As workers’ compensation costs spiraled out of control, a renowned medical center developed a claims management and safety system that reduced the self-insured institution’s workers comp claims costs by 54 percent during 2002-2012.

Edward Bernacki, associate professor and executive director of health, safety and environment of the Johns Hopkins University and Hospital in Baltimore, designed the program that allows claims to be tracked and processed more easily. It is linked to safety so that hazardous situations, once reported, can be promptly corrected to prevent future accidents.

For the program, Dr. Bernacki was presented the Innovations in Occupational and Environmental Health Award from the Occupational and Environmental Health Foundation in 2003.

For the ten-year period the system achieved a reduction in the number of temporary/total cases of 61 percent, permanent/partial cases of 63 percent and administrative costs of 48 percent. Most importantly, Johns Hopkins Hospital was able to achieve total savings of 54 percent with a reduction in medical costs of 44 percent.

A key factor allowing the Hopkins system to achieve these savings was the requirement that all workers injured at the hospital be treated by “a small network of clinically skilled health care providers” (1) at Johns Hopkins Hospital. While 26 states allow for employer-insurance directed care, the Hopkins results were obtained “in an environment in which the employer paid the full cost of medical care and the claimant had the free choice of medical provider at all times (1).”

Concurrently, a group of Hopkins hospital staff members published articles showing that 40 to 67 percent of chronic pain patients were misdiagnosed by physicians outside the Hopkins system (2,3,4).
Two teams of Hopkins researchers found that 71 to 80 percent of patients referred by physicians around the country with diagnoses of complex regional pain syndrome (CRPS) or reflex sympathetic dystrophy (RSD) really had nerve entrapment syndrome (4,5). Motivated by the alarmingly high rates of misdiagnosis from other physicians and by the success of the controlling workers’ compensation costs at their own hospital, a group of staff members developed two unique tests to evaluate individuals’ validity of pain on the Internet.

(Researchers included Donlin Long, MD, PhD, at the time professor and chairman of the Department of Neurosurgery of the JHU School of Medicine, and his colleagues including James Campbell, MD, professor of neurosurgery and past president of the American Pain Society; Reginald Davis, MD, former chief resident of neurosurgery and assistant professor of neurosurgery; this article’s co-author Nelson Hendler, MD, former assistant professor and past president of the American Academy of Pain Management; and John Rybock, MD, associate professor of neurosurgery and associate dean of Johns Hopkins University School of Medicine.)

One of the Internet-based tests is the Diagnostic Paradigm, which has a 96 percent correlation with the diagnoses of Hopkins Hospital staff members (6). This test also provides a list of the proper tests and treatments for each of the now correct diagnoses, which is a Treatment Algorithm (3,6). One clinic used this technique and reduced the use of medication 90 percent and reduced doctor visits 45 percent while increasing return to work rates from the typical one percent for two-year-old cases to 19 percent for workers’ comp cases and 62% for auto accident cases (7). The resulting cost savings ranged from $20,000 to $175,000 (8).

In addition to saving money on actual case treatment, companies that self-insure workers’ compensation can improve their cash position by more accurately reserving their workers’ compensation claims. The authors of this article were asked to review 260 workers’ compensation cases for a large bus operation and leasing company with 90,000 employees (14).

All of the cases were six months old or older. Each chart was reviewed for the type of diagnosis that was reported by the treating physician, which served as the basis for paying a claim. The company, just like nearly every other carrier or company, made no effort to check the quality of the diagnosis and just paid the claim based on reports from the treating doctor. Of the 260 cases, 126 (48%) were sprains or strains.

In order to put this study into perspective, it is important to understand the nature of a sprain or strain. A sprain is over-stretching a ligament, which is the sinew in the body that holds bones together. A strain is overstretcing a muscle. In medical textbooks and in publications from the Department of Health and Human Services, a sprain or strain is defined as a self-limiting disease with 7.5 days of restricted activity, two days of bed disability and 2.5 days of work loss (9). Therefore, all of these cases were misdiagnosed since a sprain or strain can’t last six months.

The oldest 15 cases of this study cost a total of $3,733,882 with an average cost of $248,925. Some of these cases were open for 10 to 20 years. One case had been open 26 years with the “diagnosis” of “lumbar strain.” The 126 cases of “sprain or strain” six months old or older cost a total of $12,365,366 with the average cost being $98,137. Yet, with proper diagnosis, these lumbar sprain and strain cases could be converted into diagnosis of facet syndrome, or disc disruption, which could be definitively diagnosed and treated for $15,000 to $45,000 per case (2,3,8).

Special cases such as CRPS or RSD are far more expensive. PICA, the malpractice insurance carrier for podiatrists, reports that CRPS-RSD cases...
represent less than one percent of their claims but account for 20 percent of their payments. A number of workers’ compensation insurance carriers place a reserve of as much as $1,000,000 for CRPS-RSD cases. However, as mentioned earlier, 71 to 80 percent of these cases are really nerve entrapments (4,5), which most insurance carriers reserve for $50,000. So accurately diagnosing a single CRPS-RSD case will free up $950,000 in reserve money at least 71 percent of the time that the Diagnostic Paradigm is applied.

The group of Johns Hopkins physicians also developed the Pain Validity Test to detect fraudulent claims. This test can predict with 85 to 100 percent accuracy which claimant will not have any medical testing abnormalities, thereby detecting fakers and malingerers (7, 10, 11). The Pain Validity Test costs $300 and has stood up in court in multiple states compared to other methods of fraud detection which cost $5,000 or more and don’t stand up in court (12,13,14).

While very few organizations that self-insure workers’ compensation will have the medical resources of a Johns Hopkins Hospital, each can take advantage of modern diagnostic and pain validity testing to seek savings in their workers comp programs. Both of the cited Internet tests are available at www.MarylandClinicalDiagnostics.com and the authors may be consulted for additional information. Dr. Hendler may be reached at DocNelse@aol.com and Dick Goff may be reached at Dick@Taftcos.com.

REFERENCES