

# painDETECT Questionnaire

## Description

The painDETECT questionnaire was specifically developed to detect neuropathic pain components in adult patients with low back pain (Freynhagen et al 2006) and is recommended for use by non-specialists (Gauffin et al 2013). The original validation study included a large sample ( $n = 411$ ) of patients with chronic pain recruited from ten specialised pain centres. The questionnaire was compared to the current gold standard – diagnosis by an expert pain physician. The painDETECT questionnaire is available from the original publication (Freynhagen et al 2006).

**Instructions and scoring:** The questionnaire consists of seven questions that address the quality of neuropathic pain symptoms; it is completed by the patient and no physical examination is required. The first five questions ask about the gradation of pain, scored from 0 to 5 (never = 0, hardly noticed = 1, slightly = 2; moderately = 3, strongly = 4, very strongly = 5). Question 6 asks about the pain course pattern, scored from -1 to 2, depending on which pain course pattern diagram is selected. Question 7 asks about radiating pain, answered as yes or no, and scored as 2 or 0 respectively. The final score between -1 and 38, indicates the likelihood of a neuropathic pain component. A score of  $\leq 12$  indicates that pain is unlikely to have a neuropathic component ( $< 15\%$ ), while a score of  $\geq 19$  suggests that pain is likely to have a neuropathic component ( $> 90\%$ ). A score between these values indicates that the result is uncertain and a more detailed examination is required to

ensure a proper diagnosis (Freynhagen et al 2006). Since its development, four additional questions have been added to the painDETECT but do not contribute to the scoring. They ask the patient to rate their pain now and over the last four weeks, and to mark on a body chart if there is pain radiating into other parts of the body.

**Reliability, validity and sensitivity to change:** There are only a few studies investigating the clinimetric properties of the painDETECT questionnaire and they show it is a good screening tool to detect a neuropathic pain component in patients with low back pain. It has excellent test-retest reliability (ICC = 0.93) and good internal consistency (Cronbach's alpha  $> 0.83$ ) (Freynhagen et al 2006, De Andres et al 2012). The electronic and paper version of the questionnaire demonstrated high criterion validity, compared to the reference standard of an expert pain physician, indicated by high sensitivity, specificity, and positive predictive value (all  $> 80\%$ ) (Freynhagen et al 2006). However, when the questionnaire was used in patients with fibromyalgia, criterion validity was not as good (sensitivity 79%, specificity 53% and positive predictive value 46%, Gauffin et al 2013). This indicates that the questionnaire may not be suited for use in other musculoskeletal conditions. It has been used as an outcome measure but the responsiveness or sensitivity to change has not been assessed.

## Commentary

Neuropathic pain is a common clinical presentation that is often under-diagnosed and under-treated. Neuropathic pain is produced by injuries or diseases affecting the somatosensory system and can manifest in disease states affecting the central and peripheral nervous system (Haanpaa and Treede 2010). Patients with neuropathic pain usually have severe, chronic symptoms that affect their quality of life and are often difficult to manage. This may be due to poor diagnosis or the presence of mixed pain states, ie, neuropathic pain plus nociceptive pain (De Andres et al 2012). Correct identification of neuropathic pain enables a more direct and specialised management strategy for these patients, and screening tools aid in the diagnosis. The painDETECT questionnaire is a quick, simple and reliable screening tool to identify the likelihood of a neuropathic pain component in patients with low back pain. Its sensitivity and specificity is higher than other screening questionnaires for neuropathic pain, including the Douleur Neuropathique 4 (DN4), Leeds Assessment of Neuropathic Symptoms and Signs (LANNS), and the Neuropathic Pain Questionnaire (NPQ) (Freynhagen et al 2006).

The painDETECT questionnaire has been used to identify neuropathic pain in patients with knee osteoarthritis (Ohtori

et al 2012) and to identify sensory profiles in patients with diabetic neuropathy and postherpetic neuralgia (Baron et al 2009). However, further research is needed to demonstrate its clinimetric properties in these conditions.

The painDETECT questionnaire, in either the electronic or paper format, is a useful tool for clinicians, to screen for neuropathic pain in patients with low back pain and aid in patient management. Screening tools should not replace clinical judgment but can alert clinicians of neuropathic pain that may need further diagnostic evaluation.

**Stephanie Mathieson and Christine Lin**

*Musculoskeletal Division, The George Institute for Global Health*

## References

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