



Insights Into the Management of Depression and Anxiety in Long-Term Care Settings

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Methods

This expert panel of interdisciplinary thought leaders representing academia and the medical community was assembled by Medical Education Resources (MER), a nonprofit medical education company, to review the existing literature and author this publication on the management of depression and anxiety in long-term care settings. Where evidence existed, it served as the basis for specific recommendations. In the absence of evidence, consensus was obtained. Programs in Medicine was selected to facilitate a series of teleconferences and a closed Internet discussion forum to obtain consensus agreement by the panel on the information presented within this publication.

SPONSORSHIP AND ACCREDITATION INFORMATION

Insights Into the Management of Depression and Anxiety in Long-Term Care Settings

Target Audience

This program is intended for long-term care physicians, pharmacists, and nurses who treat elderly patients with depression and anxiety.

Educational Objectives

Upon completion of this program, participants should be able to:

- Enhance their ability to identify long-term residents with depressive or anxiety disorders to improve the patients' quality of life.
- Discuss clinical and economic considerations of current treatment protocol to improve patient outcomes.

Program Completion Time

Based upon trials, the estimated time to complete this program is 1 hour.

Educational Grant

This program is made possible by an unrestricted educational grant from Wyeth Pharmaceuticals.

Sponsorship

This activity is sponsored by Medical Education Resources Inc., a nonprofit medical education company. Programs in Medicine was selected to manage program logistics.

Physician Accreditation

Medical Education Resources is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians.

Credit Designation

Medical Education Resources designates this continuing medical education activity for up to 1 credit hour in category 1 of the Physician's Recognition Award of the

American Medical Association. Each physician should claim only those hours of credit that he/she actually spent in the activity.

This CME activity was planned and produced in accordance with the ACCME Essentials.

Nursing Accreditation

This program qualifies for 1.25 contact hours. Medical Education Resources is approved as a provider of continuing education in nursing (CNE) by the Colorado Nurses' Association, which is accredited as an approver of CNE by the American Nurses Credentialing Center's Commission on Accreditation.

Provider approved by the California Board of Registered Nursing, Provider CEP # 12299, 1.25 contact hours.

Each participant should claim only those hours of credit that he/she actually spent in the educational activity.

Pharmacy Accreditation

Medical Education Resources (MER) is approved by the



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Insights Into the Management of Depression and Anxiety in Long-Term Care Settings

Faculty Disclosure Policy

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Dr. George T. Grossberg reported that he receives Grant/Research support from Abbott Laboratories, Boehringer/Ingelheim Pharmaceuticals Inc., Cyberonics Inc., Eunoe Inc., Forest Pharmaceuticals, GlaxoSmithKline, Janssen Pharmaceutica, Novartis Pharmaceuticals, Organon Inc., and Pfizer Inc. He serves as a consultant for Abbott Laboratories, AstraZeneca Pharmaceuticals, Bristol-Myers Squibb Company, Eli Lilly and Co., Forest Pharmaceuticals, Janssen Pharmaceutica, Novartis Pharmaceuticals, Organon Inc., and Synthelabo.

Dr. Dan Osterweil reported that he is a consultant for Pharmacia, Eli Lilly and Co., Organon Inc., and Novartis Pharmaceuticals. He serves on the Speakers' Bureau for Eli Lilly and Co., Janssen Pharmaceutica, Novartis Pharmaceuticals, Organon Inc., and Pfizer Inc.

Dr. Michael Thase reported that he is a consultant for Bristol-Myers Squibb Company, Cephalon Inc., Cyberonics Inc., Eli Lilly and Co., Forest Laboratories Inc., GlaxoSmithKline, Novartis Pharmaceuticals, Organon

Inc., Pfizer Inc., Pharmacia & Upjohn, and Wyeth Pharmaceuticals. He receives Grant/Research support from Cyberonics Inc., Pharmacia & Upjohn, and Wyeth Pharmaceuticals. He serves on the Speakers' Bureau for Bristol Myers Squibb Company, Eli Lilly and Co., Forest Laboratories Inc., GlaxoSmithKline, Organon Inc., Pfizer Inc., Pharmacia and Upjohn, Solvay Pharmaceuticals, and Wyeth Pharmaceuticals.

Dr. Keith Krein, Dr. Marsha A. Raebel, Mary Tellis-Nayak, and Dr. David Thomas reported that they do not have a financial arrangement or affiliation with commercial companies whose products may be mentioned in this program.

Obtaining Continuing Education Credit

To receive credit, physicians must complete the CME Test Questionnaire that appears at the end of this program and fax or mail it to:

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Fax: 303-798-5731

A minimum score of 70% on the Continuing Pharmaceutical Education Test is required for credit. A certificate of completion will be mailed within 4 weeks of receipt of the completed answer sheet.

Program Release Date: March 2003
Program Expiration Date: March 2005



Insights Into the Management of Depression and Anxiety in Long-Term Care Settings

Depressive disorders are the fourth most important cause of disability worldwide and are expected to become the second most important cause by 2020.¹ In a nationally representative sample of 26,883 adult household residents in the United States, the point prevalence of depression was 1.9% of adult females and 1.0% of adult males. Among women, the prevalence showed a peak in the youngest age cohort and decreases up to age 60 years. A slight secondary peak occurs after age 60 in women, but not in older men. A previous history of depression was present in the majority of persons.²

An estimated 1% to 9% of older adults in community settings have major depression, and as many as 15% to 25% have depressive symptoms.^{3,4,5} Among five different aging cohorts (65, 70, 75, 80 and 85 years), the frequency of depression (Zung score >45) was 11%, 13%, 20%, 16%, and 36%, respectively. Depression was often associated with a Mini-Mental State Examination score (MMSE) < 24, with combined frequency of depression and low MMSE score of 2%, 3%, 8%, 12% and 24%, respectively, in the age cohorts. Overall, about 30% of the subjects with a low MMSE score had a depressive score. More than half of the persons over 75 years with depression also had a low MMSE score, and both conditions were present in one

of four subjects at the age of 85 years.⁶

Epidemiological studies suggest that depression is less frequent in older community-dwelling persons than at earlier ages.^{7,8} But in special populations, such as nursing home subjects, the prevalence of depression has been reported in up to one-third of patients. Prevalence rates of major depression in nursing home residents have been reported to range from > 10% to 22%, while additional 15% to 50% of residents may show significant depressive symptoms.^{9,10,11}

Of the 600,000 Americans who experience a recurrent stroke each year, an estimated 10% to 27% experience major depression. An additional 15% to 40% experience some symptoms of depression within the two months following a stroke. The average duration of major depression in persons who have suffered a stroke is just under one year.¹²

Depression is a comorbid condition among frail older persons. As many as half of persons with Parkinson's disease may suffer from depression and as many as 20% of persons with Alzheimer's disease may suffer from depression. Because of the difficulty in diagnosing depression in persons with these conditions, most never get help for this treatable illness.¹³

The consequences of depression in older patients are severe. In a study of a nursing home population,

13% of residents had a depressive disorder at admission to the nursing home, and 18% had depressive symptoms. At one year, 47% of those with depressive disorder died compared with 30% of those without depression.¹⁴

Depression is undertreated.^{11,15,16} In patients with an established diagnosis of depression, only 23% were treated, and of those, only 14% were receiving an adequate dose of an antidepressant.¹⁷ Up to one-third of the patients with depression received no medication in longitudinal studies.¹⁸ This is of particular concern since antidepressants are remarkably effective in producing relief of symptoms. Indeed, the number needed to treat to produce a benefit is extraordinarily low. About 4 patients would need to be treated with antidepressants to produce one recovery from depression, which would not have occurred had they been given placebo.¹⁹

Treatment of Depression

Most of the data guiding treatment derives from studies in general populations or younger adults.

Treatment decisions in older adults must be extrapolated from this data.

Options for treating depression include psychotherapy (counseling, rational, behavioral), pharmacological agents, and electroconvulsive therapy. Based on comparisons with untreated controls, antidepressants and rational psychological therapies appear to be effective treatments for older ambulatory patients with mild to moderate depression.²⁰ At eight months, patients who received either six weeks of pharmacological treatment or 16 weeks of psychotherapy had more improvement than did patients who received neither. Recovery rates were similar in the drug treatment and psychotherapy groups (53% vs. 51%, $P = 0.8$), but either treatment was better than usual care.²¹ Other studies have confirmed equality of pharmacological therapy and psychological therapy.¹⁶ Certain

types of psychotherapy are also effective treatments for depression. Cognitive-behavioral therapy and interpersonal therapy are particularly useful.

Approximately 80% of older adults with depression improve when they receive appropriate treatment with medication, psychotherapy, or the combination of both.^{22,23} However, these cognitive-behavioral therapies may not be available in long-term care settings or be limited by the patient's mental status.

Electroconvulsive therapy is effective, but is usually reserved for patients refractory to pharmacological therapy.²⁴

Pharmacological treatment of depression has made major recent advances. Tricyclic antidepressants were first introduced in 1959. Previously, older drugs available to treat depression were limited to lithium and the monoamine oxidase inhibitors. Trazodone, a triazolopyridine serotonin antagonist and reuptake inhibitor, and bupropion, an aminoketone norepinephrine and dopamine reuptake inhibitor, were introduced in the mid-1980s, and were the first major departures from the pharmacology of the tricyclics. The first selective serotonin reuptake inhibitors (SSRI) were introduced in the United States in 1988. Nefazodone, a phenylpiperazine serotonin antagonist and reuptake inhibitor, was modified to decrease the side effects of trazodone. Treatment options have since expanded and now include five SSRIs (fluoxetine, sertraline, paroxetine, citalopram, escitalopram); tetracyclic antidepressants (ie, maprotiline); venlafaxine, a combined serotonin and noradrenaline reuptake inhibitor; and mirtazapine, a noradrenergic and serotonergic receptor antagonist. Other new agents have been developed but are not available in the United States.

The armamentarium for treating depression can be classified into two groups—older drugs (tricyclic drugs, monoamine oxidase inhibitors, and lithium) and newer drugs (bupropion, nefazodone, SSRIs, venlafaxine, and mirtazapine). There is no question that

pharmacological treatment of depression is superior to placebo therapy. Antidepressant treatment produces a greater response rate in patients with major depression (51% vs. 32%, weighted relative benefit increase [RBI] 60%, 95% CI, 50% to 70%); dysthymia (59% vs. 37%, weighted RBI 70%, 95% CI, 30% to 130%); and recurrent depression (47% vs. 28%, weighted RBI 50%, 95% CI, 20% to 90%).²⁵

All the meta-analyses that have compared newer antidepressants (SSRIs) and older antidepressants (TCAs) have concluded that newer and older antidepressants have equivalent efficacy. Compared to the tricyclic antidepressants, no difference was found in mean improvement when comparing the serotonin group with the tricyclic and related antidepressants group using either the standard deviation for the Hamilton Depression score, or the 17-item or 21-item Hamilton scale.²⁶ A review of 162 randomized controlled trials indicated that SSRIs and TCAs were equally effective.²⁷ In similar meta-analysis, the percentage of patients responding in the intention-to-treat group was 48% for SSRI versus 48.6% for TCA ($P>0.05$).²⁸ The data indicate that the newer selective serotonin inhibitors are equally effective compared to older antidepressants. A number of trials have compared various SSRIs among themselves. Overall, there is little difference in effectiveness among these newer agents.^{29, 30, 31, 32}

One reason for the observed comparable effect among antidepressants may be that the actual efficacy of these medications in double-blind, placebo controlled trials has been overestimated for several decades. Using data from unpublished "failed" clinical trials, Thase³³ and Khan et al³⁴ found that placebo response factors may explain as much as 80% of the antidepressant effect in controlled trials. Since very large studies are required to reliably detect modest differences between two effective medications, there have been no truly definitive studies comparing the

newer antidepressants.³⁵ When meta-analytic approaches are used to combine data from several clinical trials, however, significant differences begin to emerge. For example, tricyclic antidepressants were found to be significantly more effective than monoamine oxidase inhibitors and SSRIs in inpatient studies, but not in the more numerous ambulatory studies.^{36, 37, 38} Venlafaxine was found to be significantly more effective than other SSRIs in pooled and quantitative meta-analysis of predominantly ambulatory studies.^{39, 40} When considered together, these findings suggest that antidepressants that affect norepinephrine and serotonin directly may have an advantage for more severely depressed patients, or, when comparably tolerable, across patient groups when compared to other SSRIs. However, there are no published studies comparing venlafaxine and other SSRIs in older adults. The authors are aware of two unpublished comparative studies in older adults. In the first, a larger study of a healthier, ambulatory population (mean age 70 years) in an outpatient setting, venlafaxine immediate-release and fluoxetine were comparably effective and similarly well tolerated.⁴¹ In the second study, of 52 frail nursing home residents (mean age 82 years), venlafaxine immediate-release and sertraline were equally effective, although there was a higher frequency of withdrawal due to serious adverse events in the venlafaxine group.⁴² Further study of medically compromised patients is clearly needed.

Choosing Appropriate Therapy

The choice of an optimum antidepressant agent is therefore dependent on advantages derived from the special pharmacological properties of the drug, adverse effects, and patient comorbid medical conditions. Older, frail depressed patients are particularly prone to the side effects of antidepressants. Anticholinergic effects, changes in cognitive function,

and overdose potential may limit the use of antidepressant drugs, even the drugs considered to be safest in this population.^{43,44} Older patients are more prone to the cardiovascular side effects of antidepressants.⁴⁵ These adverse effects limit treatment compliance, treatment outcomes and the effectiveness of long-term drug treatment for prevention of subsequent episodes of depression. Concomitant medications used to treat coexisting medical illness expose the elderly patient to greater risk of adverse effects as a result of drug-drug interactions. The problem is compounded by the fact that the duration of treatment for depression may be up to two years.⁴⁶

TCAs, MAOIs, and SSRIs

In general, older compounds, such as tricyclic antidepressants and monoamine oxidase inhibitors, have a higher potential for interactions than newer compounds, such as selective serotonin reuptake inhibitors and other relatively novel agents with a more specific mechanism of action. In particular, TCAs and MAOIs are associated with clinically significant pharmacodynamic interactions with many medications frequently prescribed to elderly patients. TCAs may cause pharmacokinetic interactions when given in combination with inhibitors or inducers of the cytochrome P450 (CYP) isoenzymes involved in their metabolism.

Newer agents have a differential potential for pharmacokinetic interactions because of their selective effects on CYP isoenzymes. Within the group of SSRIs, fluoxetine and paroxetine are potent inhibitors of CYP2D6, while fluvoxamine predominantly affects CYP1A2 and CYP2C19 activity.

Among other newer antidepressants, nefazodone is a potent inhibitor of CYP3A4. Because of a more selective mechanism of action, newer antidepressants have a low potential for pharmacodynamic drug interactions (Table I).

TABLE I Likelihood of Drug-Drug Interactions with Newer Antidepressants Based on the Cytochrome P-450 Enzymes

RELATIVE LIKELIHOOD	ANTIDEPRESSANT
Most likely	Fluoxetine
	Paroxetine
	Nefazodone
	Fluvoxamine
Less likely	Bupropion
	Sertraline
Least likely	Mirtazapine
	Citalopram
	Escitalopram
	Venlafaxine

Adapted and modified from Richelson E. Pharmacokinetic drug interactions of new antidepressants: A review of the effects on the metabolism of other drugs. Mayo Clinic Proceedings 1997;72(9):835-847, and the Consensus Panel.

In the overall comparison of newer agents and tricyclic antidepressants, a significantly lower discontinuation rate for the newer agents was observed.⁴⁷ Drop-out rate due to adverse events in another meta-analysis comparing selective serotonin reuptake inhibitors with tricyclic antidepressants was 16% for the SSRIs versus 22% for the TCA group.⁴⁸ Other meta-analyses have not demonstrated a differential pooled drop-out rate (32% in the serotonin group versus 33% in the tricyclic and related antidepressant group).⁴⁹ It should be recognized that these comparison trials have included amitriptyline and imipramine, tricyclics that are not recommended for older persons.

SSRI agents are associated with more diarrhea, headaches, insomnia, and nausea, whereas tricyclics

produce more symptoms of blurred vision, constipation, dizziness, dry mouth, tremors, and urinary disturbance⁵⁰ (Table II). Both tricyclics and SSRIs have been associated with an increased frequency of falls and hip fracture.⁵¹ With efficacy similar to TCAs, a favorable drop-out rate, less laboratory monitoring, and fewer office visits for dosage adjustments,⁵² SSRIs and newer agents may prove to be the better initial choice for treatment of outpatients with depression despite higher drug cost. However, the less anticholinergic tricyclics, nortriptyline and desipramine, remain cheap drugs that at low doses compare favorably to serotonin reuptake inhibitors.

Changes in pharmacokinetics associated with aging complicate the choice of dosing regimens.⁵³ Physicians may respond to the fear of adverse drug effects in the elderly by using lower, inadequate doses of antidepressant medications. In patients prescribed serotonin reuptake inhibitors, secondary tricyclic antidepressants, or tertiary tricyclic antidepressants, only 79%, 45%, and 31%, respectively, appeared to be using therapeutic doses. Nearly half (11,028 of 23,553) of the individuals studied appeared to be treated for inadequately short periods (less than six months).⁵⁴ Newer agents that do not have altered pharmacokinetics in older persons or that have less severe adverse-effect profiles are preferred in older subjects.

In general, it is safer to initiate antidepressant drug dosing in older patients at one-half of the initial dose used in younger adults and to titrate drug dosing at a slower rate, especially with tricyclic antidepressants. For certain newer antidepressant agents (eg, venlafaxine and escitalopram), use of lower initial doses in older persons is not required. Regardless of the dosing schedule used, therapeutic antidepressant drug effects can still require several weeks to become apparent. As with younger adults, pharmacokinetic profiles of antidepressants in older adults vary from individual to individual.

Therefore, if an older patient is not receiving therapeutic benefit from a lower dose of an antidepressant, and is tolerating the drug, a higher dosage should be tried prior to declaring the treatment a failure. The therapeutic antidepressant goal remains the same regardless of the age of the patient.

New classes of antidepressant drugs such as the serotonin reuptake inhibitors have been designed to overcome some of these adverse effects. However, not all limitations have been overcome. The serotonin class of drugs can cause the same symptoms frequently reported in elderly depressed patients (eg, weight loss, agitation, and insomnia).^{55,56} In addition, a serotonin withdrawal syndrome consisting of flu-like symptoms, dizziness, instability, and agitation may occur in elderly patients.⁵⁷ The possibility of the serotonin syndrome should be taken into account when drugs affecting serotonergic transmission, such as SSRIs, venlafaxine or nefazodone, are coadministered with other serotonergic agents.⁵⁸ Finally, because of their inhibitory effects on the drug-metabolizing cytochrome P450 enzyme system, the SSRIs have a high propensity for drug interactions.^{59,60}

Combined Serotonin and Noradrenergic Inhibitors

Drugs that inhibit both serotonin and noradrenaline reuptake have several hypothesized advantages. Potentially, inhibition of the uptake of both monoamines would result in an improved antidepressant drug. Currently, the dual inhibitors of serotonin and noradrenaline uptake are venlafaxine, milnacipran, and duloxetine. Based on the preclinical studies, the three drugs show properties of inhibiting uptake of both monoamines *in vitro* and *in vivo*, and all exhibit low affinity at neuronal receptors of neurotransmitters, suggesting low side-effect potential. In double-blind, controlled studies, venlafaxine, duloxetine, and milnacipran have been shown to be as effi-

TABLE II

Comparison of Side Effects Among Newer Antidepressants

Drug	Anticholinergic-like Symptoms	Sedation	Agitation	Postural Hypotension	GI Effects	Sexual Dysfunction
Fluoxetine	++	++	++	0	+++	+
Paroxetine	++	+++	+	0	+++	++
Sertraline	++	++	++	0	++	++
Citalopram	++	+++	+	0	++	++
Mirtazapine	+++	+++	0	+	++	0
Bupropion	+++	++	++	0	+++	0
Nefazodone	+++	+++	0	+	+++	0
Venlafaxine	+++	+++	+	+	++	++
Escitalopram	+	+	+	0	++	0

Table based on reported package insert product adverse effects or placebo-controlled trials. 0 = none; + = <5%; ++ = 5-20%; +++ = 21-40%. Several agents produce anticholinergic-like symptoms, such as dry mouth, but do not have specific anticholinergic effects. Anticholinergic-like symptom cluster = abnormal accommodation, anticholinergic syndrome, constipation, micturition disorder, micturition frequency, dry mouth, urinary retention, abnormal vision, blurred vision; Sedation cluster = drowsiness, excessive sedation, somnolence, sleepiness; Gastrointestinal cluster (GI) = nausea, vomiting, diarrhea; Sexual dysfunction cluster = inhibited ejaculation, decreased erection, impotence, increased libido, decreased libido, ejaculation failure, female anorgasmia.

acious as tricyclic antidepressant drugs in treating major depressive disorder.⁶¹ Venlafaxine is available in the United States.

Venlafaxine is comparable in efficacy to SSRIs but produces significantly higher remission rates at eight weeks compared to treatment with fluoxetine, paroxetine, or fluvoxamine (45% vs. 35%, odds ratio for remission 1.5, favoring venlafaxine versus SSRIs, 95% confidence interval 1.3-1.9).⁶² Venlafaxine appears to be more effective in reducing the final depression rating scale value compared to SSRIs (standardized effect size -0.14, 95% confidence intervals = 0.07 to = 0.22) in 20 double-blind, randomized trials, but not more effective compared to tricyclic antidepressants in 7 trials.⁶³ Comparator studies in depression indicate that venlafaxine is equal in effect to mirtazapine,⁶⁴ sertraline,⁶⁵ equal to⁴¹ or superior to fluoxetine,^{66, 67} and superior to trazodone or clomipramine⁶⁸ and paroxetine.⁶⁹

The major metabolite of venlafaxine is o-desmethyl-venlafaxine, and the pharmacokinetics of venlafaxine are not substantially altered in older persons. Thus, no dosage adjustment is necessary on the basis of age alone.⁷⁰ Renal or hepatic impairment may require a dose reduction. Potential advantages of venlafaxine administration include the ability to give the drug with food or to mix the drug in food to facilitate dosing. Venlafaxine shares similar adverse reactions to the SSRI class of drugs (Table II).

Many of the differences among antidepressant agents, particularly in safety and tolerability, can be attributed to their differing effects on receptor blockade and neurotransmitter reuptake. This difference may be responsible for the effect of venlafaxine on anxiety disorders. Generalized anxiety disorder is characterized by chronic worry that may persist for many years. Anxiety disorder is debilitating, and effective long-term treatment is required. Benzo-

diazepines are effective as short-term anxiolytics, but their use is compromised by important adverse events and lack of the antidepressant efficacy to treat depression coexisting in many patients with generalized anxiety disorder. Antidepressants, including paroxetine and the serotonin-norepinephrine reuptake inhibitor venlafaxine, are effective anxiolytics and treat symptoms of depression in patients with generalized anxiety disorder. The benefit of venlafaxine is sustained long term, enabling increased numbers of patients to attain remission from symptoms and restore normal functioning compared to benzodiazepines.⁷¹

In a pooled analysis of 1,839 subjects with generalized anxiety disorder, 66% of persons older than 60 years responded to venlafaxine compared to 41% for placebo ($P<0.01$). In these older adults, the discontinuation rate for venlafaxine was 23% compared to 31% of subjects receiving placebo. Adverse events occurred in 15% of older adults receiving venlafaxine compared with 14% of older adults receiving placebo.⁷² In a 6-month trial of 541 patients with generalized anxiety disorder, venlafaxine was superior to placebo at all dose ranges.⁷³

The benefit of venlafaxine in the treatment of generalized anxiety disorder extends to patients with a major depressive disorder. In 349 patients with generalized anxiety disorder but having Hamilton Depression scores 18 or higher, venlafaxine improved mean anxiety scores at 8 weeks compared to placebo.⁷⁴ This data has resulted in approval of venlafaxine by the Food and Drug Administration for use in generalized anxiety disorder.

Newer antidepressant drugs may have similar properties to tricyclic antidepressants as an adjuvant therapy for neuropathic pain control. Data suggest that SSRIs and newer drugs are not superior to tricyclic antidepressants in the treatment of neuropathic pain, but have a lower incidence of adverse effects.

Venlafaxine, the most investigated of these new drugs, has been shown to be effective in the treatment of neuropathic pain, with a side-effect profile significantly better than TCAs. The other new antidepressants have been less extensively studied, thus only anecdotal therapeutic results and experimental works have been reported.⁷⁵

Conclusions

Although depression does not occur more frequently in older persons (incidence), the prevalence of depression may be more common in older persons receiving medical care in long-term care settings. Depression in late life has been closely associated with a decline in functional capacity, both physical activities of daily living and instrumental activities of daily living, and mortality.

Despite difficulties in diagnosis and assessment, antidepressant therapy in older persons is equally effective compared to the same therapy in younger persons. Drug therapy in older patients presents a challenge to clinicians. Older, frail depressed patients are particularly prone to the side effects of antidepressants. Anticholinergic effects, changes in cognitive function, and overdose potential may limit the use of antidepressant drugs, even the drugs considered to be safest in this population. Concomitant medications used to treat coexisting medical illness expose the elderly patient to greater risk of adverse effects as a result of drug-drug interactions. Until more definitive data in frail, older nursing home populations is available, physicians in long-term care settings may remain cautious about an increased incidence of adverse effects with venlafaxine.

Newer antidepressant agents may reduce the likelihood of drug-drug interactions while achieving equal efficacy to older agents. In patients with a mixed depression and generalized anxiety disorder, venlafaxine may have superior advantages because it has received FDA approval for this indication.

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CME TEST QUESTIONNAIRE

Insights Into the Management of Depression and Anxiety in Long-Term Care Settings

Using a scale from 1 to 5, with 5=excellent, 4=very good, 3=adequate, 2=fair, 1=poor,
please circle the number corresponding to your rating of the following:

	Excellent				Poor
1. Overall quality of the material	5	4	3	2	1
2. Clinical applicability or relevance of the material to participant's practice	5	4	3	2	1
3. Extent to which the material met stated objectives	5	4	3	2	1
4. Extent to which participant will modify his/her practice as a result of participation in the program	5	4	3	2	1
5. Fair balance and objectivity of the material	5	4	3	2	1
6. Completion time	5	4	3	2	1

Please answer the following questions:

1. Depression is more common in older adults. a. True b. False
2. Depression is more frequently seen in long-term care residents. a. True b. False
3. Options for treating depression include
 - a. psychotherapy (counseling, rational, behavioral).
 - b. pharmacologic agents.
 - c. electroconvulsive therapy.
 - d. All of the above
4. No difference in efficacy has been observed between "older" and "newer" antidepressants. a. True b. False
5. Antidepressants differ remarkably in adverse-effect profiles. a. True b. False
6. The choice of an optimum antidepressant agent is dependent on
 - a. advantages derived from the special pharmacologic properties of the drug.
 - b. adverse effects.
 - c. patient comorbid medical conditions.
 - d. All of the above
7. Venlafaxine is approved by the FDA for generalized anxiety disorder. a. True b. False
8. Newer agents have a differential potential for pharmacokinetic interactions because of their selective effects on
 - a. CYP isoenzymes.
 - b. molecular weight.
 - c. dissolving rate.
 - d. None of the above
9. Older persons respond equally well to antidepressant therapy as younger adults. a. True b. False

Please provide the following information (please print) in order to receive your CME certificate:

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