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GUIDELINES

Management of psychosis and schizophrenia in adults: summary of updated NICE guidance

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This is one of a series of *BMJ* summaries of new guidelines based on the best available evidence; they highlight important recommendations for clinical practice, especially where uncertainty or controversy exists.

Further information about the guidance, a list of members of the guideline development group, and the supporting evidence statements are in the full version on bmj.com.

Psychosis is relatively common, with schizophrenia being the most prevalent form of psychotic disorder, affecting about seven in 1000 adults, with onset typically occurring between the ages of 15 and 35.[1] These disorders, which are characterised by distressing hallucinations and delusions, disturbed behaviour, and memory and motivation problems, present a major personal,[2] social,[3] clinical,[4] and financial[5] challenge. Moreover, poor physical health is strongly associated with schizophrenia, with men dying 20 years earlier than the general population and women dying 15 years earlier,[6 7] mainly from illnesses such as cardiovascular disease, diabetes, chronic obstructive pulmonary disease, HIV infection, hepatitis C, and tuberculosis.[8] Difficulties in people with severe mental illness accessing general medical services in primary and secondary care contribute to reduced life expectancy.[9]

Although many people with psychosis and schizophrenia respond to antipsychotic drugs initially, around 80% relapse within five years, partly because they discontinue medication,[10] which for many people has unacceptable side effects. However, although around 75% of people with schizophrenia recurrently relapse and have continued disability,[10] there is a moderately good long term global outcome in over half.[11]

This article summarises the most recent recommendations from the National Institute for Health and Care Excellence (NICE) on managing psychosis and schizophrenia in adults.[12]

Recommendations

NICE recommendations are based on systematic reviews of best available evidence and explicit consideration of cost effectiveness. When minimal evidence is available, recommendations are based on the Guideline Development Group's experience and opinion of what constitutes good practice. Evidence levels for the recommendations are in the full version of this article on bmj.com.

Care across all phases—physical health

- People with psychosis or schizophrenia, especially those taking antipsychotics, should be offered a combined programme of healthy eating and physical activity by their mental healthcare provider. (New recommendation.)
- Offer people with psychosis or schizophrenia who smoke help to stop smoking, even if previous attempts have been unsuccessful. Be aware of the potential impact of reducing nicotine on the metabolism of other drugs, particularly clozapine and olanzapine. (New recommendation.)
- Consider one of the following to help people stop smoking:
  - Nicotine replacement therapy (usually a combination of transdermal patches with a short acting product such as an inhalator, gum, lozenges, or spray) for people with psychosis or schizophrenia
  - Bupropion for people with a diagnosis of schizophrenia
  - Varenicline for people with psychosis or schizophrenia.
- Warn people taking bupropion or varenicline that there is an increased risk of adverse neuropsychiatric symptoms and monitor them regularly, particularly in the first two to three weeks of treatment. (New recommendation.)

Support for carers

- As early as possible negotiate with service users and carers about how information about the service user will be shared. When discussing rights to confidentiality, emphasise the importance of sharing information about risks and the need for carers to understand the service user's perspective. Foster a collaborative approach that supports both service users and carers, and respects their individual needs and interdependence. (New recommendation.)
- Offer carers an assessment (provided by mental health services) of their own needs and discuss with them their strengths and views. Develop a care plan to address any identified needs, give a copy to the carer and to their general practitioner, and ensure it is reviewed annually. (New recommendation.)
- Offer a carer focused education and support programme, which may be part of a family intervention for psychosis and schizophrenia, as early as possible to all carers. The intervention should
  - Be available as needed
  - Have a positive message about recovery. (New recommendation.)

Preventing psychosis

- Refer a person without delay to a specialist mental health service or an early intervention in psychosis service for assessment of risk of developing psychosis if the person is distressed, has a decline in social functioning, and has any of the following:
  - Psychotic symptoms that are transient (of short duration) or attenuated (of lower intensity)
  - Other experiences or behaviour suggestive of possible psychosis
  - A first degree relative with psychosis or schizophrenia. (New recommendation.)
- If a person is considered to be at increased risk of developing psychosis:

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Previous articles in this series

- Early management of head injury: summary of updated NICE guidance (*BMJ* 2014;348:g104)
- Intravenous fluid therapy for adults in hospital: summary of NICE guidance (*BMJ* 2013;347:f7073)
- Secondary prevention for patients after a myocardial infarction: summary of updated NICE guidance (*BMJ* 2013;347:f6544)
- Management of urinary incontinence in women: summary of updated NICE guidance (*BMJ* 2013;347:f5170)
- Management of autism in children and young people: summary of NICE and SCIE guidance (*BMJ* 2013;347:f4865)

  - Offer individual cognitive behavioural therapy, with or without family intervention
  - Offer interventions recommended in NICE guidance for people with any of the anxiety disorders,[13-15] depression,[16 17] emerging personality disorder,[18 19] or substance misuse.[20-22] (New recommendation.)

First episode psychosis

- Early intervention in psychosis services should be accessible to all people with a first episode or first presentation of psychosis, irrespective of the person's age or the duration of untreated psychosis. (New recommendation.)
- Assess for post-traumatic stress disorder and other reactions to trauma because people with psychosis or schizophrenia are likely to have experienced adverse events or trauma associated with the development of the psychosis or as a result of the psychosis itself. For people who show signs of post-traumatic stress, follow the recommendations in the NICE clinical guideline on post-traumatic stress disorder.[15] (New recommendation.)
- Offer oral antipsychotic medication in conjunction with family intervention and individual cognitive behavioural therapy. (New recommendation.)
- Do not start antipsychotic medication for a first presentation of sustained psychotic symptoms in primary care unless it is done in consultation with a consultant psychiatrist. (Amended recommendation.)

Before starting antipsychotic medication

- Undertake and record the following baseline investigations:
  - Weight (plotted on a chart)
  - Waist circumference
  - Pulse and blood pressure
  - Fasting blood glucose, glycated haemoglobin (HbA_{1c}), blood lipid profile, and prolactin levels
  - Assessment of any movement disorders
  - Assessment of nutritional status, diet, and level of physical activity. (New recommendation.)

Choice of antipsychotic medication

- The choice of antipsychotic medication should be made by the service user and healthcare professional together, taking into account the views of the carer if the service user agrees. Provide information and discuss the likely benefits and possible side effects of each drug, including:
  - Metabolic (including weight gain and diabetes)
  - Extrapyramidal (including akathisia, dyskinesia, and dystonia)
  - Cardiovascular (including prolonging the QT interval)
  - Hormonal (including increasing plasma prolactin)
  - Other (including unpleasant subjective experiences). (Amended recommendation.)
- Do not initiate regular combined antipsychotic medication except for short periods (such as when changing medication).

Monitoring antipsychotic medication

- Monitor and record the following regularly and systematically throughout treatment, but especially during titration:
  - Response to treatment, including changes in symptoms and behaviour
  - Side effects of treatment, taking into account overlap between certain side effects and clinical features of schizophrenia (such as the overlap between akathisia and agitation or anxiety) and impact on functioning
  - Emergence of movement disorders
  - Weight, weekly for the first six weeks, then at 12 weeks, at one year, and then annually (plotted on a chart)
  - Waist circumference annually (plotted on a chart)
  - Pulse and blood pressure at 12 weeks, at one year, and then annually
  - Fasting blood glucose, HbA_{1c}, and blood lipid levels at 12 weeks, at one year, and then annually
  - Adherence to treatment
  - Overall physical health. (New recommendation.)
- The secondary care team should maintain responsibility for monitoring service users' physical health and the effects of antipsychotic medication for at least the first 12 months or until the person's condition has stabilised, whichever is longer. Thereafter, the responsibility for this monitoring may be transferred to primary care under shared care arrangements. (New recommendation.)

Subsequent acute episodes of psychosis or schizophrenia

- Offer oral antipsychotic medication in conjunction with a psychological intervention. (New recommendation.)
- Offer
  - Cognitive behavioural therapy to all people with psychosis or schizophrenia
  - Family intervention to all families of people with psychosis or schizophrenia who live with or are in close contact with the service user.
- These can be started either during the acute phase or later, including in inpatient settings.

Promoting recovery and possible future care

- General practitioners and other primary care professionals should monitor the physical health of people with psychosis or schizophrenia when responsibility for monitoring is transferred from secondary care, and then at least annually. The health check should be comprehensive, focusing on physical health problems that are common in people with psychosis and schizophrenia. Include all the checks above (section "Before starting antipsychotic medication") and refer to relevant NICE guidelines on monitoring for cardiovascular disease, diabetes, obesity, and respiratory disease. A copy of the results should be sent to the care coordinator and psychiatrist and put in the secondary care notes. (New recommendation.)

- Identify people with psychosis or schizophrenia who have high blood pressure, have abnormal lipid levels, are obese or at risk of obesity, have diabetes or are at risk of diabetes (indicated by abnormal blood glucose levels), or are physically inactive at the earliest opportunity following relevant NICE guidance.[23-28] (New recommendation.)
- Offer supported employment programmes to people with psychosis or schizophrenia who wish to find or return to work. Consider other occupational or educational activities, including pre-vocational training, for people who are unable to work or unsuccessful in finding employment. (New recommendation.)

Overcoming barriers

Accessing psychological interventions (cognitive behavioural therapy and family intervention) to prevent and treat psychosis, and to treat schizophrenia in the longer term, requires a shift in emphasis for community based services away from the overly bureaucratic case and risk management practices of the current system for organising care from secondary mental health services, namely the care programme approach.[29] This can be achieved, in part, by establishing therapeutic teams to facilitate access to evidence based interventions at the point of need.

The longstanding dependence of services on antipsychotic drugs as the sole treatment for people with psychosis and schizophrenia has led to polypharmacy and inappropriate use, including as a means to prevent psychosis. Services should audit their use of antipsychotics to align prescribing with the best evidence.[30 31]

To overcome barriers to achieving good physical healthcare, there needs to be greater emphasis on incentive schemes for general practitioners (Quality and Outcomes Framework[32]), for healthcare providers (Commissioning for Quality and Innovation[33]), and for service users.[34] However, primary and secondary care need to collaborate because key physical health monitoring performance indicators have been removed from the Quality and Outcomes Framework.

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UNCERTAINTIES PAGE

Does depression screening improve depression outcomes in primary care?

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This is one of a series of occasional articles that highlight areas of practice where management lacks convincing supporting evidence. The series adviser is David Tovey, editor in chief, the *Cochrane Library*. To suggest a topic, please email us at practice@bmj.com.

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 use of self administered 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 US Preventive Services Task Force (USPSTF) recommends screening for depression when enhanced, staff assisted, depression care programmes 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 randomised controlled trials 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 no 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 history of depression or with a chronic medical condition. NICE recommended that healthcare 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 rewarded routine depression screening of patients with coronary heart disease and diabetes in primary care. 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 2013-14 QOF no longer included depression screening as a quality indicator.

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Previous articles in this series

- Should children who have a cardiac arrest be treated with therapeutic hypothermia? (*BMJ* 2014;348:f7672)
- Should women with HIV, or at high risk of contracting HIV, use progestogen-containing contraception? (*BMJ* 2013;347:f6695)
- How should we manage fear of falling in older adults living in the community? (*BMJ* 2013;346:f2933)
- Should inpatient hyperglycaemia be treated? (*BMJ* 2013;346:f134)
- Does routine oxygen supplementation in patients with acute stroke improve outcome? (*BMJ* 2012;345:e6976)

Thus, screening for depression is sometimes encouraged in primary care guidelines and is often encouraged via other mechanisms, such as expert opinion articles 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 programme can be successful only if patients not already known to have depression agree to be screened, if a substantial 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 programme 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, randomised controlled trials of depression screening must fulfil at least three key criteria: (1) determining eligibility and randomising patients before screening; (2) excluding patients already known to have depression or 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 randomised controlled trials conducted in primary care settings that fulfilled the three criteria we have described for tests of depression screening. This search was partly based on that for our own systematic review.[9]

We identified three systematic reviews. A systematic review done in conjunction with the recent Canadian guideline did not identify any randomised controlled trials of depression screening.[5] A 2008 Cochrane systematic review, on the other hand, assessed five randomised controlled trials and reported that depression screening did not reduce depressive symptoms (standardised mean difference −0.02 (95% confidence interval −0.25 to 0.20)).[10] In contrast to this, a systematic review done in conjunction with the 2009 USPSTF depression screening guideline included nine randomised controlled trials 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.[11] Three randomised controlled trials were cited in the USPSTF review as evidence that depression screening benefits patients in the context of collaborative care. However, two of the three 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 before enrolment. The third trial tested a care management programme to improve a series of health outcomes among elderly patients, but was not focused on depression. None of the trials met any of the three criteria for a test of depression screening.

Overall, no trials in the Cochrane review or USPSTF review fulfilled all three criteria for a test of depression screening. Only two trials included in the reviews randomised patients before, as opposed to after, administering a depression screening intervention,[12 13] and neither found that screening improved depression outcomes. Our search found one additional trial that randomised patients before screening for depression.[14] In that cluster randomised trial, patients at high risk of depression because of a history of depression, unexplained somatic symptoms, psychological comorbidities, drug misuse, or chronic pain were screened, but rates of depression six months after screening were not different in the screening (15.0%) and non-screening (15.8%) trial arms.

We did not identify any randomised controlled trial that tested whether screening with collaborative depression care would be more effective than collaborative care without screening. However, in one prospective cohort study[15] 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 use of primary care services. In that study, from the Netherlands, 1687 patients were sent a screening questionnaire with a letter from their general practitioner: 780 returned the questionnaire, and 226 (29%) screened positive, but only 17 patients (1% of those invited) initiated treatment for depression.[15]

We did not find any studies that reported the degree to which administering depression symptom questionnaires improved diagnostic accuracy for depression

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 cut-off. 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, treatment consistent with guidelines, and follow-up.

Comparison: Patients are not screened for depression. Patients who are identified as possibly depressed via self reporting or unassisted recognition by a healthcare 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.

among patients suspected by healthcare providers of having depression.

Is ongoing research likely to provide relevant evidence?

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

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 healthcare 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 (such as 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] Healthcare 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 misuse.[3 5 14 15] 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]

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ANATOMY QUIZ

Hysterosalpingogram

A: Lower part of the uterine cavity
B: Uterine/endometrial cavity
C: Right horn of the uterus
D: Right isthmus of the uterine tube
E: Contrast in peritoneal cavity
F: Right ampulla of the uterine tube

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STATISTICAL QUESTION

Relative risks versus odds ratios

Statements *a*, *b*, *c*, and *d* are all true.

CASE REPORT

A man with acute venous thromboembolism and thrombocytopenia

1 Heparin induced thrombocytopenia.
2 Acute onset of thrombocytopenia can be caused by disorders that cause a reduction in platelet survival or production or it can be due to dilutional effects. Concurrent thrombosis and thrombocytopenia can occur in heparin induced thrombocytopenia, disseminated intravascular coagulation, thrombotic microangiopathies, and antiphospholipid antibody syndrome.
3 Heparin induced thrombocytopenia is diagnosed by a combination of clinical criteria and laboratory tests.
4 When heparin induced thrombocytopenia is suspected on the basis of clinical criteria, all heparin sources should be discontinued immediately and the patient should be started on alternative anticoagulants, such as direct thrombin inhibitors.