

P-3<sup>®</sup> Test Helps Neurological Clinic Improve Patient Outcomes

#### A CASE STUDY

The practitioners at the Neurological Clinic S.C. (Wisconsin Spine Institute) in southeastern Wisconsin operate under a multidisciplinary philosophy that takes the whole patient into account. Since opening their practice in 1968, they have discovered the value of psychological assessments in supporting their holistic approach.

The clinic's practitioners comprise three neurologists, four neurosurgeons, a certified nurse practitioner, a physician assistant, and a psychologist. Approximately 80 percent of their patients present with spinal pain issues and most of these individuals initially seek surgeries such as spinal fusions to relieve their suffering. However, with the help of information gathered from psychological tests, the clinicians have determined that fewer than 25 percent of these patients are likely to benefit from interventional surgery. In the remainder of cases, the care team has assessed that other treatment options such as physical therapy, pain anesthesia, chiropractic, acupuncture, narcotics medication, or psychological therapy are more suitable.

### Recognizing the impact of underlying issues

Grant Shumaker, MD, one of the clinic's neurosurgeons, describes the evolutionary process through which the care team integrated psychological testing into their practice. "In the past, we would operate and then find out later that untreated depression or anxiety was influencing the patient's response to treatment," he says. Dr. Shumaker and his colleagues suspected that their pain patients might have better outcomes if the care team could pinpoint these root issues early on.

The medical practitioners also realized that they could not adequately investigate these concerns during their relatively brief consultations with patients. "Given the time limitations, it's very difficult for surgeons to get a grasp of a patient's psychosocial background in terms of pain tolerance and behavior," says Dr. Shumaker. "And, as surgeons, more of our focus is on trying to figure out the anatomic basis of the pain."

As a first step in gathering stronger data on biopsychosocial considerations, Dr. Shumaker and his colleagues began giving some of their pain patients the P-3<sup>®</sup> (Pain Patient Profile<sup>®</sup>) test, starting in the fall of 2003. This brief test

#### Neurological Clinic S.C./Wisconsin Spine Institute

Grant H. Shumaker, MD Robert E. Cohen, PsyD

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helps identify the presence of depression, anxiety, and somatization factors frequently associated with chronic pain. Initially, the clinicians administered the P-3 test only to patients whom they considered might be facing underlying problems, based on patient histories and clinical interviews.

A year later, psychologist Robert Cohen, PsyD, joined the practice and set to work choosing several additional tests to complement the P-3 assessment. Dr. Cohen's selection of tests is now given to every patient who presents with a pain issue and the doctors are considering for an interventional procedure, such as pain anesthesia, narcotic medication, or surgery—primarily spinal fusion.

The P-3 test plays a key role in the clinic's standard testing protocol. Dr. Shumaker especially appreciates that the P-3 instrument measures somatization because this factor is very difficult to detect through a personal interview. "Occasionally, a patient is seeking to receive unwarranted gain through the workers' compensation system. The somatization scale helps reveal such intentions," notes Dr. Shumaker. He also values the fact that the P-3 test is normed on pain patients as well as a community sample. "It is very helpful to have a test that shows a patient's anxiety and depression scores relative to the scores of other pain patients, as opposed to other tests for depression that show elevated scores just because the person is in pain."

### Taking a closer look with additional assessment

If test results show that the patient's reaction is appropriate for the underlying diagnosis, then the doctor will proceed with the recommended surgery. However, if test results indicate the presence of psychological concerns, Dr. Cohen meets with the patient to gather more in-depth information by conducting a structured clinical interview and administering the MMPI®-2 (Minnesota Multiphasic Personality Inventory®-2) test.

Dr. Cohen also may use other instruments in the follow-up assessment, depending upon the individual situation. For example, he administers the TOMM (Test of Memory and Malingering) and the WRAML2 (Wide Range Assessment of Memory and Learning, Second Edition) to people who have suffered head injuries and are reporting memory problems.

"We don't ask patients to see Dr. Cohen or take additional tests so that we can bar them from receiving interventional treatment," says Dr. Shumaker. "We're trying to find out whether there are psychological problems we need to address prior to considering surgery." Test results help Dr. Cohen determine whether the patient needs additional support such as medical management for depression, short-term psychological therapy, or referral to an outside psychologist or psychiatrist for long-term counseling.

Dr. Shumaker notes that the vast majority of patients are very willing to meet with Dr. Cohen and take the assessments as long as they understand that the purpose is to help the care team manage any underlying issues.

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## **Reducing need for interventional treatment**

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Dr. Cohen uses much of his time with patients to educate them about the realities of spinal surgery. He has found that patients who believe surgery will provide them with a "quick fix" often demonstrate a lack of insight into the biomechanics of their pain and their own role in pain management. He notes that it sometimes takes a couple of appointments to help surgical candidates set realistic expectations about the likely outcomes of the procedure.

An important element of Dr. Cohen's assessment protocol is to request that patients rate their pain on a 0–10 scale. He has observed that after he has educated patients on how to accurately report their pain levels and helped them understand and accept their pain situation, the pain ratings often drop by as much as five points.

Dr. Cohen explains to patients who are experiencing depression or anxiety that these factors may have magnified the pain and that an operation will not address the root problem. He treats these individuals with a holistic approach that includes teaching biofeedback techniques and recommending dietary changes (e.g. caffeine reduction, maintaining a proper diet) to help these patients reduce their symptomology. Dr. Cohen has found that once the patients have learned methods to help handle the depression or anxiety, they typically feel more hopeful. In about half of these cases, the individuals no longer desire interventional surgery; in the remaining cases, the patients who ultimately receive surgery typically respond very well since the depression or anxiety has been addressed prior to the procedure. Dr. Shumaker reports that 80 to 90 percent of the patients who undergo surgery return to work and resume a functional life.

### Maximizing treatment benefits

The testing protocol now in use at the Neurological Clinic S.C./Wisconsin Spine Institute has proven successful in identifying appropriate candidates for surgical procedures. Dr. Shumaker concludes, "Our assessment process also helps surgical candidates develop a more positive attitude, increasing the likelihood that they will benefit from the procedure. In nine cases out of ten, if you take the time to thoroughly evaluate the patient with appropriate psychological assessments and address problem areas before proceeding with surgery, you will have better outcomes." Dr. Shumaker reports that 80 to 90 percent of the patients who undergo surgery return to work and resume a functional life. **Grant H. Shumaker, MD,** is a board-certified neurosurgeon. He received his undergraduate degree from Harvard College and his doctor of medicine degree from Yale University Medical School and completed his training at Dartmouth-Hitchcock Medical Center. His professional interests include complex spinal disorders, carotid endarterectomy, stereotactic neurosurgery, and microscopic neurosurgery. He strongly believes in a minimally invasive approach to neurosurgery.

**Robert E. Cohen, PsyD,** is a licensed clinical psychologist in the state of Wisconsin. He specializes in health psychology and neuropsychology, psychological/ neurophysiological assessment, pain management, and behavioral medicine. He received his doctorate at the Chicago School of Professional Psychology. After serving his clinical internship at the North Chicago Veterans Hospital, Dr. Cohen completed a post-doctoral fellowship at St. Mary's Hospital, where he worked on an inpatient rehabilitation unit. He emphasizes improving overall physical and emotional health through the education of healthy behaviors including nutrition, sleep maintenance and relaxation, psychoeducation, cognitive-behavioral strategies, biofeedback, and stress management techniques.

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