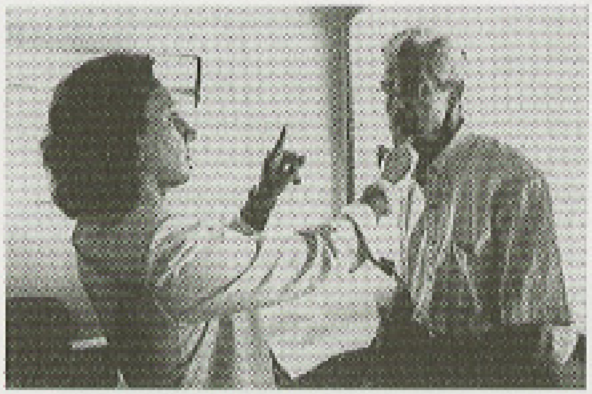
RESEARCH & PRACTICE

SPRING 1998
Vol. 6 • Iss. 1

Practical Information for Health Care Professionals on Alzheimer's Disease and Related Disorders *Published by:* ALZHEIMER'S® ASSOCIATION

EVALUATING TREATMENT EFFICACY



Medications currently approved for treatment of Alzheimer's all work primarily by inhibiting breakdown of acetylcholine, a neurotransmitter that becomes deficient in the Alzheimer brain as nerve cells degenerate and die. Although these drugs do not stop progression of the underlying disease process, they may temporarily stabilize or delay worsening of memory problems and other cognitive symptoms. But even temporary stabilization can be valuable to patients as well as to their caregivers and families.

Evaluating treatment efficacy in patients with Alzheimer's disease can be complicated, particularly because treatments may benefit several types of function. Symptoms associated with the disease are primarily cognitive, but there are often other behavioral or physical conditions that may make it difficult to assess problems in one area of functioning. Individuals may also show varying intensities of symptoms at different times and at different stages of the disease process. These variations require diversified assessments of treatment efficacy.

Current assessment tools are designed to evaluate several areas of function, including cognition, functional capacity, behavior, general physical health, and quality of life, among others. They are designed to be completed either by the patient (usually in the early stages of disease), the caregiver, or the patient's primary health care provider. Most often, a combination of tests is needed to complete an evaluation of the patient's overall condition. Assessments given by the primary caregiver often evaluate not only the patient's condition, but also the caregiver's own well-being, which can be an important factor in deciding whether a particular treatment strategy has proven beneficial.

For patients with Alzheimer's disease or a related dementia, there is no single test that can simultaneously assess all areas of functioning. Numerous assessment tools have been developed, and several others are being studied (see chart, page 2). The aim of such tests is to better understand the actual efficacy of treatments and to develop a comprehensive, practical assessment that can be administered quickly by a clinician.

Conducting an Assessment

During a patient's initial visit (often during the diagnostic evaluation), an assessment is made using tests such as the Mini-Mental State Examination (MMSE) or Physical Self Maintenance Scale (PSMS) to establish baseline cognition and functional ability. Questions regarding behavioral symptoms, such as agitation, psychosis, anxiety, and depression, should also be asked to assess the patient's response to treatment. Future assessments can then be compared to the baseline to track any changes in cognition, function, or behavior that may have occurred since a previous visit.

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The MMSE and PSMS are often used in clinical settings because they tend to take less time to administer than some of the longer, more involved assessments (see chart, below). The MMSE needs to be completed by the physician or other health care staff. In some cases, the PSMS can be given to the caregiver to complete while in the waiting room. Once a particular assessment test is chosen, it is advisable that the same test is repeated during each subsequent visit, in order to be able to compare a patient's current scores to his or her previous scores.

After a diagnosis of Alzheimer's disease is made and a treatment plan implemented, patients should return for evaluation approximately three months after the start of medication and subsequently twice per year. In some cases, patients may need to return more frequently, depending on the medication prescribed. An MMSE and PSMS, or other assessment should be administered at each visit in order to monitor improvement, stabilization, or worsening of cognitive and behavioral symptoms, and to better follow the progression of the disease.

Both cognitive and behavioral symptoms of dementia tend to change as the disease progresses, so regular visits can ensure adaptation of treatment strategies to current needs. More frequent visits are often required for patients exhibiting more severe behavioral symptoms, such as depression, agitation, hallucinations, or delirium, who may be taking medications specific to those conditions.

ASSESSMENT TOOLS

COGNITIVE

- Alzheimer's Disease Assessment Scale, cognitive subsection (ADAS-cog)
- Blessed Information-Memory-Concentration Test (BIMC)
- Clinical Dementia Rating Scale (CDR)
- **Mini-Mental State Examination (MMSE)***

FUNCTIONAL

- **Functional Assessment Questionnaire (FAQ)***
- Instrumental Activities of Daily Living (IADL)
- **Physical Self Maintenance Scale (PSMS)***
- Progressive Deterioration Scale (PDS)

GLOBAL

- Clinical Global Impression of Change (CGIC)
- Clinician Interview-Based Impression (CIBI)
- Global Deterioration Scale (GDS)

CAREGIVER-BASED

- Behavioral Pathology in Alzheimer's Disease Rating Scale (BEHAVE-AD)
- **Neuropsychiatric Inventory (NPI)***

** used most often in clinical settings*

For information on how to obtain copies of one or more of these assessment tools, please contact the Alzheimer's Association's Green-Field Library at (312) 335-9602.

The patient's *primary caregiver* is an invaluable and essential source of information during follow-up visits. Patients will most likely not be reliable in assessing whether an improvement in symptoms has resulted from use of a particular medication. Because Alzheimer patients regularly have "good days" and "bad days," a clinician's evaluation in one brief visit may not be as valuable or reliable as a caregiver's report of the patient's condition over several days or weeks.

Follow-up visits should include a basic physical exam to determine if any decline in physical health has taken place, and a detailed interval history obtained from the patient and his or her caregiver. The detailed history should contain information about any extraordinary disruption in the patient's daily living situation that may have occurred since the last visit, (e.g., moving into a new home, hospitalization, drastic change in routine). It is also helpful to ask the caregiver to bring in or "brown-bag" all medications the patient may be taking at the time of the visit, to determine whether existing symptoms can be attributed to side effects or interactions between prescribed and over-the-counter medication.

When assessing treatment efficacy in patients with Alzheimer's, it is important to remember that improvement may be minimal and temporary stabilization in cognitive decline is more likely. Typically, less decline is observed in the early stages of the disease, with more rapid degeneration accompanying the later stages. Regardless of treatment, the disease will continue to progress, and patients and their families should be advised to plan ahead for future treatment and care options.

As assessments are being conducted, and a treatment plan determined, explain to the patient and his or her caregiver the limitations of current medications for Alzheimer's disease. Clarify that existing treatments cannot reverse or stop the progression of Alzheimer's disease, yet they may be able to help affected individuals maintain their independence for a longer period of time, and may even delay the need for professional care and institutionalization.

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Involving the Caregiver

A solid relationship with the family or caregiver of a patient with Alzheimer's disease is an essential component of providing effective treatment and care. Once a treatment plan is decided upon, it is the caregiver, or another close family member, who will be responsible for timely administration of the medication, and for providing accurate updates on the patient's condition and behavior.

When treating patients with Alzheimer's disease, it is now considered common practice to include the caregiver and family. Alzheimer's affects entire families, especially as the disease progresses and affected individuals become more dependent upon their primary caregivers. Caregivers often experience feelings of depression, anxiety, stress, and helplessness that need to be assessed by a clinician. Some of these symptoms can be alleviated by appropriate treatment.

A novel approach in evaluating treatment efficacy in patients with Alzheimer's disease is to measure *caregiver* burden and stress, which should decrease as a direct result of good patient care and treatment. A patient who is doing well under a specific treatment regime often requires less assistance and supervision from his or her caregiver, which allows more time for caregivers to care for themselves. A few assessment tools are available for caregivers, and several others are being studied.

When working with patients, their caregivers and families, explain that improvements may take time to become apparent, and can be defined more accurately as a stabilization of symptoms versus a reversal of cognitive decline. Maintaining a positive and open relationship with caregivers can help them anticipate what may lie ahead and plan realistically for the future. As a patient's condition progresses, caregivers and families may have questions and may need additional support. Referrals to local chapters of the Alzheimer's Association and other health care professionals may be helpful for families who need assistance while caring for their loved ones. ●