Quality in Practice

Improving quality of care for depression: the German Action Programme for the implementation of evidence-based guidelines

MARTIN HÄRTER1, ISAAC BERMEJO1, GÜNTER OLLENSCHLÄGER2, FRANK SCHNEIDER3, WOLFGANG GAEBEL4, ULRICH HEGEL5, WILHELM NIEBLING6 AND MATHIAS BERGER1

1Department of Psychiatry and Psychotherapy, Section of Clinical Epidemiology and Health Services Research, University of Freiburg, Freiburg, 2Agency for Quality in Medicine, Berlin, 3Department of Psychiatry and Psychotherapy, RWTH Aachen University, Aachen, 4Department of Psychiatry and Psychotherapy, University of Düsseldorf, Düsseldorf, 5Department of Psychiatry and Psychotherapy, University of Munich, Munich, and 6Department of General Medicine, University of Freiburg, Freiburg, Germany

Abstract

Issue. Depressive disorders are of great medical and political significance. The potential inherent in achieving better guideline orientation and a better collaboration between different types of care is clear. Throughout the 1990s, educational initiatives were started for implementing guidelines. Evidence-based guidelines on depression have been formulated in many countries.

Purpose. This article presents an action programme for structural, educational, and research-related measures to implement evidence-based care of depressive disorders in the German health system. The starting points of the programme are the ‘Guidelines Critical Appraisal Reports’ of the ‘Guideline Clearing House’ and measures from the ‘Competence Network on Depression and Suicidality’ (CNDS) funded by the Federal Ministry of Education and Research. The article gives an overview of the steps achieved as recommended by the Guidelines Critical Appraisal Reports and the ongoing transfer process into the German health care system.

Results. The action programme shows that comprehensive interventions to develop and introduce evidence-based guidelines for depression can achieve benefits in the care of depression, e.g. in recognition, management, and clinical outcome.

Conclusion. It was possible to implement the German Action Programme in selected care settings, and initial evaluation results suggest some improvements. The action programme provides preliminary work, materials, and results for developing a future ‘Disease Management Programme’ (DMP) for depression.

Keywords: depression, evidence-based guidelines, health care system, implementation, quality assurance

Depressive disorders are of great medical and political significance. Approximately 11% of the German population has suffered from a depressive disorder over the past 12 months [1], and the lifetime risk is between 16 and 20%, with a higher prevalence among females [2]. Studies conducted by WHO forecast that unipolar depressions will have a prominent role with respect to restricted quality of life in developed countries over the next decades [3,4].

The potential inherent in producing a better guideline orientation and a better collaboration between different types of care is clear: Only one half of depressed patients are diagnosed as such [4], and only approximately one third of patients receive guideline-recommended pharmaco- or psychotherapy [5]. On the other hand, there are also physician, patient and system-related barriers, e.g. limitations of consultation time, or patients’ reluctance to be treated with pharmacotherapy. Furthermore, physicians may have a low acceptance of guidelines, which impedes the routine, broad use of evidence-based treatment of depression [6,7].

Throughout the 1990s, educational initiatives for implementing guidelines were begun, and evidence-based guidelines on depression have been formulated in many countries. Several countries have initiated national clinical guideline programmes [8]. However, the Hampshire project on guideline-based depression management failed to increase recognition rates or patient recovery [9]. Moreover, criticism has been expressed regarding the common format of guidelines. Therefore, it has recently been proposed that guidelines...
should be rewritten in specific behavioural terms [10]. Although it remains uncertain how clinical guidelines can best be implemented in routine care, the adherence to a multi-level care model by general practitioners (GPs), specialists, and psychotherapists brings about a clear improvement, and specific quality management programmes effectively improve diagnostics and treatment of depression [11].

This article presents a German action programme for structural, educational, and research-related measures, the common objective of which is to depict the anchoring of evidence-based care of depressive disorders in the German health system. The starting points of the programme are the Guidelines Critical Appraisal Reports of the ‘Guideline Clearing House’ [12] and measures from the ‘Competence Network on Depression and Suicidality’ (CNDS) funded by the Federal Ministry of Education and Research (www.kompetenznetz-depression.de).

**German health care system**

The German health care system is based on solidarity and self-government and is contribution financed. The health insurance system is composed of a mixture of statutory and private health insurance programmes covering almost the entire population. Provision of health care services in Germany is divided into the ambulatory (general practice and specialist care), the hospital, and the rehabilitation sector. Patients are free to consult the doctor (general practice or specialist) of their own choice. Except for emergency cases, hospital care requires a referral by a licensed physician. Unlike many other European countries, Germany does not provide its citizens with health care through a centralized state-run system, but via a complex network of public bodies at law and a large number of independent regional and local bodies. A special feature is the important role played by the self-governing bodies of doctors and health insurance funds in the regulation of medical provision. All physicians are mandatory members of their regional Medical Association, which is responsible for title protection, licensing as specialists, professional education, and disciplinary action. Physicians working with statutory health insurance (SHI) organizations in the ambulatory sector have to be licensed by their regional association of SHI physicians, which operates as a regulatory, administrative, and financing body liaising between physicians and the statutory insurance organizations. The hospital associations represent the interests of hospitals. More recently, established bodies include the Federal Joint Committee and the Institute for Quality and Efficiency in Health Care (www.aezq.de/projekte/pdf/countryreport_nivel.pdf).

In consequence, all depressive patients in Germany have full health assurance by their health insurance organization and can choose their own personal health professionals from all accredited health professionals. The patient then goes to his or her health professionals, who will provide treatment to the best of their knowledge, while the health insurance organizations will remunerate the treatment.

**Guideline clearing house**

In 1996, the physicians’ self-governmental bodies (German Medical Association and Federal Association of SHI Physicians) developed a Guidelines Quality Programme for high-quality clinical practice guidelines (CPGs). This consists of a manual (‘Guideline for Guidelines’), the ‘German Instrument for Critical Appraisal of Guidelines’, which were developed in co-operation with the Association of the Scientific Medical Societies, and ‘Guidelines Critical Appraisal Reports’. These reports describe results of clinical practice guidelines critical appraisal projects and the ‘Guideline Clearing House’ (in partnership with the German Hospital Association and the Federal Health Insurance Funds). Major goals are to promote the development, dissemination, implementation and evaluation of CPGs for prior health care topics [12].

**CNDS**

The German CNDS is one of 14 medical research networks established in 1999 and funded by the Federal Ministry of Education and Research (www.kompetenznetz.de). The CNDS links more than 15 university hospitals and other research institutions as well as the most important institutions of the German health care system (health insurance funds, associations of consultant practitioners), scientists, GPs, psychotherapists, self-help groups, and many others. Six main projects, including several subprojects, have been established in recent years. Thematic priorities of the network target prevention and neurobiology of suicidality (project 1), treatment of minor and subthreshold depression (project 2), quality management in diagnosis and treatment (project 3), mechanisms of pharmacological antidepressive therapies (project 4), molecular genetics/pharmacogenetics (project 5), and therapy non-response, chronicity, and its prediction (project 6). Increasing efforts are being undertaken to transfer these results into elements of standard health care, specifically in the framework of project 3.

**Critical Appraisal Project on depression guidelines**

A national depression guideline clearing project was initiated in 2001 by the Guideline Clearing House. The main objectives were to identify and compare evidence-based, high-quality English and German-language depression guidelines as benchmarks for ongoing guideline development and implementation programmes, to disseminate information about depression guidelines developed in accordance with current methodological know-how, and to identify and agree upon key topics for a national evidence-based guideline.

After a systematic search using literature and guideline databases published between 1991 and 2001, and abstract screening according to the inclusion criteria, 21 guidelines were evaluated using the checklist for guideline appraisal [13]. The contents of the guidelines were evaluated through peer review.
The German Action Programme

As there is no single effective way to ensure the use of guidelines in practice, several strategies have to be combined to implement guidelines, including professional interventions like continuing medical education or targeted audits, organizational or financial interventions and regulatory measures [15]. The next sections provide an overview of the steps achieved as recommended by the Expert Panel and the ongoing transfer process into the German health care system.

Action 1—evidence-based guideline for depression

Within the framework of CNDS project 3, clinical practice guidelines for diagnosis and therapy of depression were developed by the research group and an external expert group composed of GPs, psychiatrists, psychotherapists, representatives of the Professional Board of Doctors in Ambulatory Care, representatives of the Health Insurance Providers, patients, and representatives of the relatives. Simultaneously, a pathway for primary care was defined [16]. The development process followed the methodological recommendations of the Association of the Scientific Medical Societies. Published national and international guidelines for depressive disorders, the Critical Appraisal Project Report of the Guidelines Clearing House as well as Cochrane reviews (CR) and quality-assessed reviews (CRD) were used. A close co-operation was also established with the Drug Commission of the German Medical Profession. All the material has been published by medical journals and has been presented at national and international conferences; Web access to these materials is in preparation.

<table>
<thead>
<tr>
<th>Target actions</th>
<th>Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence-based guidelines for depression</td>
<td>Development of national guidelines for depression on the basis of the Critical Appraisal Report, Development of patient information tools (leaflets, decision aids, etc.), Development of training measures, Development of clinical indicators/quality indicators.</td>
</tr>
<tr>
<td>Quality management measures</td>
<td>Development, implementation, and evaluation of quality management measures, Implementation in inpatient and outpatient care (e.g., disease management programmes, integrated care models).</td>
</tr>
<tr>
<td>Public relations</td>
<td>Information and promotion of public awareness for evidence-based measures to prevent and manage depression, Publication of evidence-based patient information material.</td>
</tr>
<tr>
<td>Training and continuous medical education</td>
<td>Integration of results of the critical guideline appraisal within physicians’ academic training, Continuous Medical Education (CME) activities, and quality circles.</td>
</tr>
<tr>
<td>Health services research</td>
<td>Evaluation of guideline implementation and implementation measures through research.</td>
</tr>
<tr>
<td>Monitoring of recommendations</td>
<td>Building up a national monitoring group ‘depression’, Quality control of future guideline development.</td>
</tr>
</tbody>
</table>

by a multidisciplinary focus group of experts in evidence-based medicine. Quality varies widely within the main domains, e.g. precise description of the development process, explicit link between recommendations and supporting evidence, and tools for implementation. The Expert Panel Depression concluded that a national clinical practice guideline could be developed based on existing guidelines. The final report proposed a package of measures to realize these recommendations [14] (Table 1).

Action 2—quality management measures

Quality management measures were necessary to analyse weak points in routine care, detect improvement possibilities, and check implementation of guidelines. Documentation systems for primary as well as for psychiatric outpatient and in-patient care were developed [17,18], consisting of instruments for recording the first consultation/admission, weekly consultations, and discharge. These assess sociodemographic data, diagnosis, disease-specific history, treatment course, and outcome. Included were the Clinical Global Impressions (CGI) and the Global Assessment of Functioning Scale (GAF). Depression scores were rated by the self-rating Patient Health Questionnaire (brief PHQ-D), and by the Beck Depression Inventory (BDI) as well as by expert ratings using the Hamilton Depression Scale (HAM-D). General aspects of patients’ satisfaction were measured by the Client Satisfaction Questionnaire. The documentation tools were positively evaluated by physicians and patients, who tested the instruments in related research projects [18].

Finally, a specific continuous medical education (CME training) system was developed. The programme was designed as a combination of benchmarking, interactive CME sessions and interdisciplinary quality circles [19]. Benchmarking comprises proven elements such as weak point analysis and orientation towards models of best practice. CME training involves training...
for physicians in terms of clinical practice guidelines for diagnosis and treatment. Quality circles aim to reorganize the care of depressed patients and to promote changes in clinical behaviour towards evidence-based procedures.

**Action 3—public relations**

In spite of the high prevalence of mental disorders, studies show that there is a low level of knowledge about them among the general population. For this reason, public relations activities with regional and national mass media (television and radio) as well as many presentations at national and international scientific meetings were conducted to disseminate the clinical guidelines, the implementation and quality management tools. Representative groups of patient organizations and relatives’ organizations were informed or integrated within expert panels. The guidelines, the CME training, and the implementation concept were presented together with the Association of General Practitioners at the meetings of the German Society for Psychiatry, Psychotherapy, and Neurology in 2003 and 2004.

**Action 4—training and CME**

The guideline training programmes developed within CNDS project 3 were implemented in several study regions in Germany involving more than 90 GP and specialist practices and 10 psychiatric hospitals. The training was designed as a combination of interactive, guideline-oriented CME and interdisciplinary quality circles comprising 6–9 sessions within a 12-month period. Following the sessions, participants were asked to evaluate them in terms of their usefulness for the treatment of depressive patients. No direct assessment of knowledge acquisition was performed because the aim of the training programme was to change treatment behaviour under real conditions. Therefore, the treatment of patients before and after the training was documented and analysed (see action 5). The absence of a direct assessment of knowledge acquisition might be a limitation of the study. However, recommended behaviour changes and practice solutions were evaluated during the training sessions. The evaluation of the training programme showed that 70% of the participating GPs and 83% of the specialists were satisfied or very satisfied with the training. Whereas 90% of the GPs evaluated the usefulness for the care of depression as good or very good, only 58% of the psychiatrists did so. On the other hand, psychiatrists reported a greater benefit in networking with GPs [19]. Eighty percentage of the hospital-based training participants reported satisfaction with the guideline training, and 90% wanted the quality circles to remain as a continuous quality management structure.

**Action 5—health services research**

The effects of these guideline programmes and the quality management measures on physicians’ behaviour and patient outcome were investigated in several studies through recording data at various measurement points within the framework of controlled pre-post designs (Figure 1). Main outcomes were awareness and diagnostic sensitivity, adherence to guideline-oriented diagnostics [e.g. use of International classification of diseases (ICD-10) criteria] and therapeutic procedures (e.g. severity-oriented antidepressant treatment, referrals to specialist or in-patient care), patient health status [e.g. depressive symptoms, CGI], life quality [e.g. Short form (SF-12) Health Survey], patient satisfaction, and cost effectiveness.

It was possible to improve the detection rate of depressive disorders in the outpatient intervention group from 29% to 71% among primary care physicians [20]. However, data

![Figure 1](http://intqhc.oxfordjournals.org/)
analyses revealed only small changes in the use of ICD-10 criteria for diagnosing and observing therapeutic measures like medication or referrals. However, the patients of the intervention group showed a higher clinical improvement after the CME training than the patients documented before the CME training and patients of the control group [21,22].

Findings from the in-patient studies underline a high standard of psychiatric treatment of depressed patients [23]. Differences between hospital types concerning treatment duration, guideline adherence, and delivery of evidence-based psychotherapy point to the necessity of individual application of quality management tools. The effects of these interventions are currently under investigation.

**Action 6—monitoring of recommendations**

To reach sustainable changes in the delivery of care and physicians’ behaviour, further structural measures as well as hospital or physician-centred training measures are currently ongoing:

1. The developed care guidelines from the CNDS project will be differentiated by consideration of various subtypes of depressive disorders (e.g. chronic depression, recurrent depression), specific groups of people and setting aspects (e.g. immigrants, older persons, psychotherapeutic care system) as well as different care levels (stepped care model). The result will provide an evidence-based, national guideline for depressive disorders and the creation of evidence-based patient information material as well as associated training measures. This guideline is currently in development within the framework of the National Programme of Clinical Practice Guidelines.

2. A transfer project within the third funding period of the CNDS has been developed. The main goal is the broader dissemination and transfer of the developed guidelines, quality management practice tools, and effective psychotherapeutic intervention in other German regions. Furthermore, a computer-based platform will be developed.

3. The Forum Health Targets programme (www.health-targets.de) is a co-operative project of the Federal Ministry of Health and Social Security with the Association for Social Security Policy and Research. The forum brings together numerous health policy protagonists and develops specific health targets as recommendations to the political sphere. It takes up national and international initiatives on the development of health targets, e.g. from the WHO and from the Federal states and social security institutions. Nine specific work groups, one for depression (started in April 2004), are elaborating recommendations with agreed requirements for health targets. The final results regarding the health targets with specific implementation strategies will be presented to the Federal Ministry of Health and Social Security.

**Conclusions**

The action programme shows that a broad and carefully planned comprehensive intervention to introduce evidence-based guidelines for depression is a promising way to achieve improvements in care. The completed implementation studies challenge other research that was unable to find changes in recognition and clinical outcome [9]. They also challenge studies recommending different approaches for different health care sectors [24]. On the one hand, the main factors responsible for this may be structural and process-related incentives using specific training sessions and target-oriented feedback on the process and outcome of quality (benchmarking). On the other hand, interdisciplinary quality circles with concrete exercises for transferring the guideline-oriented care into routine practice can initiate concrete behaviour modifications [11,19]. However, the evaluation of the studies performed in the frame of this national action programme is not yet concluded, so it has not yet been established precisely how effective the action programme has been.

Nevertheless, based on these preliminary results, a process has now been initiated with the active participation of various stakeholders, GPs, psychiatrists, patients, and professional and trade associations as well as with medical speciality associations to expand these guidelines with respect to national demands. Wider implementation seems to be possible against the background of specific and evaluated documentation systems, evidence-based clinical practice guidelines, evaluated quality assurance measures, and the experience from multi-centre implementation projects [25,26]. Corresponding guideline-oriented reimbursement systems have been outlined, and attempts are being made to utilize them for further improved care of depressed patients [27,28]. Recently, an intersectorial and interdisciplinary framework concept for an integrated care of depressive disorders was developed by relevant trade and professional associations in Germany, defining interfaces and clinical pathways [29]. The framework concept is based upon published clinical practice guidelines and pathways [16,30].

Consequently, the German Action Programme provides important work, materials and results, which are significant for developing a future ‘Disease Management Programme’ (DMP) for depression. These new models of care aim to transfer evidence-based treatment programmes for chronically ill patients into the German health care system. Three programmes for diabetes, breast cancer, and coronary heart disease started recently; DMPs for asthma, chronic obstructive pulmonary disease, and depression may begin in the near future.

Various studies and reviews have shown that multifaceted improvement strategies are needed to implement guidelines. The experience with the German Action Programme provides some novel aspects of interest for other nations: The most important aspect may be the involvement of principal players in the field, i.e. GPs, specialists, patients, and their relatives as well as other relevant stakeholders in the frame of a national programme. This procedure minimized the risk of important players impeding the transfer of the results into practice. Another aspect is the combination of research...
purposes with political and societal measures from the beginning of the programme implementation. This procedure has enabled the German Action Programme to tightly link the interests of the principal target groups with the results of health services research and the strategic objectives of health politics.

Therefore, it seems worthwhile for other health care systems to watch the German experience with this comprehensive action programme for the implementation of evidence-based guidelines closely, to extract helpful elements to possibly develop their own nation-specific action programmes, to optimize their efforts to transfer evidence-based health care into routine, and to enhance the adoption of guidelines in the treatment of depression.

Acknowledgements

This work was supported by the German Ministry for Education and Research (BMBF; grant: 01 GI 9922/0222/0452) within the ‘Competence Network on Depression and Suicidality’ (CNDS); Project 3 ‘Quality management in diagnosis and therapy of depression’, and Project ‘Transfer of quality improvement in the care of depressive disorders—transfer of evaluated quality management practice tools into routine’ (grant: 01 GI 0452). We thank the members of the external expert group of the CNDS projects and the members of the multidisciplinary focus group of the Critical Appraisal Project on Depression Guidelines. There are no conflicts of interest.

References


Accepted for publication 3 October 2005