

Medications for Psychiatric and Substance Abuse Disorders

Summarized by Thomas T. Thomas

A clinical pharmacy specialist with training in psychiatry, and now with Alameda County Behavioral Health Care Services, **Dr. Seth Gomez, PharmD, BCPP**, primarily practices in outpatient health centers and specializes in substance use disorders and psychiatric medication management. He also provides pharmacological consulting services to providers across Alameda County's behavioral health and primary care systems.

Dr. Gomez noted that this country currently has about 1,100 Board Certified Psychiatric Pharmacists (BCPPs), many of them located in the Bay Area.

He received his Doctorate in Pharmacy from the University of the Pacific in Stockton, California, and completed two years of post-doctoral training in psychiatry with the University of Southern California, School of Pharmacy. Dr. Gomez has research interest in the areas of homeless health care, mental health care, opioid use disorders, geriatric psychiatry, and street health services. When he is not working, you can find him volunteering at local animal shelters, playing softball, hiking, and enjoying the outdoors.



*DR. SETH GOMEZ, PHARM.D,
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“Over the last twenty years,” he said, “there’s been a dramatic difference in psychiatry. And moving forward, things are going to get more exciting.”

Antidepressants¹

Recently, the U.S. Food and Drug Administration (FDA) approved a new medication for treatment resistant depression (TRD), Spravato (generic name: esketamine). Its basic ingredient, ketamine, has been abused as the party drug “Special K,” but it also has long clinical use in anesthesia and pain management.

Researchers have found that very small doses of esketamine help improve people’s mood. Spravato is administered as a nasal spray, and—while traditional antidepressants like selective serotonin reuptake inhibitors (SSRIs) may take four to six weeks to have effect—Spravato users show improvement in two to four *hours*.

Because of its relationship with Special K and side effects that include changes in heart rate and blood pressure, and a temporary dissociative effect—where the patient feels “not present in the body”—the medication is only administered in a clinical setting where the patient is monitored. Doctors must be certified in the use

¹ Dr. Gomez noted that, for reasons of stigma, he prefers to refer to these medications by their functions—such as “helping to stabilize serotonin”—because many can be prescribed for other psychological conditions.

of this medication. Spravato is administered twice a week to start, then once a week, and the effects of a dose last two to four weeks.

“This is not a first-time medication,” Dr. Gomez warned. As with all new medications, there are issues with insurance coverage and expense, and Spravato has “a hefty price tag.” Other, less costly options for TRD are electro-convulsive therapy (ECT) and transcranial magnetic stimulation (TMS). Both are safe and effective.

Small trials are also testing Spravato for post-traumatic stress disorder (PTSD) and the depressive symptoms of bipolar disorder, which it treats without switching on the manic symptoms. The medication can also lower dependency on opioids for pain relief.

Postpartum Depression

For a long time there was a big gap in treating and preventing symptoms of postpartum depression, and other medications have been used “off label.” The FDA has recently approved brexanolone (brand name: Zulresso), which is related to steroids and is a modulator of the brain’s gamma-aminobutyric acid (GABA) receptors.

This medication is administered in the hospital or on an outpatient basis because of concerns about women who may be breast feeding.

Antipsychotics

A new medication for psychosis, one of the atypical antipsychotics, is Rexulti (generic name: brexpiprazole), which is related to aripiprazole (brand names: Abilify, Aristada, etc.). Abilify is an activator of the brain’s dopamine receptors, and Rexulti is a less active version.

Clozapine (brand name: Clozaril) has been in use for a long time and is one of the best medications for schizophrenia, but it requires regular blood draws to guard against side effects. The patient must travel to a phlebotomist for the draw, and the results must be prepared by a laboratory, which is time-consuming and expensive. The draws are taken once a week for the first six months of use, then twice a week, and finally after a year just once a month.

All that will soon change with an FDA-approved device, now undergoing a pilot program in Alameda County, that produces results on site from a finger stick. So far, the county program requires that it be used in the clinic, but the device itself is free.

Despite its inconvenience, Clozaril is relatively inexpensive: a 30-day supply costs about \$15, compared with \$800 for Abilify—and that cost is not coming down even with its recent generic status.

Tardive Dyskinesia

Both typical and atypical antipsychotics affect brain chemicals that modulate muscle movements, and so they must be monitored against tardive dyskinesia (TD), which can occur weeks or months after exposure. Symptoms include involuntary—and often unconscious—movements of the face and body, which can be embarrassing and cause the patient to become isolated and even stop treatment. Thus doctors generally use the lowest possible dose of these medications to avoid TD side effects.

A new class of medications, vesicular monoamine transporter-2 (VMAT-2) inhibitors, can now be used to treat TD directly and improve the patient’s quality of

life, although they don't treat the underlying psychological condition. Brand names are Ingrezza, Xenazine, and Austedo.

Weight Gain

Most of the antipsychotics involve some amount of weight gain, and often this is due to their sedative effect—they make you too tired to move, while you remain normally hungry. Lowest risks of weight gain among the older, typical antipsychotics are found with Haldol (generic: haloperidol) and Prolixin (generic: fluphenazine); among the newer atypicals the lowest risks are with Abilify (generic: aripiprazole) and Geodon (generic: ziprasidone).

Weight gain is associated with cardiovascular effects, high cholesterol, and diabetes. For many people, however, the gain represents about two to three pounds and the effect tends to plateau.

Legalized Cannabis

Dr. Gomez pointed out that, with the recent legislative changes regarding cannabis, many people associate legalization with safety and with the freedom to self-medicate. The goal, he said, should be to become a smart user of this substance.

The law does not distinguish between the cannabidiol (CBD) component, which has some medical benefits, particularly with seizures, but no mental health uses, and tetrahydrocannabinol (THC), which is the principle psychotropic component and may help with anxiety and depression. His advice was to buy only from licensed dealers, not off the street, because the former know more about concentration, and the latter tend to sell higher concentrations of THC to hook you. THC may offer temporary relief, but it also tends to increase cycling, resulting more episodes and more distress.

The human brain continues developing into the mid to late 20s, he said, and early exposure to cannabis can change the trajectory of this development. It changes the ways nerves and neurotransmitters interact and can even shut down parts of the brain.

Testing for Psychotropic Effectiveness

When asked about genetic and genealogical tests to predict the effectiveness of these medications, Dr. Gomez expressed doubts. “We aren't ready for that. While some tests have FDA approval, the body metabolizes medications through many pathways and genes. These tests don't offer the right information.”

Psychotropics in the Treatment Model

Dr. Gomez said that psychotropic medications fit into a treatment landscape that is governed by the bio-psycho-social model.

The biological component includes elements like the person's gender, genetics, and physiology. The psychological component includes how the person sees him- or herself and the personal outlook. And the social component includes life elements like education level, financial situation, housing, and peer and family support.

These three components tell the treatment story. Medications and substance use may change the person's physiology. Psychotherapy targets the person's self-view and outlook. And social support enables the person to heal. “In this story, medication is just one tool in the toolshed,” he said.