PROVIDER BULLETIN

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To: Orthopedists and Neurosurgeons performing lumbar spinal fusions

TOPIC: Single level lumbar spinal fusions

It has been well established in medical and other literature that surgical outcomes for workers' compensation patients are significantly worse than for the general population. A retrospective study of one-level lumbar fusions performed over an 18 month period on Wyoming Workers' Compensation patients revealed a disappointing overall success rate of less than 50 percent. Success was conservatively defined as reduction of pain sufficient to allow the individual to return to any type of work. Rates of success varied considerably among surgical practices from a low of 14 percent to a high of 88 percent. While differences in technical abilities may have played some role in this spread, careful patient evaluation over a period of time and judicious selection for surgical treatment were noted to be more important in determining a favorable outcome.

In this series of workers' compensation patients treated by single level fusion, symptomatic spondylolysis with spondylolisthesis had the best outcome (90% success rate). By contrast, fusion to relieve low back pain alone, performed in 11 percent of cases, was successful in only a third of those cases and single level fusion treatment for failed discectomy, with or without radiculitis, had a success rate of only 40 percent. Adding another level to the original discectomy level, sometimes suggested by provocative discography, actually resulted in a much worse ultimate outcome. Furthermore, a preliminary review of multilevel fusions for degenerative disc disease yielded an abysmal failure rate of 85 percent.

When symptoms and physical findings correlate well with objective pathology – such as spondylolysis with spondylolisthesis or large focal acute disc herniation -- the outcome for appropriate surgery is usually very good. However, when symptomatology is less well defined and localization for treatment is directed more by testing that requires subjective feedback (including provocative discography) and by appearance alone on postdiscogram contrast injection injection CT and MRI studies, the outcomes are much poorer.

In this latter situation of ill-defined symptomatology and absence of clearly demonstrable objective pathology, evaluation of patients' mental state for the possible presence of adverse psychological factors becomes absolutely necessary and the value of conservative treatment cannot be overstressed. More prolonged contact with the patient provides opportunity for observing behaviors that may eventually raise concerns that may not have been initially apparent.

If any such concerns arise, the Wyoming Workers Compensation Division encourages psychological evaluation by a professional trained to make such determinations. Obviously this modality should be employed before the first surgery. Once a surgical failure occurs, the treating surgeon finds himself in a somewhat defensive position, sometimes desperate to relieve his patient's continued perceived symptoms. In this setting the result is frequently repeat surgery at the same level and possible extension to other suspicious levels so that no pathology is left "untreated," almost always with a worse outcome than after the initial procedure.

Ongoing assessment of clinical practices and outcomes by the Division will continue into the foreseeable future. It is hoped that by following the above recommendations, outcomes will improve. The intent of the Division is not to provide a single prescribed avenue for treatment--a cookbook of treatment for each diagnosis--but rather to permit wide latitude for decision making by each practitioner, in keeping with his or her status as an expert professional. However, the importance of outcomes, not only for Wyoming Workers' Compensation but also especially for the patients, cannot be overstressed and may require future reevaluation of this position.

If you have any questions, please contact the Division's preauthorization unit at 307-777-3630.

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