

Improving the detection and treatment of schizophrenia

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What are the key diagnostic criteria?



SCHIZOPHRENIA IS A DEBILITATING, OFTEN CHRONIC, PSYCHOTIC DISORDER WITH EARLY

onset and a lifetime prevalence of 7.2/1,000.¹ Onset is typically in early adulthood (between the ages of 15 and 25) but can occur at any age.

It is characterised by illogical thinking, abnormalities in speech and behaviour, delusions, hallucinations and negative symptoms, such as social withdrawal, self-neglect, loss of motivation and emotional blunting, see table 1, p12.

It has a waxing-waning course, with each patient presenting with a varying

What are the treatment approaches?

and unique combination of signs and symptoms. Its long course is punctuated by times of great distress experienced by patients and their families, disability, significant treatment costs and stigmatisation.²⁻⁴ Mortality is increased, partly as a result of higher frequency of suicide (about 10%) and violent death, and partly because of an increased risk of physical illness.⁵

The cause of schizophrenia remains largely unknown. Several biological, social and psychological factors are considered to be causative. Genetic association and linkage analysis studies have revealed that schizophrenia arises from the cumulative effect of several

How should patients be monitored?

genes and follows a non-Mendelian pattern of inheritance. The risk of developing the disorder is increased in first-degree relatives of patients and in families with multiple affected members. The lifetime risk of developing schizophrenia for siblings of a diagnosed patient is 7-9% and 10-15% for the patient's children.²²

Although no cure is available, effective treatment can be provided in primary and secondary care.

The longer the period without treatment, the worse the outcome.⁶ Even today in the UK, the mean duration of untreated psychosis is between one and two years.⁷

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Table 1

Characteristic symptoms of schizophrenia

Positive symptoms ²²	Negative symptoms ²²	Cognitive symptoms ²²	First-rank symptoms ²³
Preoccupied behaviour Restlessness Hallucinations Mood incongruity Delusional thinking Disorders of stream of thought Formal thought disorder Impaired insight	Apathy and lack of activity Social withdrawal Mood blunting Loss of motivation Poverty of thought Reduced volume of speech	Deficits in: – executive function – working memory – processing speed – social cognition – attention – visual and verbal learning	Delusional perceptions Audible thought Voices arguing or having a discussion Voices commenting on the patient's action Thought: withdrawal, broadcasting or insertion Passivity of: affect, impulse or volition Somatic passivity

DIAGNOSIS

There is no objective diagnostic test for schizophrenia, although there has been significant progress in establishing more consistent and reliable diagnostic criteria. The ICD-10, in the UK,⁸ and the DSM-5, in the USA,⁹ agree on the symptom clusters needed to confirm the diagnosis, see table 2, p13. The ICD-10 requires the presence of symptoms together with deterioration or impaired functioning for a diagnosis of schizophrenia. The DSM-5, introduced last year, increases the symptom threshold, requiring a patient to have at least two of the specified symptoms for a diagnosis.

‘The longer the period without treatment, the worse the outcome’

As patients’ predominant symptoms often change over time and because of other prevalent types of psychotic illness and isolated psychotic experiences in the general population,¹⁰ many clinicians in primary and secondary care are hesitant in making a confident diagnosis. This may hinder patients and their families receiving help early on. The new NICE guidelines for schizophrenia, published in February 2014,¹¹ recommend that all patients who are distressed and have a decline in social functioning accompanied by psychotic symptoms, or behaviour suggesting psychosis, should be comprehensively assessed by a specialist mental health service.

ASSESSMENT

Psychotic symptoms are frightening for the patient and stressful for their

family. The wide spectrum of clinical presentations requires a thorough assessment by an expert. NICE recommends that the assessment should be carried out by a consultant psychiatrist or a specialist trained in the diagnosis of psychoses.¹¹ Additionally, early intervention by psychosis services should be accessible to all patients with a first presentation, irrespective of age or duration of symptoms, see table 3, p14. To optimise access, referral to specialised services may come from health and social services, the patient or carer. NICE emphasises that professionals should work in collaboration with patients and carers.

Common comorbidities, such as depression, substance misuse and anxiety disorders, and recent traumatic events that may have led to PTSD and could be associated with the development of the psychotic episode should be evaluated. This is important, as they can increase morbidity in patients with schizophrenia and are often overlooked because of a tendency to subsume such symptoms under the diagnosis of schizophrenia.¹²

After making the diagnosis, it is important to discuss it with the patient and carers. There is still a stigma associated with the term schizophrenia. Healthcare professionals need to provide an explanation for the patient’s symptoms and indicate the means of support, as well as explaining the negative consequences.¹³

TREATMENT

NICE recommends that a full range of pharmacological, psychological, social, occupational and educational interventions should be provided. Treatment can be broadly divided into the acute and the stabilisation-maintenance phase. Antipsychotic medication remains the cornerstone of treatment for both phases. Its

superiority over placebo is well established, and the effectiveness of older and newer antipsychotics is similar.²¹ Newer antipsychotics have fewer extrapyramidal side effects, but are more likely to result in the metabolic syndrome than the older drugs.²²

‘The best predictor of poorer long-term functioning is poor functioning in the first three years after diagnosis’

The effectiveness of antipsychotics in treating negative symptoms of schizophrenia is limited.²¹

All patients experiencing a first episode should be offered an oral antipsychotic medication, initiated in secondary care, unless this is done by the GP after discussion with a consultant psychiatrist. Patients and their carers should be involved in choosing a suitable antipsychotic, taking into account the likely benefits, side-effect profile and the patient’s physical health. Patients should be informed about potential metabolic, cardiovascular, extrapyramidal, hormonal and other side effects, see table 3, p14.

The trial of medication should be carried out for at least four to six weeks at optimum BNF dosage.¹¹ No more than one antipsychotic should be used except when changing medication. The use of antipsychotic medication for people at increased risk of developing psychosis is not supported by the evidence.¹¹

If after adequate use of two different antipsychotics (at least one of them should be second generation) the patient's symptoms have not improved, clozapine should be offered. Clozapine is effective in 30–60% of treatment-resistant cases of schizophrenia.²⁰ However, careful monitoring is required because of its potential life-threatening haematological side effects.

After controlling acute symptoms, the maintenance phase will require continuation of an antipsychotic for a minimum of two years.

Patients should be informed that there is a high risk of relapse, if they stop medication.^{11,14} Long-acting injectable antipsychotics remain a valuable part of the treatment for patients, who prefer this after an acute episode or when adherence to oral antipsychotics is poor.

'GPs should be provided with a care plan by mental health services early in the course of treatment'

Patients with recurrence should have a medication review, including assessment of adherence. For such patients, the rationale behind treatment is similar to that for a first episode of schizophrenia and the same guidelines apply.

The revised NICE guidelines emphasise the use of psychological, social, occupational and educational interventions early in treatment. Individual CBT or family therapy should be offered in conjunction with medication to patients with a first or subsequent episode of schizophrenia, even during the acute phase, if appropriate.

Clinicians should warn patients, and relatives, who prefer psychological interventions alone that these would be more effective when delivered in conjunction with antipsychotic medication. CBT can also be offered to patients at high risk of developing psychosis. This can be more important for patients with any comorbid anxiety disorders, depression, and emerging personality disorder or substance misuse.¹¹ »

Table 2

ICD-10⁸ and DSM-5⁹ general diagnostic criteria for schizophrenia

ICD-10 criteria

At least one of the following

- Thought echo, thought insertion or withdrawal, thought broadcasting
- Delusions of control, influence or passivity, or delusional perception
- Hallucinatory voices giving a running commentary on the patient's behaviour, or discussing him between themselves
- Persistent delusions of other kinds that are culturally inappropriate and completely impossible

OR at least two of the following:

- Persistent hallucinations accompanied by delusions with no clear content
- Neologisms or breaks in train of thought resulting in incoherent speech
- Catatonic behaviour, such as excitement, posturing or waxy flexibility, negativism, mutism and stupor
- Negative symptoms

Present for most of the time for at least a month

If the patient also meets criteria for a manic or depressive episode, the symptoms above must have been present before the disturbance of mood occurred

Disorder is not due to organic brain disease, alcohol or drug intoxication, dependence or withdrawal

Subdivisions include paranoid, hebephrenic, catatonic and undifferentiated

DSM-5 criteria

At least two of the following (one at least should be delusions, hallucinations or disorganised speech)

- Delusions
- Hallucinations
- Disorganised speech
- Grossly disorganised psychomotor behaviour, such as catatonia
- Negative symptoms

Continuous signs of the disturbance for at least six months. This six-month period includes at least one month of symptoms (or less if successfully treated)

For a significant proportion of the time since onset, one or more major areas of functioning (work, interpersonal relations, or self-care) are markedly below the level achieved prior to the onset

Schizoaffective and mood disorder with psychotic symptoms should be ruled out:
(1) no major depressive or manic episodes have occurred concurrently with the active phase symptoms; or
(2) if mood episodes have occurred during active-phase symptoms, their total duration has been brief relative to the duration of the active and residual periods

The disturbance is not caused by the direct physiological effects of a substance or a general medical condition

If there is a history of autistic disorder or another pervasive developmental disorder or other communication disorder the additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations are also present for at least a month (or less if successfully treated)

Table 3

Monitoring physical and mental health

Physical health

- Before starting antipsychotic medication, record: weight, waist circumference, pulse and blood pressure, assessment of movement disorders, assessment of extent of physical activity and diet, fasting blood glucose, HbA_{1c}, blood lipid profile and prolactin levels. ECG when indicated and for every inpatient
- Secondary care services are responsible for monitoring the patient's physical health and response to medication for either 12 months, or until stabilisation - whichever is longer. Thereafter, the responsibility can become a shared care arrangement. Review antipsychotic medication annually, including benefits and side effects
- After transfer from secondary services GPs should monitor physical health at least annually. A copy of the notes should be sent to the psychiatrist and care co-ordinator
- Offer help with stopping smoking. Nicotine replacement, bupropion or varenicline may be used. Discuss this with the patient and the potential side effects. Be aware that sudden cessation can impact on the metabolism of antipsychotic medication, particularly clozapine and olanzapine
- Offer a healthy eating and exercise regimen. Offer interventions if the patient has abnormal lipid levels, rapid weight gain, or problems with blood glucose management

Mental health

- If a patient is distressed with declining social functioning and suggestion of psychotic symptoms or a first-degree family history, refer them for immediate assessment by a specialist mental health service
- Early intervention in psychosis services should be accessible to all individuals with a first episode of psychosis, irrespective of age or duration of psychosis. A holistic intervention, combining psychological, pharmacological, social and educational components should be provided. Early intervention should be extended beyond three years if the patient has not made a stable recovery. Patients should also be assessed for post-traumatic stress disorder
- If the severity of the psychotic episode exceeds the capacity of the early intervention in psychosis team, involve the home treatment and crisis resolution team as the first-line service before inpatient admission. Consider crisis houses or acute day facilities
- During recovery, care should be continued in the early intervention in psychosis services, or by a specialist integrated community-based team. Offer a holistic approach, engaging the patient in the least restrictive and stigmatising environment possible. Consider intensive care management for people at risk of disengagement

Treatment and rehabilitation

- For people with first episode, acute exacerbation or recurrence of psychosis, offer oral antipsychotic medication in conjunction with psychological interventions. For individuals who are solely interested in psychological interventions, advise them that they are most effective in conjunction with oral antipsychotic medication
- Offer supported employment programmes. Consider other occupational or educational activities for those who are unable to find work
- Consider peer support for patients with schizophrenia delivered by a trained worker who has recovered from schizophrenia and is stable. Consider a self-management programme given face to face with service users: this should include information about schizophrenia, medication, coping with stress and what to do in a crisis
- If a patient is at high risk of developing psychosis, offer individual CBT. Do not offer antipsychotic medication with the aim of decreasing the risk or occurrence of psychosis. If after intervention, the individual continues to be distressed or have symptoms and no clear diagnosis of psychosis, continue to monitor for up to three years using a validated assessment tool. If a patient asks to be discharged, offer follow-up appointments and the opportunity to self-refer; ask the patient's GP to continue monitoring mental state
- If a patient needs inpatient care, consider the impact this may have not just on them, but on their family and support network. If inpatient admission is unavoidable, ensure the setting is suitable, considering their age, gender and level of vulnerability

Carers' support

- Mental health services should offer carers an assessment of their own needs, and formulation of a care plan if required. Advise carers of their right to a formal carer's assessment performed by social services
- Give carers written and verbal information about schizophrenia. Include the carer in decision making if the service user agrees
- Offer a carer-centred education programme, which should be available if needed and have a positive approach to recovery

Social, occupational and educational interventions are emphasised in the new NICE guidelines, since the best predictor of poorer long-term functioning, particularly for unemployment, is poor functioning in the first three years following diagnosis.¹⁵

‘Primary care has a significant role to play in monitoring mental state and physical health’

Supported employment programmes and occupational/educational activities may be very useful for patients without work, helping them to re-integrate into society and increase self-worth.²³ Peer support may help patients improve their experience of the health service, help alleviate distress from the disorder and improve their quality of life. Finally, self-management programmes for schizophrenia that follow a manual have proved an important part of the treatment, instilling hope and improving self-management and coping skills.¹²

MONITORING MENTAL HEALTH

Schizophrenia patients should be followed up by a multidisciplinary team with expertise in treating psychoses. Monitoring of mental and physical health should be carried out regularly and tailored to the individual needs of the patient and the carers. During the acute phase, daily contact from the early intervention, crisis or home treatment teams may be required to monitor mental state, adherence with medication, the development of side-effects and risk.

For patients in remission, the team will monitor early signs of relapse with the aim of avoiding admission. Mental health teams should also assess the patient's level of functioning with respect to education, training and employment. If the diagnosis of schizophrenia is unclear, or the patient continues to have symptoms, impaired function or distress despite treatment, monitoring should continue for one to three years by the early intervention team using structured and validated assessment tools.¹¹ Patients' carers should be

involved in all phases of the follow-up.

Psycho-social treatments that could not be offered during the acute phase may be required later. During the maintenance-stability phase frequency of contacts may decrease, although mental health teams should be able to provide long-term follow-up, if needed. Any decision about discharge to primary care should be carefully discussed with all parties involved.

The decision to stop antipsychotics should be made jointly, undertaken gradually, and patients monitored for signs and symptoms of relapse for at least two years.⁹

MONITORING PHYSICAL HEALTH

The association between schizophrenia and poor physical health is well established.¹⁶ Mortality rates in schizophrenia are high. Male and female patients die 20 and 15 years, respectively, earlier than the general population.¹⁷ The majority of premature deaths are accounted for by physical illnesses.¹⁸⁻²⁰ These include cardiovascular disorders (coronary heart disease, peripheral vascular disease and stroke), diabetes mellitus, chronic obstructive pulmonary disease, certain cancers and infectious disorders (HIV, hepatitis C and tuberculosis).²¹ Although not generally responsible, chronic antipsychotic side effects contribute to the development of some of these physical problems. Consequently, regular health monitoring is paramount. The new NICE guidelines highlight this need and have increased the number of recommended interventions related to patients' physical health.¹¹

Patients with schizophrenia should be offered an ECG before initiation of an antipsychotic, in the following situations:

- Evidence of cardiovascular risk e.g. high blood pressure
- A personal history of cardiovascular disease
- If specified by the drug manufacturer

Baseline checks should include weight, waist circumference and BMI, blood pressure, FBC, urea and electrolytes (including creatinine or eGFR), fasting plasma glucose and blood lipids (cholesterol and triglycerides), LFTs, CPK and prolactin. Table 3, opposite, summarises the NICE recommendations for physical health monitoring.¹¹

When patients are transferred from secondary to primary care, GPs

should continue monitoring their physical health at least annually or more often, if there is an indication following the guidelines described above. Throughout follow-up, effective communication between primary and secondary care services is essential.

GPs should be provided with a care plan by mental health services early in the course of treatment. The mental health team should review the care plan yearly and ensure that patients receive physical healthcare from primary care.⁹

FOLLOW-UP

Primary care has a significant role to play in monitoring mental state and physical health. Patients with schizophrenia will return to primary care under shared care arrangements after 12 months under the care of the mental health team, provided that their mental state is stable.

GPs should be able to build a good therapeutic relationship, take account of patients' and carers' requests, to retain good engagement during the long course of the disorder.

‘Any decision about discharge to primary care should be carefully discussed with all parties’

Monitoring patients' mental state is crucial, and when relapse is threatened because of poor response to treatment, non-adherence to medication, intolerable side effects from medication, comorbid substance misuse, or if risk to self or others is suspected, GPs should refer the patient to the mental health team. In addition, GPs should consider a re-referral for co-existing mental health disorders that may require expert pharmacological or psychological interventions.

GPs should provide a comprehensive health check yearly or more often, if there is an indication, see table 3, opposite. A copy of the results should be sent to the patient's mental health team. When GPs identify problems related to the

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key points

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Schizophrenia is a debilitating, often chronic, psychotic disorder with early onset and a lifetime prevalence of 7.2/1,000. The longer the period without treatment, the worse the outcome. In the UK, the mean duration of untreated psychosis is between one and two years. The new NICE guidelines for schizophrenia recommend that all patients who are distressed and have a decline in social functioning accompanied by psychotic symptoms, or behaviour suggesting psychosis, should be comprehensively assessed by a specialist mental health service.

Common comorbidities, such as depression, substance misuse and anxiety disorders, and recent traumatic events that could be associated with the development of the psychotic episode should be evaluated. This is important, as they can increase morbidity in patients with schizophrenia and are often overlooked.

Antipsychotic medication remains the cornerstone of treatment in schizophrenia for the acute and the stabilisation-maintenance phase. Newer antipsychotics have fewer extrapyramidal side effects, but are more likely to result in the metabolic syndrome than the older drugs. Patients and their carers should be involved in choosing a suitable antipsychotic, and be informed about potential metabolic, cardiovascular, extrapyramidal, hormonal and other side effects. If after adequate use of two different antipsychotics (at least one of them should be second generation) the symptoms have not improved, clozapine should be offered. The maintenance phase will require continuation of an antipsychotic for a minimum of two years. Patients should be informed that there is a high risk of relapse if they stop medication.

The revised NICE guidelines emphasise the use of psychological, social, occupational and educational interventions early in treatment. Individual CBT or family therapy should be offered in conjunction with medication to patients with a first or subsequent episode of schizophrenia, even during the acute phase, if appropriate.

Mortality rates in schizophrenia are high and the majority of premature deaths are accounted for by physical illnesses. These include cardiovascular disorders, diabetes mellitus, chronic obstructive pulmonary disease, certain cancers and infectious diseases e.g. HIV, hepatitis C and tuberculosis. Although not generally responsible, chronic antipsychotic side effects contribute to the development of some of these physical problems.

Primary care has a significant role to play in monitoring mental state and physical health. Monitoring mental state is crucial. When relapse is threatened because of poor response to treatment, non-adherence to medication, intolerable side effects from medication, comorbid substance misuse, or if risk to self or others is suspected, GPs should refer the patient to the mental health team. GPs should provide a comprehensive health check yearly or more often if there is an indication.

metabolic syndrome (obesity, abnormal lipid levels, and diabetes), high blood pressure or significant physical inactivity, they should treat them according to the relevant NICE guidelines.

Although healthy eating and physical activity programmes should be initiated early on in secondary care, this is often difficult and primary care should be able to offer this combined with smoking cessation/reduction treatments. Nicotine replacement therapy, bupropion or varenicline can be considered. If a patient decides to stop smoking, it is important to be vigilant for changes in plasma levels of specific antipsychotics (olanzapine, clozapine) and for potential side effects of bupropion and varenicline, including interaction effects (e.g. on seizure threshold), especially in the first 2-3 weeks.⁹

REFERENCES

- 1 Saha S, Chant D, Welham J et al. A systematic review of the prevalence of schizophrenia. *PLoS Medicine* 2005;2(5):e1412
- 2 Murray CJ, Richards MA, Newton JN et al. UK health performance: findings of the Global Burden of Disease Study 2010. *Lancet* 2013;381(9871):997-1020
- 3 Thornicroft G. Shunned: discrimination against people with mental illness. Oxford University Press. Oxford and New York. 2006
- 4 Sartorius N. Iatrogenic stigma of mental illness. *BMJ* 2002;324(7352):1470-1471
- 5 Osborn DP, Levy G, Nazareth I et al. Relative risk of cardiovascular and cancer mortality in people with severe mental illness from the United Kingdom's General Practice Research Database. *Arch Gen Psychiatry* 2007;64(2):242-249
- 6 Perkins DO, Gu H, Boteva K et al. Relationship between duration of untreated psychosis and outcome in first-episode schizophrenia: a critical review and meta-analysis. *Am J Psychiatry* 2005;162(10):1785-1804
- 7 Skeate A, Jackson C, Birchwood M et al. Duration of untreated psychosis and pathways to care in first-episode psychosis. Investigation of help-seeking behaviour in primary care. *Br J Psychiatry Suppl* 2002; 43:s73-77
- 8 World Health Organization. The ICD-10 Classification of Mental and Behavioural Disorders: Diagnostic criteria for Research. WHO. Geneva. 1993
- 9 American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). American Psychiatric Association. Washington, DC. 2013
- 10 van Os J, Linscott RJ, Myin-Germeys I et al. A systematic review and meta-analysis of the psychosis continuum: evidence for a psychosis proneness-persistence-impairment model of psychotic disorder. *Psychol Med* 2009;39(2):179-195
- 11 National Institute for Health and Care Excellence. CG178. Psychosis and schizophrenia in adults - Treatment and management. NICE. London. 2014
- 12 Mueser KT, Gingerich S. Illness self-management programmes. In: Thornicroft G, Szmulik G, Mueser K, Drake R (eds). Oxford Textbook of Community Mental Health. Oxford University Press: Oxford & New York. 2011
- 13 Pitt L, Kilbride M, Welford M et al. Impact of a diagnosis of psychosis: user-led qualitative study. *Psychiatric Bull* 2009;33:419-423
- 14 Marder SR, Wirshing DA. Maintenance treatment. In: Hirsch SR, Weinberger DR (eds). Schizophrenia, 2nd edition. Blackwell. Oxford. 2003
- 15 Wiersma D, Wanderling J, Dragomirecka E et al. Social disability in schizophrenia: its development and prediction over 15 years in incidence cohorts in six European centres. *Psychol Med* 2000;30(5):1155-1167
- 16 Marder SR, Essock SM, Miller AL et al. Physical health monitoring of patients with schizophrenia. *Am J Psychiatry* 2004;161(8):1334-1349
- 17 Wahlbeck K, Westman J, Nordentoft M et al.

- Outcomes of Nordic mental health systems: life expectancy of patients with mental disorders. *Br J Psychiatry* 2011;199(6):453-458
- 18 Brown S, Kim M, Mitchell C et al. Twenty-five year mortality of a community cohort with schizophrenia. *Br J Psychiatry* 2010;196(2):116-121
- 19 Lawrence D, Hancock KJ, Kisely S. The gap in life expectancy from preventable physical illness in psychiatric patients in Western Australia: retrospective analysis of population based registers. *BMJ* 2013;346:f2539
- 20 Saha S, Chant D, McGrath J. A systematic review of mortality in schizophrenia: is the differential mortality gap worsening over time? *Arch Gen Psychiatry* 2007;64(10):1123-1131
- 21 Leucht S, Burkard T, Henderson J et al. Physical illness and schizophrenia: a review of the literature. *Acta Psychiatrica Scand* 2007;116(5):317-333
- 22 Gelder M, Mayou R, Geddes J. Psychiatry (3rd edn). Oxford University Press. Oxford & New York. 2005
- 23 Oyeboode F. Sim's Symptoms in the Mind: An Introduction to Descriptive Psychopathology (4th edition). Saunders Ltd. Edinburgh. 2008

Useful information

SANE

www.sane.org.uk/

Royal College of Psychiatrists

Mental health information for all
www.rcpsych.ac.uk/expertadvice.aspx

National Institute of Mental Health Health & Education

www.nimh.nih.gov/health/index.shtml

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