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STREAMLINING DEMENTIA STAGING: VALIDATION OF THE QUICK DEMENTIA RATING SYSTEM (QDRS) IN CLINICAL SETTINGS



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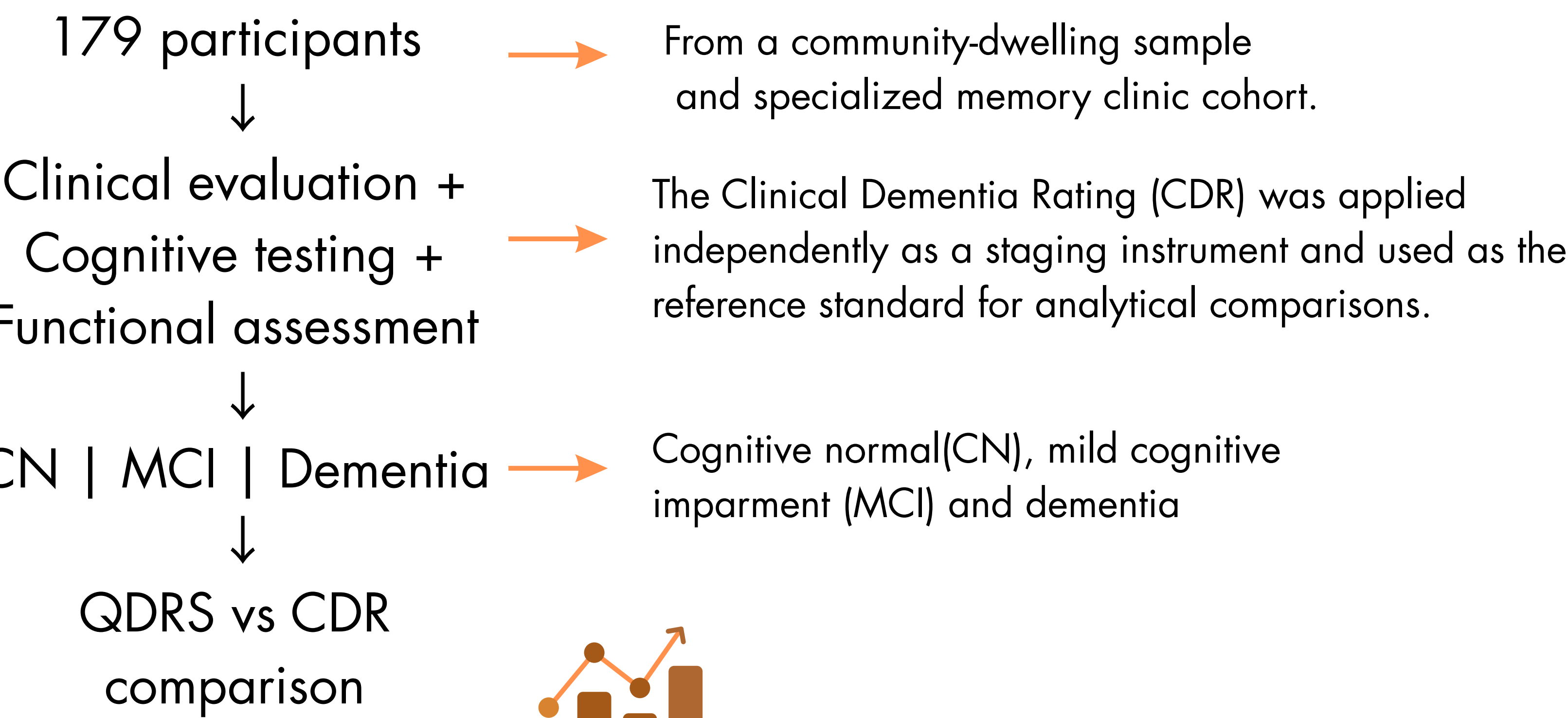
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BACKGROUND

Although the Clinical Dementia Rating (CDR) is widely recognized as the gold standard for this assessment, its administration requires **considerable time and specialized training**. In this context, the Quick Dementia Rating System (QDRS) emerges as a **practical alternative designed to provide efficient functional and cognitive staging through informant reports**.

**Objective:** To validate the QDRS for clinical staging of cognitive impairment using independent clinical diagnosis as the reference standard.

METHODS



ANALYZE STATISTICS

- QDRS performance evaluated by:
- Sensitivity, specificity, and accuracy
  - Receiver operating characteristic (ROC) analysis
  - Area under the curve (AUC) across CDR stages
  - Statistical analyses performed using R.
- ROC analyses evaluated:
- CDR 0–0.5 vs ≥1
  - CDR 0.5 vs ≥1
  - CDR 0 vs 0.5
- \*Higher AUC values indicated better discriminative performance of the QDRS.

CONCLUSION

- The QDRS showed **strong discriminative accuracy** for dementia staging, particularly in distinguishing **dementia from non-dementia** and **MCI from dementia**.
- The instrument proved to be a **practical, efficient, and clinically valuable tool** for assessing dementia severity across diverse healthcare settings when combined with comprehensive clinical evaluation.

RESULTS

Demographics, clinical data and cohort composition

|                                 |             |         |
|---------------------------------|-------------|---------|
| Age (years)                     | 69.4 ± 10.8 | 38 – 89 |
| Education (years)               | 11.1 ± 6.9  | 1 – 38  |
| MMSE (score)                    | 23.2 ± 5.3  | —       |
| Ethnicity — White               | 92%         |         |
| COHORT COMPOSITION (N = 179)    |             |         |
| Cognitively Unimpaired (CU)     | 59          | 33.0%   |
| Mild Cognitive Impairment (MCI) | 63          | 35.2%   |

- The QDRS demonstrated excellent discriminatory capacity for distinguishing CDR 0–0.5 from CDR ≥ 1v (AUC 0.95) and CDR 0.5 from CDR ≥ 1, the (AUC 0.92). The QDRS performance for discriminating between CDR 0 and CDR 0.5 yielded an AUC of 0.71.

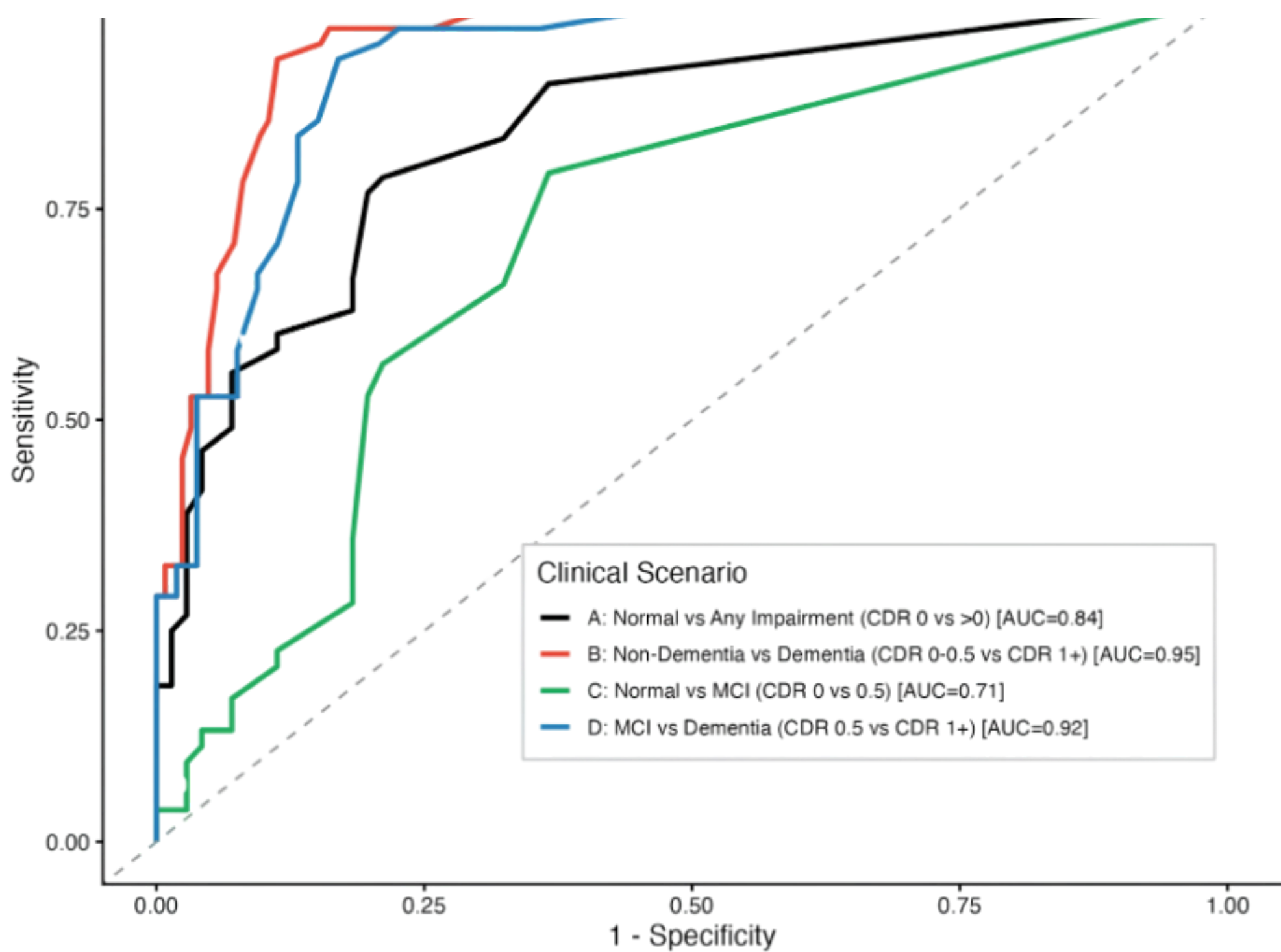


Figure 1: Diagnostic Performance by CDR Stages

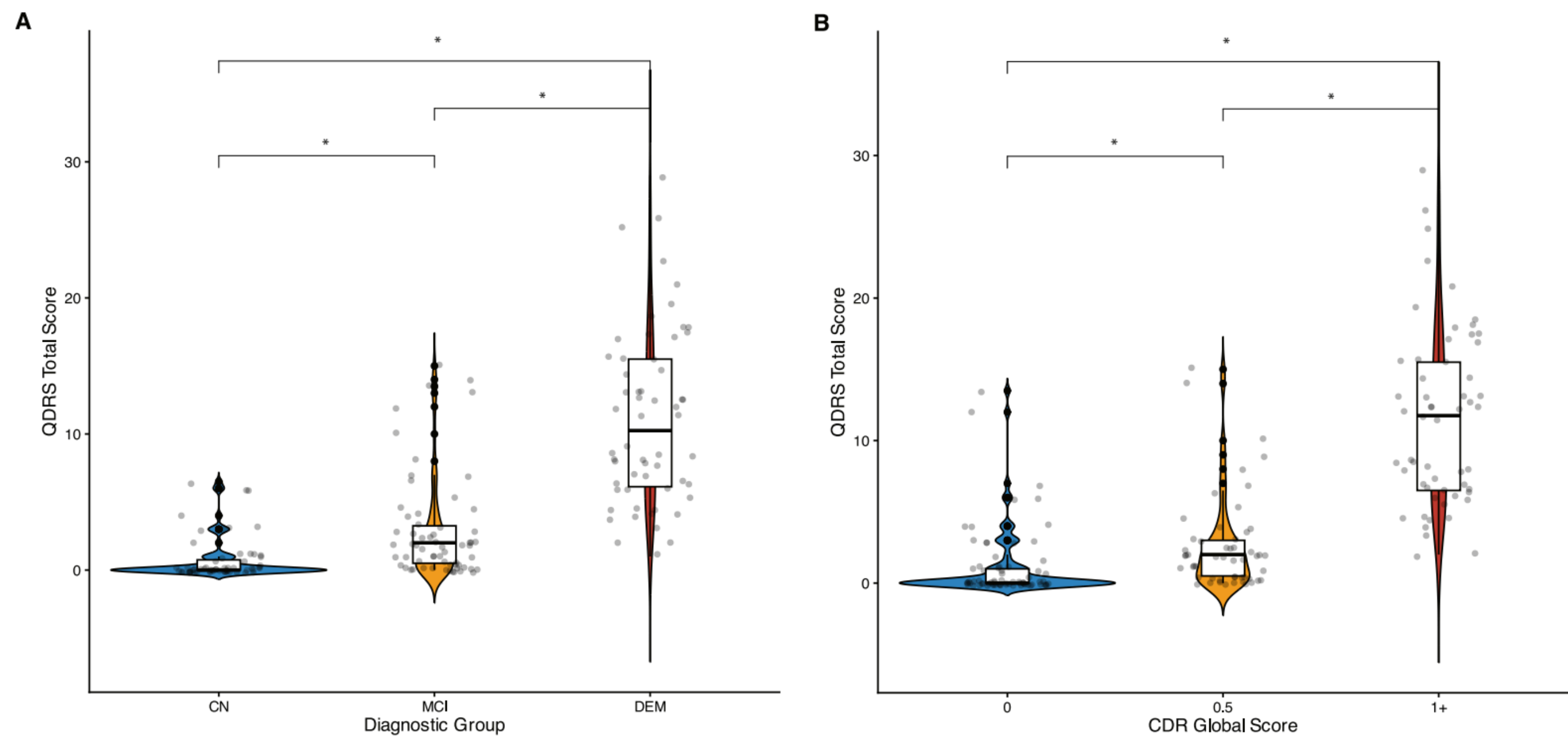


Figure 2: Quick Dementia Rating System (QDRS) total scores according to (A) clinical diagnostic groups and (B) Clinical Dementia Rating (CDR) global score.

ACKNOWLEDGEMENT



Any question?  
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