

The Latest in Managing Disability Due to Mental Illness

Case managers must consider pharmacogenomics when managing disability cases due to mental illness, says Mark Faiz, CEO at Personalized Prescribing, Inc.

In the *Benefits and Pensions Monitor Meetings & Events* ‘The Latest in Managing Disability Due to Mental Illness’ session, he said pharmacogenomics is important because the main cause of disability for a person with a mental illness is medication failure. If a medication is working, the person may never become disabled. “Every single human being referred to us over the last three or four years that has been disabled due to mental illness has reported to us that they’ve already failed at least one or more medications,” he said.

Pharmacogenomics solves this as it identifies genes which are keeping a medication from working. To identify these, there’s a number of testing steps needed.

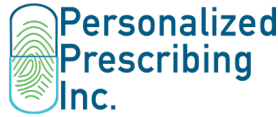
Liver Enzymes

The first step is to test for genes that clear the drug. Drugs are absorbed into the bloodstream which circulates it and then eventually clears it from the liver. “That’s important, because if you cannot clear a drug, or if you clear it too fast, the drug will fail,” said Faiz. However, just because a drug is absorbed, circulated, and then eliminated, doesn’t mean will actually reach its targets.

The Blood Brain Barrier

For drugs to treat mental illness, they need to gain entry into the brain; the brain has a protein called the blood brain barrier which protects it from invaders. Medications are not native to our bodies, so the blood brain barrier stops them. Luckily, it comes in different forms. Some people have a very active barrier which is very good in that no invader can come into the brain. The problem is it’s tough to get drugs through. Others have barriers that are not as strong and others are fairly leaky.

Different anti-depressants are also



actually recognized better by the blood brain barrier. So in the total consideration of a drug, you need to look at the blood brain barrier, said Faiz.

Brain Receptors

One inside the brain, tests are needed for different drug targets. These are brain receptors and if a drug attaches to some of these, this can cause a cascade of events. If everything lines up, the drug works. If any are not lined up, complications result and a drug that passed through the blood brain barrier, fails because the drug target is turned off.

Pharmacist Interpretation

After these tests, trained pharmacists need to interpret the results using special software. “Software alone cannot do it,” he said. “You need a pharmacist who can understand what’s going on, the possible side effects, and so on and so forth.” That pharmacist condenses these findings into a recommendation for the physician who then prescribes the medication.

There are other hindrances that are specific to mental illness:

The Genetic Non-discrimination Act; The Genetic Non-discrimination Act of 2017 says genetic tests cannot be required

in return for any good, service, contract, or anything. It means employees cannot be pushed to take a genetic test. Instead, employees must come at it from a different angle, telling them that this can help them by getting them on the right medication.

Medication takes time to work; The expectations of the patient also need to be managed. Medications don’t work quickly. Anti-depressants may take four to eight weeks to take effect and “when you’re changing medications, before you even start the new one, you must taper off the old one,” said Faiz.

Then as the new medication is introduced, doses are increased gradually. That could take up to four weeks before improvement is seen.

Side effects that might lead to non-adherence; Side effects are another challenge as they can cause non-adherence. Patients need to be told these will subside as they build up their tolerance so they don’t stop taking their drugs.

Physician reluctance; “we still get the odd physician that pushes back and resists being told what to prescribe. The good news is more than 90 per cent of the doctors do accept our recommendation readily and move on,” he said. If it is a problem, the case manager needs to push the doctor into taking a closer look at the report.

Motivation of the patients themselves. Finally, there’s motivation. Patients come in different stripes. Some cannot wait to get the results and get to their doctor to change their medication. They cannot wait to get back to work. Others are not as motivated. “They might talk to us a week or two after the referral report. We might send them the connection kit and they might not get it back for a week or two or three,” he said. “It’s up to the case manager then to make sure that once the patient agrees to do the test, then they get on with it.”

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