

Necessary precautions



Learning the dangers of drug-to-drug interactions

By Caitlin Crawshaw

For some people with a mental illness, talk therapy, exercise, and nutritional improvements can make a world of difference. And while all of these things can also help people living with schizophrenia, they do not erase the hallucinations, delusions, and disordered thinking that define the illness. Since schizophrenia is first and foremost a neurological issue, the first line of defense is antipsychotic medication.

Unfortunately, medications for schizophrenia—just like pharmaceutical treatments for any other condition—come with the risk of drug interactions. Anecdotally, experts know drug interactions aren't uncommon and data seems to confirm this. A University of Cincinnati study tracked the prescriptions of Ohio schizophrenia patients between 2000 and 2003 and found that 18 to 22 percent of patients were given prescriptions likely to interact with their antipsychotic medication.

New Orleans counselor and psychopharmacology expert Joe Wegmann, PD, LCSW, says the problem starts in the doctor's office, where patients are generally prescribed multiple drugs to treat their symptoms.

"One agent today is the exception, rather than the rule," he says. Doctors have little time to spend with each patient and sometimes "overreact" to new symptoms by writing prescriptions instead of altering the dose of the existing medication. However, it's also not unreasonable to prescribe multiple medications since no single antipsychotic medication on the market can manage all of a person's symptoms.

Mix and match

Although they've been around since the 1950s, antipsychotics still only treat the positive symptoms—"the active, observable, and treatable symptoms of the disorder"—such as hallucinations and delusions, Wegmann explains. The negative symptoms—that is, lost traits like motivation, focus, or difficulty expressing emotion—are not addressed by even the newest antipsychotics. As a result, doctors may prescribe an antidepressant to deal with motivation issues, or a stimulant to help with cognitive difficulties. Further, with so many different medications on the market these days, and incomplete information about their potential to interact with other drugs, it's difficult for physicians to stay current on drug information. In his 35 years of practice, Wegmann has seen the number of medications on the market double.

Peter Lin, MD, director of primary care initiatives at the Canadian Heart Research Centre in Toronto, Ontario, explains that the body processes most drugs via cytochromes, a kind of enzyme generally found in the liver. There are more than 50 different cytochromes in the human body, and six of them are heavily involved in metabolizing drugs. "The enzymes take chemicals and convert them into something our body can get rid of," says Lin.

Drug interactions occur when substances require the same cytochrome to be broken down by the body. This usually happens when multiple drugs compete for the same enzyme, but in rare cases, certain foods and herbal remedies can also cause drug interactions since they are also digested by cytochromes. Because of this competition, some drug molecules are processed while others are not, changing the concentration of medication in the body.

Not just medication

Different substances can also cause cytochrome enzymes to work faster or slower. St. John's Wort, for example, can speed up one of the cytochromes that processes the antipsychotic Clozaril (clozapine), Lin says. Since the herbal treatment is touted as an effective aid for sleep problems and depression, it's not surprising that someone with schizophrenia might try it. Unfortunately, taking the herb effectively lowers the concentration of Clozaril in the body, which means a weaker effect in the body. As a result, symptoms can return.

Cigarettes can also seem innocuous, so patients with schizophrenia often neglect to tell their doctors that they're smokers, says Lin. The trouble is that the chemicals in cigarettes speed up a cytochrome that processes Zyprexa (olanzapine), another common antipsychotic drug. Without knowing this, doctors will prescribe a dose that's too low and therefore won't have much impact on the patient's symptoms. Patients also need to tell their doctors when they quit smoking so that their dose can be lowered appropriately. If they quit smoking without mentioning this to their doctor, they may end up with excessive concentrations of Zyprexa in their system.