

Public Lecture by David P. Salmon, Ph.D.
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“Screening for Memory Impairment in the Elderly”
Wednesday, July 20, 2005 at 7:00 p.m. in the Garren Auditorium, Basic Science Building
Sponsored by the Sam & Rose Stein Institute for Research on Aging, UCSD

Decline in memory is a common complaint from geriatric patients seen by primary care physicians. Unfortunately, many geriatric primary care physicians do not have the expertise or patient contact time necessary to fully evaluate the validity of these complaints. At best, the primary care physician is often left with only a brief 5 to 10 minute mental status screening test to try to determine if the patient's memory complaint reflects a normal change in memory that occurs with age, an impact of depression, or a pathological process that may be a harbinger of Alzheimer's disease or some other neurological disorder. Even if a brief mental status test like the widely-used Mini-Mental State Examination (MMSE) is used in a primary care setting, it may under-detect true memory impairment in elderly patients expressing memory complaints, leading to a failure to fully evaluate patients for conditions such as Mild Cognitive Impairment (MCI) or very early Alzheimer's disease (AD). The extent of this under-detection, and its relation to the type and severity of memory complaint is unknown.

To help resolve this problem, we developed a research-based Memory Screening Clinic that allows primary care physicians to refer elderly patients with memory complaints for a sensitive and concise evaluation of their memory. Supported by the State of California Alzheimer's Research Centers of California program, the Memory Screening Clinic evaluation consists of 1) assessment of subjective memory complaints, 2) brief review of past and current major medical problems, 3) listing of current medications, 4) screening for depression, 5) general mental status screening with the MMSE, and 6) objective memory and other cognitive testing. The cognitive tests used in the Memory Screening Clinic include measures that have been shown through our long-term studies at the UCSD Alzheimer's Disease Research Center (ADRC) to be particularly effective at differentiating elderly individuals with very early Alzheimer's disease or MCI from those who are cognitively healthy with normal memory function. The results of the Memory Screening Clinic evaluation are reviewed by a neuropsychologist and neurologist who report back to the primary care physician whether or not true memory impairment was detected with recommendations for referral for a more comprehensive evaluation if warranted.

To date, more than 600 elderly individuals with memory complaints have been evaluated through the Memory Screening Clinic. This has allowed us to appraise the effectiveness of our screening procedures and to evaluate the usefulness of the program to primary care physicians. The results of this analysis show that with detailed testing memory impairment was detected in about 50% to 60% of individuals with memory complaints who performed normally on the brief mental status examination (i.e., the MMSE) often used by primary care physicians. In addition, true memory impairment was detected in 55% of patients reporting persistent memory problems, 46% of patients reporting difficulty finding words, 51% of patients reporting difficulty remembering names, and 57% of patients reporting misplacing their belongings. These results suggest that true memory impairment is quite prevalent in elderly primary care patients with memory complaints and may be under-detected without rigorous testing. The validity of our Memory Screening Clinical evaluation was demonstrated in a subset of patients who were reevaluated one to three years after their initial evaluation: those with detectable memory impairment declined over time while those without detectable memory impairment remained unimpaired. Finally, the usefulness of the Memory Screening Clinic to primary care physicians was demonstrated by a chart review which showed that there was notation indicating that the results of the evaluation were discussed with the patient by the physician in 75% of all cases and in about 85% of those with a detected memory problem. A note indicating that the primary care physician took new action (e.g., further work-up, specialty referral) in response to the Memory Screening Clinical results was present in 61% of all cases and in more than 75% of those with a detected memory problem. Taken together, these results suggest that concise and sensitive memory screening provides a valuable service to the geriatric primary care physician by helping them to decide when additional work-up or specialty referral is reasonable, and by helping to validate or alleviate the concerns an elderly patient may have about their memory.