**Self-Administered Leeds Assessment of Neuropathic Symptoms and Signs**

**Description**

In recent years tools designed to evaluate and diagnose neuropathic pain have been developed. Whilst most of these tools comprise both patient self-report items and physical assessment of sensory features, the Self-Administered Leeds Assessment of Neuropathic Symptoms and Signs (S-LANSS) (Bennett et al 2005) allows for patient self-completion. The S-LANSS was developed from the original LANSS tool (Bennett 2001) and was designed to be capable of identifying pain of predominantly neuropathic origin on the basis of the patient’s current symptoms and signs (Bennett et al 2005). It is free and available from the original paper.

*Instructions to the client and scoring:* The questionnaire takes only 5–10 minutes to complete and score, and requires no special training to administer. It comprises seven items consisting of five symptom items and two self-examination items. The symptom items include questions about pins and needles, skin colour changes, increased skin sensitivity, ‘electric shock’ type pain, and ‘burning pain’. The two self-examination items include allodynia and numbness. A score of 12 or greater identifies patients with pain of a predominantly neuropathic origin (Bennett et al 2005).

**Validity, reliability and sensitivity to change:** In 200 patients with chronic pain and attending a tertiary pain referral centre, the S-LANSS was demonstrated to be 74% (95% CI 65% to 83%) sensitive and 76% (95% CI 68% to 85%) specific in identifying neuropathic pain when subjects completed the questionnaire unaided, and 80% sensitive and 80% specific when completed in an interview format (Bennett et al 2005). In this study, the reference or gold standard used for comparison was detailed expert clinical examination and assessment. Sensitivity (57%; 95% CI 46% to 69%) and specificity (69%; 95% CI 61% to 77%) of the S-LANSS have been shown to be lower when used in a general community population (Weingarten et al 2007).

Internal consistency (Cronbach’s $\alpha = 0.76$ to 0.81) has been demonstrated to be satisfactory (Bennett et al 2005). It is claimed that the S-LANSS has construct validity due to the association of individual item scores to the total score (Bennett et al 2005). There have been no studies investigating test retest reliability. The S-LANSS is designed to be a screening tool and as such its sensitivity to change has not been investigated. Nevertheless the original LANSS tool has shown sensitivity to treatment effects (Khedr et al 2005) but this is an area that requires more investigation.

**Commentary**

In recent times there has been increased awareness in physiotherapy of the assessment and understanding of pain processes that may underlie a patient’s condition. It has also been suggested that common painful musculoskeletal conditions such as low back pain, neck pain, whiplash, and fibromyalgia may have a neuropathic pain component (Freynhagen et al 2006, Fishbain et al 2008, Sterling and Pedler 2008). The identification of such a presentation would seem important as it has been argued that treatments based on pain mechanisms, rather than treating pain as a uniform phenomenon, may lead to improved outcomes (Freynhagen et al 2006, Fishbain et al 2008, Sterling and Pedler 2008).

The development of screening tools to clinical detect neuropathic pain is in its early days and further work is required before such a diagnosis can be confidently made using a questionnaire alone. However physiotherapists may consider including such a tool in their assessment of patients with pain as an adjunct to other examination techniques. Recent investigation has shown that 34% of an acute whiplash cohort scored $> 12$ on the S-LANSS indicating a predominantly neuropathic component to the pain of these individuals (Sterling and Pedler 2008). This group of patients (S-LANSS $> 12$) also reported higher levels of pain and disability and demonstrated the presence of mechanical hyperalgesia indicating that the S-LANSS may be a useful tool to include in the early assessment of whiplash injury (Sterling and Pedler 2008). Whilst the S-LANSS has not been specifically used in other musculoskeletal conditions, a similar tool (PainDetect) has been utilised in research of low back pain with similar proportions of patients showing predominantly neuropathic pain (Freynhagen et al 2006).

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**References**


