CENTER FOR HEALTH AND SAFETY IN THE WORKPLACE

A study by the RAND Institute for Civil Justice and RAND Health

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REPORT

RAND/UCLA Quality-of-Care Measures for Carpal Tunnel Syndrome

Tools for Assessing Quality of Care and Appropriateness of Surgery

Teryl K. Nuckols • Anne Griffin • Steven M. Asch • Douglas A. Benner • Erika Bruce
Mary Cassidy • Walter T. Chang • Neil G. Harness • Liisa Hiatt • Charles K. Jablecki
Joanne Jerome • Karl J. Sandin • Rebecca Shaw • Haoling H. Weng • Melinda Maggard Gibbons

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1776 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138
1200 South Hayes Street, Arlington, VA 22202-5050
4570 Fifth Avenue, Suite 600, Pittsburgh, PA 15213-2665
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Summary

Claims relating to carpal tunnel syndrome (CTS) are common in workers' compensation systems. CTS leads to more lost time at work than any other nonfatal work-related injury, with a single claim ranging from $1,468 to $11,941, depending on whether surgery is performed. Workers with CTS are affected negatively as well: The loss of earnings born by an injured worker can range from $45,000 to $89,000 over the course of six years. Given the sizable economic and human costs associated with CTS, it is critical that workers receive optimal care for this condition.

Our aim was to promote optimal care of people with CTS by providing two new tools for institutions interested in assessing the quality of care received by a population of patients who may have CTS and determining the necessity of surgery for individual patients. Studies suggest that CTS may be diagnosed and treated in a suboptimal manner throughout the United States. Despite existing treatment guidelines, great variability remains in the kinds of diagnostic evaluations and therapies that patients receive. With optimal care, workers would be quickly diagnosed, receive appropriate treatment, experience greater recovery of health, and return to work faster. Tools that assist in consistently measuring both the quality of care and the appropriateness of surgery can improve the clinical circumstances and economic outcome for people with CTS.

The RAND/UCLA (University of California at Los Angeles) Appropriateness Method informed our development of both tools. This method is a multidisciplinary, two-round, modified-Delphi process that enables its users to obtain a quantitative assessment reflective of the judgment of a group of experts. We constructed draft measures and clinical scenarios addressing the appropriateness of carpal tunnel surgery and then had a panel of national experts in CTS judge the validity and feasibility of the measures. They also judged whether surgery was necessary, inappropriate, or optional for each surgical scenario. On the basis of their judgments about the appropriateness of surgery, we created 12 appropriateness measures and an algorithm. Subsequently, we created the two tools, which we provide in appendixes to this document. A large workers' compensation provider organization and a large workers' compensation payer assisted us with pilot testing. These tests enabled us to examine assessment feasibility issues, such as ease with which relevant patients can be identified, availability of medical records required to assess eligibility for and adherence to individual measures, and clarity and usefulness of the scoring tool.

The two quality-of-care tools are as follows:

- The *quality measures tool*, which is intended to be fairly comprehensive, enables institutions to assess whether people receive optimal diagnostic evaluations and treatments for

their CTS. The quality-of-care measures themselves can be found in Appendix I. The instructions, definitions, and forms needed to adequately apply the measures in assessing the care of a population of patients and to properly analyze the results are provided in Appendixes II through VII.

- The *tool for determining the appropriateness of surgery for CTS* is an algorithm that can be used to determine whether carpal tunnel surgery is appropriate for a particular patient. This tool can be used prospectively—that is, before care is provided, such as in utilization management activities. As with any algorithm in medicine, however, specific clinical circumstances can justify exceptions. This algorithm can also be used retrospectively, meaning after the care has been provided, such as during quality assessment activities. However, the quality measures tool contains sections—included within Appendix IV—designed specifically to assess the appropriateness of surgery retrospectively.

Together, these two tools can provide assistance to provider organizations, medical groups, medical certification boards, and other associated decisionmakers that are attempting to assess, monitor, and provide appropriate care for people with CTS. Payers, particularly workers' compensation payers, could use the algorithm and measures as a guideline for when to authorize surgery. Individual users could find it helpful to adapt both tools to their own purposes, as not all measures may be relevant to all providers or organizations.