

WORKING P A P E R

Quality Indicators for the Care of Depression in Vulnerable Elders

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**QUALITY INDICATORS FOR THE CARE OF DEPRESSION
IN VULNERABLE ELDERS**

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INTRODUCTION

Depression is common. The point prevalence for major depressive disorder is 2.3-3.2% among men and 4.5-9.3% among women.(1) The prevalence of depression among the elderly is lower than among the general population.(2) Studies of patients receiving primary care demonstrate that 5-9% have major depressive disorder.(3) Depression costs society at least \$43 billion annually, in combined direct and indirect costs.(4) Unfortunately, primary care providers recognize depression in only one-third to one-half of cases, and an even smaller proportion receive appropriate care.(1,5) Yet the treatment for depression improves overall quality of life and can be cost-effective.(6)

In this article, “depression” connotes major depression, defined by the Diagnostic and Statistical Manual IV (DSM-IV) as a period of at least two weeks during which a patient feels sad most of the day (or has loss of interest in pleasurable activities) and at least four other symptoms.(7) Most practice guidelines only address treatment of major depression. Dysthymia (or chronic depression) has not been studied as extensively, although some studies show that treatment for dysthymia is efficacious, and some guidelines apply treatments for major depression to dysthymia.(3) Depressive symptoms that do not meet full criteria for major depression or dysthymia are commonly referred to as subthreshold depression (classified under Depressive Disorders, Not Otherwise Specified or Minor Depressive Disorder in DSM-IV), a disorder for which little conclusive evidence of efficacious treatment exists. The indicators described in this paper are specific to major depression or dysthymia. Because many primary care clinicians do not differentiate between subtypes of depression, the indicators are aimed to apply if a “depression” diagnosis is noted. If the clinician specifically diagnoses minor or subthreshold depression, then the indicators do not apply.

METHODS

The methods for developing these quality indicators, including literature review and expert panel deliberation, are detailed in a preceding paper.(8) For depression, the structured literature review

identified 3317 titles, from which abstracts and articles were identified that were relevant. Based on the literature and the authors' expertise, 32 potential quality indicators were proposed. Because most depression research has not focused on older adults, these quality of care indicators are largely based on research conducted on non-elderly patients.

RESULTS

Of the 32 proposed quality indicators, 17 were judged valid by the expert panel process (see Quality Indicator table), two were merged with other indicators, and 13 were not accepted. The literature summaries supporting each of the indicators accepted as valid are described below.

Quality Indicator #1

Recognizing Depression

IF a vulnerable elder presents with new onset of one the following symptoms: sad mood, feeling down; insomnia or difficulties with sleep; apathy or loss of interest in pleasurable activities; complaints of memory loss; unexplained weight loss of greater than 5% in the past month or 10% over one year; or unexplained fatigue or low energy, **THEN** the patient should be asked about or treated for depression, or referred to a mental health professional within two weeks of presentation **BECAUSE** investigation of symptoms will lead to timely recognition and treatment of depression.

Supporting Evidence: Observational studies show that primary care physicians recognize depressive disorders less than half of the time.(3) Detection can be improved by the use of screening instruments; however it is not clear that depression detection increases treatment or improves outcomes in primary care. In one study, detection of depression increased when the results from patient questionnaires were

provided to physicians.(9) Other trials in which ambulatory care patients were randomly assigned to screening for depression with or without feedback to their physicians found that physician detection and chart notation of depression increased, but treatment for depression did not increase or improve.(10-13)

Randomized controlled trials combining depression screening and treatment interventions demonstrated better outcomes than “screening only” studies.(14,15,16,17) In one study, resident physicians significantly increased prescribing of antidepressants.(15) In a study of family medicine physicians, depression improved in 44% of the intervention patients compared to 18% of control patients.(16)

Recent studies of depression treatment employed more intensive interventions and demonstrated better outcomes. In a randomized study of patients initiating antidepressant treatment, subjects who received patient education, psychiatric collaboration with a primary care physician, and active medication monitoring demonstrated greater adherence to medications and experienced greater reductions in symptoms compared to controls who received usual care.(18)

These findings suggest that better depression treatment outcomes require interventions beyond screening. Thus, most guidelines, including the American Psychiatric Association’s (APA),(19) do not recommend screening the general medical population for depression. The Agency for Health Care Policy and Research (AHCPR) depression guideline recommends screening patients who demonstrate sad mood, insomnia, diminished interest or suicidal ideation.(1) The U.S Preventive Services Taskforce (USPSTF) recommends screening people with sleep disorders.(20) DSM-IV includes three additional symptoms of major depression: fatigue and loss of energy; unexplained weight loss; and diminished ability to think or concentrate.(7) Each of these six symptoms or signs is included in the indicator requiring depression evaluation. Because guidelines do not provide recommendations on when or how often to screen for depression,(1,19) the time periods specified in the quality indicators are based on clinical experience. The expert panel considered the demands of clinical practice and the importance of a timely diagnosis in specifying the time period for this indicator.

Quality Indicator #2

Recognizing Depression in Co-morbid Illness

IF a vulnerable elder presents with onset or discovery of one of the following conditions: stroke, myocardial infarction, dementia, malignancy (excluding skin cancer), chronic pain, alcohol or substance abuse or dependence, anxiety disorder, or personality disorder, **THEN** the patient should be asked about or treated for depression, or referred to a mental health professional within two months of diagnosis of the condition **BECAUSE** a large proportion of patients with these conditions have depression.

Supporting Evidence: Approximately 30% of older patients with acute and chronic illness experience depression.(1) Many co-morbid conditions are associated with depression, including stroke (10-27% within two months (1)), myocardial infarction (18-25% (1)), dementia (30-40% (1)), and malignancy (24% (1)).

Patients with chronic pain are much more likely to have depression.(21) Substance abuse and other psychiatric diseases are also associated with depression: 10% - 30% of patients with alcohol abuse suffer from depression.(1) More than half of patients with agoraphobia or panic disorder develop major depressive disorder, (1,22) and 10-30% of patients with obsessive compulsive disorder have major depression.(1) Approximately 35% of psychiatric outpatients who are depressed have a personality disorder.(1)

The time period associated with this indicator is based on the relationship of depression with incident conditions (e.g. stroke and myocardial infarction) and clinical opinion. Several other chronic illnesses, such as diabetes, osteoarthritis, and chronic obstructive pulmonary disease are also associated with depression. They are not included as triggers because there is no recognized interval at which persons with such chronic conditions should be screened.

Quality Indicators #3 and #4

Documentation of Depression Symptoms

IF a vulnerable elder receives a diagnosis of a new depression episode, **THEN** the medical record should document at least three of the nine DSM-IV target symptoms for major depression within the first month of diagnosis **BECAUSE** monitoring the effectiveness of depression treatment requires serial evaluation of the presenting symptoms of depression.

IF a vulnerable elder receives a diagnosis of a new depression episode, **THEN** the medical record should document on the day of diagnosis the presence or absence of suicidal ideation and psychosis (consisting of, at a minimum, auditory hallucinations or delusions) **BECAUSE** suicidal patients may require hospitalization, and patients with psychotic depression may need antipsychotic medication or electroconvulsive therapy and referral to a psychiatrist.

Supporting evidence: No clinical trials have shown that documenting symptoms of depression, suicidality or psychosis improves patient outcomes. However, multiple depression treatment guidelines recommend doing so.

The AHCPR,(1) American Medical Directors Association (AMDA),(23) and APA (19) recommend documenting DSM symptoms of depression. This step is essential, since the evidence for the treatment efficacy for major depression and dysthymia is strong, but treatment is relatively unstudied for non-major forms of depression.(1) In one prospective cohort study, primary care physicians were asked to refer “depressed” patients for antidepressant therapy. Evaluation using DSM criteria revealed that some patients had major depression while others had minor depression. Only the patients with major depression improved with medication.(18) This finding suggests that primary care physicians need to be able to distinguish the symptoms of major from minor depression in order to identify patients

who will benefit from treatment. Because it is impractical for clinicians to document all nine DSM-IV signs/symptoms, and because a smaller number would suffice to monitor therapeutic response, the indicator requires that physicians document three of nine symptoms.

The AHCPR depression guidelines and the American Board of Family Practice (ABFP) recommend documentation of suicidal ideation and psychotic symptoms for patients with depression.(1,24) Evaluating psychotic symptoms is vital because the information guides treatment (see Quality Indicators #8, #9).

Quality Indicator #5

Suicidal Ideation

IF a vulnerable elder has thoughts of suicide, **THEN** the medical record should document, on the same date, that the patient either has no immediate plan for suicide, or that the patient was referred for evaluation for psychiatric hospitalization **BECAUSE** the likelihood of suicide increases if the patient has a specific plan to commit suicide, and it decreases if the patient is hospitalized to receive psychiatric care.

Supporting Evidence: Although elders represent only about 10% of the population, they account for 25% of all suicides. Studies show that 10-40% of people who complete suicide visited a physician less than a week before.(24) These findings underscore the importance of physician inquiry into suicidal ideation.

The ABFP directs that the physician should document in the medical record whether the patient has clearly formulated plans for suicide.(24) While no direct evidence links timing or documentation of the lack of suicidal intent or psychiatric referral to better patient outcomes, ethical concerns preclude such studies. The ABFP, AHCPR, and USPSTF guidelines recommend considering hospitalization when patients have strong suicidal tendencies.(5,20,24)

Quality Indicator #6

Depression Treatment

IF a vulnerable elder is diagnosed with depression, **THEN** antidepressant treatment, psychotherapy, or electroconvulsive therapy (ECT) should be offered within two weeks after diagnosis unless there is documentation within that period that the patient has improved, or unless the patient has substance abuse or dependence, in which case treatment may wait until eight weeks after the patient is in a drug or alcohol free state **BECAUSE** depression is a treatable disorder that often responds to appropriate therapy.

Supporting Evidence: A discussion of the clinical efficacy of medication, psychotherapy and ECT for depression is beyond the scope of this paper. Several meta-analyses have demonstrated the efficacy of treating depression in older adults with antidepressants and with ECT.(1)

Meta-analyses of psychotherapy for the treatment of depression have determined that four types of time-limited, manualized therapies were beneficial for depression: interpersonal, cognitive, behavioral and marital (relationship) therapy. Several of the trials demonstrated effectiveness of treatments for the elderly.(1) Because therapists mix elements of different therapies and it is often difficult to ascertain the type of therapy performed, this indicator avoids recommending specific types of psychotherapy.

The optimal time to initiate depression treatment has not been investigated. The AHCPR guidelines, based on expert opinion, state that depression treatment should start within two weeks of diagnosis, but that for patients with substance use, it can be delayed for up to eight weeks after substance use has ended.(1)

Quality Indicator #7

Choice of Antidepressants

IF a vulnerable elder is started on an antidepressant medication, **THEN** the following medications should not be used as first- or second-line therapy: tertiary amine tricyclics, monoamine oxidase inhibitors (unless atypical depression is present), benzodiazepines, or stimulants (except methylphenidate)

BECAUSE these agents have greater side effects or less evidence of efficacy than other antidepressants.

Supporting evidence: A variety of medications are used to treat depression. Tricyclics include the tertiary amines (amitriptyline, imipramine, doxepin, clomipramine, and trimipramine) and the secondary amines (nortriptyline, desipramine). Heterocyclics include trazadone, bupropion and nefazadone. Newer antidepressant agents include the serotonin reuptake inhibitors (SRIs) (fluoxetine, fluvoxamine, paroxetine, sertraline and citalopram), venlafaxine and mirtazepine.

Studies of pharmacologic treatments for depression show that: 1) tertiary amine tricyclics have more side effects than other antidepressants; 2) monoamine oxidase inhibitors (MAOIs) have significant dietary restrictions and potentially serious side effects; 3) benzodiazepines have not been studied for longer than eight weeks and present difficulties with dependence; and 4) no randomized controlled studies have been published on stimulant use for depression.

The efficacy of newer agents, such as SRIs, is the same as that of older agents according to most randomized controlled studies and meta-analyses. A meta-analysis of depression treatment in older patients in the Evidence Report on Treatment of Depression found no difference in efficacy between SRIs and tricyclics.(25) Two meta-analyses of clinical trials also showed no differences between heterocyclic and serotonergic antidepressants in efficacy or tolerability.(26,27)

While many clinical trials show similar drop out rates due to side effects between newer (e.g. SRIs) and older (tricyclic) agents, some randomized controlled studies, non-randomized observational

studies, and modeling studies have shown that some newer agents have better compliance and lower dropout rates. One randomized controlled study examined the effectiveness of a SRI, a secondary amine or a tertiary amine antidepressant in a managed care setting.(28) Patients receiving the SRI were less likely to switch antidepressants or drop out, but there were no differences in clinical outcomes between groups. The Evidence Report on Treatment of Depression found that while the medication dropout rates were similar between SRIs and tricyclics, SRI dropout was significantly lower than dropout from tertiary amine tricyclics (11% v. 16% across 66 trials). No significant difference in dropout was detected between SRIs and secondary amine tricyclics.

Differences between newer and older agents that were not appreciated in controlled trials have been found in observational studies of clinical care. Several observational studies have found better adherence to newer-generation antidepressants.(29,30)

Because consensus is lacking that newer agents are superior, this quality indicator does not recommend newer over older agents. Nonetheless, tertiary amine tricyclics, MAOIs, benzodiazepines and stimulants are not recommended as first- or second-line agents. Several sets of guidelines support this view. The AHCPR guidelines separate medications into “first- or second-line agents” and “alternate agents.” The “first- or second-line agents” include SRIs, secondary amine tricyclics and heterocyclic agents. (Medications released since the AHCPR report, venlafaxine and mirtazepine, also would be considered “first- or second-line agents.”) “Alternative agents” according to AHCPR include tertiary amine tricyclics, MAOIs and selected anxiolytic medications.(5) AMDA guidelines concur, stating that tertiary amine tricyclics should not be considered first- or second-line agents because they have more anticholinergic side effects than secondary amine tricyclics.(23) The APA recommends SRIs, secondary amines, bupropion and venlafaxine.(19) The ABFP recommends the use of newer agents over tricyclics.(24) The Texas Medication Algorithm Project and the University of Minnesota Consensus Conference recommend SRIs, bupropion, nefazodone, and venlafaxine as first-line treatments.(31)

The AHCPR and APA guidelines do not recommend MAOI as first- or second-line therapy because of their complicated dietary regimen and potentially lethal side effects, although MAOIs may be considered for patients with atypical depression.(1,19) Benzodiazepines are not recommended because of the lack of long-term maintenance studies and the risk of dependency.(1,19) Studies have shown that depressed patients presenting with insomnia or anxiety often receive benzodiazepines alone. In the Medical Outcome Study, 59% of the patients with depression used neither an antidepressant nor a minor tranquilizer, 12% used an antidepressant only, 19% used a minor tranquilizer only, and 11% used both types of medications.(3)

While stimulants are used occasionally in older patients, the AHCPR guidelines consider them to be alternative medications because of the lack of controlled trials.(5) APA guidelines describe a limited role for stimulants in the elderly with apathetic depression (19) and the USPSTF suggests that stimulants should be used only for selected elderly who have not responded to first line treatments.(20) The ACOVE expert panel decided that methylphenidate should be considered a first- or second-line agent based on their clinical experience and several successful open trials.

Quality Indicator #8

Pharmacologic Treatment for Psychotic or Vegetative Depression

IF a vulnerable elder has depression with psychotic features (e.g. auditory hallucinations, delusions), or has melancholic or vegetative depression with pervasive anhedonia, unreactive mood, psychomotor disturbances, severe terminal insomnia, and weight and appetite loss, **THEN** he or she should not be treated with psychotherapy alone, unless he or she is unable or unwilling to take medication **BECAUSE** psychotherapy alone has not been shown to be effective for patients with psychotic or vegetative depression.

Supporting Evidence: Studies of psychotherapy for psychotic or vegetative depression have produced conflicting results, perhaps because patients with psychotic features or severe vegetative symptoms may be less able to engage successfully in psychotherapy. AHCPR and APA guidelines do not support psychotherapy for psychotic or vegetative depression, due to the lack of randomized controlled studies.(1,20)

Quality Indicator #9

Psychiatric Referral for Psychotic Depression

IF a vulnerable elder has depression with psychotic features, **THEN** he or she should be referred to a psychiatrist and should receive treatment with a combination of an antidepressant and an antipsychotic, or with ECT **BECAUSE** antidepressants alone are not helpful in treating depression with psychotic features.

Supporting Evidence: Approximately 15% of patients with major depression have psychotic features. For psychotic depression, studies show that treatment with an antidepressant alone is inferior to treatment with an antidepressant combined with an antipsychotic medication.(32) Additionally, randomized studies including sham ECT have demonstrated that ECT is effective for the treatment of depression with psychotic features.(1) AHCPR and APA guidelines suggest a combination of an antidepressant and an antipsychotic or ECT for treatment of depression with psychotic features.(5,19)

Quality Indicator #10

Electrocardiogram for Tricyclic Use

IF a vulnerable elder with a history of cardiac disease is started on a tricyclic antidepressant, **THEN** a baseline electrocardiogram (ECG) should be performed prior to initiation of, or within three months prior to, treatment **BECAUSE** tricyclic medication may exacerbate cardiac conduction delays in patients with heart block of second degree or higher.

Supporting Evidence: No randomized trials have evaluated the utility of performing an ECG prior to initiating treatment with tricyclics. Because conduction abnormalities are relative contraindications to tricyclic use,(33) most trials excluded participants who had conduction abnormalities. ABFP guidelines recommend performing a baseline ECG before using tricyclics in patients with pre-existing cardiovascular disease.(24)

Quality Indicators #11 and #12

Medication Interactions with MAOI

IF a vulnerable elder is taking a SRI, **THEN** a MAOI should not be used for at least two weeks after termination of paroxetine, sertraline, fluvoxamine, and citalopram, and for at least five weeks after termination of fluoxetine.

IF a vulnerable elder is taking a MAOI, **THEN** he or she should not receive medications that interact with MAOI for at least 2 weeks after the termination of the MAOI **BECAUSE** the patient might develop “serotonin syndrome” which could lead to death.

Supporting Evidence: No randomized studies have evaluated drug interactions between MAOIs and SRIs. The Physicians’ Desk Reference indicates that using MAOIs and SRIs together is absolutely contraindicated.(33) A delay in beginning MAOIs after stopping an SRI or in initiating or other medications after stopping the MAOI is related to the time required for drug elimination in order to avoid drug-drug interactions. Medications that interact with MAOI include: opiates (e.g. meperidine), sympathomimetic amines, L-dopa, dextromethorphan, selegiline, bupriopion, buspirone, venlafaxine and the “tryptans”.(33)

Quality Indicator #13

Monitoring Suicide Risk

IF a vulnerable elder is being treated for depression, **THEN** at each treatment visit, suicide risk should be documented, if he or she had suicidal ideation during a previous visit **BECAUSE** symptoms such as suicide risk need to be evaluated to assess response to treatment.

Supporting Evidence: No randomized trials have evaluated documentation or follow-up of suicide risk. However, suicide risk should be carefully monitored,(19) particularly during the early stages of treatment, because a patient may have more energy and ability to commit suicide soon after treatment initiation if vegetative symptoms remit before suicidal thoughts. ABFP guidelines state, “An assessment of suicide risk should be made, at least until the physician is certain the risk has declined.”(24)

Quality Indicators #14, #15, and #16

The First 12 Weeks of Depression Treatment

IF a vulnerable elder is being treated for depression with antidepressants, **THEN** the antidepressants should be prescribed at appropriate starting doses, and they should have an appropriate titration schedule to a therapeutic dose, therapeutic blood level, or remission of symptoms by 12 weeks **BECAUSE** patients are frequently treated with sub-therapeutic dosages of medication.

IF a vulnerable elder has no meaningful symptom response after six weeks of treatment, **THEN** one of the following treatment options should be initiated by the 8th week of treatment: medication dose should be optimized or the patient should be referred to a psychiatrist (if initial treatment was medication); or medication should be initiated or referral to a psychiatrist should be offered (if initial treatment was psychotherapy alone) **BECAUSE** it is unlikely that remission of depression will occur if there was no response after six weeks of therapy, unless the treatment is augmented or altered.

IF a vulnerable elder responds only partially after 12 weeks of treatment, **THEN** one of the following treatment options should be instituted by the 16th week of treatment: switch to a different medication class or add a second medication to the first (if initial treatment includes medication); add psychotherapy (if the initial treatment was medication); try medication (if initial treatment was psychotherapy without medication); consider ECT; or refer to a psychiatrist **BECAUSE** it is unlikely that full remission will occur after 12 weeks if the treatment is not augmented or altered.

Supporting Evidence: Observational studies show that many patients are treated for depression in primary care with inadequate doses of medication and receive inadequate follow-up. Consensus opinion recommends changing therapy after an inadequate response.

Older patients may initially require lower antidepressant doses because they experience more side effects.(5) However, medication should be titrated to an appropriate therapeutic dose or blood level. The AHCPR guidelines note that “while elderly patients typically require a lower dose to yield a particular blood level and tolerate a given blood level less well, the blood levels at which antidepressant agents are maximally effective appear to be the same as for younger patients.”(5) Thus, it is essential that older patients receive follow-up with increases in medication dosage, if needed. Several studies demonstrated that such follow-up often does not occur in primary care.(34,35)

When to switch treatment for depression because the initial treatment was ineffective remains a difficult issue. Most patients respond partially to medication within two to three weeks, and symptom remission usually takes six to eight weeks. Most patients receiving time-limited psychotherapy respond partially by five to six weeks and fully by ten to twelve weeks. AHCPR and APA guidelines suggest that if a patient does not respond at all by 6 weeks or responds only partially by 12 weeks, then the clinician should consider other treatment options.(5,19)

For medication-treated patients with a partial response at week 12, whose residual symptoms are largely psychological rather than vegetative, the AHCPR guidelines suggest that psychotherapy may be added and the medication remain unchanged. “If the residual symptoms at 6 or 12 weeks are largely somatic or vegetative, either adjunctive medication or a new, different medication may be indicated.”(5) For a 6-week non-response or a 12-week partial response to psychotherapy, AHCPR recommends instituting an antidepressant.(5)

Quality Indicator #17

Continuation of Antidepressant Therapy

IF a vulnerable elder has responded to antidepressant medication, **THEN** he or she should be continued on the drug at the same dose for at least six months, and should make at least one clinician contact (office visit or phone) during that time period **BECAUSE** continuation therapy has been shown to prevent relapse of acute episodes.

Supporting Evidence: Continuation therapy refers to preventing a relapse of depression by maintaining medication dosages for a defined period of time after a successful treatment of acute depression. Approximately 25% of patients will relapse within two months if antidepressant medication is discontinued.(36,37) Perhaps as a result, 37% of patients treated in primary care experienced a recurrence of depression within one year.(18)

AHCPR guidelines suggest that full responders should be maintained on the same dose of medication found effective in acute phase treatment for 4 to 9 months of continuation treatment. ABFP guidelines dictate that responders should receive 9–12 months of treatment following recovery.(24)

According to AHCPR, patients who responded to depression treatment should be followed-up by a clinician at least every 1 to 3 months during the continuation phase to evaluate symptoms, efficacy and side effects, and to promote adherence.(5) In contrast, a study of

primary care depression treatment revealed a mean total of only two to three follow-up visits, leading to conjecture that lack of appropriate follow-up contributed to the worse-than-expected outcomes for depression treatment in primary care.(18)

DISCUSSION

Depression is associated with significant morbidity and mortality in vulnerable elders.

Improvement in the quality of care that these patients receive may result in improved outcomes.

We describe 17 process measures believed to be valid indicators for use in quality of care measurement. These indicators can potentially serve as a basis to compare the care provided by various health care delivery systems and the changes in care over time.

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