

Management of Psychosis and Agitation in Elderly Patients: A Primary Care Perspective

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It is important for the primary care physician to become familiar with the appropriate management of agitation and psychosis in elderly patients. The treatment plan should include making an accurate diagnosis of underlying causes, defining reasonable treatment goals, developing and implementing both nonpharmacologic and pharmacologic treatment, and evaluating the effectiveness of that treatment plan. Nonpharmacologic treatments include organized social activities and structured patient environments, such as special care units. Atypical antipsychotic agents are now available that appear to be more effective in treating target symptoms while causing fewer unwanted side effects in older patients. (*J Clin Psychiatry* 1999;60[suppl 13]:22-25)

A primary care physician is often the first physician to see elderly patients with severe behavioral problems including psychotic symptoms. Older patients frequently have underlying acute and chronic diseases that are already being managed by primary care physicians when psychosis develops. It is therefore incumbent on the primary care physician to accurately recognize the problem, diagnose and treat organic causes, begin appropriate pharmacologic treatments, and tap into the expertise of a consulting psychiatrist when appropriate. The primary care physician must also remain vigilant to the effects that the pharmacologic treatment may have on the patient's underlying medical illnesses and nonpsychiatric medications.

COMPREHENSIVE TREATMENT PLAN

The key components of a comprehensive treatment plan include (1) accurate diagnosis, (2) definition of treatment goals, (3) nonpharmacologic treatment, (4) pharmacologic treatment, and (5) evaluation of therapy. I will discuss each of these components in detail and conclude with a clinical vignette that highlights some of these key points.

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The underlying causes of psychosis and agitation in the elderly are legion but mainly include dementia, delirium, and other neuropsychiatric diagnoses.^{1,2} Dementia may seem like an obvious etiology, but the diagnosis is frequently overlooked by the primary care provider. Patients may not present with complaints of memory loss or cognitive impairment. Families and caregivers who deal with the patient every day often downplay or fail to recognize symptoms of dementia. The signs may be inapparent during a brief visit unless the clinician is looking for them. Screening for cognitive impairment is a valuable part of health screening in the elderly, and it is certainly essential in assessing new-onset psychosis and agitation. The Mini-Mental State Examination of Folstein et al. is a 30-point screening tool that can be easily mastered by the primary care physician.³ The examination can be administered in 10 minutes and easily incorporated into an office visit. The test rarely helps to pinpoint the cause of dementia but remains a practical, brief tool for screening and follow-up.

Psychosis and agitation are frequent manifestations of delirium in the elderly. Delirium can be caused by many organic and environmental stressors that affect this age group disproportionately such as (1) infections, the most common being urinary tract and respiratory infections, (2) metabolic and endocrine abnormalities, the most common being thyroid abnormalities, including apathetic thyrotoxicosis, in which elderly patients present with symptoms and signs of hypothyroidism but actually have overactive thyroid glands demonstrated by serum thyroid function tests, (3) neurologic disorders including subclinical seizures, subdural hematomas, strokes, and transient ischemic attacks, (4) cardiovascular diseases, including ischemic heart disease, cardiomyopathy, and arrhythmias, (5) drug toxicity from digoxin, theophylline, and narcotic pain medications, which can cause delirium even at thera-

peutic or subtherapeutic levels, and (6) other common problems in the elderly, including fecal impaction, urinary retention, sleep disturbance, chronic pain, and undetected alcohol abuse.⁴⁻⁶

Although delirium is usually thought of as having an acute time course of hours to days, it frequently presents in a longer time horizon of weeks to months in the elderly. In evaluating elderly patients for the presence of delirium and its underlying causes, it is important to remember the four unique aspects of presentation of illness in this population: (1) presenting symptoms are nonspecific, with the most common being confusion or increased confusion, agitation, falls, and loss of appetite, (2) presentations are subtle; often there is absence of high fevers, leukocytosis, marked pain, or tenderness, (3) multiple conditions often coexist, and (4) small problems can have a big impact on the elderly because of loss of functional reserve.⁷ Therefore, the provider should have a high level of suspicion, continue to look for additional underlying causes (even when one cause has been found), and treat and regulate even minor abnormalities.

Treatment goals should include: (1) decreasing problematic behavior, (2) improving function, (3) reducing emotional distress, (4) decreasing caregiver stress, and (5) preventing complications. It may be unrealistic to entirely eliminate a problematic behavior, especially if higher dosages of medications result in increased and unacceptable side effects. Thus, it is important for the provider to be precise about specific goals and degree of symptoms that are tolerable for the patient and caregivers in a particular situation. For example, a patient living in the home with a single caregiver may have different needs from a patient living in a skilled nursing facility. If the side effect of the treatment results in decreasing the patient's functional capacity, the treatment and treatment goals should be reevaluated. Reducing the caregiver's emotional distress is a legitimate treatment goal if it results in better care and function of the patient. Conversely, if the patient is not disturbed in any way by his/her psychosis, the provider should discuss the potential side effects of treatment with the caregivers and then determine if treatment is necessary or desirable.

First and foremost, any identifiable underlying conditions should be treated. Nonpharmacologic interventions can often be effective and should always be considered. Modification of the environment can be enormously helpful. For example, patients in secured dementia units can safely wander within the unit, which decreases the need for medications to curb this behavior.⁸ Activity programs can provide social stimulation in a structured environment and provide a creative channel for the patient's physical and psychological energy. Respite care for families and other caregivers can increase tolerance for abnormal behavior and allow for decreased medications. Many of these interventions are best carried out when a team approach is used, which involves the nursing staff, social workers, recreation

therapists, and the caregivers. Some of these treatments require more than a primary care physician, working alone, can reasonably provide.^{9,10}

Home care is readily available in most cities today and is a valuable resource in both the assessment and management of elderly patients. It eliminates the considerable effort of travel—both physical and psychological—for patients and caregivers. Home care is generally underutilized for psychiatric patients, even though Medicare guidelines recognize the advantages of home visits for patients who become disoriented or agitated when they leave their home environment.¹¹ Studies done by Ramsdell and colleagues, which compared assessments done by the same providers in the office and the home, showed a substantially greater yield of identified problems during the home visit.¹² Cognition, functional status, polypharmacy, over-the-counter drug use, caregiver strain, alcohol problems, and environmental hazards were much better assessed in the home than in the office. On occasion, interventions possible during home visits can be quite dramatic; an example might be a nurse finding and removing firearms from the home of a patient who has dementia and agitation.

Pharmacologic and nonpharmacologic interventions are not mutually exclusive and can often be used together. Nonpharmacologic interventions often take time to implement and psychotropic medications can be initiated for an immediate effect while the nonpharmacologic treatment measures are being determined. Before starting any such medications, however, it is important to pause and discontinue unnecessary medications to reduce polypharmacy. Starting pharmacologic treatment with one agent can also reduce polypharmacy. However, some physicians prefer to use combinations of drugs to target a variety of symptoms as well as minimize side effects caused by large doses of a single drug. Even then, however, it is advisable to start with one agent and add subsequent agents one at a time so that the development of any unwanted side effects can be properly attributed to the offending drug. The geriatric principle of "start low, go slow" takes into consideration the age-related decreases in hepatic and renal clearance and remains sound advice for adjusting dosages of psychotropic medications.¹³

Individualizing therapy is essential, given the multiple diagnoses that are common in elderly patients and the greater interpatient variability that occurs with aging. With individual therapy, a new psychotropic agent is less likely to exacerbate underlying diseases and conditions or interact with current medications. Americans over the age of 65 represent 12% of the population but account for 25% of the national drug expenditure.¹⁴ The most common diseases in the elderly include osteoarthritis, hypertension, prostate hyperplasia, diabetes mellitus, heart disease, chronic obstructive pulmonary disease, and Parkinson's disease. It is important to consider how the addition of a new psychotropic medication may interact with these dis-

eases. For example, orthostatic hypotension is common in older patients (as many as 25% of community-dwelling elderly) and even more common in elderly patients with underlying hypertension.¹⁵ This may be an important consideration if one is thinking of prescribing a medication that can cause orthostatic hypotension in a patient who is taking an antihypertensive agent. The most commonly used drugs in the elderly include cardiovascular agents, antihypertensive agents, analgesics, arthritis preparations, sedatives and tranquilizers, laxatives, and antacids.¹⁶

Certain drug combinations should be avoided or used with caution. Medications such as carbamazepine and phenobarbital may act as enzyme inducers that increase hepatic metabolism of drugs. Carbamazepine has been gaining in popularity because of expanded indications for chronic pain and mood disorders in addition to seizures. Enzyme inhibitors such as cimetidine can increase the blood level of antipsychotic agents. Cimetidine has been one of the most frequently prescribed medications in this country for both treatment and prophylaxis of peptic ulcer disease, and it is now available over the counter. It is becoming the favored medication for peptic ulcer disease because of its relatively low cost compared with other agents in this group. One must be wary of additive effects. For example, the clinician should avoid adding a medication with anticholinergic side effects to a patient experiencing constipation from a calcium channel blocker or a medication that can cause orthostatic hypotension to a patient with diabetic neuropathy. The clinical significance of identified drug-drug interactions is unclear, and there is high variability from patient to patient.

Finally, experienced clinicians know that it is time well spent to make sure they are writing a clear prescription, including an explanation of the indications and goals for each medication. It may also help to give some parameters to families and caregivers for adjusting the dosage, making it less likely for them to discontinue the drug at the first sign of a mild side effect or evidence of ineffectiveness. Effective communication with all the providers and caregivers as well as adequate documentation in the chart is important.

Atypical antipsychotic agents have several advantages compared with conventional neuroleptics. Unlike the older agents that had little effect on negative symptoms, the newer drugs appear to be effective against both positive and negative symptoms of psychotic disorders. The newer agents also cause fewer extrapyramidal symptoms and less tardive dyskinesia. There is also some evidence that they improve cognitive performance, which is very advantageous for the older population in whom psychiatric symptoms are frequently associated with dementia. As with many drugs, these newer agents should be used at lower doses in the elderly than in younger patients.¹⁷

The final and crucial step in treatment is evaluation of therapy, which starts with determining medications the pa-

tient is actually taking as opposed to those prescribed. The patient or caregiver may have altered the dosage or frequency, or there may have been a miscommunication. Next, determine if the treatment goals are being met; i.e., is the medication working? If the goals are being met, one should further inquire if any medications can be tapered or are no longer necessary. The clinician should also address whether changes in treatment goals are necessitated by a new diagnosis or a different living situation. Finally, it is helpful to ask if the treatment can be simplified in any way. Just changing the dosing interval from twice daily to once daily, for example, can increase long-term compliance. The evaluation step should be ongoing to accommodate frequent changes in the patient's physiology and environment.

CASE REPORT

Mr. A was an 80-year-old widower with Parkinson's disease, peptic ulcer disease, hypertension, diabetes mellitus, chronic obstructive pulmonary disease, osteoarthritis, and prostate hyperplasia. He was brought to the clinic by his daughter with complaints of being withdrawn, restless, and suspicious of family and neighbors. Medications included cimetidine, theophylline, glyburide, prazosin, over-the-counter ibuprofen, and Tylenol PM, an over-the-counter preparation that contains acetaminophen and diphenhydramine. He was on no medications for pulmonary disease or Parkinson's disease. Examination in the office revealed stable medical problems and a Mini-Mental State Examination score of 20/30.

Tylenol PM was stopped, and he was prescribed haloperidol 0.5 mg b.i.d. and lorazepam 0.5 mg q. 6 h p.r.n. for agitation. Two weeks later, the patient's daughter called and reported that Mr. A was having difficulty walking, frequent falls, and new episodes of verbal aggressiveness and abuse. Haloperidol and lorazepam were stopped and risperidone 0.5 mg b.i.d. was begun. He was placed in a residential-care facility and enrolled in an Adult Day Health Care program. Two weeks later, he was walking better; the paranoia had diminished, and the verbal abuse had stopped. Two months later, the paranoia resolved and the patient was calm and interacting well with other residents. Risperidone was tapered, and 6 months later the patient was doing well without psychotropic medications.

Typical of older patients, Mr. A had multiple medical problems and took medications that contributed to delirium. Therefore, it was essential to exclude these potential causes of his behavioral symptoms with complete and thorough examinations, including a careful neurologic examination and mental status testing. Screening laboratory studies that targeted these causes were also performed. This case serves to illustrate that dementia is frequently overlooked. The family had focused on his behavior and personality change, and the primary care physician had

performed no formal mental status testing. During brief office visits—when the focus is on management of multiple medical problems—patients with good social skills might exhibit no overt signs of cognitive decline. It is also advisable to eliminate nonessential medications that may contribute to psychosis. A key feature of patient management is the constant evaluation and reevaluation of the treatment plan. Careful evaluation at 2 weeks suggested that Mr. A might be experiencing a paradoxical reaction to haloperidol manifested by new verbal aggressiveness and abuse. The drug was discontinued, thereby avoiding the pitfall of increasing the dose of medication because of an erroneous impression that the patient had not responded to lower doses of the drug. Starting a drug at a low dose can minimize side effects when they occur, and initiating only one medication at a time facilitates the evaluation process. This case report also illustrates that both pharmacologic and nonpharmacologic treatments can be used together. In this case, the pharmacologic treatments were initiated while the slower process of changing the residential environment was implemented.

SUMMARY

The management of psychosis and agitation in older patients must be based on thorough assessment of underlying causes and judicious use of both nonpharmacologic and pharmacologic treatment. The pharmacologic treatment must be tailored to the specific disease and medication profile of each patient as well as the general pharmacologic considerations for elderly patients. The atypical antipsychotic agents are now available and may be more effective in controlling target symptoms while causing fewer unwanted side effects. Continuous evaluation of response of the patient to treatment is necessary to ensure optimum management.

Drug names: carbamazepine (Tegretol and others), cimetidine (Tagamet), digoxin (Lanoxin and others), glyburide (DiaBeta and others), phenobarbital (Luminal and others), prazosin (Minipress and others), theophylline (Marax and others).

Disclosure of off-label usage: The author of this article has determined that, to the best of her knowledge, no investigational information about pharmaceutical agents has been presented herein that is outside Food and Drug Administration–approved labeling.

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