

Doloplus 2 Brief

The Doloplus 2 is a French tool developed for the multidimensional assessment of pain in non-verbal elders. 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. However, as the tool developers point out, pain can not be ruled out if the older adult has less than five points.

The Doloplus 2 is based on sound assumptions of multidimensionality of pain in elders with pain that are supported in the literature on pain in elders with dementia. The tool is comprehensive covering 5 of 6 pain behavior categories in the AGS Persistent Pain Guideline. *While there is emerging evidence that observation or informant-based pain assessment tools can track change in degrees of pain for individual residents, current literature does not support the hypothesis that such tools can reliably differentiate between mild, moderate, and severe pain, or rate pain severity on a scale from 0-10. As with any observational tool, a small number of behaviors observed increases its specificity, but limits sensitivity in that it may not detect pain in persons presenting with less obvious behaviors.*

Method of administration and scoring procedures are clearly described. *Follow-up studies indicated that it took an average of 10 (6 to 12) minutes to administer the Doloplus-2.* The tool is intended for use by health and social care providers as well as family of the elder. However, training requirements for reliable use of the tool by these different groups are not reported. *It must be noted that in one study nurses in the clinical setting identified the tool as the least preferred method of pain assessment when compared to other similar observational tools. There is preliminary work with a shortened version of the Doloplus 2.*

Nurses in clinical practice wishing to use this tool may find several items in the the English translation unclear. Several items seem foreign when compared to the words and expressions most commonly used in English literature on pain in dementia. The English version appears to need refinement.

Although the French version of the Doloplus 2 has been tested in diverse populations and settings including long term care, geriatric clinics and palliative care in France and Switzerland (see report of reliability and validity below), *dementia sessment was not standardized* and there are currently no reports of testing of the English version of the Doloplus 2.

Reliability

- Internal consistency was tested in a pooled sample of 501 elders from centers participating in the Doloplus Group. Average age of subjects was 82.5 (± 8) range 55-96; 173 males and 337 females. Cronbach alpha was 0.82. *Zwahlen reported internal consistency of 0.58-0.80. Pautex found that internal consistency was lower in residents with dementia ($r=0.67$) than in residents who were cognitively intact ($r=0.84$). Internal consistency scores were lowest for the items expression ($r=0.82$) and mobility ($r=0.82$). Internal consistency was slightly lower for the shortened*

version or the Doloplus-2 (Cronbach alpha=0.71) than the complete version (Cronbach alpha 0.85).

- Interrater reliability was reported but may not have been statistically significant in two samples at palliative care hospitals in France.
- Test-retest reliability was evaluated in a pooled sample of 83 patients from divergent settings and was found to be good but not statistically significant. *Pautex found strong test-retest reliability on subsamples of 20 residents from the same hospital units who had the same characteristics and stable chronic pain.*

Validity

- Convergent validity was established between the Doloplus 2 and a VAS in a mixed sample of 143 elders from various geriatric or palliative care units in France and Switzerland ($p < 0.001$).
- Sensitivity was tested at 11 centers in a pooled sample of 183 elders, 73 males and 110 females, average age 80.7 years (± 8.6), range 65-101 years. D0: 10.6 (± 5.3); D1: 7.5 (± 4.4); D7: 4.9 (± 4.2) (information from web site).
- *Following testing, Pautex shortened the Doloplus 2 to include only the items which were significantly associated with VAS scores. This version was also compared with the VAS. The revised version contained 3-items of the somatic dimension and two of the psychosocial dimension.*
- *There has been a considerable amount of evidence supporting the validity of the Doloplus-2 in subsequent studies. However, all of the studies have been in foreign populations and further validation needs to be done in English. The surprisingly high correlation between the Doloplus-2 and self report rating scales as reported in Study 3 are inconsistent with the finding in the literature. Most studies report correlations of approximately .30 between observational tools and self-report assessments.*

Summary

The Doloplus 2 is a comprehensive tool for assessing pain in nonverbal elders. The tool addresses many key indicators noted in the literature and AGS Guidelines. Via their website information the tool developers report extensive testing in Europe. However, information in English is limited and available reports do not provide sufficient detail on which to base sound judgment of the tool evaluation. Translation issues are evident and further study or description regarding the use of Doloplus 2 in English-speaking populations is needed.

Sources of evidence

Doloplus-2 website: <http://www.Doloplus-2.com>

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Pautex, S., Herrmann, F., Michon, A., Giannakopoulos, P., Gold, G. (2007). Psychometric properties of the doloplus-2 observational pain scale and comparison to self-assessment in hospitalized elderly. *Clinical Journal of Pain*, 23(9), 774-9.

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The tool is available free of charge from the official Doloplus 2 website:

<http://www.doloplus.com/versiongb/rubautres/intro.htm>

Contact e-mail address found at official Doloplus-2 website: zidetzen@club-internet.fr

(Dr. Bernard Wary, personal communication, July 2008)

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