Primary care clinicians are emerging as the front line in efforts to reduce the growing numbers of depressed elderly.

Researchers from the University of Rochester, New York, report that the elderly patients at greatest risk for depression onset have early factors that are among those routinely assessed in primary care visits. These include minor or subsyndromal depression, history of major or minor depression, and impaired functional status.

The data on impaired functional status are noteworthy, because they suggest that functional disability, rather than medical illness burden, is the more important risk factor.

"Primary care physicians should be aware that patients with these risks are at high risk of developing new episodes of major depression. They should ask about current and past depressive symptoms and episodes in functionally impaired older patients," lead author Jeffrey M. Lyness, MD, told Medscape Psychiatry.

The study was published online October 15 in the American Journal of Psychiatry.

Need to Increase Capacity

According to senior author Yeates Conwell, MD, the findings reinforce the importance of the role of primary care practitioners in the detection and treatment of late-life depression. In addition, he told Medscape Psychiatry, the study data also show there are common factors that predispose to depression in older adults that can be picked up on in a primary care setting.

"This gives us early indications of how to identify older people who may be more likely to develop clinically significant depression and therefore intervene to prevent it. The findings should provide added fuel to the argument for routine screening for depression and adaptation/adoption of collaborative care models that extend the capacity of primary care providers to detect and manage even subsyndromal depression," said Dr. Conwell.

The observational cohort study enrolled 617 patients aged 65 years or older from practices in general internal medicine, geriatrics, and family medicine. All participants were without current major depression.
Of these, 405 patients completed the 1-year follow-up examination. The researchers used the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (SCID), to determine incident major depressive episodes. During the follow-up period, 33 participants (5.3%) developed major depression.

The researchers found that a high-risk subgroup consisted of subjects with combined variables of minor or subsyndromal depression, functional disability, and a history of major or minor depression.

### On-Site Mental Healthcare Not Available

According to the investigators, assuming a treatment with 100% efficacy, treating 5 subjects in the high-risk group would prevent 1 episode of incident major depression (number needed to treat, 5).

"Although useful to guide the optimal targeting of interventions, our findings underestimate the number needed to treat values for any interventions likely to be available for the foreseeable future," the authors write.

The authors suggest that antidepressant medications and psychosocial treatments be considered for subjects in the high-risk subgroup. "As practices move toward adopting chronic disease management approaches based on electronic medical records, it will be straightforward to identify and 'flag' patients at risk for incident depression. Such patients could be followed closely over time using cost-effective methods, such as telephone-based depression symptom scales," they write.

"Many studies have shown that on-site mental healthcare in primary care settings is a helpful treatment approach," Dr. Lyness said. "Unfortunately, national and local policy and funding decisions have not been made based on such data, so in most settings such on-site mental healthcare is still not available."

Dr. Conwell said the study suggests that psychiatrists — and mental healthcare providers more generally — need to be establishing partnerships with the primary care community, advocating for adequate support for collaborative care models and extending them to include the notion of primary prevention.

*This study was supported by the National Institute of Mental Health. Dr. Lyness has disclosed no relevant financial relationships. Dr. Conwell has provided consultation to Novartis and Pfizer for the assessment of suicide risk.*

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### Additional Resource

More information on depression in the elderly is available on the [National Institute of Mental Health Web site](https://www.nimh.nih.gov).
subsyndromal depression and a high burden of medical illness are risk factors for major depression. This is a longitudinal cohort study of older persons from 1 county in New York State to examine risk factors for incident major depression and to use them as indicators for preventive measures.

Study Highlights

- Included were men and women 65 years or older from internal medicine, geriatrics, and family medicine practices of university and community private practices between 2001 and 2005.
- All subjects underwent baseline research interviews with semistructured questionnaires and review of medical records.
- Data were updated every 6 months with use of telephone interviews and annual medical record review.
- Primary outcome was incident major depression.
- Incident major depression was used as the outcome because a history of major depression was one of the variables examined.
- The investigators assigned depression diagnoses using the SCID, a validated tool.
- They assessed severity of depression using the 24-item Hamilton Depression Rating Scale.
- Minor or subsyndromal depression was defined as current minor depressive disorder or more than 2 threshold or subthreshold depressive symptoms at baseline, according to the SCID.
- Medical illness burden was assessed with use of the Cumulative Illness Rating Scale.
- Functional status was assessed with use of the Instrumental Activities of Daily Living and Physical Self-Maintenance Scale.
- Self-rated health was assessed by the Medical Outcomes Study 36-Item Short-Form Health Survey.
- Social support was assessed with use of 3 subscales of the Duke Social Support Index, rating perceived social support, social interaction, and instrumental support.
- After exclusion of 133 with current depression, 617 participants (50% of those recruited) met inclusion criteria and were analyzed.
- 40% of participants were men, 94% were white, and three quarters had current subsyndromal or minor depression at 1-year follow-up.
- Of those initially enrolled, 405 completed the 1-year follow-up interview, 338 completed the 2-year follow-up, 259 completed the 3-year follow-up, and 54 completed the 4-year follow-up.
- 5.3% of those analyzed experienced an episode of incident major depression during the follow-up period.
- Logistic regression was used to identify risk factors that were most likely to predict incident major depression.
- Predictors with the highest attributable fractions were minor and subsyndromal depression at baseline.
- Among participants with minor or subsyndromal depression, 2 other predictors had high attributable fractions.
- Functional disability (defined as Physical Self-Maintenance Scale score > 0) and a history of major or minor depression, when added to the other 2 predictors, resulted in a number needed to treat of 5.
- The authors concluded that effective treatment of 5 individuals with these risk factors would prevent 1 new case of incident depression.
- They also noted that the presence of multiple medical conditions by itself was not a strong predictor of incident major depression.
• Thus, identifying the subgroup of patients with minor or subsyndromal depression and functional disability or a history of major or minor depression would result in a cost-effective way to prevent incident major depressive episodes.
• The authors suggested that these 4 factors be used to "flag" patients at risk for incident major depression for active intervention in primary care settings.
• One of the study limitations is the number needed to treat is based on the assumption that the preventive intervention was completely effective.

Clinical Implications

• Four factors most predictive of incident major depressive episodes in elderly patients are minor or subsyndromal depression, functional impairment, and a history of major or minor depression.
• Effective treatment of 5 individuals with these risk factors would prevent 1 new case of incident depression.

CME/CE Test

Which of the following is the least predictive of incident major depressive episodes in older patients?

- History of minor depression
- Recent bereavement
- Functional impairment
- Subsyndromal depression

Which of the following best describes the number needed to treat using the 4 identified predictive factors to prevent 1 episode of incident major depression in a primary care setting?

- 2
- 5
- 10
- 20

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This article is intended for primary care clinicians, geriatricians, psychiatrists, and other specialists who care for older patients at risk for or who have depression.

**Goal**

The goal of this activity is to provide medical news to primary care clinicians and other healthcare professionals in order to enhance patient care.

**Learning Objectives**

Upon completion of this activity, participants will be able to:

1. Describe predictors of incident major depression in older patients.
2. Identify the number needed to treat to prevent 1 episode of incident major depression when predictors are applied.

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