's see here. So this is a commentary on it... Here we are. It was a JAMA article when it came out in 2006- a little old, although we haven't come up with any new meds for alcohol use disorder for any budding researchers. Giulia, I'm gonna send it to you to send on again because for some reason I'm not seeing that option to send it to everyone. But it was a monster study on... showed patients receiving medic, medical management with naltrexone CBI both fared better on drinking outcomes, whereas acamprosate showed no evidence of efficacy with or without. I think the CBI was combined behavioral intervention.

45:45

Basically, in our minds and in my clinical experience naltrexone was separated out as the sort of as as sort of the number one treatment for alcohol use disorder, and probably not on the test, but you know, there's... naltrexone is amazing. I mean, there's so many ways to use it, you can use it daily- 50 milligrams. You can use it in a targeted fashion. I'll put in the recent editorial I wrote in The American Journal of Psychiatry in the chat as well which which talks about using naltrexone in a targeted fashion especially in high risk groups to curb drinking especially for those who want to moderate. But so naltrexone you know, you can drink on it you drink less, you can if you're abstinent, decreases time to relapse in heavy drinking.

46:30

Acamprosate, it does look like it's it's effective if you drink on it. Acamprosate has the edge of being metabolized by the kidney, not the liver. But naltrexone really, really has won the game because it's really for all comers to treatment. And then disulfiram is good for people who want to be abstinent. You have to be motivated, because you get to build up the toxic metabolites of alcohol if you, if you drink on it. And yeah, so naltrexone is really our number one these days.

47:01

What about naltrexone plus acamprosate, any, any data?

47:06

This study showed that it wasn't more effective. But there has been, there's some small data that adding it can be effective. And it's not uncommon clinically for people that have struggled with both, who have struggled despite pharmacology and other interventions for me to add both together. Acamprosate also has the problems of, it's dosed three times a day. And the dose is 666. It's like an all time failure in marketing history to make the dose of acamprosate the mark of the beast. And so, you know, it just doesn't have the convenience that that naltrexone dosing has. And then, but you know, especially for people that have been in detox, have a degree of anxiety, you know, it's an NMDA antagonist and acamprosate can sort of smooth out some of the edges in a way that that can be helpful.

48:02

Zithromax came out, we thought that people wouldn't take it because they didn't think it was potent enough because you didn't have to take it that much.

48:09

Exactly. Similar, similar mind games there. The other thing I'll mention just in in our clinical wisdom about meds for alcohol use disorder is that if you are starting disulfiram or antabuse, it's it's it's sort of best in an antabuse contract, where you agree, where someone... because people don't take it. Like people see me on Tuesday say "Avery, I'm never drinking again, give me disulfiram, Game Over." And then when Friday comes around, you know, at five o'clock, they find themselves at a mandatory work event. They're like, oh, shoot, you know what, I haven't taken the disulfiram from since Tuesday. And by six o'clock, they're 10 drinks in, and it's sort of the best time of the day for the neurobiology of addiction. That on Tuesday, they really didn't want to drink and wanted to take disulfiram but the whole, the brain and the world conspires against you to put you in a spot a couple days later that you have no choice but to drink. And so disulfiram as I've used it and it has some of the best outcomes in addiction is that every day you take it in a supervised fashion and often with the antabuse or disulfiram contract, where you say I agree not to drink today. I'll take disulfiram and you have someone in your life- significant other, parent, whomever say. "Thanks for doing that we're in it together." And so what that does is it creates this ritual where you take it every day and reinforces taking it but also repairs problematic family dynamics that have revolved around drinking.

49:26

And then what... I'll mention one of my first patients- this is now a dozen years ago in fellowship- I still treat today was alcohol to cocaine. He was doing all sorts of other behaviors. He was a quote unquote "frequent flyer" at the hospital, failed rehab, a bunch of other things. We got him on antabuse first supervised by his father, who also had a drinking problem and he'd say "I agree not to drink today or take alcohol." And the father would say. "Thanks for doing that. I'm sorry how my drinking impacted

your life." And then eventually his girlfriend took it over who's now his wife and now he's 10 years in recovery. You know, super sweetheart. He was just in the middle of a terrible addiction. And while a lot of other 12 step and group therapies didn't work for him, just being on that contract of disulfiram was really, really effective. So as much as I've written about naltrexone and it's the first line, if you do get someone in the right family environment who's really motivated on disulfiram that can be a real game changer.

50:21

Would you ever use those together- naltrexone and disulfiram? I know they're both...

50:27

Both metabolized by the liver, but I do. You know, especially if they've got a lot of craving. I'm adding the naltrexone, I might, if they're really solid on the antabuse use, and I might exit from the naltrexone earlier than I would otherwise, if they don't have cravings anymore. You know, if they get through that first couple of months, and they're feeling pretty solid, and they're still taking the antabuse, I think the naltrexone is just adding some liver burden, but, but they're both super safe, really. And we tend to think naltrexone should be in the drinking water from the weight loss to evidence for all sorts of other addictive behaviors. So...

51:09

Any, any evidence of naltrexone and benzos? Has anybody done that?

51:17

I'm not sure. Not that I know of. Yeah. Benzos, benzo use disorder needs a lot more interventions. And it's one of the toughest substances to exit people from. But no, we don't talk too much about meds other than just to taper playing off it to help. I wonder about naltrexone. I'm not sure.

51:49

We've got about five more minutes for any final questions that have come up.

52:01

In the meantime, Dr. Avery, any last tips that you have for folks going into the exam potentially next week?

52:09

I have the feeling this group here has got it. Like if you're here, if you're here on week 11. And you've

really been studying you should go in pretty confident that you're gonna, you're gonna do well. And and, yeah, we just ride that confidence to a good, good test score. It's, you know, you always... I left feeling "Did I pass this?" and there's there's always some tricky ones. But I think you'll have a good base, and you should feel good for having taken this course.

52:50

Thank you. Alright, maybe we'll wrap up.

52:55

How come they don't have the exam twice a year? It's only once a year. I'm just curious.

53:01

They should have it all the time as far as I'm concerned. What are they doing? They're always making these things hard and annoying. I agree. If I was in charge of it, it would be, yeah, it would be free and online.

53:12

We can write a petition to make it on a rolling basis.

53:18

Yeah, we should because you know, you have to wait. People have to wait a whole year, because it's only offered in the fall. And it's was it $2,000 too. It's twice as much as I paid for family medicine.

53:34

Also, if it puts anybody's mind at ease, the pass rate for the past two years have been above 80%. So as Dr. Avery said, if you've been here for this whole time, and you've been studying week after week, you are most most definitely in a really good place to take this exam. All right, any closing words Dr. Avery?

53:58

Just go get them. Thanks for, thanks for coming and taking the course and again, always feel free to reach out for anything.

54:05

Thanks, everyone. I would say we'll see you next week but I will not. So good luck on your exams and I will hope to hear back from you with certifications and specialties in your names. All right. Thank you everyone. Have a good rest of your day.