

are associated with differences in cognitive function that may not be improved with current supplementation protocols.

#### A NEW PROMISING SCREENING METHOD FOR COGNITIVE FUNCTIONS IN ELDERLY PATIENTS.

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The Mini Mental State Examination (MMSE) is frequently used as a screening method to detect cognitive dysfunction. However, the MMSE has limited sensitivity to detect mild impairment. We aimed to develop a new screening method to discriminate between normal and mild cognitive functioning in older subjects.

**Methods:** Based on the literature, we selected several test-items related to the diagnostic criteria (DSM-IV) for dementia. This new composed instrument for Screening Cognitive Functions (SCOF) is a brief, 15-minutes approach with questions on orientation, serial attention test, recall of five words, clockdrawing, language comprehension and reading, word fluency test, visual design reproduction, alternating sequences test, picture arrangement test, and overlapping figure test.

The SCOF, MMSE, and complete neuropsychological examination (NPE) was administered, in random order, to 20 patients (mean age  $78 \pm 6$  yrs) admitted to the Dept. of Geriatric Medicine.

**Results:** After deleting one question about orientation (which season), the internal consistency of the SCOF was 0.80 (Cronbach's alpha). Based on the NPE, we divided the subjects in 3 groups: mild (35%), moderate (60%) and serious cognitive impairment (5%). The SCOF detected significantly ( $p < 0.05$ ) better mild cognitive impairment than the MMSE (cut off point was 24). **Conclusions:** SCOF is an useful bedside screening test and these preliminary findings suggest a valid and reliable instrument. In elderly patients, SCOF showed a better detection of mild cognitive impairment compared to MMSE. Although SCOF is a promising method for screening cognitive functions, further research is needed.

#### SELF REPORTS OF CONFUSION AFTER ACUTE DRUG CHALLENGE

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Studies of the cognitive decrements occurring after acute administration of anticholinergic medications to normal older volunteers has provided information regarding both the neuropharmacological mechanisms underlying cognitive processes and the safety of medications used in clinical practice. There has, however, been relatively little research on the effects of drug challenges on self reports of confusion. We report on a study in which self-reports on the POMS confusion subscale (PC) were obtained along with a battery of cognitive tests in a repeated measures design where 30 elderly subjects (47% female; average age 71.5 (SD 5.0)) were tested at baseline and then on four additional sessions at which they were given placebo, 50 mg (twice), or 75 mg of diphenhydramine under double blind conditions. Testing sessions began 1.5 hours after drug and lasted approximately one hour. Venipuncture for plasma levels was at two hours. PC was administered three times during each session, before, during, and after cognitive testing. Random regression models with PC as a dependent variable and test day, time of test administration, and dose as covariates demonstrated a significant effect only of dose ( $z = 4.684$ ;  $p < .0001$ ); similar models with plasma levels instead of dose found effects only of levels ( $z = 5.775$ ;  $p < .0001$ ). These findings validate PC as a measure of confusion. The lack of a time of day effect suggests that individuals do not "learn" that they are confused by monitoring their own test performance. When prediction equations were used to

quantify the degree of change between baseline and 75 mg sessions, we found significant correlations of PC change only with change on the Buschke Selective Reminding test (BSRT). However, when we used prediction intervals to define categorical deterioration on PC and BSRT, we found no association between individuals with self-reported confusion and those who exhibited actual deterioration. Thus, although we were able to validate PC at the level of group effects, we find that self reports cannot identify individuals who exhibit actual cognitive toxicity.

#### PREVALENCE OF LATE-ONSET DELUSIONS AMONG HOSPITALIZED PSYCHOGERIATRIC PATIENTS

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Delusional beliefs that develop after age 60 have been described in patients both in the presence of dementia and with intact cognition. These delusions often occur in the absence of a significant history of psychiatric or neurologic disorder. Persistent and complex delusions tend to be more chronic, resistant to treatment, and associated with less cognitive impairment. In contrast, transient and simple delusions have been associated with more severe cognitive impairment and moderate response to neuroleptics. In preparation for a longitudinal study of the neuro-psychological correlates of late-onset delusions, 187 consecutive referrals to neuropsychology from a psychogeriatric unit at a rural state hospital were retrospectively reviewed to document the correlates of delusional beliefs in patients 60-89 years old. Of these, 120 had sufficient neurologic, neuropsychological, and psychiatric data for descriptive analysis. Sixty-nine (58%) cases had current delusions. Thirty-four cases with delusions also had a diagnosis of dementia, 35 had delusions without dementia, 27 had dementia without delusions, and 24 had neither diagnosis. Among our delusional sample, 82% of our demented patients and 33% of our nondemented patients did not have a documented history of psychiatric illness prior to age 55, indicating that these patients most likely are representative of late-onset delusional disorder. No difference was found on the Mattis Dementia Rating Scale between demented patients with and without delusions, which is consistent with the existing literature in this area.

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**Pneumococcal Vaccination: Perceptions of Primary Care Physicians.** Cherie Noe, MD, Lawrence Markson, MD. Geriatrics Section, Boston University Medical Center, Boston, MA 02118; and CHQOER, ENRM VAMC, Bedford, MA.

Despite evidence that pneumococcal vaccination is simple, safe and cost-effective, prior studies indicate less than 20% of eligible adults are immunized. To detect barriers to vaccination among primary care physicians, we mailed questionnaires addressing knowledge, attitudes and practice to 371 randomly selected Massachusetts internists and family physicians.

Sixty four percent of physicians returned questionnaires. Eighty one percent considered themselves knowledgeable about current vaccination guidelines, and 75% said vaccination is an important clinical priority. Physicians who considered themselves knowledgeable were more likely to believe vaccination is important (83% vs. 48%,  $p < .001$ ). About one fourth (24%) felt oversight, due to numerous other active medical problems, greatly reduces the number of patients they immunize. None of 8 other financial, administrative, and clinical barriers were felt to be important by more than 8% of physicians.