

## DOULEUR NEUROPATHIQUE EN 4 QUESTIONS (DN4)

### THAI TRANSLATION

#### **Bibliographic and contact information for the original (French) questionnaire**

*Reference*

Bouhassira D, Attal N, Alchaar H, Boureau F, Brochet B, Bruxelle J, Cunin G, Fermanian J, Ginies P, Grun-Overdyking A, Jafari-Schluep H, Lantéri-Minet M, Laurent B, Mick G, Serrie A, Valade D, Vicaut E. Comparison of pain syndromes associated with nervous or somatic lesions and development of a new neuropathic pain diagnostic questionnaire (DN4). *Pain*. 114: 29-36, 2005.

PubMed identifier (PMID): <http://www.ncbi.nlm.nih.gov/pubmed/15733628>

*Contact details of author*

Name: Didier Bouhassira

Email: [didier.bouhassira@apr.ap-hop-paris.fr](mailto:didier.bouhassira@apr.ap-hop-paris.fr)

#### **Bibliographic and contact information for the translated (English) questionnaire**

*Reference*

Chaudakshetrin P, Prateepavanich P, Chira-Adisai W, Tassanawipas W, Leechavengvongs S, Kitisomprayoonkul W. Cross-cultural adaptation to the Thai language of the neuropathic pain diagnostic questionnaire (DN4). *J Med Assoc Thai* 90: 1860-1865, 2007.

PubMed identifier (PMID): <http://www.ncbi.nlm.nih.gov/pubmed/17957931>

*Contact details of author*

Name: Pongparadee Chaudalshetrin

Email: [sipcd@mahidol.ac.th](mailto:sipcd@mahidol.ac.th)

#### **Properties of the translated questionnaire**

*Purpose*

Diagnostic/screening: To identify whether pain is likely to be neuropathic in origin.

*Language*

Thai

## TRANSLATION ONLY: THAI DN4

### *Translation process:*

Forward and reverse translation process, with consensus discussions. Independent forward translation of the English version of the DN4 into Thai by two, pain specialists with extensive experience in the management of neuropathic pain, followed by a meeting to generate a consensus Thai version of the questionnaire. Two translators independently performed a reverse translation back into English. All four translators then examined the original English version, the back-translated English version and the Thai version of the DN4 item by item to assess semantic equivalence; generating a pre-final version of the Thai questionnaire at the end of the process. This pre-final version was then piloted in 35 patients with neuropathic pain (various levels of education). Six raters (one anaesthetist, two rehabilitation physicians, and two orthopedists) were used to administer the questionnaire and ascertain the level of understanding by the patients of the pain descriptors. Based on the results of the pilot study the questionnaire was modified to produce a final Thai version of the DN4.

### *Changes from original questionnaire:*

Understanding of the translated items was good for all items (90-100% understanding) except “tingling”, which was only understood by 73% of patients, possibly because of the lack of single term for “tingling” in Thai. The consensus term used for “tingling” in the final version of the questionnaire was, รู้อึกยิบ ๆ ซ่า ๆ (Ruu Seuk Yip Yip Saa Saa).

### *Assessment*

#### SYMPTOMS (INTERVIEW):

Two questions addressing symptoms:

- Pain quality (presence of three symptoms assessed: burning, painful cold, electric shocks)
- Non-painful symptoms (presence of four symptoms assessed: numbness, tingling, itching, pins-and-needles)

#### SIGNS (CLINICAL EXAMINATION):

Two questions addressing sensory signs (requires a suitably trained person to administer the instrument):

- Assessments for mechanical hypoesthesia (two modalities assessed: touch and pin-prick sensations)
- Assessment for mechanical dynamic allodynia (one modality assessed: brushing)

## TRANSLATION ONLY: THAI DN4

### *Scoring system*

**The Thai translation of the DN4 has not been validated, and the scoring system for the Thai translation is based on the results obtained from the validation of the original French questionnaire.**

All items are answered in the affirmative ('yes') or negative ('No'). All 'yes' responses are scored as 1, and 'no' responses are scored as 0. The individual item scores are summed and a total score calculated. A score of 4 or greater indicates that the pain is likely to be of neuropathic origin.

If only the two questions dealing with sensory symptoms are completed, and no assessment of signs is made, then a total score of 3 or greater for the symptom component of the questionnaire indicates that the pain is likely to be of neuropathic origin.

### *Scoring direction*

#### **Complete questionnaire**

Score  $\geq 4$  indicate that the pain is likely to be neuropathic in origin

#### **Assessment of symptoms only**

Score  $\geq 3$  indicate that the pain is likely to be neuropathic in origin

### *Psychometric properties*

**No validation was performed.**

### *Validation studies of translated questionnaire for specific pain conditions*

n/a

### *Additional information*

n/a