

## **Instrumental Activities of Daily Living Scale for Dementia Screening in Elderly People**

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### **OBJECTIVE:**

To develop and validate an Instrumental Activities of Daily Living Scale for elderly people (IADL-E) to use in conjunction with cognitive screening tests for dementia in an educationally and socioculturally heterogeneous population

### **METHOD:**

Eleven IADL items were selected and weighted for major factors causing heterogeneity in the population-gender, education, social (rural/urban) setting and age. Each item was rated for its applicability (yes/no), degree of disability (scored from 0 to 2) and causative impairment (cognitive and/or physical). From this a composite index of cognitive (CDI) or physical (PDI) disability was derived. Validation was performed retrospectively on 240 subjects: 135 without and 105 with dementia by DSM-IV

### **RESULTS:**

The IADL-E had a high internal consistency ( $\alpha = 0.95$ ). The area under the receiver operating characteristic (ROC) curve was 0.97 (CI = 0.94-0.99). A cutoff score of 16 on CDI provided a sensitivity of 0.91, specificity 0.99 and positive predictive value 0.76 (at 5% base rate). IADL-E correlated highly with clinical (DSM-IV, kappa = 0.89), functional (CDR, 0.82) and cognitive (Mini-mental Status Examination, MMSE, 0.74) diagnoses. It showed good responsiveness, with the change on CDI over a median of 23 months correlating significantly with that on MMSE (coefficient = -0.382, CI = -0.667 to -0.098;  $p=0.009$ ). Individual items had good interrater and test-retest reliability

### **CONCLUSIONS:**

The IADL-E is a reliable, sensitive and responsive scale of functional abilities useful in dementia screening in a socioculturally heterogeneous population