# Benzodiazepines

Risks, Benefits & Accidental Deaths

# Chris Aiken, MD Editor-in-Chief, The Carlat Report Instructor, WFU Dept of Psychiatry

Director, Mood Treatment Center

**Disclosures** 

None

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# Benefits



#### **Ideal Use**

#### Short term (1-3 months) treatment of

- Anxiety that is debilitating but temporary
- > Insomnia
- > Seizures
- > Muscle relaxant
- > Seizures
- Slow-wave sleep d/o (sleep walking, night terrors)
- Alcohol withdrawal

## Best Evidence is in Panic Disorder

### FDA Approved Benzos in Panic Disorder

Daily dose in mg

	Starting	Max	Typical
Alprazolam	1-1.5	10	2-5
Clonazepam	0.5-1	4	1-2

Longest panic data

8 mth controlled (alprazolam) or 12 mth uncontrolled (clonazepam)

# Risks







## FDA Warning 2016

#### WARNING: RISKS FROM CONCOMITANT USE WITH OPIOIDS

Concomitant use of benzodiazepines and opioids may result in profound sedation, respiratory depression, coma, and death (see WARNINGS and PRECAUTIONS).

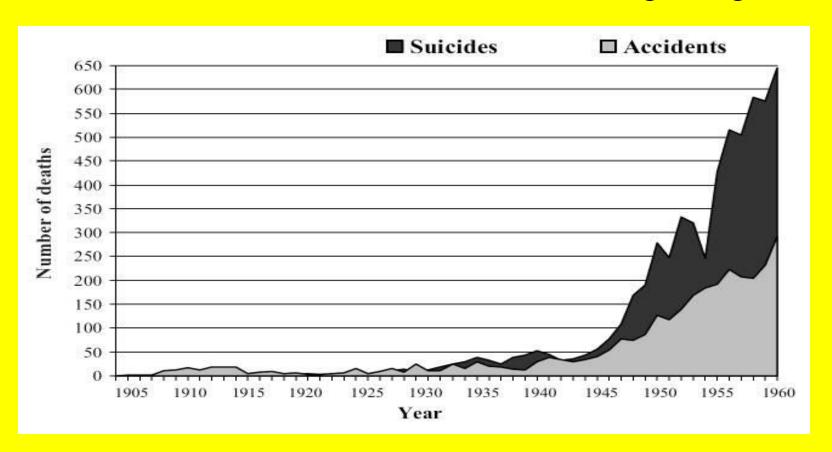
- Reserve concomitant prescribing of these drugs for use in patients for whom alternative treatment options are inadequate.
- Limit dosages and durations to the minimum required.
- Follow patients for signs and symptoms of respiratory depression and sedation.

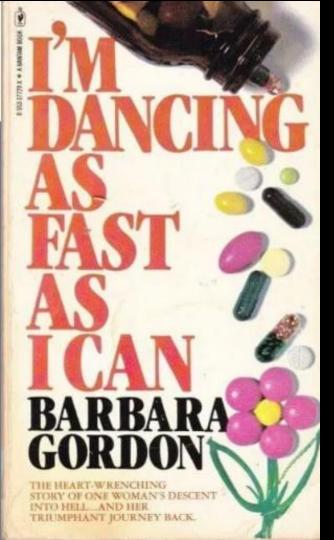


# **Opioids**

4000 bc first use
1860-1900 post-civil war epidemic
1900 replaced by barbiturates

## Barbiturate Overdose Deaths 1900-1960

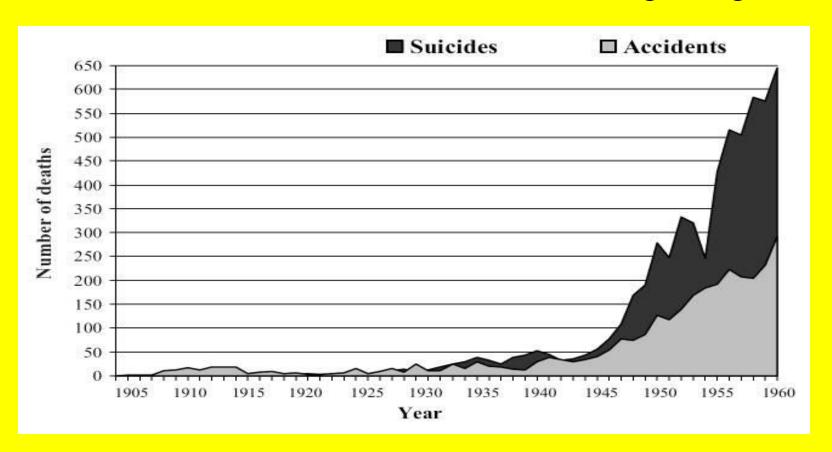




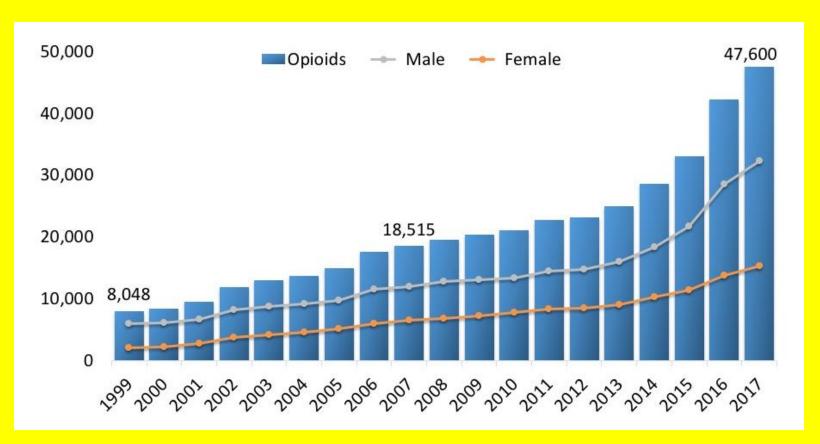
# Benzos

1960 barbiturates replaced by benzos1970-75 use of benzos peak1975-80 benzo abuse recognized, moved to schedule IV

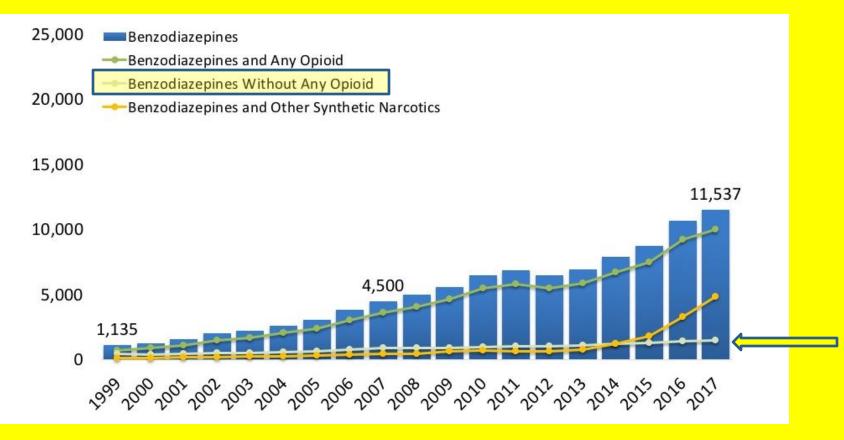
## Barbiturate Overdose Deaths 1900-1960



# Opioid Overdose Deaths 1999-2017



# **Benzo OD Deaths Involving Opioids**



Among U.S. Adults in 2015

Prescribed an opioid

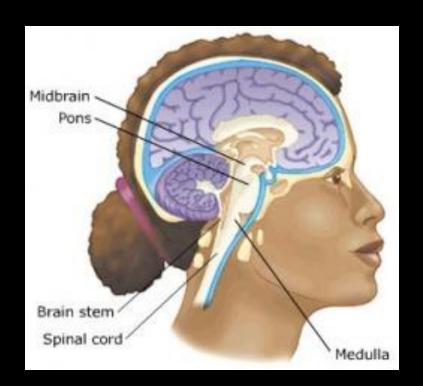
1 1 2 Prescribed a benzo



# 1 in 30 Prescribed a both



# Benzos involved in up to 80% of unintentional deaths involving opioids



## **Drugs Suppress Breathing in 3 Ways**

**Opioids**Slow respiratory rhythm in medulla

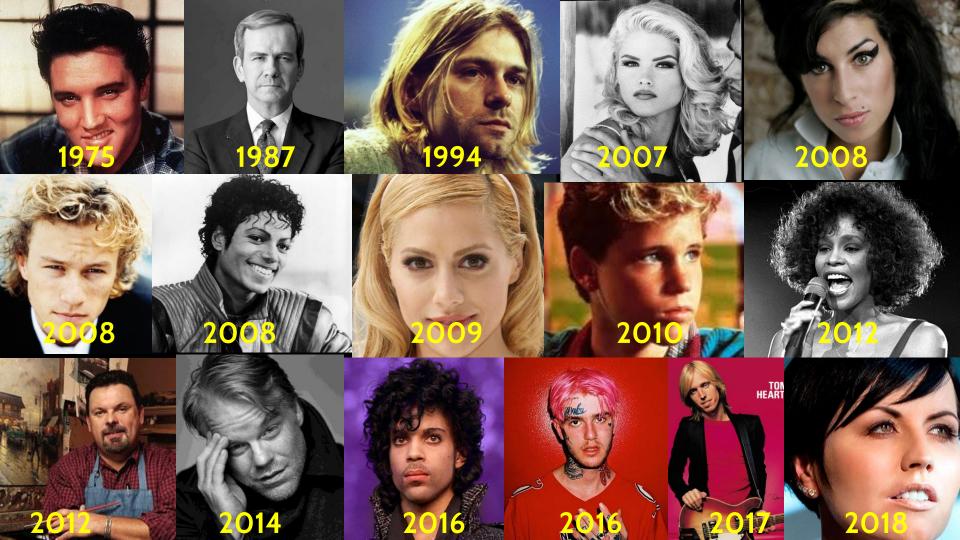
**Benzos**Lower GABAergic activation of respiration

Alcohol
Decreases response to CO2





When taken with opioids, benzos raise the risk of overdose death 2-4 fold.



Elvis	Robert
Presley	McFarland
Heath	Michael
Ledger	Jackson



**Anna Nicole Smith** 

Amy Winehouse

**Brittany** Murphy

**Corey Haim** 

**Whitney Houston** 

**Thomas** Kinkade

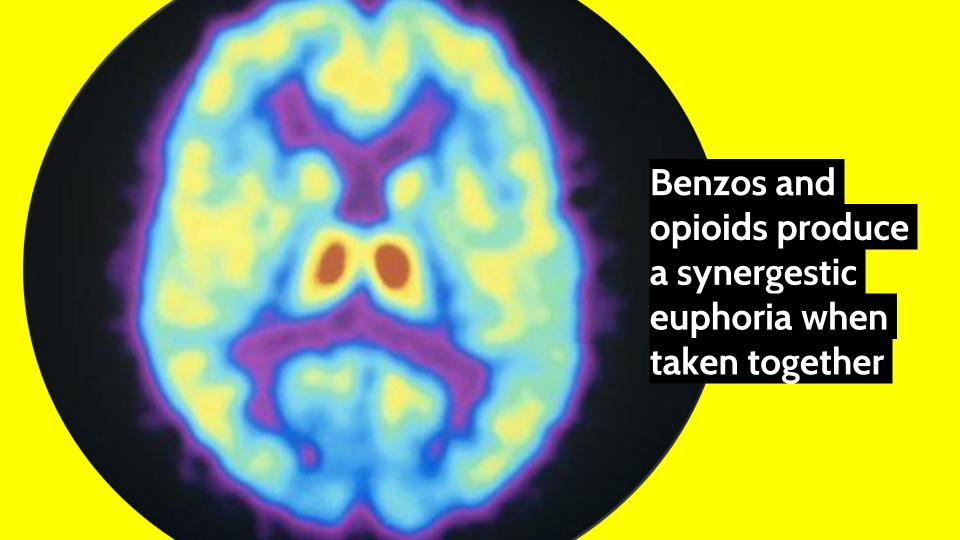
Phillip **Seymour Hoffman** 

**Prince** 

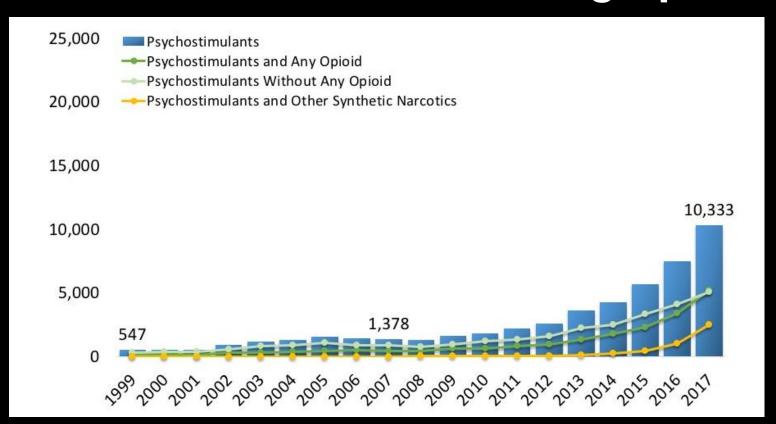
Lil Peep

Tom **Petty** 

**Dolores** O'Riordan

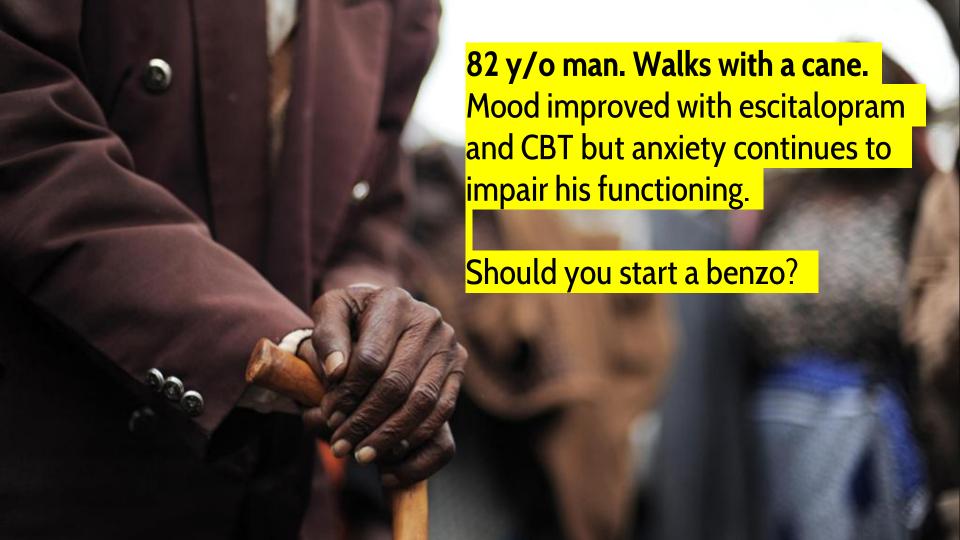


# Stimulant OD Deaths Involving Opioids





# Use in the Elderly





### **Prevention**

- > First 2 weeks are critical
- > Minimize dose
- › Use short acting agents
- Don't switch to a z-hypnotic, atypical antipsychotic, or trazodone
- > Home precautions



# Cognitive problems with long-term use

#### 10 years of use impairs

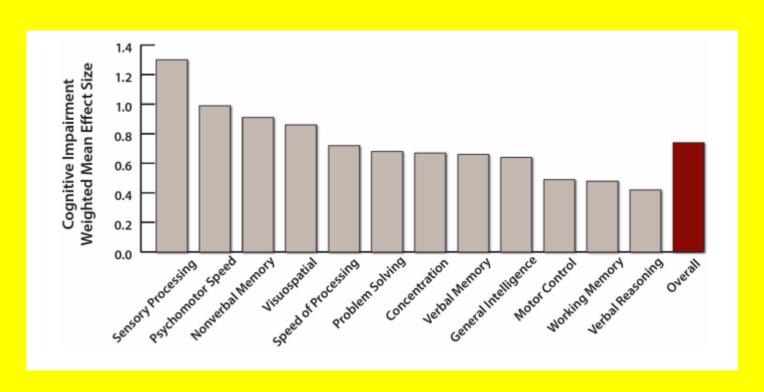
- > Memory
- > Attention
- > Processing speed
- > Problem solving
- > Psychomotor speed
- › Visuospatial

Partial improvement after 6-12 months off the benzo.

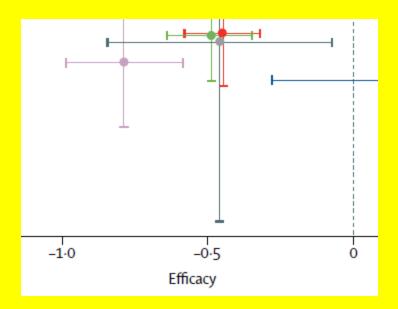
No impairment in matched controls with anxiety disorder

19 studies, n = 2,257

## Cognitive problems with long term benzo use (effect size 0.8)

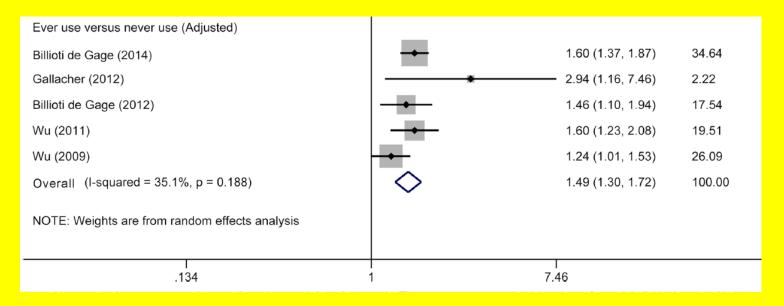


## Cognitive benefits of amphetamines in adult ADHD (effect size 0.8)





#### Benzos associated with 1.5-fold increase in dementia risk



Reverse causation possible, but...
Risk rises with longer use, higher dose, and longer half-life

#### **Other Risks**

Dementia and delirium

Traumatic Brain Injury (TBI)

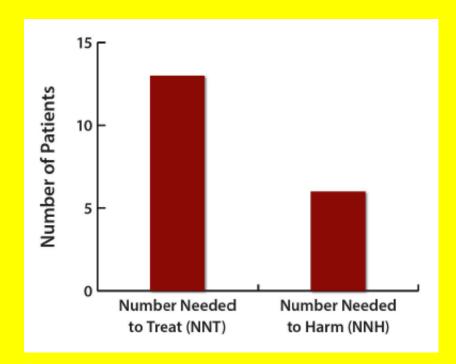
Disinhibition

Post-traumatic stress

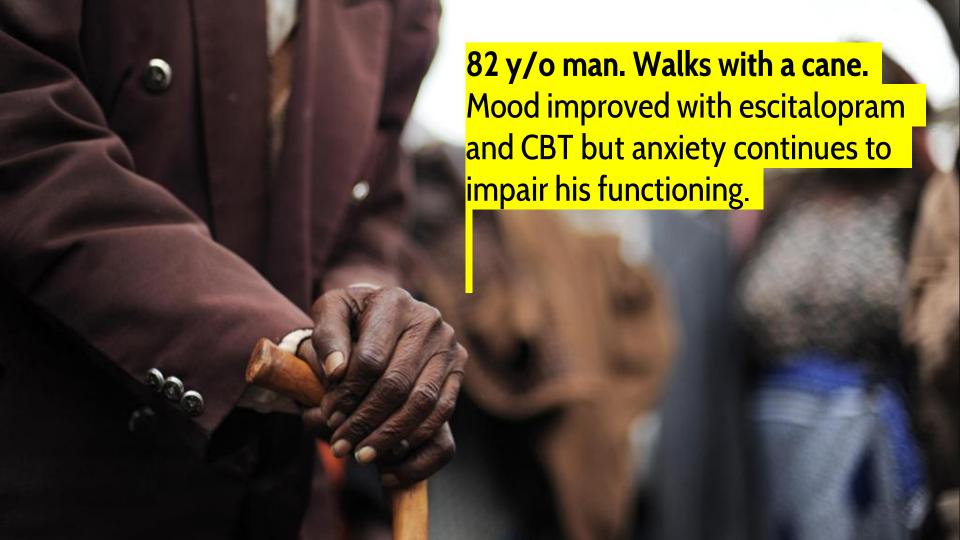
Respiratory: Sleep apnea, myasthenia gravis, COPD

Pregnancy (class D, cleft palate)

Hypnotics in Older Patients with Insomnia



24 studies, n = 2,417, age ≥60 on benzos, z-hypnotics, or diphenhydramine



# Practical Management



# **Alternatives**

# **Antidepressants**

May need 8-12 weeks to work

# **Social Anxiety**

MAOIs, pregabalin, gabapentin

# **Generalized Anxiety**

Buspirone, pregabalin, ?quetiapine

# **Natural**

# **Anxiety & Insomnia**

Silexan (Calm Aid 160mg qhs)

Chamomile (1.2% apigenin 220mg daily)

Aromatherapy (lavender)

Music therapy (Weightless by Marconi Union)

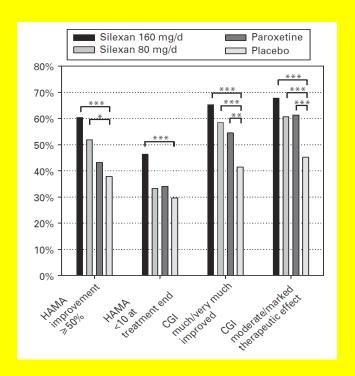
## **Insomnia**

Melatonin 1-3 mg qhs (Dr. Wurtman's, REMFresh)

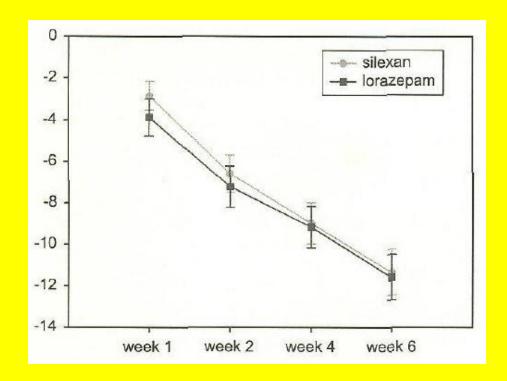
Blue light blockers moodtreatmentcenter.com/bluelight.pdf



# Silexan 160mg > Paroxetine 20mg RCT of GAD n=539



# Silexan 80mg = Lorazepam 0.5mg RCT of GAD n=77



# **Psychotherapy**

CBT

**CBT-insomnia** 

**Mindfulness** 

Progressive muscle relaxation

Deep breathing

Yoga

# **Apps**

CBT-i Coach for sleep

Intellicare for anxiety

Breath2Relax

**Mindfulness** 

Stop, Breathe & Think, Insight

Timer, Smiling Mind,

iMindfulness, and Mindfulness

Daily



**Educate** 

# Signed Agreement

#### Agreement on the Use of Controlled Substances

I understand that my prescriptions for controlled prescriptions are monitored and regulated by state agencies. To prevent problems in my controlled-substance record I agree that:

- No early refills. I will not over-use or share the medicine and understand that it cannot be refilled early even if the pills are lost.
- Only receive and change controlled prescriptions at office visits. I will keep regular
  office visits and only receive refills at the office. In rare cases when I am unable to keep an office
  visit I will provide one week notice for refills of controlled substances to allow time to check the
  state database. If I think I need to increase or change a controlled prescription, I will schedule
  an office visit rather than trying to make changes on my own or by telephone.
- Do not obtain from other MDs. I will alert the Mood Treatment Center before filling
  prescriptions for the same type of controlled substance they are prescribing (see list below),
  unless it is part of a hospital stay.
- Refill limitations. Controlled scripts and their refills expire six months after they are written.
- Dangerous interactions. Benzodiazepines can be lethal when combined with alcohol or opioid medications (see list below).
- Drug screens and out-of-state pharmacies. Controlled substances will show up on urine drug screens. Some states may not honor out-of-state prescriptions for controlled substances.

# moodtreatmentcenter.com/benzo.pdf

# Controlled Substance Reporting Database

Fill Date 🔺	ID ¢	Written <b>♦</b>	Drug \$	Qty <b></b>	Days <b></b>
08/25/2019	4	07/29/2019	Diazepam 10 Mg Tablet	90.00	30
08/25/2019	4	07/29/2019	Alprazolam 2 Mg Tablet	90.00	30
08/12/2019	4	08/12/2019	Lorazepam 0.5 Mg Tablet	60.00	30
08/08/2019	2	08/07/2019	Hydrocodone-Acetamin 5-325 Mg	12.00	3
08/08/2019	4	08/08/2019	Lorazepam 0.5 Mg Tablet	10.00	5
07/29/2019	4	07/29/2019	Alprazolam 2 Mg Tablet	90.00	30
07/29/2019	4	07/29/2019	Diazepam 10 Mg Tablet	90.00	30
07/21/2019	4	07/21/2019	Hydrocodone-Acetamin 5-325 Mg	12.00	3
07/16/2019	4	07/12/2019	Hydrocodone-Acetamin 5-325 Mg	10.00	3
07/13/2019	4	07/13/2019	Hydrocodone-Acetamin 5-325 Mg	18.00	5
07/12/2019	4	07/12/2019	Hydrocodone-Acetamin 5-325 Mg	15.00	2

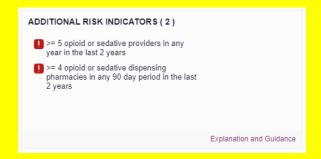
www.northcarolina.pmpaware.net

# Data from 32 states

3 measures of risk with advice for each level











# Estimate the risk

# THE CARLAT REPORT: PSYCHIATRY—

#### Benzos and Opioids: When to Avoid Their Combination

Benzos raise the risk of an opioid overdose by 2–4 fold. The features below increase that risk further. When available, I've estimated the magnitude of the increase in parentheses.

Delow increase the	at fisk further. When available, I've estimated the	
magnitude of the increase in parentheses.		
Near-absolute contraindication	<ul> <li>Active prescription misuse</li> <li>Active opioid, alcohol, or benzo/sedative use disorder</li> <li>History of sedative overdose</li> <li>Methadone use (7x)</li> </ul>	
Strong relative contraindication	<ul> <li>History of sedative, alcohol, or opioid use disorder (3x)</li> <li>Borderline or antisocial personality disorder (2x)</li> <li>Unstable psychiatric disorder (2x)</li> <li>Respiratory disease (eg, COPD, sleep apnea), pregnancy, or systemic medical illness such as HIV (5x); organ failure (1.5x); and renal or hepatic impairment</li> <li>Daily opioid dose ≥50 morphine milligram equivalents (2x) (see www.oregonpainguidance.org/opioidmedcalculator); long-acting opioids carry a higher risk than short-acting ones</li> <li>Risk of falls or traffic accidents</li> <li>Age ≥65</li> </ul>	







Benzos did not increase the risk of relapse, tolerance, or new addictions when given to people in recovery from an alcohol use disorder over 12 years in a large, naturalistic study

Involve the Family





# Choosing a Benzodiazepine

# Benzos of Distinction



## **Best overall**

Lorazepam (Ativan). 2<sup>nd</sup> lowest risk of OD. Good pharmacokinetic profile for anxiety and insomnia. No hepatic metabolism.



# Safest

Oxazepam (Serax).
Lowest risk of OD,
diversion and abuse.
Slowest onset (1-3 hours).
No hepatic metabolism.



# **Best for tapering**

Diazepam (Valium) and Chlordiazepoxide (Librium). Long half-lives.



# Highest OD risk

Clonazepam (Klonopin), alprazolam (Xanax), and diazepam (Valium).



## **Most diverted**

Alprazolam (Xanax), clonazepam (Klonopin), and diazepam (Valium).



# No hepatic metabolism

Lorazepam (Ativan), oxazepam (Serax), and temazepam (Restoril).

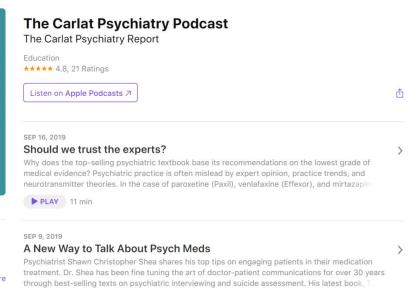
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Volume 16, Issue 9 September 2018 www.thecarlatreport.com

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  - Serotonin Syndrome Risks With Co-Prescription of Triptan Drugs and SSRIs or SNRIs
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#### **Learning Objectives**

After reading these articles, you should be able to:

- 1. Evaluate the risks of benzodiazepines in elderly patients or in combination with opioids.
- 2. Identify ways to approach and work with agitated patients in an emergency psychiatric setting.
- 3. Summarize some of the current research on psychiatric treatment.

## Benzodiazepines: New Risks for an Old Drug

Chris Aiken, MD. Editor-in-Chief of The Carlat Psychiatry Report. Practicing psychiatrist, Winston-Salem, NC.

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

n the May 2018 issue of TCPR, we wrote about using benzodiazepines for \_\_anxiety and other disorders, and we got some reader feedback that we did not provide a thorough enough review of medication risks. So, in a follow-up article this month, I will focus on two groups where benzos pose the greatest risks: opioid users and the elderly.

#### Benzodiazepines and opioids

An urgent call comes in from a 48-yearold woman with panic disorder. Her anxiety has worsened, and she would like to raise her clonazepam, which she has

#### **In Summary**

- · Benzodiazepines increase the risk of opioid-related fatalities by 2-4 fold, and there are ways to identify patients at risk for these overdose deaths.
- Have a written treatment agreement with patients specifying your policies and the risks of combining benzodiazepines with opioids, alcohol, or other sedatives.
- Long-term use of benzodiazepines is associated with significant declines in cognition and a 2-fold increase in the risk of dementia.

taken reliably since gaining sobriety from alcohol 15 years ago. She also has sleep apnea and chronic back pain, and recently added bydrocodone to a steady

Continued on page 2



## **Calming Agitated Patients in** an Emergency

## Avrim Fishkind, MD

Chief Executive Officer and Chief Medical Officer of JSA Health Corporation in Houston, TX, and a past president of the American Association for Emergency Psychiatry

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

TCPR: You've worked for a long time as an emergency psychiatrist. Do you have any advice on how psychiatrists can de-escalate situations with agitated or even violent patients? **Dr. Fishkind:** When I work with an agitated patient, I start by saying, "Hi, I'm Dr. Fishkind. My job is to keep you safe today." Your first job should be to take away any possibility that the person thinks you're dangerous or that you're there to cause harm. So, start by identifying who you are, what you do, and



TCPR: That's a sound approach, but are there things we should prepare for even before we get to introduce ourselves?

Dr. Fishkind: There's a useful guide called the The 10 Commandments for Verbal De-Escalation (see page 5). They are set up to help you prepare for things that can happen even before you say anything to the patient (Richmond JS, West J Emerg Med 2012;13(1):17-25). For example, there's a way you Continued on page 4

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that you are there to help.

# -THE CARLAT REPORT: PSYCHIATRY—

Benzodiazepines: New Risks for an Old Drug Continued from page 1

regimen of NSAIDs and baclofen. Should you raise the benzo? In this era of the opioid epidemic, the answer is not so clear.

Benzodiazepines are rarely fatal in overdose, but they can be deadly when combined with opioids or alcohol. Opioids change the way that benzodiazepines act, and the FDA recently added a black box warning about their combined use. The problem is that both drugs suppress breathing, but they do so in different ways: benzos and alcohol through GABA-A inhibition, opioids in the medulla. The effect is much like a stereo system. Unplug one speaker, and you can still hear the music. Unplug both, and breathing stops.

#### EDITORIAL INFORMATION

Publisher: Daniel Carlat, MD

Editor-in-Chief: Chris Aiken, MD

Deputy Editor: Talia Puzantian, PharmD, BCPP, associate professor, Keck Graduate Institute School of Pharmacy, Claremont, CA

Editorial Director: Bob Croce Executive Editor: Janice Jutras

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POSTMASTER: Send address changes to The Carlat Psychiatry Report, P.O. Box 626, Newburyport, MA 01950. Suicide and excessive substance use are not the driving forces in these overdoses. Most of the deaths are accidental, and they can happen even when the medications are taken as prescribed. Part of the problem is that opioids and benzos create a synergistic euphoria that's greater than the sum of its parts. In practice, this means patients are drawn to combine their opioids with benzos or alcohol, and both substance abusers and non-abusers tend to do so at equally high rates (Saunders KW et al, *J Pain* 2012;13:266–275).

As prescriptions for benzos and opioids have risen in the past 15 years, accidental overdoses have turned into an epidemic. From cough medicines to methadone, 1 in 3 Americans were prescribed an opioid in 2015, 1 in 12 were prescribed a benzodiazepine, and 1 in 30 took both (Han B et al, *Ann Intern Med* 2018;168:383–384; Zin CS et al, *J Pain Res* 2017;10:249–257).

Just how much do benzodiazepines raise the risk of opioid-related fatalities? About 2–4 fold, according to a study of over 100,000 veterans. The risk rises as the dose of the benzo goes up but does not change with daily vs PRN dosing (Park TW et al, *BMJ* 2015;35:1–8).

The following is how I deal with patients who are taking opioids and requesting benzos:

#### **Educate your patients**

Patients need to be oriented to the new terrain. "There's been a sea change in how these drugs are regulated," I'll explain, "because the rate of death from combining the two now surpasses the rate of death from car accidents."

#### Print an agreement

Print a treatment agreement specifying your policies and the risks of combing benzodiazepines with opioids, alcohol, or other sedatives. I've posted an example agreement at www.moodtreatmentcenter.com/benzo.pdf. Two key points: no early refills of benzodiazepines and no benzo prescriptions from multiple physicians.

# Check your state's controlled substance database

You'll be able to check on opioids, benzodiazepines, stimulants, and other controlled substances. But you won't find information on uncontrolled sedatives, such as muscle relaxants and sedating antipsychotics. Compared to opioids, these sedatives are less of a threat, but the FDA has warned against combining them with benzos as well.

#### Estimate the risk

Licensing boards are starting to scrutinize prescriptions of benzos and opioids, but they've offered little guidance about when to avoid their combination. Pain specialists have identified groups at elevated risk for overdose, and I've combined that wisdom with recommendations from the Centers for Disease Control in the table on page 3.

In addition to their overdose risks, benzodiazepines also raise concerns about addiction. Former opioid abusers are the most vulnerable, and a benzodiazepine can set off a cycle of both benzo and opioid abuse in these patients. Recovering alcoholics fare better. Benzodiazepines did not lead to relapse, tolerance, or new addictions when given to former alcoholics over 12 years in a large, naturalistic study (Mueller TI et al, *Alcohol Clin Exp Res* 2005;29:1411–1418).

#### Involve the family

Family members are often the first to recognize sedative misuse. When patients have cognitive limitations, I'll ensure that a caregiver is available to responsibly dispense the medications. The opioid antagonist naloxone can safely reverse a combined benzo-opioid overdose, and it's strongly recommended for chronic opioid users. It's also highly underutilized, so I'll often write for it even though I don't prescribe opioids (Naloxone 2 mg/2 ml pre-filled Luer lock-ready needleless syringes with a mucosal atomizer or Narcan nasal spray 4 mg). For more guidance on naloxone co-prescribing, check the resources available at PrescribeToPrevent.org. The benzo antagonist flumazenil, however, is not safe for home use because it carries a risk of seizures.

#### Benzodiazepines in the elderly

Your 82-year-old patient comes to his appointment using a cane to climb the stairs. He has been on citalopram for several years, but over the past few months his anxiety has worsened. You've tried increasing the SSRI

Continued on page 3

# THE CARLAT REPORT: PSYCHIATRY-

Benzodiazepines: New Risks for an Old Drug Continued from page 2

but to no effect. You are convinced that a low dose of a benzodiazepine will do the trick for him, but you just read yet another confusing meta-analysis purporting to show that benzodiazepines are bad for the elderly, potentially causing falls and dementia. Are the benefits for this patient worth the risks?

There are two major risks that we worry about in the elderly: falls and cognitive impairment. Let's look at the evidence for each in turn.

Falls lead to fractures, and fractures can be fatal, particularly those involving the hip. Benzodiazepines increase the risk of falls in the elderly by 1.5-fold, according to a metaanalysis of 18 studies. The data are not conclusive, as there's also evidence that benzos are prescribed more often to patients who are at risk for falls. However, these studies attempted to control for those confounders, and benzos have a known, dose-dependent effect on postural stability and balance. To improve safety, emphasize caution during the first 2 weeks of treatment, as that is when the risk is highest. Lower doses also reduce the fall risk, but the data are conflicting as to whether short- or long-acting benzos are more dangerous. Switching to Z-hypnotics, however, does not seem to be the answer, as they impart a similar risk (Donnelly K et al, *PLoS One* 2017;12(4):e0174730).

While the fall risk peaks early, the cognitive side effects of benzos tend to worsen over time. A recent meta-analysis found that long-term users were impaired across a dozen cognitive domains compared to patients with chronic anxiety who did not take benzodiazepines. Judging by their effect sizes, which were in the moderate to large range, those impairments would be apparent to the casual observer. Cognition gradually improves after the drug is discontinued, but some impairment is still detectable up to a year later (Crowe SF and Stranks EK, *Arch Clin Neuropsychol* 2017;doi:10.1093/arclin/acx120).

Among those impairments is the ability to form new memories, which can get in the way of exposure-based psychotherapy (Rothbaum BO et al, *Am J Psychiatry* 2014;171:640–648). Processing speed, attention, and the ability to multi-task are all reduced by benzodiazepines, an effect that can be fatal on the highway. Benzodiazepines raise the risk of car accidents 2–4

fold, depending on the dose, and the affected drivers are usually unaware of their impairment (Brandt J et al, *Drugs R D* 2017;17:493–507).

Can these cognitive problems progress to dementia? The answer is a tentative yes. Nine out of 10 studies have concluded that benzodiazepines raise the risk of developing de-

mentia by 1.5–1.8 fold. None of those data are controlled, leaving open the possibility that the risk is better explained by the tendency to prescribe benzos to patients with more severe symptoms. Still, the association holds up when adjusted for confounders like symptom severity, and the risk of dementia rises with longer use, higher dose, and longer half-lives, suggesting the drug itself may be the culprit (Brandt J et al, *Drugs R D* 2017;17:493–507).

#### Other risks

Benzodiazepines have also been linked to cancer, exacerbation of respiratory disease, pancreatitis, and infections, but those links are more tenuous; the studies lack adequate controls or suffer from inconsistent results (Brandt J et al, *Drugs R D* 2017;17:493–507).

#### Clarify the benefits, minimize the risks

Even when the risks are high, benzos may still be justifiable when their benefits are meaningful and alternatives have failed. Speaking of alternatives, antidepressants often require a longer trial (8–12 weeks) and a higher dose to treat anxiety. Cognitive behavioral therapy (CBT) is great when available, but there are other therapeutic approaches worth considering for anxiety, such as mindfulness, psychodynamic therapy, progressive muscle relaxation, deep breathing, yoga, sleep hygiene, and even caffeine reduction.

Is there a good reason to continue the use of a benzodiazepine? Their clearest

#### Benzos and Opioids: When to Avoid Their Combination

Benzos raise the risk of an opioid overdose by 2–4 fold. The features below increase that risk further. When available, I've estimated the magnitude of the increase in parentheses.

# Near-absolute contraindication

Strong relative contraindication

- Active prescription misuse
- Active opioid, alcohol, or benzo/sedative use disorder
- · History of sedative overdose
- Methadone use (7x)
- History of sedative, alcohol, or opioid use disorder (3x)
- Borderline or antisocial personality disorder (2x)
- Unstable psychiatric disorder (2x)
- Respiratory disease (eg, COPD, sleep apnea), pregnancy, or systemic medical illness such as HIV (5x); organ failure (1.5x); and renal or hepatic impairment
- Daily opioid dose ≥50 morphine milligram equivalents (2x) (see www.oregonpainguidance.org/ opioidmedcalculator); long-acting opioids carry a higher risk than short-acting ones
- · Risk of falls or traffic accidents
- Age ≥65

Sources: Centers for Disease Control and Prevention, 2012. MMWR 2014;63(26);563–568; Dilokthornsakul P et al, J Pain 2016;17:436–443; Dowell D et al, JAMA 2016;315:1624–1645; Webster LR et al, Postgrad Med 2015;127:27–32.

indication is in panic disorder, with generalized and social anxiety disorders a close second. Infrequent use for simple phobias and short-term use for acute anxiety or insomnia are also acceptable. After that, their use becomes less defensible, particularly if the patient is elderly or is taking an opioid.

When benzodiazepines can't be discontinued, their risks can be minimized. I'll use the lowest possible dose for the shortest period of time and prefer benzos with a short half-life and few metabolites. Among the benzodiazepines, oxazepam has the lowest fatality index and the lowest potential for abuse, perhaps because of its slow onset, which builds over 3 hours instead of the 0.5–1.5 hours typical for this class (Buckley NA et al, *BMJ* 1995;310:219–221; Griffiths RR, *J Clin Psychiatry* 2005;66 Suppl 9:31–41). Lorazepam is second in terms of those safety metrics, while clonazepam, alprazolam, and diazepam are the worst.

While benzodiazepines' benefits are TCPR clear, it's difficult to appre-VERDICT: ciate their risks through clinical experience alone. Adverse events are either too rare, as in overdose deaths, or too insidious like cognitive decline. Sometimes those risks will steer us away from benzodiazepines, particularly when the patient is elderly, taking an opioid, or in recovery from an opioid use disorder. Outside of those groups, benzodiazepines are good options for severe anxiety disorders and are usually less harmful than the disorders they treat.

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# -THE CARLAT REPORT: PSYCHIATRY–

Expert Interview – Continued from page 1

should stand, and a certain distance you should stand away from the patient. I always keep my hands facing forward and open. That way the person can see I have no weapons and that my hands aren't up in the air making it look like I might take a swing at the person. I usually keep my legs sort of pointed to the side, so my body language can't be interpreted as being ready to kick the person or sprint toward the person. So, there are things that can happen before you introduce yourself.

TCPR: In these situations, there are always a lot of different people involved, from law enforcement to EMTs and emergency department personnel. But can't that "show of force" make the situation even worse?

**Dr. Fishkind:** Absolutely. It's provocative. The person feels that the odds are unfavorable. It's like the end of the movie *Butch Cassidy and The Sundance Kid*. Many times, especially in a state of psychosis, these patients feel like they have nothing to lose, are cornered, and have no choice but to fight for their lives. So, having more people involved is not always the best thing. There's no consensus on how many people should be involved, and obviously the safety of the staff and the police are just as important as the safety of the patient. No matter how many people are involved, what's most important is that you have people with the right temperament for this work—and have 1 staff person do all the talking.

TCPR: How should we advise the people who do this work with us?

**Dr. Fishkind:** Help them understand that patients have wants and feelings just like everyone else. When people want something they're not receiving, they get angry. If they want to make sure something bad doesn't happen to them, they get anxious. If they want something and they've given up hope of ever having it, they get depressed. And if they want

"If patients see that you are interested in what they want, you start to very quickly establish a bond, and perhaps help the patients understand that you're listening and not just there to put them in restraints."

Avrim Fishkind, MD

something and they get it, they're happy. Basically, if people rid themselves of wants, they rid themselves of anger, fear, and depression. So, if the patient appears angry, one can say to the agitated patient directly, "You look angry. You must want something you're not getting. Can I help you get what you want?" The minute patients see that you are interested in what they want, you start to very quickly establish a bond, and perhaps help the patients understand that you're listening and not just there to put them in restraints.

TCPR: It sounds like compassion, patience, and a willingness to listen are key.

Dr. Fishkind: Yes. Listening is the big one. We used to send residents to calm down a patient, and

Continued on page 5

#### Ask the Editor

Starting with this issue, Editor-in-Chief Chris Aiken, MD, will give advice on a different practice challenge.

If you have a question you'd like Dr. Aiken to answer, please send an email to **AskTheEditor@thecarlatreport.com**. Dr. Aiken won't be able to answer all questions received, but he will pick one each month that is of general interest.



#### Medication-Induced Hyponatremia

**Dear Dr. Aiken:** Can you tell us more about hyponatremia? Which medications can cause hyponatremia, who's at risk, and how we should manage this condition?

**Dr. Aiken:** Hyponatremia, or low sodium level, is a rare but serious side effect of certain psychiatric medicines. The following is some information that I hope will help:

#### Which medications cause hyponatremia?

Oxcarbazepine (30% for mild; 1.3% for significant) and carbamazepine (15% mild; 0.1% significant). SSRIs, SNRIs, and antipsychotics cause hyponatremia at much lower rates (around 1:2,000).

#### Who's at risk?

Age >45, thiazide diuretic use, renal or kidney disease. Hyponatremia is common in schizophrenia (lifetime rate 10%) due in part to psychogenic polydipsia, a psychotic syndrome where patients drink water compulsively.

#### What are the symptoms?

Nausea, dizziness, memory problems, malaise, fatigue, and headaches. Usually the drop in sodium is gradual, causing mild symptoms, but the presentation can be dramatic when the sodium falls over a few days. Either way, hyponatremia has serious consequences if left untreated: seizures, rhabdomyolysis, brain stem myelinolysis, and death.

#### How do you interpret the level?

Decreased sodium can be mild (<135 Meq/L) or severe (<125 Meq/L).

#### **Management tips**

If sodium <125 Meq/L or the symptoms are severe, send to ED. Otherwise, stop the causative medication, restrict fluids (1–1.5 L/day), and recheck sodium in 1 week. Lithium levels can rise during hyponatremia, so hold that medicine and check a level if the patient is taking it. Refer to nephrology if the problem persists. When the offending medication can't be stopped, the ADH inhibitor demeclocycline (600–1200 mg/day) can be added in consultation with nephrology.

Sources: Yang HJ et al, Psychopharmacology (Berl) 2017;234(5):869-876. Annamalai A, Medical Management of Psychotropic Side Effects. New York, NY: Springer; 2017.

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# THE CARLAT REPORT: PSYCHIATRY-

**Expert Interview** Continued from page 4

the resident would come back 30 seconds later and say, "Well, they're not calming down because they're just not listening." I'd say to the resident, "Well, you might have to repeat yourself a few times and listen a little longer. Why not wait for them to tell you something?" You can also try agreeing with the patient as often as you can, agreeing to disagree if you can't reach consensus.

#### TCPR: It sounds like we need to "walk around in the patient's shoes." What else should we do?

**Dr. Fishkind:** Offer the patient options. Obviously, there are a lot of times where you can't reason with a highly agitated patient, and for the safety of everyone involved, and as a last resort, you'll need to move to seclusion or restraints. But if it's not too late, try saying, "Look, I can't let you cause any harm to yourself or anybody else. I have medication that can help you feel better. You can either have this medication by mouth or we can give you an injection. What would you like to choose?" The more choices you offer, the better. Intervening early to help them manage their emotions is important, and research shows that discordance between patients and professionals—including a lack of patient trust—is a major cause of injuries to staff, law enforcement, and the patient (Wong AH, Jt Comm J Qual Patient Saf 2018;44(5):279-292). TCPR: So, that's all good advice for the ED. But how do we handle agitation on the inpatient unit, such as when a patient wants to be discharged quickly?

Dr. Fishkind: You could say, "I can't discharge you right now, but I'm working toward that." Follow this up by actually creating a plan with the patient that works toward discharge. Working on this plan is calming to many patients. Frequently, they want a cigarette, which they can't have, and then suddenly they're mad enough to throw a table. But at least you're identifying what they want and engaging them in a conversation. That can lead to offering them choices and empowering them to make another choice. When patients want to leave the hospital, I will say, "Look, if you can follow this path—and I have a lot of faith that you can do it-we can get you home. Let's make a plan together to get you out of here."

#### TCPR: What else can we say to the patient in these situations?

Dr. Fishkind: First, understand that you should always try to avoid coercion. No one likes being forced or threatened into doing something. So, as you work your statements with patients, always start with the lowest level of coercion (Richmond JS, West J Emerg Med 2012;13(1):17–25). For example, when working with agitated patients, begin by inviting them to share ideas. Say, "So, what helps you at times like this?" You might learn that they're agitated because the medication they took did not work. Understanding that early on can help. You could say, "I think you would benefit from the medication this time," which isn't coercive, it's just stating a fact. You're not asking them to do anything yet or trying to persuade them.

#### TCPR: What comes next if that strategy doesn't work?

**Dr. Fishkind:** I would move to the next level of coercion, which is persuading. At that point, say, "Well, I really think you need a little medication. Let me tell you why. If I get some medication into you, we can avoid having you stay in the hospital." Then, if necessary, you go to the next level, where you might say, "You're in a terrible crisis. Nothing's working. I'm going to get you some emergency medication. It's very safe, and we don't have any choice at this point." That then becomes more of an inducement to get the person to say OK. Moving to a last step, you

#### The 10 Commandments for Verbal De-Escalation

- 1. Respect personal space: 2 arm-lengths.
- 2. Do not be provocative. Body language is important. Do not cross your arms, stare, or conceal your hands.
- 3. Establish verbal contact. Introduce yourself by name and title. Only 1 person should verbally interact with the patient.
- 4. Be concise. Complexity leads to confusion and escalation. Keep it simple and repeat your message.
- 5. Identify wants and feelings. For example: "I really need to know what you expected when you came here."
- 6. Listen closely to what the patient is saying. This doesn't mean that you agree, but rather that you understand.
- 7. Agree or agree to disagree. You can agree in truth, in principle, or in theory. If you can't agree, than agree to disagree.
- 8. Lay down the law and set clear limits. Inform the patient about acceptable behaviors in a matter-of-fact way and not as a threat.
- 9. Offer choices. Never deceive a patient by promising something that cannot be provided.
- 10. Debrief the patient and staff. What went well, what did not, and how can we improve?

If verbal de-escalation fails and the patient requires medications for de-escalation, try to approach it in the following way:

- Stating a fact: "I think you would benefit from medication."
- Persuading: "I really think you need a little medication."
- Inducing: "You're in a crisis and nothing is working. I'm going to get you some emergency medication. It works well and it's safe."
- Coercing (the last resort): "I'm going to have to insist."

This text has been adapted with permission from the 10 Commandments for Safety by Avrim Fishkind, MD.

could say something like, "I'm going to have to insist that you take medication because I can't let any harm come to you or anyone else." This is the highest level of coercion. At that point, there may be no other choice. So, this is how you can move up the scale as the emergency escalates, from statements that are easy for a patient to tolerate to ones that are more coercive.

TCPR: It sounds like you're also reinforcing to patients that you're on their side.

Dr. Fishkind: Yes, exactly. It continues to reinforce the idea that I'm a doctor, and I'm here to keep patients safe. It reinforces with patients that I'm here to work for them. You need to build trust fast and continue to reinforce that trust as you go along.

TCPR: OK, let's talk about prevention—for example, when a patient is starting to rev up, pacing across the floor. How do we approach that?

Continued on page 7

# -THE CARLAT REPORT: PSYCHIATRY-

# Research Updates IN PSYCHIATRY

#### **ANTIDEPRESSANTS**

Serotonin Syndrome Risks With Co-Prescription of Triptan Drugs and SSRIs or SNRIs

**REVIEW OF: Orlova Y, JAMA Neurology** 2018;E1–E7

In 2006, the FDA issued a warning that patients using either selective serotonin reuptake inhibitors or selective norepinephrine reuptake inhibitors (SSRIs or SNRIs) together with triptan antimigraine drugs might be at a heightened risk for serotonin syndrome. Their advisory was based on 27 case reports of suspected serotonin syndrome in people who were prescribed a triptan along with one of these serotonergic antidepressants.

Because migraines are a common comorbidity in depressive and anxiety disorders, many of our patients are co-prescribed these medications. But what is the true risk for serotonin syndrome for these patients?

Yulia Orlova at the University of Florida and colleagues from Boston's Brigham and Women's Hospital completed a population-based study to evaluate

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this risk. They used electronic health records from over 6 million members in the Partners Research Data Registry to identify a cohort of 19,017 patients, who were prescribed both triptans and an SSRI or SNRI between 2001 and 2017, a total of 30,928 person-years of exposure.

Serotonin syndrome was suspected in 17 patients, and concurrent use of triptans and SSRI/SNRI was confirmed in 7 of these. Serotonin syndrome was considered definite in 2 of those cases and possible in the other 5, yielding an incidence rate of 0.6–2.3 cases per 10,000 person-years of exposure.

The rate of co-prescription did not change after the 2006 FDA warning. Between 2001 and 2014, 21%–29% of triptan users were also prescribed an SSRI or SNRI.

#### **TCPR'S TAKE**

Serotonin syndrome is hypothesized to involve activation of only serotonin 2A and 1A receptors. Triptans are primarily agonists for serotonin 1B and 1D receptors and do not activate serotonin 2A or 1A receptors. Thus, we doubt that triptans would increase the risk of serotonin syndrome.

This study supports that conclusion. The risk of serotonin syndrome with concomitant use of triptans and SSRIs or SNRIs appears to be very low. These results cast serious doubt on the validity of the 2006 FDA advisory and suggest that it should be reconsidered.

—*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.

#### **ADHD**

Mindfulness Therapy for Adult ADHD REVIEW OF: Janssen L et al, Psychological Medicine 2018;28:1-11

Medications are the first-line treatment for adult ADHD, and the efficacy of psychosocial therapies is less well-defined. Mindfulness-based therapy showed promise for adult ADHD in a recent meta-analysis, but there were flaws and significant differences between the included studies (Janssen L et al, *BMC Psychiatry* 2015;doi:10.1186/s12888-015-0591-x).

The current study was a single-blind, randomized controlled study of mindfulness-based cognitive behavioral therapy (MBCT) as an adjunct to treatment as usual (TAU) in 120 patients with adult ADHD. Both groups received TAU, which consisted of various combinations of medication, psychoeducation, and skills training. The intervention group received 8 weekly sessions of MBCT and a 6-hour silent day of mindfulness. Each session was 2.5 hours long and consisted of meditation exercises, cognitive behavioral techniques, psychoeducation, and group discussions. For the silent day, study subjects spent 6 hours completing various meditation activities, eating lunch, and having a tea break. Mindfulness practice was encouraged outside of the sessions for 30 minutes a day.

Patients in the MBCT group had significant reductions in clinician-rated and self-reported ADHD symptoms that persisted for 6 months. Significantly more patients in the MBCT group (27%) experienced a ≥30% reduction in symptoms compared with the TAU group (5%) (p=0.001). The two groups were similar in their utilization of TAU, although those in the mindfulness group were less likely to make changes to their medications.

Although the results are encouraging, the study had several limitations. Participants were not blinded to the treatment, so placebo effects cannot be completely ruled out. No data were collected on patients who were excluded or declined to participate in the study, raising the possibility that the sample was enriched and limiting the generalizability of the results.

#### **TCPR'S TAKE**

This study raises the quality of evidence in support of mindfulness therapy in adult ADHD. Mindfulness is reasonable to recommend as an adjunct to medication, and as a solo treatment for patients who cannot tolerate or do not respond to medication.

—*Jessica Goren, PharmD.* Dr. Goren has disclosed that she has no relevant financial or other interests in any commercial companies pertaining to this educational activity.

September 2018

# -THE CARLAT REPORT: PSYCHIATRY-

#### **CME Post-Test**

To earn CME or CE credit, you must read the articles and log on to www.TheCarlatReport.com to take the post-test. You must answer 75% of the questions correctly to earn credit. You will be given two attempts to pass the test. Tests must be completed within a year from each issue's publication date. As a subscriber to *TCPR*, 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.

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For those seeking ABPN Self-Assessment (MOC) credit, a pre- and post-test must be taken online at http://thecarlatcmeinstitute.com/self-assessment/

Below are the questions for this month's CME/CE post-test. This page is intended as a study guide. Please complete the test online at www.TheCarlatReport.com. Note: Learning Objectives are listed on page 1.

1. According to Dr. Aiken, which benzo	diazepine has the lowest fa	tality index and the lowest potentia	al for abuse? (LO #1)
[] a. Alprazolam	[] b. Oxazepam	[] c. Clonazepam	[] d. Temazepam
2. Dr. Fishkind advises that when speak Which of the following statements r	•		nitially try to avoid coercion.
[] b. "I think you would benefi	t from the medication we and t that you take medication into you, we can avoid have	because I can't let any harm come ing you stay in the hospital."	to you or anyone else."
on an as-needed vs daily basis. (LO	=	tiento taking benzoulazepineo io giv	eater when the dose is prescribed
[] a. True	[] b. False		
4. According to Dr. Fishkind, which me sleep and is also quick to prepare p		,	without necessarily inducing
[] a. Lorazepam	[] b. Ziprasidone	[] c. Clozapine	[] d. Haloperidol
5. According to a 2018 study, the risk o (LO #3)	f serotonin syndrome with	concomitant use of triptans and SS	RIs or SNRIs appears to be low.
[] a. True	[] b. False		

Expert Interview – Continued from page 5

**Dr. Fishkind:** Medication is very helpful in those early phases, so hopefully we've established an understandable rationale for meds with patients. Another thing that can work is to let them recognize that you know they're angry. You can then talk to them the way I mentioned earlier or give them tools such as breathing exercises to keep them from escalating. If they're waiting to be treated, let them know that they can come to the window to ask a question or let the nurse know what they want. Now, that can be a little annoying to the nursing staff, but it's worthwhile if it keeps the situation from escalating. You can also write down a list of choices for them and say, "If you feel like you're getting angry, here are some things we can do for you, including some medication."

TCPR: This is all great advice on using words to calm the situation. Let's talk a little more about medication. What's your preference for calming agitated patients with an antipsychotic?

**Dr. Fishkind:** I'm a Geodon IM (ziprasidone) fan. Virtually all the injectables work the same, but I like ziprasidone for a couple of reasons: One is that the nurses only have to inject water into the little bottle and shake it for 30 seconds, which makes for quicker administration, and the other reason is that—unlike Haldol and Ativan—Geodon calms patients without putting them to sleep, so you can keep working with them.

TCPR: What would be your typical dose for the ziprasidone?

**Dr. Fishkind:** I typically go with 20 mg. I think a lot of people give 10 mg because they're afraid that they'll have QTc problems with ziprasidone, but that's a problem with all antipsychotics. Some have more than others, but the QTc increase with ziprasidone IM is roughly the same as with haloperidol IM (Zimbroff DL et al, CNS Spectr 2005;10(9):1–15).

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# THE CARLAT REPORT: PSYCHIATRY

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> This Month's Focus: Emergency Psychiatry

# Next month in *The Carlat Psychiatry Report:*Working With Transgender Patients

Expert Interview – Continued from page 7

TCPR: I understand you're developing a new model for emergency psychiatry using telemedicine. Tell us about that.

Dr. Fishkind: I've worked in emergency departments for many years, and some of my experiences there have led me to search for better ways to manage psychiatric emergencies. Today I run a telepsychiatry practice called JSA Health. We use telemedicine to help emergency departments, but also to build community-based psychiatric emergency services that we staff via telemedicine. We are also attempting to handle psychiatric emergencies where and when they occur—for example, by using iPads with police officers in the field. We're trying to move the whole emergency crisis system out further into the community, giving police officers, probation staff, case managers, and visiting nurses the ability to reach psychiatrists faster and quicker to try and solve the crisis before people end up in a hospital emergency department or in jail.

TCPR: Is there any final advice you'd like to give psychiatrists working in emergency medicine?

**Dr. Fishkind:** Make yourself available. Be out with the patients, not hiding in the nurses' station or call room. Don't be afraid to be the one that's talking to patients during an escalating crisis. Spend time in front of them, and make sure you don't disappear on them after the first encounter. Be a part of the multidisciplinary team engaging patients with social workers, nurses, and psychiatric technicians—working together to help the patients regain control.

TCPR: Thank you for your time, Dr. Fishkind.

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