Low back pain – a leading work-related musculo-skeletal disorder

Low back pain (LBP) is one of the major problems among work-related musculo-skeletal disorders. Its lifetime prevalence among workers and the general population is 60% to 80%, with a yearly incidence of 6% to 20%. Most episodes are mild and self-limited. Approximately 90% recover spontaneously and return to activity within one month, 20% seek health care, and only about 10% of the affected workers seek compensation [1]. Epidemiologic studies have investigated the recovery time of workers with low back pain: 40% to 50% of them are back at work by 2 weeks, 70% to 80% return by 4 weeks. Those workers who are still absent from work at 6 months are at progressively higher risk for becoming chronically disabled [2]. The small number of cases that become chronic account for a large part of the compensation expenses [3]. Webster et al. stated that low-back injuries constitute 16% of all workers’ compensation claims, but consume 33% of all claim costs [4].

Work-related and personal risk factors

Work-related risk factors for back injuries have been identified, such as heavy physical work, repetitive work tasks, exposure to vibration, frequent bending and twisting, static work postures, and lifting or forceful movements [5]. Wanek et al. [6] stated that psychosocial stressors such as time pressure, conflicts with co-workers and superiors are also important. The frequency of chronic back pain, working conditions and requests for workplace modifications were investigated among 974 employers of a metal company. Prolonged exposure to physical stressors was associated with a strongly elevated risk for chronic back pain. In addition, research has linked work-related musculo-skeletal disorders to stressful aspects of work organization, such as machine-paced work, inadequate
work-rest cycles, wage incentives, time pressure, overload, low job control, low social support, and repetitive work, and lack of task variability [7].

Garg et al. [8] identified personal risk factors such as age, gender, anthropometry, physical fitness and training, lumbar mobility, strength, medical history, years of employment, smoking, psychosocial factors and structural abnormalities.

Factors affecting outcome of vocational rehabilitation and return to work time

For the physician in charge, a thorough medical history taking is very important for a proper diagnosis. It is also important for prognosticating and managing the individual’s return to work. A history of previous injuries on the job and recovery periods can be very helpful. An exact description of the incident is essential; the same is true for the work tasks and the frequency of performing these tasks. The nature of pain, the postures that induce difficulties, and the effects of medication should be inquired. The worker’s perception of his functional ability or rather disability is also important, because sometimes a return to light duty is possible and this would mean less absent workers on compensation. The individual’s attitude towards the job may affect his/her speed of return to work; the attitude towards the boss or work culture may be useful in making a prognosis. Finally, work environment, job requirements, and the patient’s perception of the employer’s flexibility are important, since the worker is often expected to perform the original job to its full extent [2].

Selander et al. [9] reviewed publications from 1980 through to 2000 to overview factors which are associated with return to work following vocational rehabilitation for problems in the neck, back, and shoulders. A variety of (risk-)factors are associated with return to work in numerous ways.

Demographic factors are age, gender, nationality, income, level of education, marital status, living situation, legal claim working status and earlier sick leave.

Possible psychological and social factors would be self-confidence, life satisfaction, and level of experienced health, depression, health locus of control, cooperativeness, hypochondria, motivation and belief in return to work as well as social situation.

Medical factors are medical history, level of disease/injury severity, pain, and neurological symptoms during treatment as well as activities of daily living.

Furthermore factors can also be either rehabilitation related (type of rehabilitation measure, timing of vocational rehabilitation, understanding of work place, programme completion, patient influence, satisfaction with rehabilitation programme), or workplace related (changing jobs, working environment, modified work, early return to workplace, unscheduled breaks, vocational sector, job seniority, work history, size of workplace, public sector vs. private) but also benefit-system-related (disability benefit status, level of compensation, unemployment rates).

An important point is to carefully match workers and jobs. To achieve this end, a job analysis should describe the physical requirements for the tasks involved. Standardised