Schizophrenia is a disabling mental illness that affects millions of Europeans. Drugs to manage the disease have mixed success - about 30 percent of patients do not respond to medication at all.

Clinicians currently have to navigate the tricky landscape of drug prescriptions to patients without much scientific guidance. What is needed is a scientifically-validated decision tree that could inform clinical decisions and improve outcomes for patients.

The EU-funded OPTIMISE project seeks to create such a decision tree by studying the drug responses of 350 patients with first-episode schizophrenia. The drugs being studied are two anti-psychotic medications widely used in Europe: amisulpride and olanzapine.

“Schizophrenia is a lifelong illness, which means an enormous burden to the patients, to the family, to the society,” says Project Coordinator René Kahn at the University Medical Center, in the Netherlands. “It is by far the most devastating psychiatric illness we are faced with.”

“The strange thing is, even though we have had medication for schizophrenia for decades, we still have not developed an algorithm: How do you treat patients, which drug do you prescribe first, and if it does not work, do you switch or not? The OPTIMISE study is designed to test a proposed algorithm,” explains Kahn.

Recruitment is currently underway for the trial. As patients are recruited they are put on a course of amisulpride treatment, as well as having a magnetic resonance imaging (MRI) performed and blood drawn. After four weeks of amisulpride, patients that have not responded to the drug will be randomised between two possible conditions: continue on amisulpride or switch to olanzapine.

From the results of these various groups, researchers should be able to tell whether, on average, switching drugs helps. In addition, by correlating this information with patients’ MRI scans and blood profiles, the research may reveal so-called “biomarkers” that can help physicians predict how patients will respond to treatment before it even begins.
For those patients that do respond to treatment, a second hurdle exists. Approximately 40 percent of patients with schizophrenia whose disease is in remission will quit taking their medication within the first year. The main reason patients relapse into psychosis is because they discontinue drug therapy. Thus the OPTIMISE project is also studying family-based interventions that help keep patients on track. Subjects who respond to medication will be followed for a year and will be supported with family education, motivational interviewing and medication reminders on their mobile phones.

The second part of the OPTIMISE trial aims to actually develop novel treatment strategies for the disease. The project team will study a promising new drug, cannabidiol, which is a non-psychoactive constituent of the cannabis plant. Researchers will recruit 150 patients with a first psychosis to be treated with either cannabidiol, olanzapine or a placebo. The results are expected to give strong evidence whether cannabidiol is an effective drug in the treatment of schizophrenia.

See also:
CORDIS [2]

Project:
OPtimization of Treatment and Management of Schizophrenia in Europe
Project Acronym:
OPTIMISE


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