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Uncertainties page: Does depression screening improve depression outcomes in primary care settings?

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Major depression is present in 5-10% of patients in primary care,[1,2] including 10-20% of patients with chronic medical conditions.[3] Based on the prevalence and burden of depression, the availability of screening tools, and access to potentially effective treatments, routine depression screening has been proposed as a way to improve depression care. Depression screening involves the administration of self-report questionnaires or small sets of questions to identify patients who may have depression, but who are not already diagnosed or being treated for depression.[4]

Clinical practice guidelines do not agree on whether health professionals should screen for depression in primary care. The United States Preventive Services Task Force (USPSTF) recommends screening for depression when enhanced, staff-assisted depression care programs are in place to ensure accurate diagnosis and effective treatment and follow-up.[1] The Canadian Task Force on Preventive Health Care previously endorsed a similar recommendation, but in 2013 recommended against depression screening in primary care, citing a lack of evidence of benefit from randomized controlled trials (RCTs) and concern that a high proportion of positive screens would be false positives.[5]

In the UK, the National Screening Committee has determined that there is not evidence of benefit from depression screening to justify costs and potential harms and has recommended against it.[6] A 2010 guideline from the National Institute for Health and Care Excellence (NICE) did not recommend routine depression screening, but suggested that clinicians be alert to possible depression, particularly among patients with a past history of depression or with a chronic medical condition. NICE recommended that health care providers consider asking people suspected of having depression two screening questions related to depressed mood and loss of interest, and consider formal mental health assessment for people responding 'yes' to either.[2] In contrast to these recommendations, between 2006 and 2013, the UK Quality and Outcomes Framework (QOF) financially incentivized routine depression screening of patients with coronary heart disease and diabetes in primary care settings. By 2007, 90% of eligible Scottish primary care patients had been screened, but outcomes were disappointing; 976 patients had to

be screened for each new diagnosis of depression and 687 for each new antidepressant prescription.[7] The 2013/2014 QOF no longer included depression screening as a quality indicator.

Thus, screening for depression is sometimes encouraged in primary care guidelines and is frequently encouraged via other mechanisms, such as expert opinion articles published in the medical literature. It is not clear, however, that screening would benefit patients. An alternative to screening would be to administer depression symptom questionnaires or small sets of items only to patients suspected to have depression in order to facilitate clinical assessment. However, it is not known to what degree this procedure would improve the accuracy of clinical assessments for patients suspected of having depression.

What is the evidence of uncertainty?

A depression screening program can only be successful if patients not already known to have depression agree to be screened, if a significant number of new cases are identified with relatively few false positive screens, and if newly identified patients engage in treatment with successful outcomes.[8] An assessment of the effect of a screening program on depression outcomes must separate the effect of screening from the effect of providing additional depression treatment resources not otherwise available, such as staffing for collaborative depression care. Thus, depression screening RCTs must fulfil at least 3 key criteria, including: (1) determining eligibility and randomizing patients prior to screening; (2) excluding patients already known to have depression or who are already being treated for depression; and (3) providing similar depression care options to patients in both trial arms, whether they are identified as depressed by screening or via other methods, such as self-report or unaided clinician diagnosis.

We searched Embase, PubMed, PsycINFO, Scopus, and the Cochrane Library for systematic reviews on the effect of depression screening on depression outcomes and for RCTs conducted in primary care settings that fulfilled the 3 criteria we have described for tests of depression screening. We

identified 3 systematic reviews. A systematic review done in conjunction with the recent Canadian guideline did not identify any RCTs of depression screening.[5] A 2008 Cochrane systematic review, on the other hand, assessed 5 RCTs and reported that depression screening did not reduce depressive symptoms (standardized mean difference = -0.02, 95% confidence interval -0.25 to 0.20).[9] In contrast to this, a systematic review done in conjunction with the 2009 USPSTF depression screening guideline included 9 RCTs and concluded that depression screening benefitted patients when done in the context of staff-assisted collaborative care, but not in the context of usual care without these services.[10] Three RCTs were cited in the USPSTF review as evidence that depression screening benefits patients in the context of collaborative care. However, 2 of the 3 were trials of collaborative depression management interventions and required patients to have a diagnosis of depression based on a clinical assessment to enrol. Almost half of patients in both trials were being treated for depression prior to enrolment. The third trial tested a care management program to improve a series of health outcomes among elderly patients, but was not focused on depression. None of the trials met any of the 3 criteria for a test of depression screening.

Overall, no trials in the Cochrane review, the USPSTF review, or both reviews fulfilled all 3 criteria for a test of depression screening. Only 2 trials included in the reviews randomized patients prior to, as opposed to after, administering a depression screening intervention,[11,12] and neither found that screening improved depression outcomes. Our search found 1 additional trial published since the Cochrane and USPSTF reviews that randomized patients prior to screening for depression.[13] In that cluster randomized trial, patients at high risk of depression due to a history of depression, unexplained somatic symptoms, psychological comorbidities, drug abuse, or chronic pain were screened, but rates of depression 6 months post-screening were not different in the screening (15.0%) and non-screening (15.8%) trial arms.

We did not identify any RCTs that tested whether screening with collaborative depression care would be more effective than collaborative care without screening. However, in one prospective cohort study[14] investigators attempted to screen and provide collaborative depression care for high-risk primary care patients, including patients with a previous mental health problem, unexplained somatic complaints, or a high level of primary care service utilization. In that study from the Netherlands, 1,687 patients were sent a screening questionnaire with a letter from their general practitioner; 780 returned the questionnaire; 226 (29%) screened positive; but, only 17 patients (1% of those invited) initiated treatment for depression.[14]

We did not find any studies that reported the degree to which administering depression symptom questionnaires improved diagnostic accuracy for depression among patients suspected by health care providers of having depression.

Is ongoing research likely to provide relevant evidence?

We searched ClinicalTrials.gov and the WHO's International Clinical Trials Registry Platform for ongoing trials intended to evaluate the effects of depression screening, but did not find any studies that fulfilled criteria for tests of depression screening. The Box outlines the design of research trials that are needed to assess whether depression screening would improve depression outcomes in primary care settings.

In addition to the need for trials of depression screening, studies are needed that assess the degree to which depression symptom questionnaires improve differentiation of depressed and non-depressed patients among patients suspected by health care professionals of being depressed, consistent with NICE's recommendation. In order to test this procedure and to provide guidance to clinicians, studies should be conducted in which the probability that a positive depression screen is indicative of depression is assessed across levels of initial clinician suspicion (e.g., none, minimal, moderate, high).

What should we do in the light of the uncertainty?

The absence of evidence that routine screening of all primary care patients or even screening of only high-risk patients improves depression outcomes does not take away from the importance of depression as a condition that negatively affects quality of life and may respond to treatment. It only means that there is insufficient evidence to recommend screening as a strategy to identify the condition. It is important that clinicians are alert to clinical clues that depression may be present, such as low mood, insomnia, anhedonia, or fatigue.[5] Health care providers should be particularly vigilant in patients with characteristics that increase the risk of depression, including a family or personal history of depression, the presence of a chronic medical condition, unexplained somatic symptoms, chronic pain, more frequent use of medical services than would be expected, a history of traumatic life events, and drug or alcohol abuse.[3,5,13,14] Patients with suspected depression who report feeling down, depressed or hopeless or who have little interest or pleasure in activities that normally interest them[2,3] should be assessed by a qualified clinician to determine if depression is present; to assess physical, psychological, and social factors that may be related to symptoms; and to determine a plan for monitoring or treatment, as appropriate.[2,3]

BOX: RECOMMENDATION FOR FURTHER RESEARCH

Population: Either all adults in primary care setting who do not have a current diagnosis of depression and are not receiving treatment for depression or a subset of patients who are considered to be at high risk for depression.

Intervention: Administration of a validated depression screening tool with established diagnostic accuracy data using an a priori defined cutoff. Patients with positive screens are assessed for depression and, if appropriate, receive depression treatment. Treatment may be limited to treatments available in usual care or may include enhanced depression care with staff assistance to ensure accurate diagnosis, guideline-consistent treatment, and follow-up.

Comparison: Patients are not screened for depression. Patients who are identified as possibly depressed via self-report or unassisted recognition by a health care professional are assessed for depression, and, if appropriate, receive depression treatment. Treatment options in the comparison group should be the same as in the intervention group.

Outcome: The effect of depression screening on the severity of depressive symptoms or number of cases of depression.

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