Please stand by for realtime captions. >>> Thank you so much for joining the session before the begin the presentation we wanted to commit to review today's platform point on the right-hand side of your screen, LC our engagement zone there are four icons at the bottom that you will need to be familiar with to make the most of your virtual experience. First, is Q and A, this is where you will submit questions for the presenters. Send in the questions that session, and presentable tabletop response. He will also be able to upload vote the questions that your fellow attendees submit point next, is pulled from the presenters will use multiple-choice questions to test your knowledge on key concepts, third, is reactive this is a fun way to let presenters know how they are doing could last as health combat officer troubleshooting tips, and technological issues during the session. If your screen freezes at any point during the presentation, please don't panic, just press F 5 on a PC to refresh your connection. If you continue to have connection issues feel free to submit your issue under the Q&A tab on the right, or email education at ASAM.org. Now onto our presentation.

This presentation it is titled pain and addiction past present and future treatment could I will now pass it off to Dr. Edwin A Salsitz for the session.

Thank you so much and good morning to everyone. My name is Dr. Edwin A Salsitz. Five work at the Mountainside nine Israel Medical Center in New York City. I have no financial disclosures. The principles of addiction that is in both the sixth edition and the fifth edition have very comprehensive and good chapters on this topic of pain and addiction and they are up to date. We providers have been struggling for a long time trying to balance treating pain correctly, using opioids correctly, and avoiding addiction, misuse of the opioids, and it's really been a juggling act, and sometimes we have done fairly well, and other times we haven't done very well at all. And we will go through why this all is as we go along.

So we will start with the epidemic of untreated pain. In 2012, the New England Journal of Medicine published an article from the Institute of medicine with a reported approximately a third of Americans have chronic pain . Pain which persists from weeks to years. They pointed out that this was a relatively expensive proposition, that some physicians were overprescribing opioids while others were refusing to prescribe opioids, and they acknowledge that there was a lack of education on the part of the providers, on the part of patients, and that they focused mostly on chronic noncancer pain is the issue in terms of pain which was not being treated adequately. So, for those of you who are a little bit older, you will remember that we had a prescription opioid epidemic. Which began in the 1990s, and really got started the more forcefully in the first decade of the century. And here you can see from 1999 to 2010, that there was a quadrupling of sales or prescription opioids, a quadrupling of overdose deaths related to prescription opioids, and a quadrupling of pavements's submitted for opioid use disorder involving this prescription opioids, here is a slide from 2010, so little bit old but makes a really good point, the yellow circles represent the amount of description opioids being prescribed, in that state, per 10,000. The darker the color of the state the higher the opioid overdose rate. You can see with some

exceptions that the more opioids prescribed in a state, the darker the color the state. Particularly Appalachia. And this is a region of the country that has been hard-hit, only with the prescription opioid epidemic but with the ongoing heroin and Fentanyl opioid epidemic as well. Let me bring things to the current situation up to 2019, and we have had four waves of opioid -related overdose deaths the other one we briefly discussed and that was prescription opioids, and you can see that if anything has been going down over the last few years, the second wave was heroin which started in about 2010 and increased dramatically for a while, and now also is decreasing. The third wave which we are currently in is the central wave. The Fentanyl, and the fentanyl analogs, and I know you all know about this and this may overlap, the lecture on opioids that was given earlier during the course, and the fourth wave is being called the cocaine and methamphetamine wave, and often these drugs are contaminated with Fentanyl resulting in increasing overdose deaths. The prescription opioid epidemic led to something very dramatic occurring in the United States. That is a decrease in expected life expectancy. And so, in this article that was published in 2018, the expectancy in America, I fixed the team was 78.7 years. Whereas in a number of countries, in this organization for economic cooperation and development, it was a higher life expectancy. You may remember that these tests were termed depths of despair and they were primarily related to opioid overdose deaths, deaths related to alcohol use disorder, and also suicides. This had to do with the changing of employment situation, and the Appalachia region, and these depths of despair have continued, and the life expectancy has even become lower, due to the COBIT epidemic that we have been in for the last year and a half. This is looking at the amount of opioids being prescribed per million inhabitants, looking at all different countries. Here is the United States, that is 50,000. So, we are clearly an outlier in terms of being opioids being prescribed. Other countries, and Western European countries and others prescribing. The questions has always been asked is why are we an outlier, and there is no good one answer, and people have said that in America, we demanded not have any pain at all. So any pain had to be treated, and therefore opioids being overprescribed. A very negative part of the story is that in some countries, particularly in countries like Haiti and Nigeria. And part of that opioid phobia is based on what has happened in the United States with the prescription opioid epidemic. So, some of these countries have very few opioids available, even for end-of-life care for cancer pain. In many patients are not being treated appropriately, because the governments are concerned that they don't want what happened in the United States with prescription opioids to cut occur in the other countries. So that certainly is a negative consequence of what happened in the U.S. There was a time when we were saying in the 1990s or 2000 and 95% of the hydrocodone produced in the world was consumed in the United States. How did we get here, how do we get to being in the situation. Many people point to this article that was published in 1980 in the New England Journal of Medicine. These two authors examined about 40,000 hospitalized patient charts they found that in about 12,000 and about a quarter of them patients had received in opioid, or what they called a narcotic. They looked at those 12,000 patients, and they said leaf were developed what we would call an addiction and most of those cases were very mild. Now again, this was in hospitalized patients, only getting a few doses of opioids, while they were hospitalized. And, what happened

after this paper was pump rushed, is that people misinterpreted this to say, that the rate of addiction after being given opioids prescription opioids, was very low. So between 1980 and 2017 there were 608 citations of this one letter to the New England Journal of Medicine. And 75% of the citation used the letters as evidence that the addiction is rare with chronic opioid therapy, made no mention that these were hospitalized patients with only a few doses of opioids. The other letters that were published in 1980, had an average of 11 citations. And in the study that was done in 2017, they went back and they looked at the citations. And in these boxes the dark blue means that the letter was cited in an affirmation all manner to affirm that the addiction was very rare. And you can see through this whole opioid prescription opioid epidemic. There was citation after citation a study to show that you don't have to worry about the addiction because the rates are low, and of course the start of the change, as people realized what was happening with the opioid epidemic so, that was part of the perfect storm. The other parts of the perfect storm, was the introduction of OxyContin. Some of you may have watched the two-part HBO series the crime of the century, if you haven't watched it I recommend you go back to HBO and look at it. And what happened on the epidemic, typically involving OxyContin situation. Pain became a fifth vital sign, on a score of eight, and be addressed somehow, there were many publications hello wrists of addiction. In some studies they were claiming that two or 3% of patients developed the addiction. Probably was at the time, many were high-level academics. Were all proposing that using chronic opioid therapy for chronic noncancer pain was a reasonable option therapeutically. What was not really known was the extent of financial form of conflicts that many of these leaders had. You may remember that patient satisfaction surveys came out around this time. There were four questions involving how to deal with your pain. There were articles describing that some providers salaries were based on the satisfaction surveys and the war opioid subscribe to the patient's better with the satisfaction surveys, so there was an issue I was also driving the opioid epidemic. Some patients and some physicians I'm sorry were successfully sued for not treating pain aggressively enough. And during all this time, there was really no evidence of long-term effectiveness of chronic opioid therapy for chronic noncancer pain and people make distinction between physical dependence on opioid versus addict which is a valid distinction. But the point was made that if you had risk for addiction and you were simply physically dependent, that it would be very easy to stop the opioids, taper off, and everything would be okay after that. And that didn't turn out to be true, and I will show you that a little bit later. So, here is an article, 20 years ago about a doctor who was successfully sued and the family was ordered $1.5 million, which was reduced to 200 50,000. Because, the doctor did not treat cancer pain aggressively and approved really. And then we go 20 years later, and we have a doctor who was imprisoned for 40 years because of the large number of opioids he was prescribing and he had a couple of overdosed that's in his practice. So, the pendulum has certainly swung. And here is an HORTON article a few of them at the time that concluded 16% of Americans who have mental health disorders received over half of the opioids described in the United States. And what this has been termed as adverse selection. By Mark Sutherland from Seattle Washington. In other words, the people most likely to misuse their prescription opioids with the very population who were getting most of the prescriptions. And some

of the known risk factors for any history of addiction, and a family history of addiction, any history of psychiatric or psychological problem including family members younger age, those are some of the high risk groups in terms of his choosing prescription opioids. Which of the following is not a factor for prescription opioid use. This is our first polling question. And I will read the possible choices. Tobacco use disorder, history of depression. Marital status. Family member with alcohol use disorder. So why don't you go ahead and vote how. And I will give you a few minutes to decide on which choice you are looking for. And the correct answer for this question is marital status. That has never been shown to be a risk factor. Tobacco use disorder is an addiction. So that fits into any history of addiction. History of depression, psychiatric problem, and a family member with an alcohol use disorder. The other three are risk pack there's opioids. Putting that together in terms of how did we get here, this is a repeat of an earlier slide that I showed, but now that of looking at patients, I am looking at prescribed, turns out that many of us were vulnerable. To that perfect storm. And so we did prescribe a lot of prescription opioids for chronic noncancer pain, and that didn't turn out to be a very good choice to do. A couple of words on benzodiazepines even though we are talking mainly about opioids talking about painting and diction. Looking at the deaths involving benzodiazepines, it's mostly in the context of with opioids. Combination of benzodiazepines even though they are complicated drugs to use and cause problems like very serious withdrawal syndromes, they usually on their own do not cause overdosed deaths. So again it's the opioids that are really the problem, however, the FDA put out two warnings this one in 2016, put a black box of both opioids and benzodiazepines. And the use with benzodiazepines, or other depressants like alcohol, and they basically advised to try not to use the combination, and if you had to, to do it very deliberately and very carefully and very judiciously. A year after this advisory, came in at Pfizer again dealing with benzodiazepines and opioids. This one was directed at the treatment of opioid use disorder. Herewith the FDA said it was based on our additional review, the FDA is advising that the opioid addiction medications should not be withheld from patients taking benzos, or other drugs depress the CNS for opioid use disorder there saying the risk of ongoing opioid use disorder poses a greater risk to the patient and starting either method on, even the in the context of a benzo diazepam use disorder. So what were the intended and on and and and consequences in reaction to the prescription opioid epidemic, first we have the establishment of a prescription drug monitoring programs. It's difficult to imagine practicing medicine without them but they've only been around for about 7 to 10 years in many states. Then there have been limits placed on the quantity and the dosage of opioids prescribed, particularly in the ED is, in New York State, ED's are not allowed to prescribe within a three-day supply of opioids. Urine drug tests became the standard of care, where they had not been there was a major initiative the courses were developed many states now require on pain and addiction in order to be relicensed every two or three years. It sucks but the CDC guidelines in a moment. Pharmaceutical companies have tamper-resistant forms of opioids with Chad both positive and negative effects, and one of the unintended consequences that many prescribers decided to stop prescribing, and that left patients were physically dependent on opioids, left them in the lurch with withdrawal, without the prescription

opioids, and heroin, was cheaper and readily available at that time, this is 2010. And that segued into Fentanyl, and the fentanyl analogs. And everything that's happened since then. So, here's a good example of the plus and minuses with the formulations. As you know, OxyContin in the original version was crushable and could be injected and could be sniffed. That led to a lot of misuse of OxyContin particularly in the highest coaches in the 40 to 80 milligram for you relations. So in 2010 OxyContin became tamper-resistant. You can no longer crush it up, and inject it or sniff it. And so many users decreased their use of OxyContin. But, when they were asked what did they substitute for the OxyContin, they all said heroin. And this was when the spike in heroin started to occur in 2010. When OxyContin became tamper-resistant. Here is our second polling question. Which of the following statements are consistent with the CDC guidelines for prescribing opioids, for chronic pain, which were published in 2016. Letter a nonpharmacologic therapies should be first-line treatment. B when initiating opioid therapy, immediate release opioids should be prescribed, not extended release long acting opioids. C for acute pain, limit opioid treatment duration to 7 days. And D, is all of the above. And why don't you start voting right now. Give you a few minutes to do the polling question. And, I'm thinking all of you knew that the answer was lettered D. This is kind of an educational question. Going through some of the recommendations of the CDC guidelines. So, D all of the above is the correct answer. And, here's a summary, of the CDC guidelines. The slide begins with the different types of evidence type 1 through 4 protect what is the best evidence type IV is the weakest evidence. And here are the beginning recommendations, so nonpharmacologic non-opioid therapy is preferred. Then again type III not great evidence. Establish realistic treatment goals it became clear that people with chronic pain, were not going to be pain free. That we were going to help them lessen their chronic pain, and hopefully improve their function which was going to be the goal of treating chronic pain. Start with immediate release opioids, not the long acting opioids, because they don't have as much of the opioid in them they have the long acting is the lowest effective dose, and here they said try to stay at 50 morphine milligram equivalents, and don't go over 90. So these are not large doses. Not based on great evidence, we will come back to how this had unintended consequences. From many patients who are doing well on higher doses, then these morphine milligram equivalents. Here the dosage restrictions, acute pain, usually less than three days really more than seven days. Again not great evidence. Is the prescription drug monitoring programs, do urine drug screens even though the evidence is not strong. The only recommendation that had type II evidence, was to offer substance use disorder treatment for patients who developed a substance and opioid use disorder. Many papers of this nature were published, and in a way they are hard to believe. But in this paper they looked at any initial visit to the ED, for some sort of acute pain, and they looked at the morphine milligram equivalents described on that initial visit. And, as the morphine milligram equivalents prescribed on the initial visit increases. In other words getting more of the opioids rather than less at the end of the year, the persistence of opioid use or developing a opioid use disorder was directly correlated to the amount of opioids given initially. And against it is like this have been replicated, and soberly, the key thing here is to use a lot of opioids initially. Limit to the amount because you probably don't need more than a couple of days worth

in treating most forms of acute pain. So all of these efforts to decrease prescription opioid prescribing worked very well. As a dramatic decrease on opioids prescribed, dramatic increase on the east, and dramatic increase physician education. So, you could say that was a real positive outcome of all of those efforts. The only problem is that total opioid overdose deaths have continued to rise, and if you are following the literature, they have continued to rise year after year including in 2020. And I think total overdose deaths now are over 80,000. And usually about two thirds of those, or three quarters are opioid use death. While prescriptions are going down. So, the answer is that heroin and fentanyl have replaced the prescription opioids, is the leading cause of opioid overdose deaths. And many of the people who were using heroin and fentanyl, previously on prescription opioids. 80% of people a number of years ago used heroin said they had started with prescription opioids, and so, many folks feel like better preparations could be better made to transition the prescription opioid patients to more harm reduction program with heroin and fentanyl. With the prescription opioids. Back to the CDC guidelines start with nonpharmacologic therapy, and here is a list of nonpharmacologic therapy all of which has evidence of effect of newsprint a few weeks ago I had my left hip replaced and I was actually very surprised about how effective this cooling pad was. I never would've thought it was that defective, had I not had my own personal experience. So --Certainly cooling pad can be used. I know that you all know going back to the slide, that even though these may be effective treatments, they are hard to access, insurance companies often don't pay for them. So yes they are effective and yes they are the recommendation but they are not easy to operationalize. So the next option after that is non-opioid pharmacotherapy, before you get to the opioids, if you need to opioids, and here we have acetaminophen. The problem with acetaminophen, some studies don't show much effectiveness, and this would usually be for nociceptive pain, with a lot of adverse effects, and they are particularly difficult elderly people who are more susceptible, to some of these adverse effects, antidepressants. For neuropathic pain, a new category of pain and an example of that is fibromyalgia due to the nervous system and also for people presenting with pain and depression. And that's why duloxetine was developed. 50% of people with pain have depression 50% of people with depression have pain. Then we have anticonvulsants, the gabapentin, used extensively now I will have a slide on that so, neuropathic pain, migraine prophylaxis, the topical's that can be very useful, lidocaine patches, capsaicin, I put muscle relaxants", because I don't think we really know exactly how they work except they seem to be sedating, and have some sort of mechanism of act in. But they do have some evidence of effect to bless. We want to avoid benzodiazepines, which is scheduled for medications with misuse potential. Many now are using ketamine when people are coming in with acute pain, and that's an option if you feel comfortable using that. And interventional procedures epidurals, nerve blocks, neuromodulation. I put a slide in here for anyone interested in the neuromodulation, and the different techniques that are available now. It's from a recent publication. I think the spinal cord stimulation has the most evidence, some of these other techniques don't have really good evidence. I think that the transcranial magnetic stimulation also has reasonable evidence, more than the others. But anyway this is an up and coming area of pain treatment. A couple of words about the gabapentin weights, about 90% of

the prescribing of gabapentin, and pregabalin is off label with very little evidence for the off label effect this. We are all trying to avoid opioids and benzos, and that is why I think we are reaching and there is sick if they can't misuse of these gabapentin weights, particularly in people with and opioid use disorder or on meth and on, they are saying it boosts the effect of the opioid. And this reminds me a little bit of the view printer morphine situation. I'm sorry, the benzodiazepine situation point to that scenario. I think a lot of people don't realize is even with therapeutic choices --Doses there can be significant adverse effect. Dizziness, and it sounds like a very safe drug, but it does come with its own adverse effects. Just importantly you have to look at renal function and adjust the dose. Although these drugs are not metabolized by the liver, they are really excreted, and the people who had the worst adverse effects are the people who have compromised renal function. Death is uncommon, but increased in combination with opioids, there are a couple of nice studies showing that his true with gabapentin and opioids, and also with pregabalin. Pregabalin is scheduled, so it's on the PDM peas. Some states have put it on there, and again, I think whether it's being misused a lot in the United States, if you find is being misused in your community you might want to add gabapentin to your routine drug screen spread so now we get to opioid pharmacotherapy, either in addition to the non-opioid, or instead of, and really acute pain postoperative pain with a duration with a problem using opioids for cancer pain, and hospice and end-of-life care come here I think in addition to any physical pain, I think the opioids are also relieving existential pain, or suffering which they are uniquely able to do. The problem has been and continues to be the use of chronic opioid therapy, for chronic noncancer pain. Is it effective, is there any evidence that, what about safety, we know what happened with the whole opioid epidemic, and adverse effects. And the immediate release versus the extended release. There was an article published eight years ago, and it says long-term opioid treatment of nonmalignant pain and proven efficacy neglect and safety, no high-quality evidence on the efficacy no randomized trials lasting more than three months. This addiction was often neglected in the articles that were published. And I can tell you because I used to keep up with this literature that there were articles published from academic medical centers by well-known thought leaders. And they quoted a rate of opioid addiction, or disorder from 3 to 5% on chronic opioid therapy, and that just wasn't true. The reason that they thought that is that many times urines weren't being done, people getting prescriptions and coming in every month, they weren't having to engage in some of the criteria, for an opioid use disorder like spending a lot of money, missing functions because of running around and getting the opioids. So, it was kind of fly, it was under the radar, but I think a more realistic rate is in the 30 to 40% range in terms of having significant problems with chronic opioid therapy for chronic noncancer pain. And here is a systemic review, that was done by a noted researcher for NIH in terms of what is the effectiveness of these chronic opioids, for chronic noncancer pain. Evidence is insufficient to determine the effectiveness for improving chronic pain and function a dose-dependent risk for serious harms print so again, there you have it come this was published in 2015. But while that epidemic, the prescription opioid epidemic was going along, in the first decade. Think a lot of us didn't know that the evidence wasn't there. Though the evidence was, so another way that this was approached

as okay, people can get into trouble with the opioids, but we have screening tools, and you can assess how vulnerable somebody is, to the risk of opioids comes of someone --Something called the opioid risk tool, and other screening tools before you started treatment, monitoring while they are on treatment, and just general tools like the cage part it turns out that even though some of them were validated, they weren't really that useful, and an editorial came out, and one of the journals, and said it not up matter of risky patients, is that the opioids are inherently risky for everyone. And everyone is potentially vulnerable to the risky adverse effects. However, if you are going to initiate therapy, the guidelines say, think of it as a therapeutic trial, just because you are starting doesn't mean you're going to continue for three months. We are looking for funk general improvement. We are not looking for the pain score to go from 8 and 6. And have a patient have known improve function, going back to work, doing more household work, going to school etc. And we want to monitor in some way, for problematic behavior and diversion. I'm just going to very briefly talk about opioid rotation only because I think it could come up. And what opioid was about, they are not really improving, maybe another opioid, would work better at a lower dose, so I'm going to switch from OxyContin to hydromorphone. But in order to do that I need an equally handled table that will tell me what 80 milligrams of OxyContin equals in terms of hydromorphone. And then I'm going to account for what is called incomplete cross tolerance, and I'm going to reduce the initial dose of hydromorphone for 25% to 50% depending on the age of the patient a number of other drugs they are taking, and their overall constitutional status. This is a very big topic in the heyday of prescription opioids, so I am including it for the sake of completion I don't think it's a big topic any longer. What's important to know is that methadone when used for pain, we do not use tables. They are not helpful, and they are very misleading. Methadone is a good drug effect of, but you have to know how to use it, it's a risky drug and if not used properly, it was a major cause of overdose deaths in terms of the prescription opioids. So that's all I want to say about opioid rotation. Again, I don't think it's going to be important any longer right now. But I wanted you to know about it. So if you do start opioids, you have to have some plan for tapering them off. And you've got the land that opioid plane, and apparently the student this aviation school was not able to perform that maneuver successfully. So, opioid tapering, or new term being used in prescribing, it really depends on whether patient agrees to it, if they do, it generally goes pretty well, either getting them off completely, or reducing the dose substantially, if they still have pain, what alternative treatments will they use, if you are comfortable, you can switch to methanol on, and then taper them down from that. Symptomatic meds from withdrawal problems, and motion patients who have been on long-term opioids who get off of them say they feel better off and on, and even if they reduce the dose they feel better. So, this is looking at what happened, in terms of an onion tended consequence. When the CDC guidelines came out, many providers that I can no longer risk of opioids, to the 50 or 90 working milligrams equivalents, even in people who were doing well, had no problematic behavior and had functional improvement. So, the health and human resources system organization came out in October of 2019, it said don't misinterpret the CDC guidelines. It doesn't mean that you have to discontinue opioids, reduce the dose. If people are doing well above 90 working milligrams equivalents, keep

going, keep doing the monitoring. And whatever you do avoid dismissing patients from care. So this clarification is important because many people just that I'm going to stop, I don't want to deal with it any longer. Universal precautions are kind of a no-brainer. I will let you read this at your leisure. But the drug testing is very important, if you are treating pain, and here's the reason why it's very important for this is the study for almost 1 million urine drug toxicology's that were done in 2009. Pain practices sent urine to this lab, just listing the drugs the patient was on for pain. And what was found in the study was that over 10% of people had illicit drugs like cocaine and heroin in the urine. About 30% had nonprescribed medications, and most alarming almost 40% of patients did not have the medication in which was prescribed, which means that they were diverting the medication. It's not been done routinely in practices, you are not going to know that this was going on, and you are not going to think everything is going along okay when it actually isn't. You need to know about the metabolism so our describing it to somebody and shows, you need to know that that is a metabolite of oxycodone and doesn't necessarily mean anything problematic is occurring. One or two slides on cannabis, it's a difficult area. There are no absolute conclusions yet, as you know many states have legalized marijuana. And certainly many states have medicinal marijuana, all the states in green, are either legal or medicinal prince of this is becoming a non-issue in this sense, as the drug comes legalized. But is cannabis, and are they useful or effective for pain, and what I did was I took a quote out of the national Academy of medicine monograph, it's as adults with chronic pain, patients were treated with cannabis, are more likely to experience a clinically significant reduction. But here it says for these conditions, the effects are modest. As I read the literature, there still no really good convincing evidence on the use of cannabis. It's also hard to tell what formulation people are using, what is the ratio between THC and CBD. So I think this is still kind of an up in the air, area. What is a problem is many states are included opioid use disorder is one of the disorders eligible for medicinal cannabis and again I don't think there is any good evidence to show that cannabis is a good treatment for opioid use disorder. Prescription drug monitoring programs, you need to know particularly is from methadone, and morphine are not listed here. They have shown evidence of decreased opioid overdose deaths by using them. Many of the prescriptions that people are given postoperatively for opioids, about 80% are never used, and go back to let's limit the quantity we give people, and another important concept that has come along is how do you get rid of opioids you don't use, sometimes the DEA has taken back programs, you either flush them down the toilet or a Maximo something like cat litter, seal them up and throw them out in the trash, don't throw them out of the bottle with the label on it, deface that somehow, fentanyl patches have to be flushed down the toilet after they are folded up. And always cold prescribe the locks and with any opioids that are being prescribed. Want to come to the end of my talk and discuss this intersection between chronic opioids, chronic pain and addiction, and I really think that we have a particular expertise of this complicated intersection. Both pain and addiction are viewed as multidimensional problems, involving emotional psychological behavioral, spiritual components, they read almost identically in the environment genetics for their both complicated it's not just the physical pain, it's what is the effect of response to the physical pain, and his addiction,

it's also kind of complicated. This is a slide put together by Anna Nicole come show the similarities between some of the comorbidities with fibromyalgia case, or patients puts --With opioid use disorder many of these issues occur in both populations. The other similarities as they don't have good objective measurements even in addiction or pain we have for hypertension, or for diabetes. And somebody takes in opioids systemically like a tablet, it's going to many different opioid receptors in the brain. We hope that it's getting into the gray area, which is observing analgesia, but it's also going into the limbic system, and the reward circuitry which you heard about earlier, and the people who are vulnerable are going to feel that something special, has just come into their brain, when they take that oxycodone. Again, if they are vulnerable. The opioids also interact with in Hemet and that is why and opioid withdrawal, is a surge of norepinephrine coming out. So, I call it the exaggerated response, whereas my patients, what did it feel like the first few times, and these are the responses, I'd either embellish or change them in any way, imagine if you took in oxycodone because you had a dental extraction. You said I forgot about all of the abuse like the world was at peace per that's your vulnerability. So if you like and opioid, you are vulnerable, to and opioid use disorder. The majority of people feel dizzy, get nauseous. And don't like and opioid. The other thing I found is that almost everyone, with an opioid use disorder says initially they were energized, of course this all doesn't continue as the use disorder progresses. But initially. These are the answers that I get. And another difficult area is what about treating pain, and the addicted patient. Because patients with addiction to have pain, and it is a very challenging situation using universal precautions, and here is the, here's the trick. Or here's the problem, if you decide not to treat the pain, particularly in somebody with opioid use disorder that is going to be a reason to use what ever illicit opioids they are using, or start using illicit opioids, and sometimes get to treat both for the pain and addiction, if you have significant others, they can be very helpful, if you do use opioids, and dispensing them. Usually this kind of situation the disciplinary program would be advantageous. Hard to operationalize the far and few between, they don't cover them. We want to always be on the lookout for problematic behavior. This whole concept has come under criticism as well, this idea that some problematic behaviors are more predictive of misuse, some is less, this is all gone now, although was very important in 1998. Any problematic behavior, should be looked into, there can often be reasonable reasons for it, it's not a reason to fire a patient from your practice. This is the last polling question. It's about methadone. All of the following statements about about methadone, are correct except. So we are looking for the incorrect statement. Matignon may be prescribed for pain treatment. The analgesic effect of methadone last longer than the respiratory depressant effect. Matignon may not be prescribed for the opioid treatment disorder. Equally analgesic dose tables should not be used. Again we are looking for the incorrect answer. Why don't you start the polling response now. Okay, and the answer to this question is B. It's the opposite. The respiratory depressant effect, lasts considerably longer than the analgesic effect. And that is how people get into trouble with methadone described --Prescribed for pain. They take another pill, another pill and that respiratory depressant effect is building up and eventually it overcomes their tolerance, and they have a methadone overdose death. Methadone can be prescribed if you

have a DEA registration for pain treatment, however cannot be prescribed with the treatment of opioid use disorder, that can only happen in a federally recognized methadone treatment program called opioid treatment programs. And as I said even the opioid rotation is not common any longer, the tables don't work for methadone, you always start low and go slow if you're going to use methadone for pain. You know about the FDA approved formulations for the treatment of opioid use disorder, the sublingual tablets, and film appeared you know about the new parental subcutaneous formulation once a week, there is another company coming out with them monthly, weekly pretty soon. These are approved for moderate to severe opiate use disorder. They can be used off label, to treat pain as well. And there is evidence for treating both, a couple of good citizen have been done over the years. Treating both opioid use disorder, and pain, with off label use of these preparations. However, there are also three formulations approved for the treatment of pain. There's the parental which has been around for 30 years. There is the newer 7 day transdermal formulation. And there is the buccal film appeared these are approved for pain but not for opioid use disorder. So it seems to me, if you are treating pain, you should use one of these on label formulations, as you know, before no pain, it's safer than a full agonist, it has a great safety profile, and these formulations are effect for the treatment of pain. So, a couple of key things physical dependence is not necessarily equal addiction, that is very important to understand because some people come in and the pain doctor may think the patient has become addictive, and after your evaluation you may think you know they are not really addicted, but they have his physical dependence, and it's complicated. And Dr. Valentine and others have turned the situation is complex's prescription opioid dependence meaning that they are on this prescription opioid they don't want to be on up there having trouble with drawing, every time they withdraw, they have unpleasant signs and symptoms. And, it's not really an addiction, it's this complex physical dependence. Hopefully you can help them with that that's what I meant. The behavior does not necessarily equal it addiction. Look into it. Chronic pain does not necessarily equal suffering. I think it's the people suffering with chronic pain, who are the most complicated patients to deal with. And so we petted evolution of opioid prescribing, opioid phobia, and we went to opioid philia, and now I think we are just opioid cautious but doing very deliberately, very cautiously. And have great certainty to hear another person to have pain is to have doubt, and that is so true, it's very unfortunate, physical pain does not simply resist language, actively destroys it. Morphine is God's own medicine because it relieves suffering. So, we can't live without opioid, we have to learn to live with him. This is my car, that is my license plate, I am all in, if you are not a member please consider joining it's a great organization and good luck on the exam, and thank you, and we will be happy to discuss the questions in a moment. Thank you. [Music] [Event Concluded]