Improving the Odds: Using pharmacogenetic testing for treating depression

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More than one in five people in the United States live with a mental illness, according to the National Institutes of Health. With several available drugs on the market for some of these conditions, like depression, it can be challenging to know what prescription will work best for individual patients. Oftentimes, though, these drugs take several weeks to feel the full effect, leaving patients in a state of limbo as they wait to see if their medication will work and provide them with relief or if they will need to try something else.

Pharmacogenetic (PGx) testing could help medical providers determine what medications will be more effective for their patients. PGx testing uses a blood test or saliva sample to look for specific genes that interact with antidepressants. “Pharmacogenetic testing can indicate how patients may respond to medication for mental health care, shortening time to effectiveness and decreasing likelihood of side effects,” said Nina Sperber, PhD, associate professor in population health sciences.

The problem is that PGx testing is not widely used by providers yet. Common barriers include variable beliefs by prescribers about clinical utility, and unclear or inconsistent professional guidelines and payer coverage.  However, despite these barriers, certain prescribers have started to adopt or would like to adopt pharmacogenetic testing. Sperber and her team wanted to gain a better understanding of why that is, so they conducted a study to explore the value PGx testing for mental could add to health systems from prescribers’ perspectives. Their results were published in [Clinical and Translational Science](https://ascpt.onlinelibrary.wiley.com/doi/10.1111/cts.13837) in June.

They interviewed prescribers at four different health systems with varying levels of support for PGx testing. This provided insights into why they decide to use or not use this testing as part of their prescribing practice.

“We were able to identify themes using concepts relevant to implementing high-value care from health services research and policy framework,” Sperber said. This data will help health systems understand why and how PGx testing can add value to mental health care practice.

“The value in doing this isn’t always just the test itself, but the way it facilitates the interactions with patients and provides more shared decision making,” Sperber said. “Primary care providers could serve as an important focus for implementation because they often prescribe antidepressants, especially with the shortage of mental health specialists. This tool could help them improve the quality of and access to mental health care.”