

ADNI: ADAS Number Cancellation Task

Cancellation score = number of targets hit - (minus) number of errors - (minus) number of times reminded of the task.

Once this is calculated, the scoring system proposed by Mohs et al., (1997) for the 60 second version is:

Cancellation score > 30 = 0
Cancellation score 24-30 = 1
Cancellation score 18-23 = 2
Cancellation score 12-17 = 3
Cancellation score 6-11 = 4
Cancellation score 0-5 = 5

If we pro-rate this to 45 seconds for ADNI, the ADNI scoring procedure would be:

Cancellation score > 23 = 0
Cancellation score 18-22 = 1
Cancellation score 13-17 = 2
Cancellation score 9-12 = 3
Cancellation score 5-8 = 4
Cancellation score 0-4 = 5

Unable for cognitive reasons = 5

ADNI1: If done, number cancellation score = CONMCXLA – CONMCXLB – CONMCXLC scaled for 45 second time limit; if unable for cognitive reasons (i.e., COP14CMP=4), then scaled cancellation score = 5

ADNIGO/ADNI2: If done, number cancellation score = Q13TASKA - Q13TASKB - Q13TASKC scaled for 45 second time limit (or reference Q13SCORE); if unable for cognitive reasons (i.e., Q13UNABLE=4), then scaled cancellation score = 5



ADAS Number Cancellation Administration Instructions (from ADNI procedures manual)

Instructions for Example: Place the practice form face up in front of the subject. Say: "On the top of this page are two numbers. Throughout this page you will find these numbers mixed in with other numbers. I'd like you to begin here" (point to the beginning of the first line) "and going across (line by line), cross off each number that matches either of the two numbers at the top of the page. Please work as quickly as you can."

Discontinue the example after 30 seconds.

Instructions for Task: Place the form face up in front of the subject and say: "On the top of this page are two numbers. Throughout this page you will find these numbers mixed in with other numbers. I'd like you to begin here..." (point to the beginning of the first line), "...and going across line by line, cross off the numbers that match the numbers at the top of the page. Please work as quickly as you can."

If the first cancellation done by the subject is incorrect, say, "These are the correct numbers to cross out," and point to the target numbers at the top of the page. If the subject becomes confused or stops while doing the test, repeat the standard instructions as needed.

Discontinue the test after 45 seconds.

The following information should be entered on the online CRF:

- 1) The number of correct targets crossed out
- 2) The number of total errors of commission (i.e., crossing out a non-target number)
- 3) The number of times the subject needed to be reminded of the task or re-directed back to the task.

There are multiple versions of the number cancellation task. Prior to each visit, the Study Coordinator should go online and print out the correct version of the stimuli for that visit.

Reference: Mohs, RC, Knopman, D, Petersen, RC, Ferris, SH, et al. (1997) Development of cognitive instruments for use in clinical trials of anti-dementia drugs: Additions to the Alzheimer's Disease Assessment Scale that broaden its scope. 11, Suppl 2, S13-S21.