Complete Summary

GUIDELINE TITLE

Schizophrenia. Core interventions in the treatment and management of schizophrenia in adults in primary and secondary care.

BIBLIOGRAPHIC SOURCE(S)

National Collaborating Centre for Mental Health. Schizophrenia: core interventions in the treatment and management of schizophrenia in adults in primary and secondary care. London (UK): National Institute for Health and Clinical Excellence (NICE); 2009 Mar. 41 p. (NICE clinical guideline; no. 82).

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: National Collaborating Centre for Mental Health. Schizophrenia: core interventions in the treatment and management of schizophrenia in primary and secondary care. London (UK): National Institute for Clinical Excellence (NICE); 2002. 243 p. [262 references]

COMPLETE SUMMARY CONTENT

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SCOPE

DISEASE/CONDITION(S)

Schizophrenia and related disorders, i.e.,

- Schizoaffective disorder
- Schizophreniform disorder
- Delusional disorder

GUIDELINE CATEGORY

Evaluation
Management
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Psychiatry
Psychology

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Emergency Medical Technicians/Paramedics
Hospitals
Nurses
Occupational Therapists
Patients
Physicians
Psychologists/Non-physician Behavioral Health Clinicians
Social Workers

GUIDELINE OBJECTIVE(S)

To update the 2002 guidelines on treatment and management of schizophrenia in primary and secondary care

Specifically the guideline aims to:

- Improve access and engagement with treatment and services for people with schizophrenia
- Evaluate the role of specific psychological and psychosocial interventions in the treatment of schizophrenia
- Evaluate the role of specific pharmacological interventions in the treatment of schizophrenia
- Evaluate the role of specific service level interventions for people with schizophrenia
- Integrate the above to provide best-practice advice on the care of people with schizophrenia and their family and carers
- Promote the implementation of best clinical practice through the development of recommendations tailored to the requirements of the National Health Service in England and Wales

TARGET POPULATION

Adults (18 and older) in England and Wales who have a clinical working diagnosis of schizophrenia, including those with an established diagnosis of schizophrenia

(with onset before age 60) who require treatment beyond age 60. This will include specific consideration of the needs of black and minority ethnic people with schizophrenia.

Note on groups that will **NOT** be covered:

- Very late onset schizophrenia (onset after age 60)
- Other psychotic disorders, such as bipolar disorder, mania or depressive psychosis
- People with coexisting learning difficulties, significant physical or sensory difficulties, or substance misuse
- The specific treatment of young people under the age of 18, except those who are receiving treatment and support from early intervention services.

INTERVENTIONS AND PRACTICES CONSIDERED

Assessment

1. Comprehensive multidisciplinary assessment, including a psychiatric, psychological and physical health assessment
2. Routine monitoring for other coexisting conditions, including depression and anxiety, comorbid conditions, including substance and alcohol misuse or physical illness, or the existence of a forensic history

General Management

1. Attainment of informed consent
2. Provision of information and mutual support to service users and carers
3. Use of advance decisions and advanced statements
4. Support for seeking a second opinion
5. Transfer between services
6. Early intervention and treatment for first episodes
7. Criteria for referral to mental health services
8. Treatment of the acute episode:
    - Service level intervention
    - Pharmacological intervention
    - Rapid tranquilization
    - Early treatment
    - Psychological and psychosocial interventions
9. Management during the early post-acute period
10. Promoting recovery

Service-Level Interventions

1. Crisis resolution and home treatment teams
2. Early intervention service (EIS)
3. Community mental health teams (CMHTs)
4. Acute day hospitals
5. Non-acute day hospital care
6. Assertive outreach teams (or assertive community treatment)

Pharmacological Interventions

1. Conventional antipsychotic agents (chlorpromazine and chlorpromazine equivalents, haloperidol)
2. Atypical antipsychotic agents (clozapine)
3. Oral versus depot/long-acting injectable antipsychotic medication
4. Administration and duration of administration

Psychological Treatments

1. Cognitive behavioural therapy (CBT)
2. Cognitive remediation
3. Counselling and supportive therapy
4. Family interventions
5. Psychodynamic and psychoanalytic therapies
6. Arts therapy
7. Adherence therapy

MAJOR OUTCOMES CONSIDERED

- Clinical response (including degree of symptomatic recovery, change in quality-adjusted life years, degree of personal autonomy, degree and quality of social integration, cognitive functioning, degree of financial independence)
- Side effects of medications
- Non-adherence with treatment
- Suicide rate
- Changes in mental state (depression, total symptoms)
- Drop-out rate (for pharmacological studies)
- Morbidity and mortality
- Relapse rate
- Cost-effectiveness

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases
Searches of Unpublished Data

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Mental Health (NCCMH) on behalf of the National Institute for Health and Clinical Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

A stepwise, hierarchical approach was taken to locating and presenting evidence to the Guideline Development Group (GDG). The NCCMH developed this process

based on methods set out in The Guidelines Manual (NICE, 2007) and after considering recommendations from a range of other sources. These included:

- Clinical Policy and Practice Program of the New South Wales Department of Health (Australia)
- Clinical Evidence online
- The Cochrane Collaboration
- New Zealand Guidelines Group
- National Health Service (NHS) Centre for Reviews and Dissemination
- Oxford Centre for Evidence-Based Medicine
- Scottish Intercollegiate Guidelines Network (SIGN)
- United States Agency for Healthcare Research and Quality
- Oxford Systematic Review Development Programme

During the development of the scope, a more extensive search was undertaken for systematic reviews and guidelines published since the previous schizophrenia guideline. These were used to inform the development of review protocols for each topic group. Review protocols included the relevant clinical question(s), the search strategy, the criteria for assessing the eligibility of studies, and any additional assessments (see Appendix 7 in the full version of the original guideline).

The initial approach taken to locating primary-level studies depended on the type of clinical question and potential availability of evidence. Based on the previous guideline and GDG knowledge of the literature, a decision was made about which questions were best addressed by good practice based on expert opinion, which questions were likely to have a good evidence base and which questions were likely to have little or no directly relevant evidence. Recommendations based on good practice were developed by informal consensus of the GDG. For questions with a good evidence base, the review process depended on the type of key question (see below). For questions that were unlikely to have a good evidence base, a brief descriptive review was initially undertaken by a member of the GDG (see "Method Used to Answer a Clinical Question in the Absence of Appropriately Designed, High-Quality Research" in the "Description of Methods Used to Formulate the Recommendations" field).

Searches for evidence were updated between 6 and 8 weeks before the guideline consultation. After this point, studies were included only if they were judged by the GDG to be exceptional (for example, the evidence was likely to change a recommendation).

Search Strategies

The Search Process for Questions Concerning Interventions

For questions related to interventions, the initial evidence base (or updated evidence base) was formed from well-conducted randomised controlled trials (RCTs) that addressed at least one of the clinical questions. Although there are a number of difficulties with the use of RCTs in the evaluation of interventions in mental health, the RCT remains the most important method for establishing treatment efficacy. For other clinical questions, searches were for the appropriate study design (see above).

Standard mental health related bibliographic databases (i.e., CINAHL, Cochrane Library, EMBASE, MEDLINE, PsycINFO) were used for the initial search for all studies potentially relevant to the guideline. Where the evidence base was large, recent high-quality English-language systematic reviews were used primarily as a source of RCTs (see Appendix 9 in the full version of the original guideline for quality criteria used to assess systematic reviews). However, in some circumstances existing data sets were utilised. Where this was the case, data were cross checked for accuracy before use. New RCTs meeting inclusion criteria set by the GDG were incorporated into the existing reviews and fresh analyses performed.

After the initial search results were scanned liberally to exclude irrelevant papers, the review team used EPPI-Reviewer, a tool developed by the EPPI-Centre for storing and analysing data for systematic reviews, to manage both the included and the excluded studies (eligibility criteria were developed after consultation with the GDG). Double-checking of all excluded studies was not done routinely, but a selection of abstracts was checked to ensure reliability of the sifting. For questions without good-quality evidence (after the initial search), a decision was made by the GDG about whether to (a) repeat the search using subject-specific databases (e.g., AMED, ERIC, OpenSIGLE or Sociological Abstracts), (b) conduct a new search for lower levels of evidence or (c) adopt a consensus process (see "Informal Consensus" in the "Description of Methods Used to Formulate the Recommendations" field).

In addition, searches were made of the reference lists of all eligible systematic reviews and included studies. Known experts in the field (see Appendix 5 in the full version of the original guideline), based both on the references identified in early steps and on advice from GDG members, were sent letters requesting relevant studies that were in the process of being published. In addition, the tables of contents of appropriate journals were periodically checked for relevant studies.

The Search Process for Questions of Prognosis

For questions related to prognosis, the search process was the same as described above, except that the initial evidence base was formed from studies with the most appropriate and reliable design to answer the particular question. That is, for cohort studies of representative patients. In situations where it was not possible to identify a substantial body of appropriately designed studies that directly addressed each clinical question, a consensus process was adopted (see "Informal Consensus" in the "Description of Methods Used to Formulate the Recommendations" field).

Search Filters

Search filters developed by the review team consisted of a combination of subject heading and free-text phrases. Specific filters were developed for the guideline topic and, where necessary, for each clinical question. In addition, the review team used filters developed for systematic reviews, RCTs and other appropriate research designs (see appendix 8 in the full version of the original guideline).

Study Selection

All primary-level studies included after the first scan of citations were acquired in full and re-evaluated for eligibility (based on the relevant review protocol) at the time they were being entered into EPPI-Reviewer. Eligible systematic reviews and primary-level studies were critically appraised for methodological quality (see Appendix 9 for the quality checklists, and Appendix 15 of the full version of the original guideline for characteristics of each study including quality assessment). The eligibility of each study was confirmed by consensus during topic group meetings. For some clinical questions, it was necessary to prioritise the evidence with respect to the UK context (that is, external validity). To make this process explicit, the topic groups took into account the following factors when assessing the evidence:

- Participant factors (for example, gender, age and ethnicity)
- Provider factors (for example, model fidelity, the conditions under which the intervention was performed and the availability of experienced staff to undertake the procedure)
- Cultural factors (for example, differences in standard care and differences in the welfare system)

It was the responsibility of each topic group to decide which prioritisation factors were relevant to each clinical question in light of the UK context and then decide how they should modify their recommendations.

Unpublished Evidence

The GDG used a number of criteria when deciding whether or not to accept unpublished data. First, the evidence must have been accompanied by a trial report containing sufficient detail to properly assess the quality of the research. Second, where evidence was submitted directly to the GDG, it must have been done so with the understanding that details would be published in the full guideline. However, the GDG recognised that unpublished evidence submitted by investigators might later be retracted by those investigators if the inclusion of such data would jeopardise publication of their research.

Cost Analysis

For the systematic review of economic evidence the standard mental-health-related bibliographic databases (EMBASE, MEDLINE, CINAHL and PsycINFO) were searched. For these databases, a health economics search filter adapted from the Centre for Reviews and Dissemination at the University of York was used in combination with a general search strategy for schizophrenia. Additional searches were performed in specific health economics databases (National Health Service Economic Evaluations Database [NHS EED], Office of Health Economics Health Economic Evaluations Database [OHE HEED]), as well as in the Health Technology Assessments (HTA) database. For the HTA and NHS EED databases, the general strategy for schizophrenia was used. OHE HEED was searched using a shorter, database-specific strategy. Initial searches were performed in June 2007. The searches were updated regularly, with the final search performed in November 2008. Details of the search strategy for economic studies on interventions for people with schizophrenia are provided in Appendix 10 in the full version of the original guideline.

In parallel to searches of electronic databases, reference lists of eligible studies and relevant reviews were searched by hand. Studies included in the clinical evidence review were also screened for economic evidence.

The systematic search of the literature identified 10,425 references in total (stage 1). Publications that were clearly not relevant were first excluded (stage 2). The abstracts of all potentially relevant publications were then assessed against a set of selection criteria by the health economist (stage 3). Full texts of the studies potentially meeting the selection criteria (including those for which eligibility was not clear from the abstract) were obtained (stage 4). At this stage, 154 studies had been selected. Studies that did not meet the inclusion criteria, were duplicates, were secondary publications to a previous study, or had been updated in more recent publications were subsequently excluded (stage 5). Finally, 36 papers eligible for inclusion were assessed for internal validity and critically appraised (stage 6). The quality assessment was based on the checklists used by the British Medical Journal to assist referees in appraising full and partial economic analyses (see Appendix 11 in the full version of the original guideline).

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Meta-Analysis of Randomized Controlled Trials
Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Mental Health (NCCMH) on behalf of the National Institute for Health and Clinical Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

Data Extraction

Outcome data were extracted from all eligible studies, which met the minimum quality criteria, using Review Manager 4.2.10 (The Nordic Cochrane Centre, 2003) or Review Manager 5 (The Nordic Cochrane Centre, 2008).

For each major area reviewed, the GDG distinguished between outcomes that they considered critical and ones that are important but not critical for the purposes of updating the guideline. Only critical outcomes were initially extracted for data analysis (further details about the critical outcomes can be found in the review protocols in each evidence chapter).

In most circumstances, for a given outcome (continuous and dichotomous), where more than 50% of the number randomised to any group were lost to follow up, the data were excluded from the analysis (except for the outcome 'leaving the study early', in which case, the denominator was the number randomised). Where possible, dichotomous efficacy outcomes were calculated on an intention-to-treat basis (that is, a 'once-randomised-always-analyse' basis). Where there was good evidence that those participants who ceased to engage in the study were likely to have an unfavourable outcome, early withdrawals were included in both the numerator and denominator. Adverse events were entered into Review Manager as reported by the study authors because it was usually not possible to determine whether early withdrawals had an unfavourable outcome. Where there was limited data for a particular review, the 50% rule was not applied. In these circumstances the evidence was downgraded due to the risk of bias.

Where necessary, standard deviations were calculated from, standard errors, confidence intervals or p-values according to standard formulae (see the Cochrane Reviewers' Handbook 4.2.2.). Data were summarised using the generic inverse variance method using Review Manager.

Consultation with another reviewer or members of the GDG was used to overcome difficulties with coding. Data from studies included in existing systematic reviews were extracted independently by one reviewer and cross-checked with the existing data set. Where possible, data extracted by one reviewer was checked by a second reviewer. Disagreements were resolved with discussion. Where consensus could not be reached, a third reviewer or GDG members resolved the disagreement. Masked assessment (that is, blind to the journal from which the article comes, the authors, the institution and the magnitude of the effect) was not used since it is unclear that doing so reduces bias.

Synthesising the Evidence

Where possible, meta-analysis was used to synthesise the evidence using Review Manager. If necessary, re-analyses of the data or sub-analyses were used to answer clinical questions not addressed in the original studies or reviews.

Dichotomous outcomes were analysed as relative risks (RR) with the associated 95% confidence interval (CI) (for an example, see Figure 1 in the full version of the original guideline).

Continuous outcomes were analysed as weighted mean differences (WMD), or as a standardised mean difference (SMD) when different measures were used in different studies to estimate the same underlying effect (for an example, see Figure 2 in the full version of the original guideline). If provided, intention-to-treat data, using a method such as 'last observation carried forward', were preferred over data from completers.

To check for consistency between studies, both the X^2 test of heterogeneity and a visual inspection of the forest plots were used. The X^2 statistic describes the proportion of total variation in study estimates that is due to heterogeneity. The X^2 statistic was interpreted in the follow way:

- >50%: notable heterogeneity (an attempt was made to explain the variation by conducting sub-analyses to examine potential moderators. In addition, studies with effect sizes greater than two standard deviations from the mean of the remaining studies were excluded using sensitivity analyses. If studies with heterogeneous results were found to be comparable with regard to study and participant characteristics, a random-effects model was used to summarise the results. In the random-effects analysis, heterogeneity is accounted for both in the width of CIs and in the estimate of the treatment effect. With decreasing heterogeneity the random-effects approach moves asymptotically towards a fixed-effects model)
- 30 to 50%: moderate heterogeneity (both the chi-squared test of heterogeneity and a visual inspection of the forest plot were used to decide between a fixed and random-effects model)
- <30%: mild heterogeneity (a fixed-effects model was used to synthesise the results).

Data Extraction of Health Economics Data

Data were extracted by the health economist using a standard economic data extraction form (see Appendix 12 of the full version of the original guideline.)

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus
Informal Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Mental Health (NCCMH) on behalf of the National Institute for Health and Clinical Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

The Guideline Development Group (GDG)

The Schizophrenia GDG consisted of: professionals in psychiatry, psychiatric pharmacy, clinical psychology, nursing, arts therapies and general practice; academic experts in psychiatry and psychology; service users and a carer. The guideline development process was supported by staff from the NCCMH, who undertook the clinical and health economics literature searches, reviewed and presented the evidence to the GDG, managed the process, and contributed to drafting the guideline.

Guideline Development Group Meetings

Fourteen GDG meetings were held between June 2007 and December 2008. During each day-long GDG meeting, in a plenary session, clinical questions and clinical and economic evidence were reviewed and assessed, and recommendations formulated. At each meeting, all GDG members declared any potential conflicts of interest, and service user and carer concerns were routinely discussed as part of a standing agenda.

Topic Groups

The GDG divided its workload along clinically relevant lines to simplify the guideline development process, and GDG members formed smaller topic groups to undertake guideline work in that area of clinical practice. Four topic groups were formed to cover: 1) pharmacology interventions, 2) psychological and psychosocial interventions, 3) access and engagement with services, and 4) primary and physical health care. These groups were designed to efficiently manage the large volume of evidence appraisal prior to presenting it to the GDG as a whole. Each topic group was chaired by a GDG member with expert knowledge of the topic area (one of the healthcare professionals). Topic groups refined the clinical questions, refined the clinical definitions of treatment interventions, reviewed and prepared the evidence with the systematic reviewer before presenting it to the GDG as a whole and helped the GDG to identify further expertise in the topic. Topic group leaders reported the status of the group's work as part of the standing agenda. They also introduced and led the GDG discussion of the evidence review for that topic and assisted the GDG Chair in drafting the section of the guideline relevant to the work of each topic group.

Service Users and Carers

Individuals with direct experience of services gave an integral service-user focus to the GDG and the guideline. The GDG included two service users and a carer. They contributed as full GDG members to writing the clinical questions, helping to ensure that the evidence addressed their views and preferences, highlighting sensitive issues and terminology relevant to the guideline, and bringing service-user research to the attention of the GDG. In drafting the guideline, they contributed to writing the guideline's introduction and identified recommendations from the service user and carer perspective.

Special Advisors

Special advisors, who had specific expertise in one or more aspects of treatment and management relevant to the guideline, or provided expertise in methodological aspects of evidence synthesis, assisted the GDG, commenting on specific aspects of the developing guideline and, where necessary, making presentations to the GDG. Appendix 3 in the full version of the original guideline lists those who agreed to act as special advisors.

National and International Experts

National and international experts in the area under review were identified through the literature search and through the experience of the GDG members. These experts were contacted to recommend unpublished or soon-to-be published studies in order to ensure up-to-date evidence was included in the development of

the guideline. They informed the group about completed trials at the pre-publication stage, systematic reviews in the process of being published, studies relating to the cost effectiveness of treatment and trial data if the GDG could be provided with full access to the complete trial report. Appendix 5 of the full version of the guideline lists researchers who were contacted.

Forming the Clinical Summaries and Recommendations

After the presentation of evidence, members of the topic group discussed whether there was sufficient evidence to change existing recommendations or drafted new recommendations where necessary. One member of the review team in conjunction with the topic group lead then produced a clinical evidence summary based on the topic group discussion.

Method Used to Answer a Clinical Question in the Absence of Appropriately Designed, High-Quality Research

In the absence of appropriately designed, high-quality research, or where the GDG were of the opinion (on the basis of previous searches or their knowledge of the literature) that there were unlikely to be such evidence, an informal consensus process was adopted. This process focused on those questions that the GDG considered a priority.

Informal Consensus

The starting point for the process of informal consensus was that a member of the topic group identified, with help from the systematic reviewer, a narrative review that most directly addressed the clinical question. Where this was not possible, a brief descriptive review of the recent literature was initiated. This existing narrative review or new review was used as a basis for beginning an iterative process to identify lower levels of evidence relevant to the clinical question and to lead to written statements for the guideline. The process involved a number of steps:

- A description of what is known about the issues concerning the clinical question was written by one of the topic group members.
- Evidence from the existing review or new review was then presented to the GDG and further comments were sought about the evidence and its perceived relevance to the clinical question.
- Based on the feedback from the GDG, additional information was sought and added to the information collected. This may include studies that did not directly address the clinical question. but were thought to contain relevant data.
- If, during the course of preparing the report, a significant body of primary-level studies (of appropriate design to answer the question) were identified, a full systematic review was done.
- At this time, subject possibly to further reviews of the evidence, a series of statements that directly addressed the clinical question were developed.
- Following this, on occasions and as deemed appropriate by the development group, the report was then sent to appointed experts outside of the GDG for peer review and comment. The information from this process was then fed back to the GDG for further discussion of the statements.

- Recommendations were then developed and could also be sent for further external peer review.
- After this final stage of comment, the statements and recommendations were again reviewed and agreed upon by the GDG.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

Economic Evidence

The economic evidence identified by the health economics systematic review is summarised in the respective chapters of the full version of the original guideline, following presentation of the clinical evidence. The references to included studies and to those potentially eligible that were excluded at stage 5 of the review, as well as the evidence tables with the characteristics and results of economic studies included in the review, are provided in Appendix 14 of the original guideline. Methods and results of economic modelling on psychological therapies/psychosocial interventions are reported in the respective economic sections of chapter 8 of the full-text guideline. Methods and results of economic modelling on pharmacological interventions aiming at prevention of relapse in people with schizophrenia are presented in chapter 7.

Economic Modelling

The systematic search of economic literature identified a number of studies on pharmacological treatments for the management of schizophrenia, of varying quality and relevance to the **United Kingdom** (UK) setting. Results were characterised, in most cases, by high uncertainty and various levels of inconsistency. The number of **antipsychotic** medications assessed in this literature was limited and did not include the whole range of drugs available in the UK for the treatment of people with schizophrenia. These findings pointed to the need for de novo economic modelling for this guideline. The objective of economic modelling was to explore the relative cost effectiveness of antipsychotic medications for people with schizophrenia in the current UK clinical setting, using up-to-date appropriate information on costs and clinical outcomes, and attempting to include a wider choice of antipsychotic drugs than that examined in the existing economic literature as well as to overcome at least some of the limitations of previous models. Details on the guideline systematic review of economic literature on pharmacological interventions for people with schizophrenia are provided in chapter 6 (section 6.9.1) of the full version of the original guideline document.

Conclusions

The economic analysis undertaken for this guideline showed that zotepine may be potentially the most cost-effective antipsychotic medication among those assessed for relapse prevention in people with schizophrenia that is in remission. However, results were characterised by high uncertainty and probabilistic analysis showed that no antipsychotic medication can be considered clearly cost-effective

compared to the other options included in the assessment: the probability of each intervention being cost-effective ranged from roughly 5% (haloperidol) to about 27-30% (zotepine), and was independent of the cost effectiveness threshold used and the time horizon of the analysis (that is, 10 years or lifetime). The probability of 27-30% assigned to zotepine, although indicative, is rather low and inadequate to lead to a safe conclusion on zotepine's superiority over the other antipsychotic medications assessed in terms of cost effectiveness. In addition, clinical data for zotepine in the area of relapse prevention (as well as for paliperidone and aripiprazole) came from a single placebo-controlled trial. Data on side effects were not comprehensive; in particular data on the risk for diabetes and glucose intolerance associated with use of antipsychotic medications were sparse, so that the impact of the risk for diabetes and its complications on the relative cost effectiveness of antipsychotic drugs could not be accurately determined. It has to be noted, though, that the estimated rates of side effects considered in the analysis did not significantly affect the cost effectiveness results. Further research is needed on the benefits and patterns of use of antipsychotic medications in the area of relapse prevention in people with schizophrenia that is in remission, as well as on the rates of associated long-term metabolic side effects, in order to address the uncertainty characterising the results of the economic analysis. Moreover, clinical data in the area of relapse prevention are needed for quetiapine and first-generation antipsychotics (FGAs) other than haloperidol, to enable a more comprehensive assessment of the relative cost effectiveness of antipsychotic medications in relapse prevention for people with schizophrenia that is in remission. See Chapter 7, "Economic model – cost effectiveness of pharmacological interventions for people with schizophrenia," of the full version of the original guideline document for further details.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Registered stakeholders had an opportunity to comment on the draft guideline, which was posted on the National Institute for Health and Clinical Excellence (NICE) website during the consultation period. Following the consultation, all comments from stakeholders and others were responded to, and the guideline updated as appropriate. The Guideline Review Panel also reviewed the guideline and checked that stakeholders' comments had been addressed. Following the consultation period, the Guideline Development Group (GDG) finalised the recommendations and the National Collaborating Centre for Mental Health (NCCMH) produced the final documents. These were then submitted to NICE. NICE then formally approved the guideline and issued its guidance to the National Health Service in England and Wales.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Mental Health (NCCMH) on behalf of the National Institute for Health and Clinical Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

Care Across All Phases

Optimism

Work in partnership with people with schizophrenia and their carers. Offer help, treatment and care in an atmosphere of hope and optimism. Take time to build supportive and empathic relationships as an essential part of care.

Race, Culture and Ethnicity

The following recommendations apply to all people with schizophrenia and their carers. However, people from black and minority ethnic (BME) groups with schizophrenia are more likely than people from other groups to be disadvantaged or to have impaired access and/or engagement with mental health services. Their particular needs may be addressed by the following recommendations.

When working with people with schizophrenia and their carers:

- Avoid using clinical language, or keep it to a minimum
- Ensure that comprehensive written information is available in the appropriate language and in audio format if possible
- Provide and work proficiently with interpreters if needed
- Offer a list of local education providers who can provide English language teaching for people who have difficulties speaking and understanding English

Healthcare professionals inexperienced in working with people with schizophrenia from diverse ethnic and cultural backgrounds should seek advice and supervision from healthcare professionals who are experienced in working transculturally.

Healthcare professionals working with people with schizophrenia should ensure they are competent in:

- Assessment skills for people from diverse ethnic and cultural backgrounds
- Using explanatory models of illness for people from diverse ethnic and cultural backgrounds
- Explaining the causes of schizophrenia and treatment options
- Addressing cultural and ethnic differences in treatment expectations and adherence
- Addressing cultural and ethnic differences in beliefs regarding biological, social and family influences on the causes of abnormal mental states
- Negotiating skills for working with families of people with schizophrenia
- Conflict management and conflict resolution

Mental health services should work with local voluntary BME groups to jointly ensure that culturally appropriate psychological and psychosocial treatment,

consistent with this guideline and delivered by competent practitioners, is provided to people from diverse ethnic and cultural backgrounds.

Getting Help Early

Healthcare professionals should facilitate access as soon as possible to assessment and treatment, and promote early access throughout all phases of care.

Assessment

Ensure that people with schizophrenia receive a comprehensive multidisciplinary assessment, including a psychiatric, psychological and physical health assessment. The assessment should also address the following:

- Accommodation
- Culture and ethnicity
- Economic status
- Occupation and education (including employment and functional activity)
- Prescribed and non-prescribed drug history
- Quality of life
- Responsibility for children
- Risk of harm to self and others
- Sexual health
- Social networks

Routinely monitor for other coexisting conditions, including depression and anxiety, particularly in the early phases of treatment.

Comprehensive Services Provision

All teams providing services for people with schizophrenia should offer a comprehensive range of interventions consistent with this guideline.

All teams providing services for people with schizophrenia should offer social, group and physical activities to people with schizophrenia (including in inpatient settings) and record arrangements in their care plan.

Working in Partnership with Carers

When working with carers of people with schizophrenia:

- Provide written and verbal information on schizophrenia and its management, including how families and carers can help through all phases of treatment
- Offer them a carer's assessment
- Provide information about local carer and family support groups and voluntary organisations, and help carers to access these
- Negotiate confidentiality and information sharing between the service user and their carers, if appropriate
- Assess the needs of any children in the family, including young carers

Consent, Capacity and Treatment Decisions

Before each treatment decision is taken, healthcare professionals should ensure that they:

- Provide service users and carers with full, patient-specific information in the appropriate format about schizophrenia and its management, to ensure informed consent before starting treatment
- Understand and apply the principles underpinning the Mental Capacity Act, and are aware that mental capacity is decision specific (that is, if there is doubt about mental capacity, assessment of mental capacity should be made in relation to each decision)
- Can assess mental capacity, if this is in doubt, using the test set out in the Mental Capacity Act

These principles should apply whether or not people are being detained or treated under the Mental Health Act and are especially important for people from BME groups.

When the Mental Health Act is used, inform service users of their right to appeal to a first-tier tribunal (mental health). Support service users who choose to appeal.

Advance Decisions and Statements

Advance decisions and advance statements should be developed collaboratively with people with schizophrenia, especially if their illness is severe and they have been treated under the Mental Health Act. Record the decisions and statements and include copies in the care plan in primary and secondary care. Give copies to the service user and their care coordinator, and their carer if the service user agrees.

Advance decisions and advance statements should be honoured in accordance with the Mental Capacity Act. Although decisions can be overridden using the Mental Health Act, healthcare professionals should endeavour to honour advance decisions and statements wherever possible.

Second Opinion

A decision by the service user, and carer where appropriate, to seek a second opinion on the diagnosis should be supported, particularly in view of the considerable personal and social consequences of being diagnosed with schizophrenia.

Transfer Between Services

Discuss transfer from one service to another in advance with the service user, and carer if appropriate. Use the care programme approach (CPA) to help ensure effective collaboration with other care providers during transfer. Include details of how to access services in times of crisis.

Initiation of Treatment (First Episode)

Early Referral

Urgently refer all people with first presentation of psychotic symptoms in primary care to a local community-based secondary mental health service (for example, crisis resolution and home treatment team, early intervention service, community mental health team). Referral to early intervention services may be from primary or secondary care. The choice of team should be determined by the stage and severity of illness and the local context.

Carry out a full assessment of people with psychotic symptoms in secondary care, including an assessment by a psychiatrist. Write a care plan in collaboration with the service user as soon as possible. Send a copy to the primary healthcare professional who made the referral and the service user.

Include a crisis plan in the care plan, based on a full risk assessment. The crisis plan should define the role of primary and secondary care and identify the key clinical contacts in the event of an emergency or impending crisis.

Early Intervention Services

Offer early intervention services to all people with a first episode or first presentation of psychosis, irrespective of the person's age or the duration of untreated psychosis. Referral to early intervention services may be from primary or secondary care.

Early intervention services should aim to provide a full range of relevant pharmacological, psychological, social, occupational and educational interventions for people with psychosis, consistent with this guideline.

Early Treatment

If it is necessary for a general practitioner (GP) to start antipsychotic medication, they should have experience in treating and managing schizophrenia. Antipsychotic medication should be given as described below.

Pharmacological Intervention

For people with newly diagnosed schizophrenia, offer oral antipsychotic medication. Provide information and discuss the benefits and side-effect profile of each drug with the service user. The choice of drug should be made by the service user and healthcare professional together, considering:

- The relative potential of individual antipsychotic drugs to cause extrapyramidal side effects (including akathisia), metabolic side effects (including weight gain) and other side effects (including unpleasant subjective experiences)
- The views of the carer if the service user agrees

Before starting antipsychotic medication, offer the person with schizophrenia an electrocardiogram (ECG) if:

- Specified in the Summary of Product Characteristics (SPC)
- A physical examination has identified specific cardiovascular risk (such as diagnosis of high blood pressure)
- There is personal history of cardiovascular disease
- The service user is being admitted as an inpatient

Treatment with antipsychotic medication should be considered an explicit individual therapeutic trial. Include the following:

- Record the indications and expected benefits and risks of oral antipsychotic medication, and the expected time for a change in symptoms and appearance of side effects.
- At the start of treatment give a dose at the lower end of the licensed range and slowly titrate upwards within the dose range given in the British National Formulary (BNF) or SPC.
- Justify and record reasons for dosages outside the range given in the BNF or SPC.
- Monitor and record the following regularly and systematically throughout treatment, but especially during titration:
    - Efficacy, including changes in symptoms and behaviour
    - Side effects of treatment, taking into account overlap between certain side effects and clinical features of schizophrenia, for example the overlap between akathisia and agitation or anxiety
    - Adherence
    - Physical health
- Record the rationale for continuing, changing or stopping medication, and the effects of such changes.
- Carry out a trial of the medication at optimum dosage for 4–6 weeks.

Discuss any non-prescribed therapies the service user wishes to use (including complementary therapies) with the service user, and carer if appropriate. Discuss the safety and efficacy of the therapies, and possible interference with the therapeutic effects of prescribed medication and psychological treatments.

Discuss the use of alcohol, tobacco, prescription and non-prescription medication and illicit drugs with the service user, and carer if appropriate. Discuss their possible interference with the therapeutic effects of prescribed medication and psychological treatments.

'As required' (p.r.n.) prescriptions of antipsychotic medication should be made as described above. Review clinical indications, frequency of administration, therapeutic benefits and side effects each week or as appropriate. Check whether 'p.r.n.' prescriptions have led to a dosage above the maximum specified in the BNF or SPC.

Do not use a loading dose of antipsychotic medication (often referred to as 'rapid neuroleptisation').

Do not initiate regular combined antipsychotic medication, except for short periods (for example, when changing medication).

If prescribing chlorpromazine, warn of its potential to cause skin photosensitivity. Advise using sunscreen if necessary.

Treatment of the Acute Episode

Service-Level Interventions

Consider community mental health teams alongside other community-based teams as a way of providing services for people with schizophrenia.

Crisis resolution and home treatment teams should be used to support people with schizophrenia during an acute episode in the community. Teams should pay particular attention to risk monitoring as a high-priority routine activity.

Crisis resolution and home treatment teams should be considered for people with schizophrenia who may benefit from early discharge from hospital following a period of inpatient care.

Acute day hospitals should be considered alongside crisis resolution and home treatment teams as an alternative to acute admission to inpatient care and to help early discharge from inpatient care.

Pharmacological Interventions

For people with an acute exacerbation or recurrence of schizophrenia, offer oral antipsychotic medication. The choice of drug should be influenced by the same criteria recommended for starting treatment (see "Pharmacological Interventions" under "Initiation of Treatment [First Episode]" above). Take into account the clinical response and side effects of the service user's current and previous medication.

Rapid Tranquillisation

Occasionally people with schizophrenia pose an immediate risk to themselves or others during an acute episode and may need rapid tranquillization. The management of immediate risk should follow the relevant NICE guidelines.

Follow the recommendations in 'Violence' (see the NGC summary of the NICE guideline Violence: the short-term management of disturbed/violent behaviour in psychiatric in-patient settings and emergency departments) when facing imminent violence or when considering rapid tranquillization.

After rapid tranquillisation, offer the person with schizophrenia the opportunity to discuss their experiences. Provide them with a clear explanation of the decision to use urgent sedation. Record this in their notes.

Follow the recommendations in 'Self-harm'(see the NGC summary of the NICE guideline Self-harm: the short-term physical and psychological management and

secondary prevention of self-harm in primary and secondary care) when managing acts of self-harm in people with schizophrenia.

Psychological and Psychosocial Interventions

Offer cognitive behavioural therapy (CBT) to all people with schizophrenia. This can be started either during the acute phase or later, including in inpatient settings. (Note: CBT should be delivered as described in the section below titled "Delivering Psychological Interventions.")

Offer family intervention to all families of people with schizophrenia who live with or are in close contact with the service user. This can be started either during the acute phase or later, including inpatient settings. (Note: Family intervention should be delivered as described in the section below titled "Delivering Psychological Interventions.")

Consider offering arts therapies to all people with schizophrenia, particularly for the alleviation of negative symptoms. This can be started either during the acute phase or later, including in inpatient settings or later, including in inpatient settings.

Do not routinely offer counselling and supportive psychotherapy (as specific interventions) to people with schizophrenia. However, take service user preferences into account, especially if other more efficacious psychological treatments, such as CBT, family intervention and arts therapies, are not available locally.

Do not offer adherence therapy (as a specific intervention) to people with schizophrenia.

Do not routinely offer social skills training (as a specific intervention) to people with schizophrenia.

Principles for Providing Psychological Interventions

When providing psychological interventions, routinely and systematically monitor a range of outcomes across relevant areas, including service user satisfaction and, if appropriate, carer satisfaction.

Healthcare teams working with people with schizophrenia should identify a lead healthcare professional within the team whose responsibility is to monitor and review:

- Access to and engagement with psychological interventions
- Decisions to offer psychological interventions and equality of access across different ethnic groups

Healthcare professionals providing psychological interventions should:

- Have an appropriate level of competence in delivering the intervention to people with schizophrenia

- Be regularly supervised during psychological therapy by a competent therapist and supervisor

Trusts should provide access to training that equips healthcare professionals with the competencies required to deliver the psychological therapy interventions recommended in this guideline.

When psychological treatments, including arts therapies, are started in the acute phase (including in inpatient settings), the full course should be continued after discharge without unnecessary interruption.

Delivering Psychological Interventions

CBT should be delivered on a one-to-one basis over at least 16 planned sessions and:

- Follow a treatment manual (treatment manuals that have evidence for their efficacy from clinical trials are preferred) so that:
    - People can establish links between their thoughts, feelings or actions and their current or past symptoms, and/or functioning
    - The re-evaluation of people's perceptions, beliefs or reasoning relates to the target symptoms
- Also include at least one of the following components:
    - People monitoring their own thoughts, feelings or behaviours with respect to their symptoms or recurrence of symptoms
    - Promoting alternative ways of coping with the target symptom
    - Reducing distress
    - Improving functioning

Family intervention should:

- Include the person with schizophrenia if practical
- Be carried out for between 3 months and 1 year
- Include at least 10 planned sessions
- Take account of the whole family's preference for either single-family intervention or multi-family group intervention
- Take account of the relationship between the main carer and the person with schizophrenia
- Have a specific supportive, educational or treatment function and include negotiated problem solving or crisis management work

Arts therapies should be provided by a Health Professions Council (HPC) registered arts therapist, with previous experience of working with people with schizophrenia. The intervention should be provided in groups unless difficulties with acceptability and access and engagement indicate otherwise. Arts therapies should combine psychotherapeutic techniques with activity aimed at promoting creative expression, which is often unstructured and led by the service user. Aims of arts therapies should include:

- Enabling people with schizophrenia to experience themselves differently and to develop new ways of relating to others

- Helping people to express themselves and to organise their experience into a satisfying aesthetic form
- Helping people to accept and understand feelings that may have emerged during the creative process (including, in some cases, how they came to have these feelings) at a pace suited to the person

Early Post-Acute Period

In the early period of recovery following an acute episode, service users and healthcare professionals will need to jointly reflect upon the acute episode and its impact, and make plans for future care.

After each acute episode, encourage people with schizophrenia to write an account of their illness in their notes.

Healthcare professionals may consider using psychoanalytic and psychodynamic principles to help them understand the experiences of people with schizophrenia and their interpersonal relationships.

Inform the service user that there is a high risk of relapse if they stop medication in the next 1–2 years.

If withdrawing antipsychotic medication, undertake gradually and monitor regularly for signs and symptoms of relapse.

After withdrawal from antipsychotic medication, continue monitoring for signs and symptoms of relapse for at least 2 years.

Promoting Recovery

Primary Care

Develop and use practice case registers to monitor the physical and mental health of people with schizophrenia in primary care.

GPs and other primary healthcare professionals should monitor the physical health of people with schizophrenia at least once a year. Focus on cardiovascular disease risk assessment as described in 'Lipid modification' (NICE clinical guideline 67) but bear in mind that people with schizophrenia are at higher risk of cardiovascular disease than the general population. A copy of the results should be sent to the care coordinator and/or psychiatrist, and put in the secondary care notes.

People with schizophrenia at increased risk of developing cardiovascular disease and/or diabetes (for example, with elevated blood pressure, raised lipid levels, smokers, increased waist measurement) should be identified at the earliest opportunity. Their care should be managed using the appropriate NICE guidance for prevention of these conditions. (Note: See 'Lipid modification', and the NGC summary of the NICE guideline Type 1 diabetes in adults, Type 2 diabetes. Further guidance about treating cardiovascular disease and diabetes is available from http://www.nice.org.uk).

Treat people with schizophrenia who have diabetes and/or cardiovascular disease in primary care according to the appropriate NICE guidance. (See previous note)

Healthcare professionals in secondary care should ensure, as part of the CPA, that people with schizophrenia receive physical healthcare from primary care as previously described.

When a person with an established diagnosis of schizophrenia presents with a suspected relapse (for example, with increased psychotic symptoms or a significant increase in the use of alcohol or other substances), primary healthcare professionals should refer to the crisis section of the care plan. Consider referral to the key clinician or care coordinator identified in the crisis plan.

For a person with schizophrenia being cared for in primary care, consider referral to secondary care again if there is:

- Poor response to treatment
- Non-adherence to medication
- Intolerable side effects from medication
- Comorbid substance misuse
- Risk to self or others

When re-referring people with schizophrenia to mental health services, take account of service user and carer requests, especially for:

- Review of the side effects of existing treatments
- Psychological treatments or other interventions

When a person with schizophrenia is planning to move to the catchment area of a different National Health Service (NHS) trust, a meeting should be arranged between the services involved and the service user to agree a transition plan before transfer. The person's current care plan should be sent to the new secondary care and primary care providers.

Service-Level Interventions

Assertive outreach teams should be provided for people with serious mental disorders, including for people with schizophrenia, who make high use of inpatient services and who have a history of poor engagement with services leading to frequent relapse and/or social breakdown (as manifest by homelessness or seriously inadequate accommodation).

Psychological Interventions

Offer CBT to assist in promoting recovery in people with persisting positive and negative symptoms and for people in remission. Deliver CBT as described in "Delivering Psychological Interventions" above.

Offer family intervention to families of people with schizophrenia who live with or are in close contact with the service user. Deliver family intervention as described in "Delivering Psychological Interventions" above.

Family intervention may be particularly useful for families of people with schizophrenia who have:

- Recently relapsed or are at risk of relapse
- Persisting symptoms

Consider offering arts therapies to assist in promoting recovery, particularly in people with negative symptoms.

Pharmacological Interventions

The choice of drug should be influenced by the same criteria recommended for starting treatment (see "Pharmacological Interventions" under "initiation of Treatment [First Episode]" above).

Do not use targeted, intermittent dosage maintenance strategies (defined as the use of antipsychotic medication only during periods of incipient relapse or symptom exacerbation rather than continuously) routinely. However, consider them for people with schizophrenia who are unwilling to accept a continuous maintenance regimen or if there is another contraindication to maintenance therapy, such as side-effect sensitivity.

Consider offering depot/long-acting injectable antipsychotic medication to people with schizophrenia:

- Who would prefer such treatment after an acute episode
- Where avoiding covert non-adherence (either intentional or unintentional) to antipsychotic medication is a clinical priority within the treatment plan

Using Depot/Long-Acting Injectable Antipsychotic Medication

When initiating depot/long-acting injectable antipsychotic medication:

- Take into account the service user's preferences and attitudes towards the mode of administration (regular intramuscular injections) and organisational procedures (for example, home visits and location of clinics)
- Take into account the same criteria recommended for the use of oral antipsychotic medication (see "Pharmacological Interventions" under "initiation of Treatment (First Episode)" above) particularly in relation to the risks and benefits of the drug regimen
- Initially use a small test dose as set out in the BNF or SPC

Interventions for People with Schizophrenia Whose Illness Has Not Responded Adequately to Treatment

For people with schizophrenia whose illness has not responded adequately to pharmacological or psychological treatment:

- Review the diagnosis
- Establish that there has been adherence to antipsychotic medication, prescribed at an adequate dose and for the correct duration

- Review engagement with and use of psychological treatments and ensure that these have been offered according to this guideline. If family intervention has been undertaken suggest CBT; if CBT has been undertaken suggest family intervention for people in close contact with their families
- Consider other causes of non-response, such as comorbid substance misuse (including alcohol), the concurrent use of other prescribed medication or physical illness

Offer clozapine to people with schizophrenia whose illness has not responded adequately to treatment despite the sequential use of adequate doses of at least two different antipsychotic drugs. At least one of the drugs should be a non-clozapine second-generation antipsychotic.

For people with schizophrenia whose illness has not responded adequately to clozapine at an optimised dose, healthcare professionals should consider the bullet points above (including measuring therapeutic drug levels) before adding a second antipsychotic to augment treatment with clozapine. An adequate trial of such an augmentation may need to be up to 8–10 weeks. Choose a drug that does not compound the common side effects of clozapine.

Employment, Education and Occupational Activities

Supported employment programmes should be provided for those people with schizophrenia who wish to return to work or gain employment. However, they should not be the only work-related activity offered when individuals are unable to work or are unsuccessful in their attempts to find employment.

Mental health services should work in partnership with local stakeholders, including those representing BME groups, to enable people with mental health problems, including schizophrenia, to access local employment and educational opportunities. This should be sensitive to the person's needs and skill level and is likely to involve working with agencies such as Jobcentre Plus, disability employment advisers and non-statutory providers.

Routinely record the daytime activities of people with schizophrenia in their care plans, including occupational outcomes.

Return to Primary Care

Offer people with schizophrenia whose symptoms have responded effectively to treatment and remain stable the option to return to primary care for further management. If a service user wishes to do this, record this in their notes and coordinate transfer of responsibilities through the CPA.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

Recommendations are based on clinical and cost effectiveness evidence, and where this is insufficient, the Guideline Development Group (GDG) used all available information sources and experience to make consensus recommendations.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Consistent and improved quality of care and outcomes for people with schizophrenia

POTENTIAL HARMS

Individual antipsychotic drugs can cause extrapyramidal side effects (including akathisia), metabolic side effects (including weight gain) and other side effects (including unpleasant subjective experiences).

CONTRAINDICATIONS

CONTRAINDICATIONS

Antipsychotic agent maintenance therapy is contraindicated in patients with side-effect sensitivity.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- This guidance represents the view of the National Institute for Health and Clinical Excellence (NICE), which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. However, the guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer, and informed by the summary of product characteristics of any drugs they are considering.
- Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to avoid unlawful discrimination and to have regard to promoting equality of opportunity. Nothing in this guidance should be interpreted in a way that would be inconsistent with compliance with those duties.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

General

The Healthcare Commission assesses how well National Health Service (NHS) organisations meet core and developmental standards set by the Department of Health in 'Standards for better health' (available from www.dh.gov.uk). Implementation of clinical guidelines forms part of the developmental standard D2. Core standard C5 says that NHS organisations should take into account national agreed guidance when planning and delivering care.

The National Institute for Health and Clinical Excellence (NICE) has developed tools to help organisations implement this guidance (listed below). These are available on the website (http://guidance.nice.org.uk/CG82; see also the "Availability of Companion Documents" field).

- Slides highlighting key messages for local discussion
- Costing tools:
    - National costing statement-gives some financial background and context to the guideline
    - Costing template to estimate the local costs and savings involved
- Audit support for monitoring local practice

Key Priorities for Implementation

Access and Engagement

- Healthcare professionals working with people with schizophrenia should ensure they are competent in:
    - Assessment skills for people from diverse ethnic and cultural backgrounds
    - Using explanatory models of illness for people from diverse ethnic and cultural backgrounds
    - Explaining the causes of schizophrenia and treatment options
    - Addressing cultural and ethnic differences in treatment expectations and adherence
    - Addressing cultural and ethnic differences in beliefs regarding biological, social and family influences on the causes of abnormal mental states
    - Negotiating skills for working with families of people with schizophrenia
    - Conflict management and conflict resolution
- Mental health services should work in partnership with local stakeholders, including those representing black and minority ethnic (BME) groups, to enable people with mental health problems, including schizophrenia, to access local employment and educational opportunities. This should be sensitive to the person's needs and skill level and is likely to involve working with agencies such as Jobcentre Plus, disability employment advisers and non-statutory providers.
- Healthcare teams working with people with schizophrenia should identify a lead healthcare professional within the team whose responsibility is to monitor and review:
    - Access to and engagement with psychological interventions
    - Decisions to offer psychological interventions and equality of access across different ethnic groups

Primary Care and Physical Health

- General Practitioners and other primary healthcare professionals should monitor the physical health of people with schizophrenia at least once a year. Focus on cardiovascular disease risk assessment as described in 'Lipid modification' (NICE clinical guideline 67) but bear in mind that people with schizophrenia are at higher risk of cardiovascular disease than the general population. A copy of the results should be sent to the care coordinator and/or psychiatrist, and put in the secondary care notes.

Psychological Interventions

- Offer cognitive behavioural therapy (CBT) to all people with schizophrenia. This can be started either during the acute phase or later, including in inpatient settings.
- Offer family intervention to all families of people with schizophrenia who live with or are in close contact with the service user. This can be started either during the acute phase or later, including in inpatient settings.

Pharmacological Interventions

- For people with newly diagnosed schizophrenia, offer oral antipsychotic medication. Provide information and discuss the benefits and side-effect profile of each drug with the service user. The choice of drug should be made by the service user and healthcare professional together, considering:
    - The relative potential of individual antipsychotic drugs to cause extrapyramidal side effects (including akathisia), metabolic side effects (including weight gain) and other side effects (including unpleasant subjective experiences)
    - The views of the carer where the service user agrees
- Do not initiate regular combined antipsychotic medication, except for short periods (for example, when changing medication).

Interventions for People with Schizophrenia Whose Illness Has Not Responded Adequately to Treatment

- For people with schizophrenia whose illness has not responded adequately to pharmacological or psychological treatment:
    - Review the diagnosis
    - Establish that there has been adherence to antipsychotic medication, prescribed at an adequate dose and for the correct duration
    - Review engagement with and use of psychological treatments and ensure that these have been offered according to this guideline. If family intervention has been undertaken suggest CBT; if CBT has been undertaken suggest family intervention for people in close contact with their families
    - Consider other causes of non-response, such as comorbid substance misuse (including alcohol), the concurrent use of other prescribed medication or physical illness
- Offer clozapine to people with schizophrenia whose illness has not responded adequately to treatment despite the sequential use of adequate doses of at least two different antipsychotic drugs. At least one of the drugs should be a non-clozapine second-generation antipsychotic.

IMPLEMENTATION TOOLS

Audit Criteria/Indicators
Patient Resources
Quick Reference Guides/Physician Guides
Resources
Slide Presentation

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

National Collaborating Centre for Mental Health. Schizophrenia: core interventions in the treatment and management of schizophrenia in adults in primary and secondary care. London (UK): National Institute for Health and Clinical Excellence (NICE); 2009 Mar. 41 p. (NICE clinical guideline; no. 82).

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2002 Dec (revised 2009 Mar)

GUIDELINE DEVELOPER(S)

National Collaborating Centre for Mental Health - National Government Agency [Non-U.S.]

SOURCE(S) OF FUNDING

National Institute for Health and Clinical Excellence (NICE)

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Guideline Development Group

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

To minimise and manage any potential conflicts of interest, and to avoid any public concern that commercial or other financial interests have affected the work of the Guideline Development Group (GDG) and influenced guidance, members of the GDG must declare as a matter of public record any interests held by themselves or their families which fall under specified categories. These categories include any relationships they have with the healthcare industries, professional organisations and organisations for people with schizophrenia and their families and carers. Individuals invited to join the GDG were asked to declare their interests before being appointed. To allow the management of any potential conflicts of interest that might arise during the development of the guideline, GDG members were also asked to declare their interests at each GDG meeting throughout the guideline development process. The interests of all the members of the GDG are listed in Appendix 2 of the full version of the guideline, including interests declared prior to appointment and during the guideline development process.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: National Collaborating Centre for Mental Health. Schizophrenia: core interventions in the treatment and management of schizophrenia in primary and secondary care. London (UK): National Institute for Clinical Excellence (NICE); 2002. 243 p. [262 references]

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) format from the National Institute for Clinical Excellence (NICE) Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Schizophrenia. Core interventions in the treatment and management of schizophrenia in primary and secondary care (update). Full guideline. London (UK): National Institute for Health and Clinical Excellence (NICE); 2009 Mar. 399 p. (Clinical guideline; no. 82). Electronic copies: Available in Portable Document Format (PDF) format from the National Institute for Health and Clinical Excellence (NICE) Web site.
- Schizophrenia. Core interventions in the treatment and management of schizophrenia in adults in primary and secondary care. Quick reference guide. London (UK): National Institute for Health and Clinical Excellence; 2009 Mar. 16 p. (Clinical guideline; no. 82). Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- Schizophrenia (update). Costing statement. London (UK): National Institute for Health and Clinical Excellence; 2009 Mar. 8 p. (Clinical guideline; no. 82). Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- Schizophrenia (update). Costing tool. London (UK): National Institute for Health and Clinical Excellence; 2009. Various p. (Clinical guideline; no. 82).

Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.

- Schizophrenia. Implementing NICE guidance. Slide set. London (UK): National Institute for Health and Clinical Excellence; 2009. 20 p. (Clinical guideline; no. 82). Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- Schizophrenia. Implementing NICE guidance. Audit support. London (UK): National Institute for Health and Clinical Excellence; 2009. (Clinical guideline; no. 82). Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- The guidelines manual 2007. London (UK): National Institute for Health and Clinical Excellence (NICE); 2007 April. Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.

Print copies: Available from the National Health Service (NHS) Response Line 0870 1555 455. ref: N1823. 11 Strand, London, WC2N 5HR.

Additional accompanying guideline materials can be found from the National Institute for Health and Clinical Excellence (NICE) Web site.

PATIENT RESOURCES

The following is available:

- Schizophrenia. Understanding NICE guidance -Â Information for people who use NHS services. London (UK): National Institute for Health and Clinical Excellence; 2009 Mar. 20 p. (Clinical guideline; no. 82). Electronic copies: Available in Portable Document Format (PDF) from the National Institute for Health and Clinical Excellence (NICE) Web site.

Print copies: Available from the National Health Service (NHS) Response Line 0870 1555 455. ref: N1824. 11 Strand, London, WC2N 5HR.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC STATUS

This summary was updated by ECRI Institute on September 22, 2009.

The National Institute for Health and Clinical Excellence (NICE) has granted the National Guideline Clearinghouse (NGC) permission to include summaries of their clinical guidelines with the intention of disseminating and facilitating the implementation of that guidance. NICE has not yet verified this content to confirm that it accurately reflects that original NICE guidance and therefore no guarantees are given by NICE in this regard. All NICE clinical guidelines are prepared in

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