

# News

Office of Medical Information  
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\*\*\*Blood tests help determine best  
dose of antidepressants

DALLAS -- Blood tests that can now be performed at most major hospitals can often make a major difference in the successful treatment of patients on antidepressant medications, said Dr. Paul J. Orsulak, professor of psychiatry at The University of Texas Southwestern Medical Center at Dallas.

Orsulak has been researching a group of blood tests that can precisely measure the levels of drugs in the blood. An immunoassay can be used with patients taking only one drug. Patients who are on more than one medication require a more complicated technique that separates and analyzes the levels of all medications in the blood.

At a recent meeting of the American Association for Clinical Chemistry, Orsulak said that approximately 50 percent of patients taking antidepressants are receiving dosages that are either too high or too low for their condition. He found that approximately 30 percent of patients taking antidepressants were receiving too little, and 15 to 20 percent were receiving levels high enough to be toxic. The remaining half of the patients reviewed were receiving appropriate dosages.

Recommended doses of antidepressant drugs are set by manufacturers based on average requirements, Orsulak said. However, the chemistry of depression is very complicated. While average dosages may work

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well with other illnesses, determining the most effective dose of psychopharmaceuticals is far more intricate.

"All drugs interact with each other, and the levels of drugs in the blood can be horribly unpredictable," he said. In one study elderly patients were taking nine to 13 medications on a regular basis in addition to their antidepressants, yet their prescribing physicians were paying little attention to the possible consequences.

Until recently it has been necessary for physicians treating patients for depression to rely on trial and error in prescribing individual levels of medications.

Orsulak said blood tests should be used when a patient is not responding well to the prescribed medication or whenever there has been a change in the patient's behavior or mood. "If a given patient is not responding well to medication, then the blood levels can be checked once a week until the proper dosage is found," he said. "Once the patient is stable, the tests may be repeated every few months as long as he or she is doing well."

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NOTE: The University of Texas Southwestern Medical Center at Dallas comprises Southwestern Medical School, Southwestern Graduate School of Biomedical Sciences, Southwestern Allied Health Sciences School, affiliated teaching hospitals and outpatient clinics.