

Certified Nurse Assistant Pain Assessment Tool (CPAT) Brief

CPAT is an informant based assessment tool for use by certified nursing assistants (CNA) for the assessment of pain in patients who have been diagnosed with severe dementia. Tool development was based on a thorough review of existing relevant medical literature and CNA input and feedback. The CPAT has not been subjected to content validation by independent experts in pain in elders with dementia but rests on the assumptions that (1) changes in behavior and activity level are potential indicators of pain; (2) all healthcare providers are able to appropriately assess pain behaviors; (3) the CNA will be able to recognize minor changes in behavior more readily than other health care professionals; and (4) caregivers can reliably observe and rate behavior.

The final tool uses 12 statistically significant items and collapses them into 5 categories including 3 of the 6 categories of pain indicators consistent with AGS pain guidelines: facial expressions, body movements, and verbalizations. Item reduction from 41 to 12 items was performed with inadequate sample size. More subtle pain behaviors in the AGS guidelines are not addressed: changes in activity patterns or routines, mental status or interpersonal interactions. The approach used as gold standard (past medical history and pain diagnosis and pain medications) has not been validated by previous literature. Of concern in determining pain/no pain groupings based on this gold standard was the fact that patients with a painful diagnosis who did not have an order for analgesics would be considered in the no-pain group and would be misclassified for comparison purposes.

As with any informant-based tool the wider number of observations included increases its sensitivity but limits its specificity in that it may identify behaviors that may be due to causes other than pain.

Tool development and evaluation occurred in 2 stages in New York State veteran's homes. Sample size was insufficient. There was gender imbalance, but this is expected when working with veteran populations. Age distribution was appropriate. No information on sample diversity was reported. The focus on long term care was clearly identified. Appropriate measurement tools were used to identify patients with dementia. No demographical information was provided in regards to the subjects in stage 2 or staff in either study.

Administration and scoring

The authors state that the CPAT is uncomplicated and requires minimal training for CNAs to use, however no data is provided to support the time to train or administer.

The resident is observed for behaviors from each of the 5 categories. An "X" is placed in the appropriate box that shows the presence or absence of pain. Behaviors that are consistent with the presence of pain receive a score of 1 and those behaviors that support an absence of pain receive a score of 0. The total number of "X's" is then counted. The scoring scale ranges from 0-5 and a score of 1 or greater requires further action by the CNAs. Patients presenting with a high pain score are to be further evaluated by the nursing staff.

Authors report that the use of the CPAT was integrated into the daily routine of CNAs in the nursing homes suggesting that it was easily understood and user friendly. However, there was a lack of clarity regarding the actions CNAs were instructed to take

based on the tool score. There was also no information available regarding the time of administration to complete the tool, or perception of feasibility or clinical utility.

Reliability

Evidence of tool reliability was not reported. Substantiation of reliability is necessary in future research.

Validity

Based on the gold standard described above the tool was evaluated for its ability to differentiate between patients with and without pain. During stage 1, direct care providers were instructed to use the pain assessment tool twice daily. Items were considered statistically significant if a p value of $<.05$ or an OR > 1.5 was found. Of the 41 items 12 items were found to be statistically significant. Sample size for this step in item reduction was insufficient. The 12 remaining items were used as the final version of the CPAT; however there was no further evaluation of the revised tool properties.

Summary

The tool is conceptually supported. However, there is no evidence of reliability; validity support is limited. Based on the gold standard that is used there is a potential for misclassification of patient's who are in pain, but not receiving analgesia. More information is needed as to the specific actions the CNAs were instructed to take without nursing assistance if pain was found to be present. Although the CPAT appeared to be clinically useful in recognizing pain, the evidence for supporting tool reliability and validity require future study and is insufficient. There is a need to verify content validity using expert consultation and AGS guidelines. The tool does not add discriminate capability over already existing tools using AGS behaviors.

The authors report that studies are underway to more formally measure reliability and validity of the CPAT (Dr. Frank Cervo, personal communication, July 2008).

Sources of evidence

Cervo, F. A., Raggi, R. P., Bright-Long, L. E., Wright, W. K., Rows, G., Torres, A. E., et al. (2007). Use of the certified nursing assistant pain assessment tool (CPAT) in nursing home residents with dementia. *American Journal of Alzheimer's Disease and Other Dementias*, 22(2), 112-119.

Contact information:

Frank A. Cervo, MD

Long Island State Veterans Home
100 Patriots Road
Stony Brook, New York 11790

Email: FCERVO@NOTES.CC.SUNYSB.EDU

Summary completed by:

K.Herr, H. Bursch and B. Black, University of Iowa (2008)

Contact information: keela-herr@uiowa.edu