Depression in nursing home residents is a common phenomenon, though there is a wide range in the severity of this disorder as experienced by elderly adults in the United States. Treating older patients for depression is costly in both human and financial terms. The authors review guidelines and recommendations for the diagnosis of depression and medical treatment of depressed elderly adults from the 1993 Clinical Practice Guidelines for Depression in Primary Care by the US Agency for Health Care Policy and Research (now the Agency for Healthcare Research and Quality), making note also of similar guidelines provided by the American Medical Directors Association in 1996 and those provided by the American Psychiatric Association in 2000.

In November 1999, the authors used a Delphi survey to gather data from prescreened panelists (N = 10) to have the panel review and clarify the importance and feasibility of each “A” rated item in the US Agency for Health Care Policy and Research guidelines. This research allows health care providers to evaluate the importance and feasibility of items related to the delivery of mental health services for the elderly in nursing homes.

Depression is currently found in one third of nursing home residents in the United States. The severity of depressive disorders ranges from minor to major and can occur at any time during a resident’s placement in a nursing home. Evidence suggests that newly admitted nursing home residents have greater functional impairment, use 7% additional staff time, and are 1.5 times more likely to die within 12 months of admission. Older adults with depression also incur more outpatient visits, medication costs, and laboratory charges.

Depression is underrecognized and undertreated. In a large nursing home study, Rovner et al found that only 14% of patients identified by psychiatric evaluation as having clinical depression were documented as having this disorder in their medical records. Heston et al suggest that only 20% of patients who have depression receive antidepressant treatment.

Practice guidelines have been proposed as a solution to improve the medical management of depression in this population. A number of public and private organizations have generated their own sets of guidelines and recommendations. In 1993, the US Agency for Health Care Policy and Research (AHCPR), now the Agency for Healthcare Research and Quality, developed diagnostic and treatment guidelines for depression that rate the quality of scientific evidence and provide diagnostic and treatment algorithms. In 1996, the American Medical Directors Association (AMDA) updated and adapted the AHCPR guidelines for use in the nursing home setting. In addition, a workgroup for the American Psychiatric Association (APA) created practice guidelines in 2000 for treating patients with major depressive disorder, offering treatment-specific recommendations for use by general psychiatrists.

As most clinicians know, translating practice guidelines into the clinical practice setting successfully can be a challenge. Psychiatrists face financial, attitudinal, ethical, and medical barriers posed by the practical realities of clinical practice in the long-term care setting. Despite these barriers, practice guideline adherence literature suggests that patients have better clinical outcomes with greater adherence to such guidelines. Nursing homes are one place in which the implementation of clinical pathways may guide depression care.

Are depression practice guidelines really useful in a nursing home practice? To assess their feasibility and importance, we abstracted the “A” rated elements of the AHCPR Clinical Practice Guidelines for Depression in Primary Care into a set of declarative statements. The 1993 AHCPR guidelines were chosen because they were developed by national expert consensus and include categorized recommendations based on the strength of scientific evidence. Although many other practice guidelines have been developed since, such as those by the AMDA or the APA, we chose to review the AHCPR guidelines because of their extensive dissemination and strong support in the literature, and because of their comprehensive nature.
Each AHCPR guideline declarative statement used in our Delphi survey represented one guideline recommendation. We used only guideline statements that were rated “A,” those given the highest degree of clinical and scientific evidence. For this project, we asked national and local opinion leaders in the areas of geriatric psychiatry, geriatric psychology, and primary care medicine to evaluate the importance and the feasibility of each declarative statement in the treatment and care of older adults with depression.

We selected the review panel randomly from a list of members of the American Association of Geriatric Psychiatry and the AMDA. Panelists were contacted and the purpose of the panel was explained. As primary care physicians often treat depression in both nursing home and ambulatory settings, it was important to include these specialists as well. All of the panelists had clinical geriatric experience and an interest in mental health issues.

Methods

Delphi Process
The Delphi technique is a nominal group research methodology designed to achieve group consensus using anonymity, iteration, controlled feedback, and statistical group response.10 We chose to use the Delphi method because it allows experts to compare and contrast their responses with those of their colleagues. The Delphi method seeks expert agreement by asking panelists to rate each issue using a 7-point Likert scale and statistically comparing individual scores with a group mean score for each declarative statement. Because group consensus was a key element in looking at the feasibility of each statement, we found this method to be the most appropriate for conducting our research.

Experts completed the first survey ratings, and we calculated means for each individual item. In a second identical survey, individuals were asked to reassess the scores they originally provided for any items where their individual scores varied by less than 1 numerical point above or below the group mean. In the second survey, panelists were thus allowed to change their individual scores after considering the group mean if they desired. Importance and feasibility scores from the second survey process were then used as consensus items. Overall trends to move toward the mean were noted with individual responses.11-13

Subjects
The Michigan State University Institutional Review Board approved the project. Each subject signed a consent form before participating in the project. The Michigan State University Human Subjects Committee approved the wording used on these consent forms.

Eleven subjects were recruited for the Delphi panel. Each subject was a nationally or regionally recognized expert in the field of geriatric psychiatry, geriatric psychology, or primary care medicine. Subjects were selected for their expertise in late life depression, as determined by academic productivity, including grants, publications, and national reputation. All volunteer subjects had clinical and research experience in long-term care settings, as evidenced by their publication and/or academic track records. Three panelists were osteopathic physicians, nine were allopathic physicians, and two panelists held PhD degrees. One or more panelists represented each region of the United States.

Survey Process
The authors contacted each prospective panelist individually to explain the panel and the purpose of the study. Each of the 11 panelists volunteered to participate in the Delphi survey questionnaire process. The survey was anonymous and results were confidentially secured. Those subjects who agreed to participate but did not return surveys within 1 month were contacted again and encouraged to return the survey materials.

Results were analyzed and a second Delphi survey was returned to each participant. One panelist elected to drop out of the second Delphi round.

Instrument
This study was performed using a survey questionnaire format and consisted of 101 key items abstracted as important depression diagnostic and treatment elements from the 1993 AHCPR Clinical Practice Guidelines for Depression in Primary Care. The AHCPR guidelines were chosen because they too were developed using group consensus methodology and rated recommendations based on the strength of scientific evidence.6,7

Additional input into the creation of this survey instrument was obtained by informal discussions among investigators and additional faculty members who participated in the survey pilot at Michigan State University in East Lansing. The survey was initially piloted by five allopathic physicians. We made further revisions to the design of this instrument based on the feedback received.

The survey initially asked panelists to report the following demographic data: specialty, age, years in practice, status as medical director in a nursing home, degree(s), and percentage of practice in a nursing home. Four sections followed, focused on the diagnosis and treatment of major depression and minor depression. Survey instructions for each section asked panelists to rate on a 7-point Likert scale (1, least; 7, most) each item for importance and feasibility in the assessment of patients for depression in a nursing home setting. Diagnostic items included clinical assessment parameters, symptoms, screening tool use, and routine laboratory testing. For example, panelists were asked to use the Likert scales provided to rate the statement “If major depression is suspected in a nursing home patient, the clinical assessment should include and document suicidal ideation/attempts” twice, one time for the importance of this evaluation when making a diagnosis of depression and a second time for the feasibility of this evaluation in the nursing home setting.
Therefore, the importance and feasibility of several assessment measures were evaluated by each of the participating panelists. In terms of assessment instruments, the Minimum Data Set (MDS) was chosen because it is ubiquitous in nursing home practice. The MDS is the current mechanism used to identify depression in nursing home residents. The Geriatric Depression Scale (GDS), the Center for Epidemiologic Studies Depression Scale (CES-D), and the Cornell Scale for Depression in Dementia (CSDD) are all standardized screening instruments in the medical literature relating to depression. We chose to use these instruments because each represents a valid and reliable assessment measure of depression in patients.

Treatment parameters included prescribed antidepressant therapy, psychotherapy, electroconvulsive therapy (ECT), and criteria for mental health referral. Each panelist was further asked to rate separately the importance and feasibility of cognitive-behavioral and interpersonal psychotherapy in the nursing home setting. An importance and feasibility score was determined for each of these treatment modalities. Finally, panelists were asked to rank their preferred choices when prescribing antidepressants in the medical treatment of depression in nursing home patients.

Data Analysis

Data were analyzed using Statistical Analysis System software (SAS Institute Inc, Cary, NC). This study assessed a number of continuous variables for feasibility and importance using a 7-point Likert scale (1, least; 7, most). Summary statistics were reported for the first and second surveys using means for continuous measures. In the second survey, respondents received the survey with their previous scores marked, as well as the group mean marked for each item. By and large, panelists chose to move their initial response toward the group mean for most items. Data are presented as frequency measures in Tables 1 and 2.

Results

Demographics

Ten participants completed the entire Delphi survey process. Six were psychiatrists, two were internists, one was a psychologist, and one was a primary care physician. Panelists’ ages ranged from 41 to 64 years, with 60% aged 51 years or younger. Half of the survey participants were in practice 15 years or fewer. Only two panelists were nursing home medical directors with 10% of their total practice time spent in nursing homes. All had added qualifications in geriatrics for their respective fields.

Importance of AHCPR Guidelines

Each item was rated for clinical importance and is reported in Table 1. For both major and minor depression, over 70% of the group endorsed suicidal ideation and/or attempts, anxiety symptoms, dementia symptoms, psychotic symptoms, and medical comorbidity as important information to obtain during an evaluation. Seventy percent of the group believed depressed mood, an increase or decrease in psychomotor energy, lack of interest or pleasure, lack of reactivity to pleasant stimuli, early morning awakening, weight change, and anhedonia were important symptoms to assess. Only 20% of the group believed that diurnal mood variation (worsening depression in the morning) was important to assess.
morning hours) was important when assessing patients for depression. Ratings were similar for both major and minor depression.

The GDS was the only assessment tool the panel overwhelmingly endorsed (90%) as being important to the diagnosis of depression. The other instruments, such as the MDS, CES-D, and the CSDD, were not rated as being highly important for diagnosis purposes. Laboratory assessment tools varied in importance with the complete blood count, electrolytes, B12 level, and thyroid-stimulating hormone being endorsed by over 70% of the panel as being important to obtain before giving a diagnosis of depression.

All subjects believed that the use of prescribed antidepressants in combination with psychotherapy was important when treating elderly patients for depression in a nursing home. The panelists believed that combined treatment with psychotherapy and antidepressant medications was important for the nursing home resident. Antidepressant treatments of 4 to 6 weeks' duration, with reevaluation at 6 weeks, and ongoing treatment for 4 to 9 months for positive responders was endorsed as being important by at least 90% of the panel. Psychotherapies were rated poorly as only 20% of the group endorsed cognitive-behavioral or interpersonal modes of therapy as important. In contrast, 90% of the group believed that ECT was important for use in treating nursing home patients with depression.

Panelists ranked their choices for antidepressant class in this population. In order of those most likely to be used, the ranking was as follows: selective serotonin reuptake inhibitors, atypical antidepressants, mixed antidepressants, secondary amine antidepressants, tertiary amine antidepressants, psychotherapists, monoamine oxidase inhibitors, and herbal preparations.

**Feasibility of AHCPR Guidelines**

Feasibility was assessed for each item on the survey and is reported in Table 2. Similar feasibility scores were seen for both major and minor depression items. The entire group believed that the assessment of suicidal ideation and/or attempts, anxiety symptoms, comorbid medical illnesses, psychotic symptoms, and dementia symptoms were feasible when assessing patients for depression in a nursing home. Similarly, over 80% of the group endorsed the symptoms of depressed mood, psychomotor energy changes, lack of interest and reactivity, diurnal mood variation, and weight change as feasible to obtain. Anhedonia, weight change, and diurnal mood variation were endorsed as feasible by only 30% of the panelists.

Although rated as not important, 90% of the group believed the MDS was feasible to obtain. Only 10% rated the GDS, CES-D, or CSDD as feasible in the nursing home setting. The panel believed that all laboratory tests were feasible as well.

The contrast between importance and feasibility is highlighted with treatment. Although antidepressant and psychotherapy combination therapy was rated as important, none of the group believed this combination (or psychotherapy alone) was feasible. Only 10% of the group endorsed psychotherapy (including cognitive-behavioral and interpersonal) as feasible. Antidepressant treatment without psychotherapy was endorsed as feasible by 80% of panel participants.

With respect to antidepressant treatment, feasibility ratings paralleled those for importance. Antidepressant treatment for at least 4 to 6 weeks, reassessment of partial response at

![Table 2](Note: The table is not rendered due to the limitations of the current format.)

**Table 2 Survey Panel: Items as Rated for Feasibility of Detection During Evaluation**

<table>
<thead>
<tr>
<th>Item</th>
<th>Depression, %</th>
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<tbody>
<tr>
<td>Suicidal ideation and/or attempts</td>
<td></td>
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<tr>
<td>Psychotic symptoms</td>
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<tr>
<td>Medical comorbidity</td>
<td></td>
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<tr>
<td>Depressed mood</td>
<td></td>
</tr>
<tr>
<td>Anxiety symptoms</td>
<td></td>
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<tr>
<td>Lack of interest or pleasure</td>
<td></td>
</tr>
<tr>
<td>Increase or decrease in psychomotor energy</td>
<td></td>
</tr>
<tr>
<td>Worsening depression (morning)</td>
<td></td>
</tr>
<tr>
<td>Weight changes</td>
<td></td>
</tr>
<tr>
<td>Early awakening (morning)</td>
<td></td>
</tr>
<tr>
<td>Anhedonia</td>
<td></td>
</tr>
<tr>
<td>Minimum Data Set</td>
<td></td>
</tr>
<tr>
<td>Geriatric Depression Scale</td>
<td></td>
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<tr>
<td>Cornell Scale for Depression in Dementia</td>
<td></td>
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<tr>
<td>Center for Epidemiologic Studies Depression Scales</td>
<td></td>
</tr>
<tr>
<td>Electrolytes and blood chemistry</td>
<td></td>
</tr>
<tr>
<td>Thyroid-stimulating hormone</td>
<td></td>
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<tr>
<td>B12</td>
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<td>Complete blood count</td>
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<tr>
<td>Folate</td>
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<td>Serology</td>
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6 weeks, and ongoing treatment for 4 to 9 months were viewed as being feasible by at least 90% of panel participants. Only weekly visits to assess medication response met with poor feasibility ratings.

Although ECT had high importance ratings, the feasibility of this treatment was rated as poor. Eighty percent of the panel believed that ECT was not feasible to arrange within a nursing home setting.

Comment

This study demonstrates the fact that although multiple types of clinical practice guidelines exist for the medical treatment and management of depression, consensus is still possible on key importance and feasibility items. In this study, such items included the expression and clinical evaluation of depressive symptoms and diagnostic testing and screening measures. These items were clearly endorsed as both important and feasible for good quality depression care in the end stages of life.

However, this study also disclosed a number of discrepancies between importance and feasibility in terms of combined modes of therapy, ECT, and psychotherapy. Experts endorsed the importance of these treatment modalities but did not see them as being feasible within a nursing home setting. The reasons for these discrepancies are unknown and suggest possible topics for future research. While combination modes of therapy are endorsed as important, clinical access and financial, attitudinal, and patient-selection criteria barriers may impair feasibility. In this study, we were unable to address the heuristics behind our findings but are convinced further research should explore why important mental health services are not feasible in a nursing home setting.

In contrast, some assessment parameters were considered unimportant but feasible. The MDS is one such example. Although it is a mandatory assessment tool for all nursing home residents, the expert panel did not find it valuable. The MDS process would be a move toward using a valid and reliable tool to assess residents, the expert panel did not find it valuable. The MDS is one such example.

Although it is a mandatory assessment tool for all nursing home residents, the expert panel did not find it valuable. The MDS is one such example. It is not a mandatory assessment measure in long-term care settings? For other conditions, practice guidelines exist for the medical treatment and management of depression. As a result, the formal guidelines and recommendations issued by public and private organizations may not fit real-world patients, leaving clinicians confused about how to apply such guidelines effectively.

References


