Doloplus 2

Description: The Doloplus 2 is a comprehensive tool for assessing pain in nonverbal elders. The Doloplus 2 is a shortened version of the Doloplus using the same three subscales (i.e., somatic, psychomotor, psychosocial) of behavior to assess pain in nonverbal older adults.

Psychometric testing: A 2017 systematic review evaluating the psychometric properties of the Doloplus-2 concluded that the tool has adequate reliability but needed further testing in validity. Internal consistency for the total scale has ranged from Cronbach’s alpha = .67 to .84. Test-retest has ranged from ICC = .62 to .98. Inter-rater reliability for the total scale has ranged from .73 to .97. Construct validity has varied based on factor analysis with some studies reporting three factors based on the three subscales and other studies reporting one factor representing one construct. The Doloplus 2 has been able to successfully identify the presence of pain between no pain and pain present groups. However, it has shown low or no significant correlations with the PACSLAC, PAINAD, the Facial Action Coding System, the Visual Analogue Scale, and the Numeric Rating Scale. Only a high correlation has been found with the Alabama Birmingham Pain Behavioral Scale.

Scoring and Interpretation: The tool consists of three subscales and a total of 10 items: Somatic reactions (5 items), Psychomotor reactions (2 items) and Psychosocial reactions (3 items). Each item is leveled with four behavioral descriptions representing increasing severity of pain rated from 0 to 3. Individual item scores are summed to
arrive at a total score ranging from 0 to 30 points. Five points is the threshold indicating pain.

**Languages and Settings:** The Doloplus 2 is a French tool developed for the multidimensional assessment of pain in nonverbal elders. The Doloplus 2 has been translated and validated in English, Italian, Portuguese, Spanish, Dutch, Japanese and Chinese. It has been tested in diverse populations and settings including acute care, psychogeriatric wards, long term care, and community dwelling older adults in Australia, Canada, France, Japan, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, Taiwan, and the United Kingdom.

**Feasibility/Clinical Utility:** The 10 items on Doloplus 2 have been reported to take a minimum of 5 minutes and maximum of 12 minutes to complete. The tool has been tested with nurses, nursing assistants, physicians, and occupational therapists. In one study, nursing assistants were found to report more pain cues than nurses. Validity with the numeric rating scale increased when the Doloplus 2 was administered by a specialized geriatric nurse.

**Summary/Critique:** The Doloplus-2 has been translated into multiple languages and has indicated adequate reliability across a variety of settings. However, validity of the Doloplus 2 is variable. The scale may overestimate pain because it measures behaviors which may not be due to pain. Hadjistavropoulos et al. (2008) challenged the extent to which the items measure pain because they are also related to the presence and severity of delirium, depression, and dementia severity. Additionally, the Doloplus-2 requires thorough training and geriatric knowledge as well as knowledge of previous
behaviors which may limit its use with none advanced practitioners. Further study or description regarding the use of Doloplus 2 in American populations is needed. The Doloplus 2 has now been shortened into the Doloshort.

**Contact address for tool developer:**

The Doloplus Association  

**Sources of evidence:**


Chen, Y. H., Lin, L. C., & Watson, R. (2010). Evaluation of the psychometric properties and the clinical feasibility of a chinese version of the doloplus-2 scale among cognitively impaired older people with communication difficulty. *International Journal of Nursing Studies, 47*(1), 78-88. The study was undertaken to translate the French version of the
Doloplus-2 scale into Chinese and to evaluate the psychometric properties and the clinical feasibility of the translated instrument.

Hadjistavropoulos, T., Voyer, P., Sharpe, D., Verreault, R., & Aubin, M. (2008). Assessing pain in dementia patients with comorbid delirium and/or depression. *Pain Management Nursing: Official Journal of the American Society of Pain Management Nurses, 9*(2), 48-54. This study assessed pain using the Doloplus-II and examined the extent to which each of its items were also predictive of delirium, depression, and dementia severity.


Torvik, K., Kaasa, S., Kirkevold, O., Saltvedt, I., Holen, J. C., Fayers, P., et al. (2010). Validation of doloplus-2 among nonverbal nursing home patients--an evaluation of doloplus-2 in a clinical setting. *BMC Geriatrics, 10*, 9. The purposes of this study were to examine the use of Doloplus-2 in a Norwegian nonverbal nursing home population, and to evaluate its reliability and validity by comparing registered nurses' estimation of pain with Doloplus-2 scores.