

ARTICLE

A Health System Program To Reduce Work Disability Related to Musculoskeletal Disorders

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Background: Musculoskeletal disorders (MSDs) are a frequent cause of work disability, accounting for productivity losses in industrialized societies equivalent to 1.3% of the U.S. gross national product.

Objective: To evaluate whether a population-based clinical program offered to patients with recent-onset work disability caused by MSDs is cost-effective.

Design: Randomized, controlled intervention study. The inclusion and follow-up periods each lasted 12 months.

Setting: Three health districts in Madrid, Spain.

Patients: All patients with MSD-related temporary work disability in 1998 and 1999.

Intervention: The control group received standard primary care management, with referral to specialized care if needed. The intervention group received a specific program, administered by rheumatologists, in which care was delivered during regular visits and included 3 main elements: education, protocol-based clinical management, and administrative duties.

Measurements: Efficacy variables were 1) days of temporary work disability and 2) number of patients with permanent work disability. All analyses were done on an intention-to-treat basis.

Results: 13 077 patients were included in the study, 7805 in the control group and 5272 in the intervention group, generating 16 297 episodes of MSD-related temporary work disability. These episodes were shorter in the intervention group than in the control group (mean, 26 days compared with 41 days; $P < 0.001$), and the groups had similar numbers of episodes per patient. Fewer patients received long-term disability compensation in the intervention group ($n = 38$ [0.7%]) than in the control group ($n = 99$ [1.3%]) ($P < 0.005$). Direct and indirect costs were lower in the intervention group than in the control group. To save 1 day of temporary work disability, \$6.00 had to be invested in the program. Each dollar invested generated a benefit of \$11.00. The program's net benefit was in excess of \$5 million.

Limitations: The study was unblinded.

Conclusions: Implementation of the program, offered to the general population, improves short- and long-term work disability outcomes and is cost-effective.

Editors' Notes

Context

- Nonoccupational musculoskeletal disorders account for a large proportion of work disability and represent a major financial burden on society.

Contribution

- A voluntary, randomized, controlled intervention study consisted of avoidance of bed rest, early mobilization, avoidance of splints, stretching exercises, ergonomic training, provision of educational booklets, and suggestions for optimal levels of physical activity. Although return to work was never forced, temporary work disability, long-term disability, and costs were significantly decreased in the intervention group.

Implications

- The personal and financial impact of work disability due to musculoskeletal disorders (not related to work injury) may be mitigated by a voluntary program of education and rehabilitation.

—The Editors

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