

PHARMACOLOGICAL TREATMENT OF DEPRESSION IN THE ELDERLY

Depression is a common biological brain disorder and occurs in 7-12% of all individuals over the age of 65. Specific groups have a much higher rate of depression including the seriously medically ill (20-40%), idiopathic Parkinson's patients (30-40%), post-stroke patients (50%), and Alzheimer's patients (30%). Antidepressant medications are effective in 70% of elderly depressed patients with appropriate diagnosis and medical management. Unrecognized depression leads to higher medical costs and higher risk of death from cardiac or cerebrovascular disease. The first step in proper treatment of depression is accurate diagnosis.

- ALTERED**
- Sleep
 - Interest
 - Guilt
 - Energy
 - Concentration
 - Appetite
 - Psychomotor
 - Suicide

Recognition of depression in the elderly patient can be difficult. Delirium, substance abuse, from stroke or dementia can mimic depression. Specific neurovegetative symptoms include sleep disturbance, loss of appetite, lack of energy and loss of concentration as well as lowered mood. Many elderly patients have increased physical complaints such as persistent unexplained abdominal problems, severe joint pain, etc. Depression should be considered in any elderly patient who "constantly whines" or frequently visits the doctor for vague symptoms. Depression is a common cause of weight loss in older patients. Elderly depressed patients may become psychotic, appear demented (pseudodementia) or begin to yell

- Differential Diagnosis of Depression**
- Grief
 - Delirium
 - Dementia
 - Stroke
 - Medical Problems
 - Medications

Suicide is one of the 10 leading causes of death in elderly patients. Hospitalization should be considered for any elderly, depressed individual expressing ideas of self-harm.

Up to 40% of patients hospitalized for depression have psychotic symptoms. The hallucinations are often poorly formed, vague sensory experiences. Delusions often have negative features (e.g., false fear of poverty, false belief of severe physical problems like malfunction of intestines, cancer, etc.). Psychotic, depressed patients demonstrate higher rates of relapse, hospitalization and suicide.

The clinician should exclude medical causes of depression including thyroid disorder, azotemia, and medications that lower the patient's mood. Drugs such as Aldomet and steroids can cause elderly patients to appear depressed. Malignancy and severe cardiovascular disease can produce some symptoms of depression. Many (15%) patients develop depression following cardiac surgery.

Patients manifesting depressive symptoms unrelated to medical causes should undergo a trial of antidepressants. Patients with psychotic symptoms are best treated with atypical antipsychotics like risperidone or olanzapine. Two commonly utilized classes of medications include selective serotonin reuptake inhibitors and tricyclic antidepressants.

Many serotonin reuptake inhibitors are available for prescription (See Table at Back). The overall efficacy of each medication in the elderly is roughly equivalent; however, significant differences exist in drug half-life, effect on the P450 system and expense. Most physicians

become familiar with one or two SSRI's and utilize these medications in most patients. The SSRI's lack reliable blood levels to determine efficacy and dose titration is required in many newer antidepressant medications.

The SSRI's can alter the P450 system, a system of liver enzymes that metabolize a broad range of medications including cardiovascular, antihypertensive and neuroleptic drugs. The addition of an SSRI may significantly alter hypertensive and antiarrhythmic blood levels that produce toxicity from either too little or too much medication. The treating clinician should understand the effect of each SSRI on cardiovascular drugs to monitor for potential side effects. Consulting pharmacists should provide this type of data during a consultation.

Drug half-life is important for dosing schedule and titrations. Several SSRI's require minimal titration including Prozac, Paxil and Remeron. Other drugs such as Zoloft, Effexor and Sertraline require careful upward adjustment of medication to reach desired therapeutic effect.

There are no injectable antidepressants for those patients unable to take oral medications. Prozac has a liquid preparation that is injectable via PEG or NG tube; a distinct advantage for this medication. Many of the newer antidepressants are very expensive and patients are often unable to afford these medications.

The ideal SSRI is: 1) a relatively inexpensive medication with 2) a relatively short half life that 3) produces minimum side effects and 4) minimally effects metabolism of other cardiovascular drugs. The particular categories are displayed in Table 1 and clinicians can choose which combination they feel most comfortable with.

The other associated side effect with SSRI's vary according to medication and dosing range. The cardiovascular effect of SSRI's is minimal -- significantly less than tricyclic antidepressants like nortriptyline. The SSRI's as a class may produce akathisia, a side-effect commonly seen in neuroleptics. The SSRI's can be used in combinations with antipsychotics, mood stabilizers and antianxiety medications. These medicines are also effective in patients receiving anti-Alzheimer's medications like Aricept.

Conventional medical wisdom now endorses the use of SSRI's as a first line drug in the treatment of depression in the elderly. The safety and efficacy of these medications has been demonstrated in patients over the age of 65 as well as those with significant cardiovascular disease or individuals with complicated medical problems such COPD and cancer. These medications are effective in lowering anxiety in patients; however, they are not as effective for treating chronic pain as the tricyclic antidepressants.

Nortriptyline (Pamelor) is the most effective tricyclic antidepressant with the least anticholinergic side effects. Doses beginning from 30-50 mg per day can be used at bed time to assist sleep. Blood levels should be checked every week during dose adjustments and the dose titrated to a blood level of 70-100. The antidepressant should be continued for six weeks to determine efficacy. Avoid Elavil in the elderly since most patients over age 65 will become confused or delirious from the medication. Patients with significant cardiac conduction problems may be at risk for heart block with tricyclic antidepressants. Overall, therapeutic doses of Pamelor are well tolerated by even the frail elderly patients since Pamelor does not disrupt sleep or appetite. A nighttime dose may lessen sleep disturbance.

Multiple classes of antidepressants are available. Monoamine oxidase inhibitors, e.g., Nardil, Parnate, are effective in elderly patients but these medications require careful dietary restrictions and vigilant monitoring. The diet requires careful instruction for elders and caregivers. MAOI's are best prescribed by geriatric psychiatrists with extensive experience

with these drugs. Patients who fail a six-week trial with one antidepressant and then fail with a second antidepressant from a different class should be referred for evaluation and further management to a geriatric psychiatrist or a general psychiatrist with experience managing elderly patients. Electroconvulsive therapy can safely treat depression in patients who fail standard medical therapy. Ninety percent of depressed patients over age 65 improve with appropriate therapy.

Anxiety is a common symptom associated with depression that will lessen when mood symptoms improve. Treating anxiety with benzodiazepines (e.g., Xanax, Valium) can be hazardous in the elderly since all such drugs can cause confusion, delirium and falls. Long-term benzodiazepine prescription for the elderly should be avoided except as a last resort. Patients with severe therapy-resistant anxiety disorder should be referred to psychiatrist with geriatric expertise for evaluation and further treatment. The community health center may provide individual or group psychotherapy to cognitively intact residents with depression.

Maintenance therapy with antidepressant medication is appropriate for up to two years following the complete elimination of depressive symptoms. Patients with severe life-threatening depression may remain on antidepressants for many years. Antidepressant medications do not need to be tapered but can be discontinued with relatively few side effects. Antidepressant medications are not addictive but SSRI's should be tapered to avoid rebound symptoms. Patients receiving antidepressant medications should be seen every six months to confirm the indications for the medication, side effects and long-term plans for discontinuation.

Patient education should focus on the biological nature of depression and the importance of continued medication. Family and patient should agree to alert the clinician when antidepressant medication is discontinued. Patients with seasonal variation of mood can

schedule visits during the at-risk period. Brief psychotherapy increases the effectiveness of medications and this intervention is well-tolerated by the older patient.

Non-compliance and unrecognized substance abuse are common causes of treatment failure.