



OUTCOME ASSESSMENT TOOLS

ADVISORY: NECK AND BACK

Overview

This clinical advisory will present two commonly used Outcome Assessment Tools (OATs) for neck pain and back pain: The Oswestry Low Back Pain Questionnaire and the Neck Disability Index (NDI). These tools are completed by the patient at baseline initial visit and after 6-12 visits or every 2-4 weeks and scored by the clinician using the appropriate protocol. The resulting score can be compared over time to measure objectively the patient's progress. Links to these tools are provided on the CHP Provider Hub.

Oswestry Disability Index for Low Back Pain

Since its publication nearly 40 years ago, the Oswestry Low Back Pain Questionnaire, currently referred to as the Oswestry Disability Index (ODI), has become one of the principle outcome measures used in research and clinical practice for assessment of acute and chronic back pain. It consists of 10 items (6 different physical functioning activities, 4 other health constructs: pain intensity, sleep, and social functioning).

Scoring the ODI: The 10 items with each section scored on a 0-5 scale are added together and the sum of the items are multiplied by 2 to produce a percentage disability score. If there is a missing item, the score is computed by the sum of the items divided by the number of sections completed and multiplied by 100. In terms of disability, the percentage score is rated overall as follows:

0% to 20% = minimal disability
20% to 40% = moderate disability
40% to 60% = severe disability
60% to 80% = crippled
80% to 100% = bed bound (or exaggerating symptoms)

Meaningful Change: Overall clinical meaningful change is considered to be 4-16 points or a 30%-50% reduction.

Neck Disability Index (NDI) for Neck Pain

The NDI was developed using the ODI as a template. The NDI has become a standard instrument for measuring self-rated disability due to neck pain and is used by clinicians and researchers alike. It consists of 10 items (6 different physical functioning activities, 3 other health constructs: pain intensity, concentration, sleeping; and headaches).

Scoring the NDI: The NDI can be scored as a raw score (0-50) or expressed as percent score. In the same way as the ODI (0-100%). Each of the 10 sections is scored on a 0-5 scale and the score is computed by adding the sum of the items together. This can also be represented as a percentage by following the same guidelines as the ODI. In terms of disability, the raw score is rated overall as follows:

- 0 - 4 points = no disability
- 5 - 14 points = mild disability
- 15 - 24 points = moderate disability
- 25 - 34 points = severe disability
- > 34 points = complete disability

Meaningful Change: Overall clinical meaningful change is considered to be 5 points or 10 percentage points.

Using the ODI and NDI in Clinical Practice

It is important to consider the baseline/initial status of the patient, co-morbidities, self-care engagement when interpreting meaningful change. Additionally, chronic pain patients may not achieve a 0% score and evidence-based treatment may include some level of medically necessary supportive care that will not demonstrate meaningful change in these scores over time.

The Oswestry Disability Index and the Neck Disability Index are available from the copyright holder, MAPI Trust, at no charge to physicians at <https://eprovide.mapi-trust.org/> (A free account is required for download).