

Mark Watanabe Updates NAMI-East Bay on Psychotropic Medications

Summarized by Thomas T. Thomas

The number of psychotropic medications, including anti-depressant, anti-psychotic, and anti-anxiety drugs, is increasing each year. As their use increases, medical authorities are also discovering more about therapeutic effects, side effects, and interactions. For our May 23 meeting, we welcomed back **Dr. Mark Watanabe**, Assistant Director of Pharmacy for the Department of Behavioral Healthcare Services in Alameda County, to describe the current state of practice and answer our members' questions.



DR. MARK WATANABE

First, Dr. Watanabe explained that he is a psychopharmacist—that is, a pharmacist by training who specializes in mental illnesses. He has taught at the university level and worked with doctors and patients to make the best use of psychotropic medications. “The good news,” he said, in reference to his teaching experience, “is that today’s students, who are the next generation of pharmacists, are not as fearful of working with the mentally ill.”

Having further specialized in his career by working with economically marginalized groups, Dr. Watanabe now helps set up guidelines in the county for the use of psychotropic medications and tries to make sure that clients are best served.

He noted that there have been two major developments in the field since he talked with us last, in January 2000. The first is a news release from early last year by the National Institutes of Health relating the experiences of people who take regular doses of protease inhibitors in a treatment regimen for HIV infection. It reported that in patients who also self-medicated with St. John’s Wort, which is claimed to have effect on depression, the protease inhibitors did not work as well and were found at lower blood levels than in other patients.

“The implication,” Dr. Watanabe said, “is that something in St. John’s Wort may affect the action of prescribed medications. And this effect may extend to other herbal remedies.” He also offered the caveat that, while in Europe herbal remedies are sold in standardized preparations, the U.S. Food and Drug Administration has no standards for such “dietary supplements,” and so strength and potency cannot be compared between one brand or product and another.

The second development has been the release to market of Geodon, which is the brand name of the generic medication ziprasidone. (This was originally planned to be marketed under the brand name Zeldox.) Geodon is an “atypical

anti-psychotic,” of the class that includes Clozaril (generic name clozapine), Risperdol (risperidone), Zyprexa (olanzapine), and Seroquel (quetiapine).

“In prescribing these other atypicals, the concern is with weight gain,” Watanabe said. “But so far Geodon has shown to be weight neutral.

“Another concern with the atypicals is their effect of lengthening the heartbeat by interfering with electrical impulses in the heart, or cardiac conduction. This means they present an increased risk of heart irregularity. While Geodon also has this effect, it is not as bad as some others,” he said.

For example, Mellaril (thioridazine) has the greatest effect on heart rate and is now considered a second line medication—that is, not to be prescribed as a first choice. Dr. Watanabe also pointed out that, unless the patient had a pre-existing condition before taking the anti-psychotic, the irregular heartbeat is reversible when the patient stops the medication.

Another development Dr. Watanabe mentioned is advances in the field of “ethnopharmacology,” or the study of the effect of medications on different population types based on genetics. He pointed out that any oral medication passes through the stomach and into the small intestine. From there it immediately enters to the liver, where proteins called enzymes break down the molecules before they go into the bloodstream and then, in the case of the psychotropic medications, through the blood-brain barrier to the brain.

“Which enzymes the liver produces are determined by our genes,” he said. “So now we are looking more closely at the effects of medications on different populations and on women, who used to be excluded from drug studies if they were of child-bearing age. We are also looking at effects on children, geriatric patients, different ethnic groups, and also people with certain mental disabilities. What we are finding is that ‘one medication does not fit all.’ ”

After these general remarks, the doctor opened the floor to questions.

How does the length of time a person has been ill affect his or her chances of recovery? For example, if a person were put on Clozaril right away, without having to try the older medications, would it improve the chances of a good result?

The older anti-psychotics, such as Haldol and Navane, work but they have a greater number of side effects, such as involuntary movement. Clozaril has fewer of these side effects but presents the risk of a drop in white blood cells which could be fatal, so the patient needs weekly blood tests. The new atypicals—such as Seroquel, Zyprexa, Risperdol, and now Geodon—also have fewer side effects but no similar risk of fatality. However, they do cost more. None of these medications is basically more effective than the others, although having fewer side effects will improve the chances of the patient staying with it.

There is no irreparable harm in delay while being treated with a less-than-effective medication. The prescribed dosage depends on what the patient can tolerate, and there’s no way to predict in advance what will work. But once the doctor and patient find the right medication, the patient will generally improve.

Clozaril has been good for my son, but he is at the high end of the dosage—700 milligrams a day. He is also a heavy smoker and drinker. What are the potential interactions with those habits?

Smoking has a potential interaction, because nicotine induces changes in certain enzymes in the liver, especially those that metabolize Clozaril. So smoking chews up the Clozaril, which may explain why he is at a higher dose. However, 700 milligrams per day is not extremely high; Clozaril can be prescribed up to 900 milligrams.

Drinking is not a good idea with any medication, both pharmacologically and from the standpoint of general health.

Then why do certain hospitals encourage smoking by sending patients out on smoke breaks?

That's a good question. Nicotine is very addictive, and hospitals recognize the reality that some patients need to smoke. However, a hospital can lose its accreditation if it allows smoking inside.

My son has obsessive-compulsive disorder (OCD). For example, he changes clothes ten times a day and also has obsessive thoughts. He takes Prozac, which is supposed to fight OCD, but it doesn't seem to be working.

Prozac (fluoxetine) and the other Serotonin Selective Reuptake Inhibitor (SSRI) anti-depressants, such as Luvox (fluvoxetine), Paxil (paroxetine), Zoloft (sertraline), and Celexa (citalopram), are supposed to help OCD. Try to keep on the medication for ten to twelve weeks before judging its effectiveness.

The tricyclic anti-depressant Anafranil (clomipramine) sometimes works better, but you also need to allow a reasonable amount of time for the medication to work.

What is the upper dosage limit for Geodon? What is an adequate trial period? And what reports do you have from clinical experience?

Based on pre-market trials, dosage ranges from 80 to 320 milligrams per day, with a starting dose of 40 milligrams three times a day. The trial period depends on the dose, which you can adjust as you go along or wait until the end of a full eight weeks. As to reports, it seems to work great, especially in the area of weight gain. Some patients report sleepiness and quit after one dose. Others have reported a tendency to faint when they stand up, and if that happens you want to lower the dose.

How quickly can you increase dosage?

With anti-psychotics, you can't correlate blood concentration with therapeutic effect, because of the lag in effect on the brain. So increasing the amount of medication in the bloodstream will not show an immediate response but may increase side effects.

What about children? I've seen three-year-olds on lithium and children taking cocktails of anti-psychotics.

With these medications, studies are not usually done with children before going to market. So most of the experience is with adult patients. For children, you could try a lower dosage—but probably not a cocktail.

Is there a computer program that tracks drug interactions?

Big pharmacy chains like Long's and Walgreen use off-the-shelf programs to track prescriptions. But they only indicate a potential interaction, not a certainty.

And, with new medications being introduced all the time, the programs cannot be all-inclusive. In addition, at the end of clinical trials before market, the makers still don't know all of a medication's possible side effects.

So we pharmacists depend on the people in the front lines—that's you, the doctors, the patients, and their relatives—to follow up and report on your experiences with any new drug.