Algoplus

Description: The Algoplus is a tool for assessing acute pain in non-communicating older adults with good psychometric properties and high sensitivity to changes in pain and rapid pain assessment. It was developed by the same French Doloplus Collective Team that developed and internationally validated another observational tool, the Doloplus 2. The tool was developed using expert opinions, caregiver interviews, patient video recording, and statistical procedures.

Psychometric testing: Algoplus has been shown to have good to excellent reliability and moderate validity. This tool has been validated in older adult patients in inpatient care settings and hospitals. The Algoplus has been shown to identify the presence of acute pain in elderly inpatients with inability to communicate verbally (ICV), with 87% sensitivity and 80% specificity with high sensitivity to change during specific pain situations and after starting pain management. It has shown moderate to high convergent validity with the Visual Analogue Scale, Numeric Rating Scale, Verbal Descriptor Scale, and PAINAD and with objective acute clinical situations and expert clinical judgment on acute pain presence. It has also been shown to have moderate discriminant validity for patients with and without dementia and depression. The internal consistency for the total scale has ranged from Cronbach's alpha coefficients of .51 to .70, test-retest has ranged from kappa coefficients of .68 to .84, and inter-rater reliability for the total scale has ranged from kappa coefficients of .64 to .82.

Scoring and Interpretation: Algoplus is a 5-item scale with a total score ranging from 0 to 5 and a score of 2 suggestive of pain. It consists of the following behavioral



clusters: facial expression, gaze, complaints, body position, and atypical behaviors (agitation, aggression, and grabbing onto something/someone).

Languages and Settings: The Algoplus has been translated and validated in French, English, Italian, Spanish, Portuguese, and Turkish. It has been tested in diverse populations and settings including inpatient care settings and hospitals in Spain, Australia, Italy, Portugal, Turkey, and Cambodia.

Feasibility/Clinical Utility: The 5 items on Algoplus have been reported to take about 1-2 minutes to complete. The tool has been tested with nurses, medical trainees, and physicians in general inpatient hospital units, geriatric and palliative care units, and emergency departments with both communicative and non-communicative older adult patients, post-operative older adult patients, and older adult patients with dementia, depression, and communication disorders.

Summary/Critique: Algoplus is short and simple tool requiring little training that is suitable for clinical use, especially when repeated measurements are indicated. The Algoplus has been translated into multiple languages with adequate reliability across settings and populations, however, further research is necessary in settings outside of inpatient hospital settings, such as long-term care facilities and community settings. Concern has arisen to the misuse of the scale in non-validated settings and populations as well as non-acute pain. The use of the Algoplus in non-acute pain assessment could lead to the underestimation and mistreatment of chronic pain. In addition, research suggests that providers and caregivers should follow up a negative pain assessment with the Algoplus by implementing a second behavioral scale. Further study or



description regarding the use of the Algoplus in American populations is needed.

Contact address for tool developer:

The Doloplus Association http://www.doloplus.fr/en/the-algoplus-scale/

Sources of evidence:

Algoplus website: <u>http://www.doloplus.fr/en/the-algoplus-scale/</u> Rat, P., Jouve, E., Pickering, G., Donnarel, L., Nguyen, L., Michel, M., ... & Bonin-Guillaume, S. (2011). Validation of an acute pain-behavior scale for older persons with inability to communicate verbally: Algoplus®. European Journal of Pain, 15(2), 198-e1.

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