The Role of the Psychiatrist in Alzheimer's Disease

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Psychiatrists are uniquely qualified to provide a variety of important services to patients with Alzheimer's disease and their families and professional caregivers. This paper highlights the role of the psychiatric physician in the differential diagnosis of dementing illnesses. Psychiatrists are also uniquely trained to evaluate and treat the psychiatric symptoms and problem behaviors in Alzheimer's disease. The psychiatrist may be asked to utilize and monitor antidementia compounds as well as to orchestrate functional and competency evaluations. As the leader of the mental health team, the psychiatrist serves as educator and resource provider to patients and their families. Lately, the psychiatrist works closely with caregivers to monitor for and prevent burnout and depression.

(J Clin Psychiatry 1998;59[suppl 9]:3–6)

The psychiatrist has played an important role in Alzheimer's disease diagnosis and treatment since the classical case originally described by Alois Alzheimer.[1] The landmark neuropsychiatric case consisted of prominent behavioral symptoms, as well as cognitive decline. Ninety years later, current statistics estimate that 3 to 4 million people in the United States have Alzheimer's disease.[2] This disease gives rise to a neurobehavioral disorder with clear psychiatric symptomatology, cognitive deterioration, global dysfunction, and an impaired ability to perform basic instrumental activities of daily living. Thus, the psychiatrist is an invaluable member, and sometimes leader, of the treatment team. Psychiatrists are especially skilled in the biopsychosocial approach necessary to manage this debilitating disease. Duties of the psychiatrist in Alzheimer's disease treatment include prescribing appropriate medications, aiding in competency evaluations, providing education and psychological support for the patient and caregivers, and referring the patient and caregivers to available community resources.

DIAGNOSIS

The psychiatrist is often called upon by the primary care physician to make the diagnosis of Alzheimer's disease, especially in more challenging cases. Table 1 lists the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* criteria for diagnosing Alzheimer's disease.[3] In order to reach this diagnosis accurately, a thorough evaluation should be completed (Table 2).

Historically, Alzheimer's disease diagnosis has been one of exclusion. The most important diagnosis to exclude initially is delirium. Due to the high morbidity and mortality associated with delirium, rapid diagnosis and treatment are essential. One of the most common diagnostic dilemmas is differentiating the cognitive features or pseudodementia syndrome of depression from progressive dementia. These disorders can initially present with emotional and social withdrawal and psychomotor slowing. While both the pseudodementia syndrome of depression and Alzheimer's disease can present with cognitive impairment, effort is poor in the depressed patient, whereas the patient with Alzheimer's disease will try but fail and become frustrated. Affective disturbance may also be shared. However, the depressed patient will have more feelings of guilt, as well as possible suicidal ideation. A rapid, datable onset also supports a diagnosis of depression. Once depression is ruled out, other dementing illnesses must be considered. These include vascular dementia, Parkinson's disease, Huntington's disease, Pick's disease, Creutzfeldt-Jakob disease, metabolic or endocrine disturbances, normal pressure hydrocephalus, chronic subdural hematoma, neurosyphilis, human immunodeficiency virus infection, and substance-induced dementia.

Current thinking is that Alzheimer's disease is a diagnosis of inclusion, in that most signs and symptoms can be detected by a primary care physician or other health care professional, leaving little doubt in the diagnosis. Nevertheless, a primary care physician's feelings of uncertainty can be alleviated with the help of a psychiatrist's consult.

In addition to making the diagnosis of Alzheimer's disease, the psychiatrist may also encounter comorbid psy-

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Presented at the closed symposium "New Strategies for Treating Alzheimer's Disease," held August 2, 1997, Chicago, Ill., which was supported by an unrestricted educational grant from Bayer Corporation.

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Table 1. DSM-IV Diagnostic Criteria for Dementia of the Alzheimer's Type*

A. Development of multiple cognitive deficits manifested by both
   1. memory impairment
   2. one of the following:
      a. aphasia
      b. apraxia
      c. agnosia
      d. disturbance in executive functioning
B. The above must cause significant functional impairment and represent a significant decline from a previous level of functioning
C. Gradual onset with continuous cognitive decline
D. A1 and A2 are not due to
   1. other CNS conditions that cause progressive deficits in memory or cognition
   2. systemic conditions known to cause dementia
   3. substance-induced conditions
E. The deficits do not occur exclusively in the course of delirium
F. The disturbance is not due to another Axis I disorder

*From reference 3, with permission.

chiatric conditions such as depression, psychosis, and general behavior disturbances. Because patients with Alzheimer's disease may have impairment in their ability to communicate, these disorders are more difficult to diagnose in this population. Diagnosis must usually rely on observable evidence rather than the subjective data, which are often not obtainable or reliable.

TREATMENT OF PROBLEM BEHAVIORS

Psychiatrists are particularly well trained to recognize and treat the behavioral disturbances that often accompany Alzheimer's disease. Investigators report problem behaviors in over 80% of patients with Alzheimer's disease.[4–6] Such behaviors may include agitation, wandering, sundowning, social or sexual inappropriateness, and repetitive, purposeless activity. The nonspecific term *agitation* has been defined by Cohen-Mansfield to include aggressive physical behaviors, nonaggressive physical behaviors, and verbal behaviors.[7] This definition also specifies that the behavior is not solely due to the needs or confusion of the patient.

The presence of behavioral problems has been repeatedly identified as a risk factor predicting institutionalization.[8–10] Thus, treatment of these problems may prevent or delay placement of patients with Alzheimer's disease. After environmental and behavioral modifications have been attempted, medications may be necessary to control disruptive behaviors. This topic has been covered previously in a review by the authors.[11] Table 3 lists the most commonly used antiagitation medications. Current practice attempts to take advantage of newer, more tolerable drugs while avoiding neuroleptics and benzodiazepines in all but emergency situations. The elderly patient population is more sensitive to the extrapyramidal and anticholinergic side effects of neuroleptics and the sedating and confusing side effects of benzodiazepines. In addition, benzodiazepine use has been linked to an increase in falls in elderly patients.[12]

Table 2. Evaluation of Dementia

1. Thorough present and past history, including:
   a. psychiatric disorders
   b. medical conditions
   c. substance abuse
   d. prescribed and over-the-counter medications
   e. family and personal data
2. Complete physical examination including:
   a. routine physical examination
   b. neurologic examination
   c. formal mental status examination
3. Laboratory work-up, consisting of:
   a. complete blood count
   b. blood chemistry
   c. liver function tests
   d. thyroid function tests
   e. B_{12} and folate
   f. urinalysis
   g. rapid plasma reagin and human immunodeficiency virus testing, if indicated
4. Radiographic work-up, consisting of:
   a. chest x-ray
   b. neuroimaging, if indicated
5. Electrocardiogram and additional cardiac work-up, if indicated
6. Neuropsychological testing, if indicated

Table 3. Antiagitation Medications

Trazodone
Buspirone
Anticonvulsants: valproic acid, carbamazepine
Serotonin selective reuptake inhibitors (SSRIs)
Estrogen
β-Blockers
Lithium
Benzodiazepines[a]
Neuroleptics[a]

[a]Preferable in acute management only.

While behavioral symptoms are the most common problems in patients with Alzheimer's disease who are treated by psychiatrists, depression may affect up to 40% of patients with Alzheimer's disease, and psychotic symptoms are seen in about one third of patients.[13] Again, psychiatrists are specially trained to recognize and treat affective and psychotic symptoms. An effective approach to treatment should include consideration of side effect profiles, underlying medical problems, and drug-drug interactions.

TREATMENT WITH ANTIDEMENTIA DRUGS

Until recently, the only medication available for treatment of Alzheimer's disease was tacrine. Its use has been limited by gastrointestinal side effects and associated hepatotoxicity, requiring careful monitoring of transaminase levels. Now, in addition to tacrine, another cholinesterase inhibitor, donepezil, is available. Donepezil is metabolized by the hepatic cytochrome P450 enzyme system, which, in the elderly population where taking multiple medications is common, may raise concerns for potential drug-drug in-

teractions. The compound has been shown to be effective in improving cognition scores without the incidence of hepatotoxicity associated with tacrine.[14] Psychiatrists are often called upon to provide antidementia drug treatment and to monitor improvement and side effects. Although currently available medications offer only modest gains in cognition, better tolerated and possibly more effective cognitive enhancers are in development, including metrifonate, rivastigmine, physostigmine, and eptastigmine.

FUNCTIONAL EVALUATION

Initial evaluation and ongoing treatment of Alzheimer's disease should involve functional evaluation. Psychiatrists are often asked practical questions by family members, e.g., What are the strengths and weaknesses of the patient? What are the kinds of things they can still do well with minimal assistance? What types of tasks are beyond retained abilities and should be avoided? By orchestrating a functional evaluation, psychiatrists can bring together neuropsychologists; nurses; occupational, recreational, and physical therapists; and social workers to determine optimal living environments for patients with Alzheimer's disease, and answer the practical questions asked by caregivers. The staging of Alzheimer's disease by the psychiatrist can be a useful prognosticator.

Several systems have been established according to clinical characteristics for Alzheimer's disease staging.[15,16] Functional evaluation should also include driving assessment, as Alzheimer's disease may significantly affect the patient's ability to operate an automobile safely. A road competency test has been demonstrated to be the best measure for making the decision to remove driving privileges.[17] As function continues to decrease and care demands increase, the psychiatrist can assist in the decision to institutionalize the patient. While the ultimate decision is left to the family or caretakers, the psychiatrist can be a source of information and support. Often, the psychiatrist can continue to care for the patient with Alzheimer's disease in nursing homes or care facilities, thus improving continuity of care for both the patient and his or her family.

CAREGIVER EVALUATION

The majority of patients with Alzheimer's disease are cared for by family members or other caretakers in their own homes. Caring for a demented person can be extremely difficult. Witnessing the decline of a loved one, coupled with dealing with frequent behavioral problems, can be quite stressful. Almost 90% of caregivers interviewed in 1 study reported fatigue, anger, and depression directly linked to caring for a demented family member.[18] Family members and caregivers often need their own evaluation and treatment. Some studies show that this additional assistance may benefit not only the caregivers, but also the patients, by preventing premature institutionalization.[19,20] Recognizing signs and symptoms of burnout and depression among family caregivers and instituting prompt psychotherapeutic and/or pharmacologic treatment are particularly important.

COMPETENCY EVALUATION

Psychiatrists are often consulted to assist in the competency evaluations of patients with Alzheimer's disease.[21] The person afflicted with Alzheimer's disease will inevitably progress to a stage where his or her ability to make decisions is impaired. This becomes an important issue when consent for treatment is needed and financial decisions are necessary. While competency is strictly a legal decision, the psychiatrist can assist the courts in determining competency by assessing the decisional capacity of the individual in question. Mental incapacitation is legally defined as when a person is "impaired by reason of mental illness, mental deficiency, physical illness or disability, advanced age, [or] chronic use of drugs, chronic intoxication, or other [substance] abuse, to the extent that [he or she] lacks sufficient understanding or capacity to make or communicate responsible decisions concerning [his or her] person."[22(p199)]

As mental capacity diminishes, the patient with Alzheimer's disease may need surrogate decision makers. Advance directives are a type of surrogate management that allows for the input of the patient while he or she is still able to make decisions. Living wills may be helpful in addressing the inevitable decline in health. This form of advance directive communicates the person's instruction for life-prolonging medical care. To ensure that the patient makes an educated and rational decision about this document, the psychiatrist can assist in its completion. Power of attorney empowers a person with the authority to make decisions for the incapacitated patient, which can encompass financial and/or medical decision making.

Once a patient with Alzheimer's disease is deemed incompetent, payeeship, guardianship, and conservatorship can be established. A designated payee will manage any public benefit money that the person is receiving. Guardianship grants the power to make all personal and financial decisions for the incompetent person. A conservatorship empowers a person to manage decisions regarding finances only. Once these surrogates are established, the psychiatrist must interact with these individuals regarding any decision making. The psychiatrist can also assist the court in monitoring the appropriateness of the surrogate and prevent the misuse of power.

FAMILY EDUCATOR AND RESOURCE PROVIDER

Educating the patient and his or her family is a vital part of the treatment of Alzheimer's disease that psychia-

trists can ably provide. A brief educational program provided to primary caregivers has proved effective in improving their coping skills.[23] In addition, education may enable the patient and caregiver to anticipate and appropriately deal with changes in the patient's condition over time, which could eliminate unnecessary trips to the emergency room. Likewise, education of hospital and nursing home staff can improve quality of care. Psychiatrists are also often consulted by family members concerning genetic and other risk or protective factors.

The psychiatrist is typically familiar with community resources that may benefit patients and caregivers. These include the local chapter of the Alzheimer's Association, family support groups, assisted living, retirement communities, nursing homes specializing in care of patients with Alzheimer's disease, and adult day services. Adult day services are often an effective method for managing demented patients and postponing the need for institutionalization.[24,25] Other health care professionals such as dentists and ophthalmologists may also specialize in dealing with patients with Alzheimer's disease. They can be essential in providing complete care for the person with Alzheimer's disease.

CONCLUSIONS

As the population continues to age, more individuals will be affected by this progressive disease. Consequently, clinicians experienced in dealing with the many facets of caring for a patient with Alzheimer's disease will be in great demand. Psychiatrists play an invaluable role in the evaluation and treatment of patients with Alzheimer's disease and their caregivers. Alzheimer's disease is a disease with clear biological underpinnings and pharmacologic treatment options, psychological components and stressors, and significant family/caregiver ramifications. Psychiatrists are uniquely trained and practiced in the skills necessary to meet the current and future demands of Alzheimer's disease.

Drug names: carbamazepine (Tegretol and others), physostigmine (Antilirium), tacrine (Cognex), valproic acid (Depakene and others).

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