

What's new in evidence-based occupational medicine?

In response to requests from physicians and other health care providers, WorkSafeBC has been compiling information on a wide range of evidence-based occupational medicine topics. The WorkSafeBC Evidence Based Practice Group, a Canadian Cochrane affiliate under the leadership of Dr Craig Martin, has been applying established techniques of critical appraisal and evidence-based medicine to select articles and sources and assigning levels of evidence as follows:

- Level 1—Systematic review or randomized controlled trial.
- Level 2—Well-designed controlled trials or systematic review of observational studies.
- Level 3—Well-designed cohort or case control studies.
- Level 4—Case series.
- Level 5—Expert opinion.

Here are summaries of six recent articles that have been appraised by the WorkSafeBC Evidence Based Practice Group:

- Waddell G, Burton K, Aylward M. **Work and common health problems.** *Journal of Insurance Medicine.* 2007;39:109-120 (evidence level 1)—This article is based on a systematic review investigating the relationship between work and health and concludes that, overall, the beneficial effects of work outweigh the risks of work and are greater than the harmful effects of long-term worklessness, and that a fundamental shift in thinking about common health problems and work is needed.
- Talmage JB. **Failure to Communicate: How terminology and forms confuse the work ability/disability evaluation process.** *Journal of Insurance Medicine.* 2007;39:192-198 (evidence level 5)—Will help

physicians understand the meanings of the terms “risk,” “capacity,” and “tolerance” on forms they are required to complete for insurers to assess their patient’s work ability.

- Gourlay DL, Heit HA, Almahrezi A. **Universal precautions in pain medicine: A rational approach to the treatment of chronic pain.** *Pain Medicine.* 2005;6(2):107-112 (evidence level 5)—Describes 10 steps of “universal precautions” approach to the assessment and ongoing management of the chronic pain patient and offers a triage scheme for estimating risk that includes recommendations for management and referral. The 10-steps approach includes diagnosis with appropriate differential; psychological assessment, including risk of addictive disorders; informed consent; treatment agreement; pre- and post-intervention assessment of pain level and function; appropriate trial of opioid therapy with or without adjunctive medication; reassessment of pain score and level of function; regular assessment of the “four As” of pain medicine (i.e., analgesia, activity, adverse effects, and aberrant behavior); periodic review of pain diagnosis and comorbid conditions (including addictive disorders); and careful and complete documentation.
- Deyo RA, Weinstein JN. **Low back pain.** *New England Journal of Medicine.* 1 Feb 2001;344(5):363-370 (evidence level 5)—Succinct review of all aspects of various types of specific and non-specific low back pain, including causes and epidemiologic patterns; diagnostic evaluation through medical history, physical examination, and imaging; natural history of recovery; therapy; and prevention of recurrence.

- McAvoy B. **Interventions in low back pain.** *New Zealand Doctors.* 30 July 2008;19 (evidence level 1)—Findings from published systematic reviews of interventions for patients with low back pain, including effectiveness of individual patient education; non-steroidal anti-inflammatory drugs, antidepressants, and surgery as treatments for low back pain.
- Engers A, Jellema P, Wensing M, et al. **Individual patient education for low back pain.** *Cochrane Database of Systematic Reviews 2008.* Issue 1. Art. no.: CD004057 (evidence level 1)—This Cochrane Collaboration systematic review of 24 randomized/controlled trials focuses on the effectiveness of individual patient education in treatment of nonspecific low-back pain and the type of education that is most effective. The types of patient education include discussions with a health professional, a special class, written information such as a take-home booklet, and other information formats such as videos. Outcome measurements include pain, function, and return to work.

For other evidence-based occupational medicine topics, please visit our web site at www.worksafebc.com/evidence.

If you would like to read the full articles, or if you have topics that you would like the WorkSafeBC EBPG to research and review, please contact Dr Craig Martin, senior medical advisor and chair of the Evidence Based Practice Group, at craig.martin@worksafebc.com or call 604 279-7417.

—Peter Rothfels, MD
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