# THE CARLAT REPORT ADDICTION TREATMENT A CE/CME Publication

## **CURRENT COVERAGE OF TOPICS IN ADDICTION MEDICINE**

## Kirk Brower, MD Editor-in-Chief

Volume 6, Number 1 January/February 2018 www.carlataddictiontreatment.com

## IN THIS ISSUE

Focus of the Month: Stigma and Addiction

\_ 1

- 1

2

- 6

7

With

the Expert

- New Study Shows That Vivitrol Is Just as Effective as Suboxone...But Not Really
- Expert Q&A: John F. Kelly, PhD Helping Patients With Stigma and Addiction
- Prescribing Gabapentin for 3 Substance Use Disorders
- Research Updates: —
   Interventions for Treatment or Prevention of Alcohol Hangover: Systematic Review
  - Neurostimulation for Opioid Withdrawal Symptoms
- CME Test

#### **Learning Objectives**

After reading these articles, you should be able to:

**1.** Determine the most effective ways to work with patients to reduce the stigma associated with substance use disorder.

**2.** Identify the benefits and drawbacks of using either Vivitrol or Suboxone for patients with opioid use disorder.

**3.** Describe the conditions under which gabapentin can be safely considered for patients with active or recent substance use disorder.

**4.** Summarize some of the current findings in the literature regarding addiction treatment.

## New Study Shows That Vivitrol Is Just as Effective as Suboxone...But Not Really

recent study in *The Lancet* appears to conclude that Vivitrol (extended release naltrexone) and Suboxone (buprenorphine/naloxone) are equally effective treatments for patients with opioid use disorders (Lee JD et al, *The Lancet* 2018;391(10118):309–318)—at least this is how the study has generally been reported. But a deeper dive into the study reveals some nuances to the results that are crucial to understand before you decide which treatment is best for your patients.

In the multi-site open-label study, which was funded by NIDA (the National Institute on Drug Abuse), 570 adults with opioid use disorder were recruited from eight large U.S. community \_\_\_\_\_\_ Continued on page 2

#### In Summary

- A recent study showed that Vivitrol can be as effective as Suboxone for certain opioid use disorder patients.
- A higher cost and a required complete opioid withdrawal detox regimen may make Vivitrol a less appealing option for some patients.
- The decision about which treatment to use should be a judgment call.

## Helping Patients With Stigma and Addiction John F. Kelly, PhD

Dr. Kelly is the Elizabeth R. Spallin Associate Professor of Psychiatry in Addiction Medicine, Harvard Medical School. He is also founder and director of the Recovery Research Institute, Massachusetts General Hospital.

Dr. Kelly has disclosed that he has no relevant financial or other interests in any commercial companies pertaining to this educational activity.

# CATR: To start, can you please tell us a little more about your work at Harvard and Mass General?

**Dr. Kelly:** Sure. I'm a clinical psychologist by training, and for the past 20 years, I have spent a lot of time researching the addiction treatment and recovery processes. I've looked at the effectiveness of different treatments, their mechanisms, and how we can improve treatments. Clinically, I see addiction clients, and I work with individuals and families suffering from substance use disorders and related conditions.



CATR: That's a lot of noteworthy experience, so I'm guessing you often deal with the issue of stigma and addiction, and how that affects our patients and their families. Can you tell us how you would define stigma and how it can affect people with addictions?

**Dr. Kelly:** Well, stigma is a condition that can be socially discrediting. When it comes to substance use disorders, internalized stigma can lead to feelings of shame. Often, people who suffer from addiction feel discriminated

Jan/Feb 2018

— Continued on page 4
PAGE 1

# THE CARLAT REPORT: ADDICTION TREATMENT-

New Study Shows That Vivitrol Is Just as Effective as Suboxone...But Not Really  $\,$  – Continued from page 1  $\,$ 

treatment programs. Most participants were unemployed white men on Medicaid, ages 25–45, and were primarily heroin users. All of them were undergoing or had completed inpatient opioid detox protocols at the time of recruitment. Participants were randomly assigned to either monthly Vivitrol injections (n = 283) or daily Suboxone sublingual films (n = 287). Before receiving their first Vivitrol injection, patients had to have opioid-negative urine and

#### EDITORIAL INFORMATION

Publisher: Daniel Carlat, MD

### Editor-in-Chief: Kirk Brower, MD

*Deputy Editor:* **Talia Puzantian, PharmD, BCPP,** associate professor at the Keck Graduate Institute School of Pharmacy in Claremont, CA.

Editorial Director: Bob Croce

Executive Editor: Janice Jutras

#### Editorial Contributors: Joy P. Alonzo, PharmD; Alyssa M. Peckham, PharmD

*Founding Editor:* **David A. Frenz, MD,** medical director of addiction medicine at HealthEast Care System in St. Paul, MN.

#### Editorial Board

**Gantt P. Galloway, PharmD**, senior scientist at the California Pacific Medical Center Research Institute in San Francisco, CA and executive and research director of New Leaf Treatment Center in Lafayette, CA.

Amy R. Krentzman, MSW, PhD, assistant professor at the University of Minnesota School of Social Work in St. Paul, MN.

**Travis M. Lajoie, DO,** psychiatrist at Southern Maine Health Care in Biddeford. ME.

**Joshua Sonkiss, MD**, chief medical officer at Anchorage Community Mental Health Services in Anchorage, AK.

Michael Weaver, MD, FASAM, professor and medical director at the Center for Neurobehavioral Research on Addictions at the University of Texas Medical School.

All editorial content is peer reviewed by the editorial board. Dr. Carlat, Dr. Alonzo, Dr. Peckham, Mr. Croce, Ms. Jutras, Dr. Brower, Dr. Frenz, Dr. Galloway, Dr. Krenztman, Dr. Lajoie, Dr. Puzantian, Dr. Sonkiss, and Dr. Weaver have disclosed that they have no relevant financial or other interests in any commercial companies pertaining to this educational activity. This CE/CME activity is intended for psychologists, social workers, psychiatrists, and other mental health professionals with an interest in the diagnosis and treatment of addictive disorders.

#### **Mailing Information**

*The Carlat Addiction Treatment Report* (ISSN 2473-4454) is published 8 times per year by Carlat Publishing, LLC; 29 Water Street, Newburyport, MA 01950. Application to mail at periodicals postage prices is pending at Newburyport, MA and additional mailing offices.

POSTMASTER: Send address changes to The Carlat Psychiatry Report, P.O. Box 626, Newburyport, MA 01950 a negative naloxone challenge (meaning no withdrawal symptoms after an intramuscular dose of naloxone); thereafter, they received injections monthly. Patients assigned to Suboxone were induced in the usual way (see *CATR* January 2015 for details on induction), were seen weekly or every other week in the clinic, and took their doses as outpatients. All patients were followed for 24 weeks, or to their relapse, whichever came sooner. The primary outcome was time to relapse, defined as 7 consecutive days of non-prescribed opioid use.

How did the groups compare in terms of relapse? It depends on which patients you look at. If you focus on only those patients who successfully completed each treatment, relapse rates were about the same—52% with Vivitrol and 55.6% with Suboxone. However, if you analyze the entire population (a so-called intent-to-treat analysis), Suboxone was more effective than Vivitrol, with a statistically lower relapse rate of 57% vs Vivitrol's 65%. The reason for the difference is that more Vivitrol patients dropped out of detox—28% of patients (79 of 283) dropped out before the first Vivitrol injection, while only 6% of patients (17 of 287) dropped out before Suboxone induction.

Why is Vivitrol detox so hard to tolerate? It's because patients must be opiate-free for at least a week before receiving Vivitrol, and this is a high hurdle for many addicted patients. Suboxone induction is much easier, since when opiate withdrawal signs are moderate, patients are allowed to take their first Suboxone doses.

PAGE 2

Vivitrol vs Suboxone: Key Facts		
	Vivitrol (extended release naltrexone)	Suboxone (buprenorphine/naloxone)
Mechanism of Action	Opioid antagonist	Partial opioid agonist/antagonist
Administration	Intramuscular injection, monthly	Oral, daily
Complete Detox Required Prior to Start?	Yes (7–10 days of abstinence)	No (12-24 hours of abstinence)
Recommended Target Dose	380 mg IM monthly	Varies with formulation
Generic Available?	No	Yes
Abuse Potential	None	Minimal
Regulatory Hurdles	None	Physicians must complete special training before prescribing
Cost	\$\$\$\$	\$\$
Pros	<ul> <li>Once-monthly injections make treatment easy and con- venient for patients</li> <li>Not an opioid, so there's no abuse potential</li> <li>No special regulatory require- ments—Vivitrol is not a con- trolled substance</li> <li>Also beneficial for alcohol dependence</li> </ul>	<ul> <li>Patients can start treatment within 12–24 hours of opioid abstinence</li> <li>Helps patients with withdrawal symptoms</li> <li>More cost effective and more likely to be covered by health insurance</li> </ul>
Cons	<ul> <li>Patients must be fully detoxed for 7–10 days prior to starting therapy</li> <li>Clinicians must administer the gluteal IM injection; patients can't self-administer</li> <li>More expensive and might not be covered by patients' health plans</li> </ul>	<ul> <li>Requires a DEA X-waiver to prescribe, plus specialized buprenorphine REMS training</li> <li>Adherence with once-daily tablets may be an issue</li> </ul>



## Prescribing Gabapentin for Substance Use Disorders

G abapentin (Neurontin) is a "novel anticonvulsant" and is FDA indicated for partial seizures and post-herpetic neuralgia. But the drug has long been heavily marketed to psychiatrists to treat a range of conditions from bipolar disorder to anxiety to alcohol withdrawal. It's often seen as a "non-addictive" off-label drug useful for treating anxiety and insomnia in patients who have substance use disorders.

Unfortunately, we now know that gabapentin can, in fact, become a drug of abuse for some users. It turns out that its typical side effects of dizziness and sedation can be exploited by those who want to use the drug to feel high. People who misuse gabapentin will often say that they feel euphoric, high, or zoned out. Because of this, it has become a popular drug of abuse in prisons, where there is a high rate of diversion. In 2016, the Federal Bureau of Prisons' Health Services Division removed gabapentin as a formulary agent, and added strict non-formulary criteria to mitigate abuse (see: https://www.bop.gov/resources/pdfs/ formulary.pdf). Also, some states have shifted gabapentin to a DEA Schedule V drug, the same category as cough syrups with codeine and pregabalin (Lyrica<sup>®</sup>).

So where does this leave us? Should we continue to prescribe gabapentin? If so, for whom? And when should we be extra cautious?

# The main concern: gabapentin and opioids

While some patients abuse gabapentin alone, this is pretty rare; one study found that only 2% of 44,148 patients using gabapentin alone met criteria for sustained overuse (Peckham et al, *Pharmacotherapy*, in press). But 11.7% of patients who combined gabapentin with opioids met those same substance abuse criteria. The theory is that gabapentin potentiates the opioid high, making it appealing for those wanting to augment opioid effects.

It's these patients—the ones combining gabapentin with opioids—who have a greater danger of overdose. One study found a 60% increase in the odds of opioid-related deaths in patients co-prescribed opioids with gabapentin—at least when the doses exceed 900 mg daily (Gomes T, *PLoS Med* 2017;14(10):e1002396).

The bottom line is that you should try to avoid prescribing gabapentin to patients who have current or past opioid use disorder. And if you feel you must prescribe it in these patients, be aware that doses higher than 900 mg daily carry an extra risk for overdose and should be used only with caution.

If you need to get patients off of gabapentin, be aware that there is a recognized gabapentin withdrawal syndrome. It's similar to benzodiazepine withdrawal and includes symptoms of disorientation, anxiety, insomnia, palpitations, diaphoresis, and abdominal cramping. Some of these patients may need inpatient detox.

## When and how to prescribe gabapentin

There are three off-label situations in which gabapentin is often prescribed in psychiatry: anxiety disorders, insomnia, and alcohol use disorder (AUD). Of course, if you are seeing patients with any of these problems in addition to a neuropathic pain issue, gabapentin is particularly appealing, since it can serve as a "twofer."

When prescribing gabapentin for anxiety, start with 300 mg at bedtime for one week, then 300 mg twice daily for one week, and then 300 mg 3 times daily thereafter. The 300 mg TID dose is generally when patients are likely to notice a beneficial effect, such as decreased anxiety, though the target dose is 1,200 mg daily (or 400 mg TID) for maximum benefit. If need be, you can increase the dose to 3,600 mg daily, which is the FDA-recommended maximum. With anxiety taking many forms, gabapentin is best used for social anxiety, panic disorder, PTSD, and OCD. While it may be used alone for social anxiety and panic disorder, it is often prescribed in addition to an antidepressant for PTSD and OCD (Berlin RK et

## al, *Prim Care Companion CNS Disord* 2015;17(5). doi:10.4088).

For insomnia, gabapentin can be started at 300 mg at bedtime, with weekly titrations of 300 mg and a target dose of 900 mg at bedtime. The key to treating insomnia with gabapentin is to ensure all dosing takes place at bedtime. Remember to tell patients that gabapentin works to improve their overall sleep quality; it does not necessarily put them to sleep or make them fall asleep faster. Therefore, it is best used for patients who have trouble staying asleep rather than falling asleep (Schroeck JL et al, *Clin Ther* 2016;38(11):2340–2372).

In the case of AUD, gabapentin can be used alone or as an adjunct to medications such as naltrexone, acamprosate, or disulfiram (Soyka M and Müller CA, *Expert Opin Pharmacother* 2017;18(12):1187–1199). Gabapentin can be started and adjusted just like you would for anxiety, but the target dose for AUD is higher at 1,800 mg daily in 3 divided doses (or 600 mg TID). Tell patients that they may start to experience less intense alcohol cravings around 900 mg, with even greater reductions in cravings as the dose is increased.

Patients should be informed that the most common side effects are dizziness and sedation, and that they are likely to notice these during the second week when the first daytime dose is added. Usually the side effects will subside within 3–7 days, but if they don't, shift all doses to bedtime and/or reduce the total dose as needed to reestablish tolerability. From there, make more conservative dose increases in 100 mg increments weekly.

In patients with substance use disorders, avoid prescribing gabapentin to patients with active or recent opioid use disorder. However, gabapentin is often helpful as an adjunctive agent in the treatment of AUD, and for anxiety and insomnia in patients who might overuse addictive drugs like benzodiazepines.

PAGE 3

#### Expert Interview -Continued from page 1

against. People also feel very bad about their behavior, and over time they get more disillusioned with themselves and their own ability to change. They become pervasively remorseful. I think one other thing to remember is that stigma and discrimination occur not only in active use, but also when people get into early remission and even sustained remission. We just completed this large national study, where we found that roughly 25%–30% of people in long-term recovery still experience discrimination and stigma. One way to view stigma is that it is a condition or behavior that makes discrimination socially acceptable (Wakeman SE and Rich JD, *J Substance Use and Misuse* 2018;53(2):330–333).

#### CATR: And from your studies, what might be another example of how that discrimination manifests?

**Dr. Kelly:** Well, there are micro discriminations and macro discriminations that can occur long after someone has already achieved full remission. Macro discrimination is more obvious. For example, being denied a promotion or a job after an employer learns of a person's substance use disorder history would be a macro discrimination. The micro discrimination level is what I call personal slight: "People always assume I'm gonna relapse, and because of that, I'm always looked down upon." People with substance use disorders realize that, even while in recovery or remission, the process of regaining trust can be a lengthy one. **CATR: We've also been reading about how the type of substance used can intensify the stigma felt by addiction treatment patients. Can you tell us more about that?** 

**Dr. Kelly:** Culturally, there may be a greater stigma toward those individuals who have used illicit substances as opposed to more licit ones, such as alcohol. For example, we know from studies that users of heroin or methamphetamine experience more

shame and internalized stigma than those who need addiction treatment for a legal substance (Kelly JF and Westerhoff CM, *Int J Drug Policy* 2010;21(3):202–207). People are just more likely to have a harsher view of those with illicit substance use disorders.

CATR: It's an interesting commentary on our society in general. Do you think there is more stigma attached to those who use illicit substances because those substances are tied to illegal behavior? Or are there other reasons?

**Dr. Kelly:** I certainly agree that stigma can be tied to illegal behavior, but I also think illicit substance use disorders are stigmatized because of the greater fear and alienation that society experiences when viewing substances that are not personally familiar. For example, most people have very little firsthand experience with heroin. Obviously, crime is a factor, especially when it comes to people who become desperate enough to, for example, steal money to buy drugs. These are the things that scare society in general, and when we're scared, I think we tend to want to remove and ostracize the source of that fear.

#### CATR: What then becomes the impact on the patient?

**Dr. Kelly:** As a result, people with substance use disorders are ostracized. In addition, there is an increase in stigmatizing attitudes

"When it comes to substance use disorders, internalized stigma can lead to feelings of shame, and over time patients can get more disillusioned with themselves and their own ability to change. Stigma and discrimination occur not only in active use, but also when people get into early remission and even sustained remission."

John F. Kelly, PhD

Continued on page 5

PAGE 4

and beliefs. Individuals suffering from these disorders are less likely to acknowledge or accept their disorders, disclose their worries to others, or seek help. This only perpetuates the problem. To some degree, it becomes a question of misunderstanding. After all, it's only really been recently understood that people who misuse substances have a clinical disorder. It's still difficult these days for many people to think of addiction as a brain disease—particularly for people who have been victims of someone else's behavior. There is also a duality here, where people will accept and agree that addiction is a disease of the brain, but still fear an addicted person's behavior.

CATR: Do you feel that this is also connected to the notion of free will? In other words, society in general feels that most people who take illicit drugs freely make the choice to do so. How does this tie into stigma?

**Dr. Kelly:** Yes, this is definitely a factor. There is this notion of cause and controllability, which I think are two major contributing factors to stigma. With control, there is a societal feeling that people should be held accountable for choosing to take substances. Of course, as clinicians, we know that the brain—even to the point of poisoning itself to death—can go from being impulsive to compulsive. With someone who has a substance use disorder, there is obviously some kind of medical malfunction going on in the brain. We now understand the exact nature of this malfunction more than ever before (Kosten TR and George TP, *Sci Pract Perspect* 2002;1(1):13–20).

CATR: So, this is the conflict we face with stigma when it comes to society. But how about people who are misusing substances? Does their inability to control themselves or refrain from using substances factor into them feeling stigmatized when they can't stop using?

**Dr. Kelly:** Yes, and this is where internalized stigma comes in. People often blame only themselves for their behavior. They don't always buy into the notion that their brain is deleteriously affected and is compromising their ability to make rational



#### Expert Interview Continued from page 4

decisions. So, people who are addicted will often say, "I did it myself. I'm to blame. I deserve it. I deserve punishment." I think this confounds the issue. In reality, we know that with more frequent substance use, we see impairment in a person's ability to make rational choices and follow through on them. This inability to follow through on a decision not to use is one of the criteria that define addiction (see DSM-5 criteria). It becomes a situation of increasing impairment in control and increasing powerlessness.

# CATR: This seems like a good time to address treatment. Let's start by talking about patient defense mechanisms, such as denial. For example, a person blows 0.25 on a breathalyzer test, yet claims, "I've had nothing to drink." Or, the person rationalizes or projects, saying, "I drink because I have a stressful job." Are these maladaptive attempts to prevent feeling shame and stigma?

**Dr. Kelly:** Yes. I think that's most of what it is, a kind of impulse or motivation to engage in those kinds of psychological defense mechanisms. I think it's led us as clinicians to develop more client/patient-centered approaches, such as motivational interviewing. The idea is to use a non-threatening approach to help the clinician relate better by seeing the world through the patient's eyes. It's the notion of empathy and an understanding of where the person might be coming from. I think a large part of that is a sense of people feeling insecure, ashamed, and guilty about their behavior and overconsumption of substances. So, I think a non-judgmental empathic approach can really help mitigate some of those defense mechanisms. It's important for us as clinicians to understand that people are much more open and honest when they feel less threatened. For family members who want to help a loved one with a substance use disorder using a non-threatening approach, I recommend that they check out the Community Reinforcement of Family Training approach (or CRAFT; see http://bit.ly/2ACxVtH).

CATR: That's excellent advice. But are there also things that clinicians should avoid saying or doing to avoid unintentionally stigmatizing their patients? For example, it's probably good for a physician to use the phrase "substance use disorder" rather than "substance abuse." Doesn't the word "abuse" carry a potentially shameful or even illegal connotation, and thus the potential to stigmatize the patient?

**Dr. Kelly:** Yes. I agree, and I think that's one major way that we can change our approach as clinicians. Terms like "abuse" are pernicious when we're interacting with people who are coming in looking for help with a substance use disorder. We need to use proper medical terminology and help patients understand exactly what is happening inside of them. We need to let them know how their substance use disorder is tied to their central nervous system, and how that disorder is getting the better of them in terms of their ability to control it. I think if we can use the proper medical terms and explain the situation to patients simply and clearly, they will understand the nature of what's happening.

## CATR: I agree, but can this approach also be challenging for clinicians who want to be able to relate to patients or clients on their own terms and using patients' own language?

**Dr. Kelly:** It can be a temptation to want to be liked by our patients by using what you might call "street terminology." There's a potential argument for trying to relate to patients in that way, but we must be very careful. As professional healthcare providers, we need to use language that will help communicate to patients that they have an actual medical disorder. We need to use words clearly indicating that a disorder has happened in the brain, and that each year this disorder is responsible for hundreds of thousands of premature deaths in America alone.

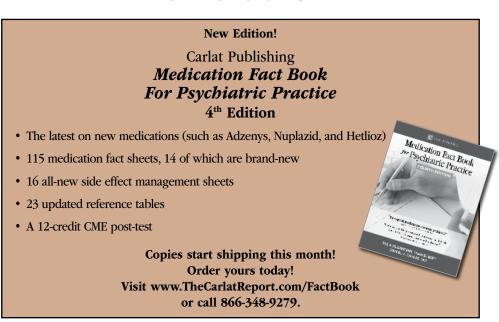
#### CATR: With that, are there any specific words or phrases we should use with patients?

Dr. Kelly: To keep things on a more understandable level and to avoid stigmatizing language, explain that there is a medical

malfunction in the brain. Incorporate words that don't tend to cause stigma. For example, when doing urine screens, use the terms "positive" or "negative," rather than "clean" or "dirty." We should use this language too among our colleagues in our clinical settings to help reduce stigma where we work. Also, talk about patients being in recovery and being in remission—use these terms just like you would with any other medical condition or psychiatric illness. If patients use negative terms that could lead to stigma, help them reframe using terms that are consistent with a treatable brain disorder.

CATR: Are there any final tips that you might have on how clinicians can manage stigma with patients?

- Continued on page 8



PAGE 5

Jan/Feb 2018

## ALCOHOL

#### Interventions for Treatment or Prevention of Alcohol Hangover: Systematic Review

#### **REVIEW OF:** Jayawardena R et al, *Hum Psychopharmacol* 2017;32(3). Epub 2017 Jun 1.

As clinicians, we're more interested in preventing excessive drinking than curing hangovers. But it's always nice to have some helpful advice for patients, which we found in a recently published literature review of clinical trials of hangover treatments.

The authors used keywords to search for all relevant English-language studies occurring between January 1, 2009 and June 30, 2016. This search yielded 6 controlled studies of 5 potentially effective herbal products were identified, 3 with a placebo control. All participants in these final 6 studies were healthy adults between ages 19 and 58. Five of the studies had 9–28 subjects, with one study having 103. Four of the studies had only men included; the others included both men and women.

No published studies found any treatments to be clearly effective. One study of dandelion juice suggested efficacy but did not have sufficient statistical power. The following interventions were associated with a significant statistical improvement in hangover severity (p < 0.05): the polysaccharide-rich extract Acanthopanax senticosus; red ginseng anti-hangover drink; Korean pear juice; KSS formula (Kitsuraku, Shokyo, brown sugar, and dextrin); and After-Effect<sup>®</sup>. The highest improvements were observed for the following symptoms: tiredness, nausea, vomiting, and stomachache. The lowest improvements were found for palpitations and other cardiovascular symptoms.

After-Effect<sup>®</sup> is a mixture of borage oil (gamma linolenic acid); fish oil (omega-3); vitamins B1, B6, and C; magnesium; *Silybum marianum* (silymarin); and *Opuntia ficus-indica*. For the 103 subjects using After-Effect<sup>®</sup> before and after a night of heavy drinking, and then alternatively not using the supplement on a night

## Research Updates

of heavy drinking, their mean Acute Hangover Scale scores were 2.33 (SD 1.6) with the supplement versus 5.18 (SD 1.9) without it. (A mean Acute Hangover Scale score of 10 represents extreme symptoms, while 0 is absence of hangover symptoms.) This study showed the most significant improvement in hangover severity, with p < 0.01.

#### **CATR'S TAKE**

The best hangover prevention is obviously to avoid alcohol entirely, or at least to drink in moderation. But our patients will get hangovers, so it behooves us as psychiatrists and substance abuse specialists to be familiar with falsifiable hangover treatments. Current available evidence shows several products that may potentially improve hangover symptoms, but more research is needed. Acanthopanax senticosus, red ginseng, and Korean pear juice are easily available via amazon.com; KSS formula is a traditional folk remedy in China; and After-Effect<sup>®</sup>, developed by the company Deenox, can be found in French pharmacies. This is clearly useful information to share with our patients.

—*Adam Strassberg, MD.* Dr. Strassberg has disclosed that he has no relevant financial or other interests in any commercial companies pertaining to this educational activity.

## **OPIOIDS**

#### Neurostimulation for Opioid Withdrawal Symptoms

# **REVIEW OF:** Miranda A and Taca A, *Am J Drug Alcobol Abuse* 2017:1-8

A challenging barrier for patients with opioid use disorders is the discomfort that can occur during the "induction phase" of their treatment, which is the period between discontinuation of opioids and initiation of medication-assisted therapy (MAT). Difficulties with induction arise due to several factors, including fear of withdrawal itself and poorly managed withdrawal symptoms.

In 2017, the FDA cleared a device for the use of electrical stimulation to reduce opioid withdrawal symptoms. The prescription-only product, called NSS-2 BRIDGE<sup>®</sup>, is attached behind the ear using adhesives and does not require surgery. It generates low-voltage electrical current that stimulates percutaneous nerves around the ear. This results in diminished withdrawal-associated pain and negative emotional states. It is worn continuously for 5 days during the withdrawal period, which covers the full life of the device's battery. BRIDGE<sup>®</sup> is thought to produce rapid and sustained improvements in withdrawal symptoms, leading to higher MAT transition rates.

The FDA's approval of the device was based on an open-label, uncontrolled, retrospective study in adult patients. Seventy-three medical records were reviewed from outpatient clinics in several Midwestern states. Concerning patient characteristics, the mean length of opioid dependence was 70 months, and most used heroin. Outcomes assessed included withdrawal scores during the induction phase measured by the Clinical Opioid Withdrawal Scale (COWS), and the percentage of patients who transitioned to MAT after 5 days.

Overall, most patients had moderate withdrawal symptoms, and their average initial COWS score was 20.1. But using the device for 20 minutes produced a 63% drop in average COWS scores, to 7.5. Scores then dropped to 3.1 after 60 minutes and 0.6 after 5 days. On the fifth day, 64 of 73 participants (88%) returned to the clinic and successfully transitioned to MAT. No rescue medications were administered, and no adverse events were noted.

#### **CATR'S TAKE**

This pilot study provides us with exciting data, but falls short of indicating whether use of this device leads to improved short- and long-term outcomes for patients with opioid use disorders. It is also unclear how the device compares to standard detox protocols. BRIDGE® costs approximately \$500 and is not covered under insurance plans, limiting its utility in many patient populations. It is for one-time use and requires special training to place. Ultimately, BRIDGE® is an encouraging step in addiction treatment, but is unlikely to make a profound impact.

—*Rehan Aziz, MD.* Dr. Aziz has disclosed that he has no relevant financial or other interests in any commercial companies pertaining to this educational activity.





# THE CARLAT REPORT: ADDICTION TREATMENT

## **CE/CME Post-Test**

This CME test is only available to active subscribers. Tests must be completed within a year from each issue's publication date. If your subscription expires before that date, you will not have access to the test until your subscription is renewed. To earn CME or CE credit, you must read the articles and then take the post-test at www.TheCarlatReport.com. You must answer 75% of the questions correctly to earn credit. You will be given two attempts to pass the test. As a subscriber to CATR, you already have a username and password to log onto www.TheCarlatReport.com. To obtain your username and password, please email info@thecarlatreport.com or call 978-499-0583. The Carlat CME Institute is approved by the American Psychological Association to sponsor continuing education for psychologists. Carlat CME Institute is also accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. Carlat CME Institute maintains responsibility for this program and its content. Carlat CME Institute designates this enduring material educational activity for a maximum of one (1) AMA PRA Category 1 Credit<sup>TM</sup> or 1 CE for psychologists. Physicians or psychologists should claim credit commensurate only with the extent of their participation in the activity. Below are the questions for this month's CE/CME post-test. This page is intended as a study guide. Please complete the test online at www.carlataddictiontreatment.com. Note: Learning objectives are listed on page 1. 1. According to a recent study of patients in long-term recovery, what percentage continue to experience discrimination and stigma? (LO #1) [] a. 5%–15% [] c. 40%–50% [] b. 25%-30% [] d. 55%-60% 2. One of the benefits of using Vivitrol instead of Suboxone to treat opioid use disorder includes: (LO #2) [] a. Lower cost [] b. More likely to be covered by insurance [] c. No potential for abuse [] d. Treatment can begin within 12-24 hours of opioid abstinence 3. You have a first meeting with a patient who has a history of alcohol and drug use. Interspersing "street terminology" during your discussion with this patient is a beneficial way to reduce any unintentional stigma. (LO #1) [] b. False [] a. True 4. Due to overdose concerns, patients with current or past opioid use disorder require extra caution when prescribed gabapentin in doses exceeding \_\_\_\_\_. (LO #3) [] a. 300 mg/daily [] c. 900 mg/daily [] b. 600 mg/daily [] d. 1,200 mg/daily 5. In a recent study on hangover treatments, red ginseng and Korean pear juice were shown to be most effective for palpitations and other cardiovascular symptoms of hangover. (LO #4) [] a. True [] b. False

New Study Shows That Vivitrol Is Just as Effective as Suboxone...But Not Really — Continued from page 2

generally the most effective treatment. Suboxone formulations are less expensive, and they work during withdrawal.

You might, though, consider Vivitrol for patients who meet the following criteria:

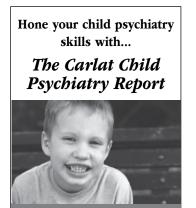
- Have already been opiate-free for at least a week
- Have had no success with agonist treatments

Jan/Feb 2018

- Prefer to not take agonist treatments, or cannot do so because of legal or job requirements
- Live in an area where there are no physicians qualified to provide Suboxone
- Have a milder addiction and are highly motivated to quit
- Have difficulty committing to taking a medication every day

Ultimately, the decision of using Suboxone vs Vivitrol is a judgment call to be made in conversation with your patients. See the table on page 2 for quick reference facts about each treatment, as well as pros and cons to help you make the right decision.





This newsletter offers all of the same great features as *The Carlat* 

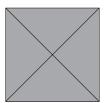
*Psychiatry Report* with a focus on child psychiatry.

**One year:** \$129 **Two years:** \$229

To subscribe, visit www.thecarlatchildreport.com

## THE CARLAT REPORT: ADDICTION TREATMENT

P.O. Box 626 Newburyport, MA 01950



This Month's Focus: Stigma and Addiction

Next month in *The Carlat Addiction Treatment Report:* Cannabis and Addiction

Expert Interview Continued from page 5

Dr. Kelly: The other piece of advice I would give clinicians, whether they work in mental health, primary care, or any other setting, is that they get better informed themselves by obtaining some additional training and understanding about the nature of substance use disorders. I think most clinicians are eager to learn more about these conditions and how they manifest. Getting more educated on what causes stigma will empower a clinician to conduct betterinformed conversations with patients regarding their substance use disorder. We have developed free information for clinicians at our Massachusetts General Hospital and Harvard-affiliated Recovery Research Institute (www.recoveryanswers.org) that also has an "Addiction-ary," which contains language, terms and their definitions, and terms to use and to avoid in this context. Substance use and related conditions affect approximately 10% of the US population, and they influence many other social and medical problems that we try to treat, so expanding our knowledge as clinicians in this regard is important and likely to improve the quality of our care.

CATR: Thank you for your time, Dr. Kelly.

□ Yes! I would like to try *The Carlat Addiction Treatment Report* for one year. I may cancel my subscription at any time for a full refund if not completely satisfied.

Regular subscriptions – \$129 International – Add \$20 to above rate

Enclosed is my check for Please charge my

- Visa
- MasterCard
- □ Amex

Card # Exp. Date

Signature

Name

PAGE 8

Address

City State Zip

Phone E-mail

Please make checks payable to Carlat Publishing, LLC Send to Carlat Publishing

P.O. Box 626, Newburyport, MA 01950 Or call toll-free 866-348-9279 or fax to 978-499-2278 Or subscribe online at www.carlataddictiontreatment.com

