USE OR UNDERUSE OF THERAPEUTIC GUIDELINES IN PSYCHIATRY?

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SUMMARY

A rapid expansion of new treatment options in recent decades and the increasing volume of scientific evidence published on a daily basis have been followed by the necessity of introduction of clinical guidelines and therapeutic algorithms. The development of these guidelines and algorithms has also been driven by increased cost-awareness and the increasing pressure to improve cost-efficiency. The Serbian Physicians Society published "Therapeutic Guidelines for the Treatment of Schizophrenia" in 2003 and "Therapeutic Guidelines for the Treatment of Bipolar Affective Disorder" in 2004. The School of Medicine, University of Belgrade published "Therapeutic Guidelines for the Treatment of Depression" in 2004. All of these national guidelines, at the moment of development, were based upon up-to-date scientific evidence. According to the recently conducted survey at the Institute of Psychiatry, Clinical Centre of Serbia, about 65% of psychiatrists stated that they adhere to the national or relevant international therapeutic guidelines. When asked to cite which international or foreign guidelines in particular they used, approximately 50% failed to do so, while the other half cited mostly the APA Guidelines or NICE Guidelines. Among the national guidelines, physicians are, according to the survey, familiar with the Therapeutic Guidelines for the treatment of Schizophrenia (46,3%), Therapeutic Guidelines of Depression (41,5%) and Therapeutic Guidelines for the Treatment of Bipolar Affective Disorder (34,1%). The majority of Serbian psychiatrists rely on the efficacy and safety of the drugs as the major determining factors in the choice of therapy, bearing in mind the patients' best interests. However, it is unclear why such a discrepancy between practice and guidelines still persists, since guidelines also recommend therapy based on their safety and efficacy data. It is possible that a substantial percentage of psychiatrists obtain indicators on drugs' efficacy and safety from their personal professional experience. It is doubtful whether this knowledge is valid, or just represents unproven prescribers' habits. Furthermore, the influence on other factors, such as treatment costs or drug availability should be further investigated.

Key words: *therapeutic guidelines - psychopharmacotherapy - algorithms*

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EVIDENCE-BASED GUIDELINES

In recent decades, many new medications have been introduced into psychiatric pharmacotherapy. More and more drugs are becoming available every year, with different pharmacodynamic, pharmacokinetic and safety profiles (Agid 2008, Mitchell 2002, Sambamoorthi 2003). Such a rapid expansion of new treatment options and the increasing volume of scientific evidence published on a daily basis was followed by the necessity of introduction of clinical guidelines and therapeutic algorithms. The development of these guidelines and algorithms has also been driven by increased cost-awareness and the increasing pressure to improve cost-efficiency (Trivedi 2007).

It has been estimated that approximately 30 000 articles enter the US National Library of Medicine's database monthly (Jobson 1995), and that an average physician (by self-reports!) has less

than one hour per week available for reading scientific journals (Sackett 1996). Therefore, guidelines and algorithms are essential in keeping practitioners abreast of new scientific evidence.

First attempts in creating clinical guidelines relied heavily on expert opinions and descriptive studies, but nowadays their development is based on a rigorous process using the highest-level evidence base (e.g. randomized clinical trials).

Modern clinical guidelines and algorithms are developed according to a transparent process which involves principles of bias minimization and systematic evidence retrieval and review, with a focus on patient-relevant outcomes (Culleton 2009). This process comprises of three steps: synthesising evidence, translating evidence into recommendations and implementing recommendations (Michie 2007).

Therefore, clinical guidelines and algorithms are developed to assist physicians in decision-making. Professional organizations and government bodies in many countries formulate guidelines "to help translate the scientific literature into concise statements intended to change practice" (Rogers 1995, Torrey 2001). Therefore, properly developed, evidence-based guidelines reduce the use of unnecessary or harmful interventions and facilitate the treatment of patients to achieve maximum benefit and minimum risk at acceptable cost (Culleton 2009).

IMPLEMENTATION OF GUIDELINES IN PSYCHIATRIC HEALTH-CARE

In the field of psychiatry, several groups have published guidelines, protocols and treatment algorithms which are internationally recognized (Torrey 2001): American Psychiatric Association - APA (United States of America), World Psychiatric Association - WPA, National Institute of Clinical Excellence - NICE (United Kingdom) etc. There are also numerous, locally published guidelines world-wide. Most of these are created as evidence-based, probably with slightly different levels of evidence. However, what is of greater concern is the fact that guidelines and algorithms in psychiatric practices worldwide are often not implemented effectively (Michie 2007, Jakovljević 2007).

In the Netherlands, some recent studies have shown that the average degree of adherence to guidelines is no higher than 60-70%, depending on the particular guideline and the individuals

involved (Leentjens 2008). In the USA, it is estimated that approximately 55% percent of patients are treated according to guidelines. In the domain of psychiatry, a review of quantitative studies of adherence to mental health clinical practice guidelines revealed that adequate adherence was found in just 27% of studies without intervention for improvement, and in 67% of controlled trials in which an intervention was made to improve adherence (Bauer 2002).

There are some general characteristics of guidelines which favour their utilization, as identified by Grol et al: Guidelines should be compatible with existing values and routines, they should be scientifically based and an explicit description of scientific evidence should be available. The demand for extra resources, the necessity of acquisition of new knowledge and skills and negative reactions in patients are described as major factors which reduce the compliance of practitioners (Grol 1998).

There also other possible reasons for the underuse of guidelines. The available guidelines are of variable quality and many guidelines covering the same area offer conflicting advice or are not published in readily accessible format. In some cases, the treatment recommended by the guideline or algorithm is not available in a particular clinical setting (Torrey 2001). This is mostly the problem in underdeveloped countries where certain medications, recommended routinely by the majority of guidelines, are not affordable for the patients and are not covered by mandatory health insurance. This results in the high consumption of drugs which are no longer recognized as the first line therapy (Divac 2006).

Little is known about the behavioural and cognitive processes involved in the implementation of guidelines. It is unclear how physicians treat guidelines and algorithms compared to other aids in decision making, such as textbooks, lecture notes or expert systems (Hurwitz 1999). More than 300 evaluations of interventions to improve implementation of guidelines have been made so far. Most commonly evaluated single interventions were reminders, dissemination of educational materials, and audit and feedback. These tended to lead to modest to moderate improvements in care (Grimshaw 2004). The improvement of guideline implementation is one of the major public health challenges worldwide and several implementation models have been developed. One of them is the

Implementing Evidence-Based Practices for Severe Mental Illness Project (New Hampshire, Maryland and Ohio, USA), which proposes an implementation plan based on the use of toolkits, which should include written material, Web-based resources, training experiences and consultation opportunities, as well as feedback to track the effects of the practice (Torrey 2001). Continuous monitoring of the feasibility, acceptance and effectiveness of guidelines is essential in a successful implementation process.

GUIDELINES AND LAW

Legislation regarding the use of guidelines and algorithms differs from country to country. In the UK, NICE guidelines are backed strongly by the government's agenda, and are expected to be implemented. Their implementation is monitored by the Commission for Healthcare Audit and Inspection and it is expected that NICE guidelines could have an even more influential role in medico-legal proceedings in the nearest future, by determining the standards of health-care (Samanta 2004).

In the USA, in medical malpractice litigation, clinical guidelines may be acknowledged as relevant by the courts, but together with other sources of information, such as hospitals' own policies and expert evidence (Samanta 2003). The US courts are generally unwilling to accept non-adherence to guidelines as proof of clinicians' negligence (Hurwitz 1999).

The mandatory status of guidelines may increase their use; however there are not enough data to corroborate this. On the other hand, the administrative pressure to act according to guidelines may endanger clinical judgment, clinical discretion and critical thinking. It is generally accepted that guidelines should be interpreted sensibly and that they should not offer "thought-proof mechanisms for improving medical care" (Hurwitz 1999).

In the field of psychiatry, little is known about the influence of legislation on the adherence to guidelines by physicians. In some therapeutic decisions, the role of guidelines is essential in promoting a more favourable risk/benefit ratio for the patient. For example, clozapine is an antipsychotic drug with proven efficacy in the treatment of patients with therapy-resistant schizophrenia. However, it is well known that clozapine has a risk of a severe adverse effect – agranylocytosis – in 1-2% of patients. According to the majority of current guidelines (e.g. APA Practice Guideline for the Treatment of Patients with Schizophrenia, 2nd ed), and as also recommended by the manufacturer, white blood cells (WBC) count must be performed before the initiation of the therapy. The drug may be introduced only in patients with a normal WBC count. After the initiation of the treatment, WBC count must be followed at least weekly for the first eighteen weeks, then at least monthly for the whole duration of the treatment and after discontinuation of the drug for four further weeks. The feasibility of this procedure depends on many factors, such as: accessibility, convenience, financial considerations, patient's compliance, duration of treatment etc. (Chandrasekaran 2008). There are some ethical and legal considerations regarding this matter. As noted by Chandrasekaran, in the case when a patient is unwilling or unable to comply with the regular WBC monitoring, should the psychiatrist discontinue the drug, or continue without WBC monitoring, and what would be in the patients' best interest? It would be of great importance to investigate the differences in the level of compliance to this procedure, and the differences in the incidence of the clozapine-induced agranulocytosis between countries in which the guidelines are mandatory and countries in which they are not.

THE USE OF THERAPEUTIC GUIDELINES IN SERBIAN PSYCHIATRY

In Serbia, significant variations in the quality of psychiatric care have been noted so far (Divac 2006, 2007). The utilization of anxiolytic/hypnotic drugs has been higher than in many Western European countries in the 1990-ies (Divac 2004), and the high level of consumption was still present after the year of 2000, and the level tended to increase (Divac 2004, 2006, 2009). Also, long duration of anxiolytic therapy has been observed (Divac 2004, 2006). Among antipsychotic drugs, the utilization of the first-generation antipsychotics was still dominant at the beginning of the millennium, as was antipsychotic polypharmacy (Divac 2007, 2009). Prescribing of selective serotonin reuptake inhibitors (SSRIs) was much lower than in more developed countries, as was the utilization of antidepressants in general (Divac 2007, 2009).

Most of these findings indicate that modern therapeutic options (such as second generations antipsychotics, SSRIs), despite being recommended by leading international guidelines (APA, WPA, NICE), have been introduced into Serbian psychiatric pharmacotherapy very slowly.

Very little is known about the use of guidelines among Serbian psychiatrists. The Serbian Physicians Society published Therapeutic Guidelines for the Treatment of Schizophrenia in 2003 (Jašović-Gašić et al. 2003) and Therapeutic Guidelines for the Treatment of Bipolar Affective Disorder in 2004 (Timotijević et al. 2004). The School of Medicine, University of Belgrade published Therapeutic Guidelines for the Treatment of Depression in 2004. All of these national guidelines, at the moment of development, were based upon up-to-date scientific evidence.

According to the recently conducted survey at the Institute of Psychiatry, Clinical Centre of Serbia, physicians cited approximately four (of eight offered) categories of factors that determine the choice of drugs. Most often, these categories were: drug safety (78%), drug efficacy (73%), recommendations of the relevant guidelines (65%), and reimbursement of the treatment costs by the mandatory health insurance (46%) (Figure 1).
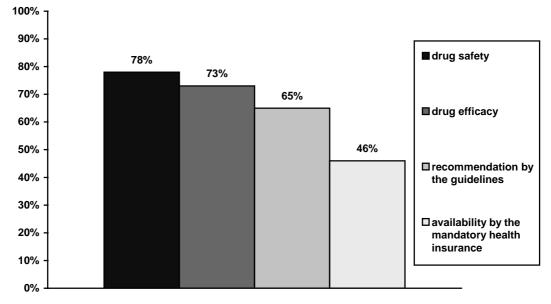

Figure 1. Factors that determine choice of drugs in Serbian psychiatry
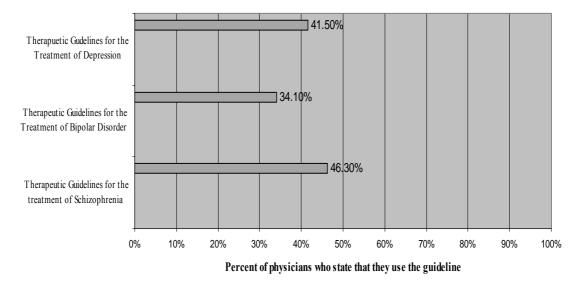

Figure 2. Utilization of national guidelines by Serbian psychiatrists

About 65% of psychiatrists stated that they adhere to the national or relevant international therapeutic guidelines. When asked to cite which international or foreign guidelines in particular they used, approximately 50% failed to do so. The other half cited mostly the APA Guidelines or NICE Guidelines (Divac 2009). Among national guidelines, physicians are, according to the survey, mostly familiar with the Therapeutic Guidelines for the treatment of Schizophrenia (46.3%), Therapeutic Guidelines of Depression (41.5%) and Therapeutic Guidelines for the Treatment of Bipolar Affective Disorder (34.1%) (Figure 2).

The majority of the Serbian psychiatrists rely on the efficacy and safety of the drugs as major determining factors in the choice of therapy, bearing in mind the patients' best interests. However, it is unclear why such a discrepancy between practice and guidelines still persists, since guidelines also recommend therapy based on data on their safety and efficacy. It is possible that a substantial percentage of psychiatrists obtain indicators on drugs' efficacy and safety from their personal professional experience. It is doubtful whether this knowledge is valid, or just represents unproven prescribers' habits. Also, the influence of other factors, such as treatment costs or drug availability should be further investigated.

Further development and implementation of national guidelines is an essential tool in optimizing health-care standards and treatment costs. The Serbian Ministry of Health has named a Republic Commission for the Development and Implementation of Good Clinical Practice Guidelines, which, with the support of the European Union and the European Agency for Reconstruction, has since 2001 been working on the development of national guidelines. This Commission has recently (in December 2008) published *Instructions for the Development and Implementation of the Good Clinical Practice Guidelines*, which are expected to improve the quality and implementation of existing and future guidelines.

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