Functional Tools – Québec Pain Disability Scale

WorkSafeNB uses functional improvement to evaluate the effectiveness of treatment. Measuring functional improvement can be based on time-limited functional goals: will be able to carry 4.5 kg (10 lbs) groceries within two weeks; will progress from sedentary to light job demands over the next two weeks. Or, measuring functional improvement can be based on a self-report questionnaire. A simple, quick, and easy to score and interpret functional tool is needed in the general unidisciplinary clinical treatment context. For surgical patients and multidisciplinary treatment programs, a general functional questionnaire (e.g., SF-36) either alone or in conjunction with area-specific functional tools (e.g., Oswestry, DASH) are more appropriate.

The Québec Pain Disability Scale (QPDS) provided in this section, has been modified from the original Québec Back Pain Disability Scale (QBPDS) (Kopec, Esdaile et al. 1995), in order to be applicable to any injury. This is possible because the questionnaire is comprised of twenty questions relating to general activities of daily living. Davidson and Keating (2002) showed that the QBPDS was similar to the SF-36 Physical Function component, which has been used in numerous conditions. The questionnaire has twenty questions representing six domains of activity of daily living:

- sleep
- sitting / standing
- ambulation
- general body movements
- bending / stooping
- handling large / heavy objects

Items are scored from 0 – 5. Anchor points are zero or "no difficulty", and five – "unable to do". The scale provides an overall subjective disability score from 0 – 100. Higher scores are indicative of increasing subjective disability. Van der Roer et al. (2006) suggest that the minimal clinically important difference is 17+ points in the acute and subacute injury phases and 9+ points in the chronic injury phase.

The following table groups scores into: mild, moderate, severe, very severe and extreme perceived disability. Movement from a group of higher to a group of lesser perceived disability suggests improvement. The minimal clinically important difference for the injury phase must be met.

The 5 perceived disability groups can be grouped into 2 prognostic groups: Group A and Group B. Patients in Group A are 1.6x more likely to be back to full duties within 1 year, to be with the same employer and to remain at work at 1 year. Patients in Group B are more likely to be off work a year later, seeking further medical opinion, further investigations and futher medical treatment. The transition from severe / very severe / extreme perceived disability to at least moderate perceived disability represents a major improvement in function.

Patients in Group B need a biopsychosocial approach to treatment. Treatment should be multidisciplinary and include cognitive-behavioural therapy.

Perceived Disability				
Mild	Moderate	Severe	Very Severe	Extreme
0-9	10-30	31-54	55-75	76-100
Group A 1.6 x more likely to be back to full duties within 1 year; to sustain RTW at 1 year; to be with same employer		**Group B** 1.5 x more likely to be seeking additional health care after completing an interdisciplinary functional restoration program		

Functional progress can be measured at 4-6 week intervals. A summary report chart is included after the questionnaire. Up to 4 different points in time can be graphed. When more than one report is needed, the first point on the new chart should be the last point on the previous chart.

References:

Davidson, M. and J. L. Keating. A comparison of five low back disability questionnaires: reliability and responsiveness. *Phys Ther*. 2002; **82**(1): 8-24.

Kopec, J. A., J. M. Esdaile, M. Abrahamowicz, et al. The Quebec Back Pain Disability Scale. Measurement properties. *Spine*. 1995; **20**(3): 341-52.

van der Roer, N., R. W. Ostelo, G. E. Bekkering, M. W. van Tulder and H. C. de Vet. Minimal clinically important change for pain intensity, functional status, and general health status in patients with nonspecific low back pain. *Spine*. 2006; **31**(5): 578-82.