

## What means 'best practice' in addiction treatment?

Ambros Uchtenhagen

Research Institute for Public Health and Addiction (WHO Collaborating Centre, associated with Zurich University)

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### *Abstract*

The concept of best treatment practice is a response to the growing diversity of therapeutic experience and to the frequently inadequacy of service reality and guidelines. Ideally, best practice guidelines are based on the available research evidence about efficacy and effectiveness of therapeutic approaches. But limitations of outcome research must be taken into consideration as well as limitations of guideline applicability. Circumstantial factors are also relevant for treatment outcomes, and clinicians are expected to adapt evidence-based recommendations to such factors in their daily practice with individual patients. In addition, availability and access to recommended treatments are in the responsibility of service planners and providers, thereby facilitating the implementation of best practices. We understand best practice not as treatment provided in some centres of excellence, but as a system providing all those in need of treatment in the best possible way. Finally, major changes are expected for the future, redirecting the focus from a traditional evaluation of clinical usefulness for populations to an assessment of individually optimised interventions (personalised medicine: "treating the patient, not the disease").

### *Key Words*

Addiction treatment, best clinical practice, treatment outcome, service network, personalised medicine

— Correspondence: \_\_\_\_\_  
Prof. Ambros Uchtenhagen  
Research Institute for Public Health and Addiction  
Konradstr. 32, CH-8031 Zurich (Switzerland)  
E-mail: uchtenhagen@isgf.uzh.ch



## WHY BEST PRACTICE RULES?

The issue of normative guidelines and of best practice papers for the treatment and care of substance abuse disorders is a response to the increasing diversity of approaches and recommendations. Such recommendations are frequently not adequately backed up by scientific evidence on efficacy (from clinical trials) and / or effectiveness (from observational studies), but often are fuelled by invested interests and ideological positions.

More recently, research into deficits of treatment quality has shaken the credibility and effectiveness of services. Prominent studies came from USA and the EU. An analysis of a representative sample of addiction services in USA demonstrated a low professional status and a lack of competence due to high staff turnover (McLellan, Carise and Kleber, 2004). The European Commission funded a study into the management of high-risk opioid addicts which documented a major need for improvements in all treatment centres, in spite of great differences between centres (Haasen, Stallwitz, Lachmann et al., 2004). Also, treatment guidelines are not always reliable: an analysis of national guidelines for opioid substitution treatments found major discrepancies and dissent in objectives and regulations and a deficit in evidence base (Uchtenhagen, Ladjevic and Rehm, 2005).

Thereby, the need for a consensus on best practice standards and for their implementation became an urgent topic at national and international level.

## UNDERSTANDING BEST PRACTICE CONCEPTS

The definition of "best practice" provided by EMCDDA is "*the best application of available evidence to current activities in the drugs field*" (EMCDDA, 2012).

1. *Underlying evidence* should be relevant to the problems and issues affecting those involved (professionals, policy-makers, drug users, their families);
2. *Methods* should be transparent, reliable and transferable and all appropriate evidence should be considered in the classification process;
3. *Experience* in implementation, adaptation and training should be systematically collected and made available;
4. *Contextual factors* should be studied by modeling different prevalence levels so as to assess the impact of an intervention on the population; and
5. *Evidence of effectiveness* and feasibility of implementation should both be considered for the broader decision-making process.

The "best practice portal" of EMCDDA provides continuously updated information on the available evidence on drug-related prevention, treatment and harm reduction interventions, focusing on a categorisation of evidence, as beneficial - likely to be beneficial – trade-off between benefits and harms – unknown effectiveness – evidence of ineffectiveness (EMCDDA, 2012).

Other definitions are based on a similar understanding of best practice. For instance,



Health Canada has performed a review of reviews in order to determine best practice. It concluded with 23 best practice guidelines concerning specific therapeutic approaches, target populations and service characteristics (Health Canada, 1999).

Best practice is also conceptualized as the basis of intervention quality. Quality standards are defined as “generally accepted principles or sets of rules for the best/most appropriate way to implement an intervention. Quality standards frequently refer to structural (formal) aspects of quality assurance, such as environment and staff composition. However they may also refer to process aspects, such as adequacy of content, process of the intervention or evaluation processes” (EMCDDA, 2012).

The US Institute of Medicine has defined quality as “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge” (Lohr, 1990). The focus of this definition on outcomes is consistent with the prevailing concept of evidence-based best practice.

Ideally, intervention guidelines are also based on scientific evidence. The Institute of Medicine describes clinical guidelines as “statements that include recommendations intended to optimize patient care. They are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options” (Institute of Medicine, 2011). One prominent example are the evidence-based NIDA Principles of drug addiction treatment (NIDA, 2009).

## INTERNATIONAL ATTEMPTS AT STANDARD SETTING IN BEST PRACTICE

An early international instrument to measure a given treatment system against a set of standards were the WHO Schedules for the assessment of standards of care in substance abuse treatment (WHO, 1992). A first attempt at documenting the state of ethical standards, needs orientation, professional standards and evaluation standards in Europe was mandated by the WHO European Office in Copenhagen (Adequacy in Drug Abuse Treatment ADAT; Uchtenhagen & Guggenbühl, 2000). More recently, WHO and UNODC jointly published a discussion paper on 9 principles of drug dependence treatment (UNODC and WHO, 2008), which will be further elaborated in the ongoing project Substance Abuse Instrument for Mapping Services SAIMS (WHO, 2012). Best practice papers for specific issues (Community based treatments, drug treatment and rehabilitation in closed settings, role of drug treatment and rehabilitation in HIV/AIDS prevention and care, sustainable livelihoods for reintegration and rehabilitation) have been produced as a component of the worldwide training project TREATNET of UNODC (Tomàs-Rossello et al., 2010). Comprehensive guidelines for psychosocially assisted pharmacological treatments of opioid dependence were published by WHO (WHO, 2009).

## THE ROLE OF SCIENTIFIC EVIDENCE

The concept of best practice has two components: one is the scientific evidence on which



recommendations are based, the other is the "best application" of the evidence.

Scientific evidence has different types, and these types have been classified as 'grades of evidence'. An internationally recognised system was developed by the GRADE working group (Guyatt, Oxman, Kunz et al., 2008; GRADE Working Group, 2012). Another attempt developed standards for a consensus building process, where experimental research is not feasible: the AGREE concept (AGREE, 2009).

The gold standard of generating scientific evidence in medical science and beyond are randomised controlled studies (RCT). Multiple RCTs with converging evidence are the basis for the highest grade of evidence. Two internationally established research groups use RCT based evidence for their reviews: the Cochrane Collaboration (Cochrane, 2012) in the health field and the Campbell Collaboration for social interventions (Campbell, 2012).

### LIMITATIONS OF RESEARCH EVIDENCE

However, not all topics are open to experimentation with randomisation methods. For instance, the role of patient-therapist relationship, the 'doctor as medicine', as a determining factor for treatment outcomes is well known but hardly to be identified by RCT. The gold standard is not applicable to all aspects of the therapeutic processes. Also, qualitative research can generate relevant information where the findings of quantitative research are open to simplistic interpretation, e.g. information on the treatment expectations of patients (Neale, Nettleton and Pickering, 2011).

An increasingly researched factor complementing evidence-based guidelines is patient satisfaction. Patient satisfaction is an important element in effectiveness research which should complement efficacy research (randomisation, use of control conditions) in order to overcome the gap between RTC based evidence and its use in clinical practice (Carroll and Rounsaville, 2003).

Methodological limitations are to be mentioned. Randomised controlled studies usually focus on homogeneous populations, and they do not include persons who refuse to participate in an RCT, which limits the generalisability of findings. Also, RCT usually do not take into account concomitant medications and other interventions which play a relevant role in practice (Geleris and Boudoulas, 2011).

Another critical issue is the measurement of treatment outcome. Research studies focusing on abstinence rates are prone to produce different evidence of efficacy than studies measuring differentiated changes in addictive behaviours and consumption, and even more than studies looking at additional health and social outcomes (Uchtenhagen, 2012).

Finally, it must be considered how guidelines are set up. Work from developing countries show that several factors increase the impact of practice guidelines: involvement of the end-users in guidelines development, launch and introduction of the guidelines, multiple training modalities, feedback to prescribers on their prescription practices (Ross-Degnan et al., 1997).



## LIMITATIONS OF GUIDELINE APPLICABILITY

Evidence-based guidelines have an enormous value. Some limitations of applicability must be remembered all the same. They are mainly a consequence of how guidelines are set up.

- External validity (generalisability) of findings from RCTs is often inadequate and makes applicability difficult (Rothwell, 2005).
- It is possible that the expected outcomes as predicted by efficacy studies will not be attained when implemented under field conditions and in different socio-cultural settings (Lohr, Eleazer and Mauskopf, 1998).
- A variable number of individual cases does not allow to apply the recommended treatment, but the guidelines provide no guidance how to proceed with exceptions.
- The half-life of guidelines is getting shorter with the increase of treatment research; non-updated guidelines have a risk for misinformation and outdated recommendations.

## BEST PRACTICE IS MORE THAN A SET OF EVIDENCE-BASED RULES

If best practice is based exclusively on the best available evidence, there is a risk to disregard other factors which can be considered to be relevant for effective therapeutic practice. And as far as treatment guidelines are based on the best available evidence, we are faced with problems of guideline applicability. Also, best evidence on efficacy and effectiveness are not

sufficient for strategic decisions on treatment availability at the system level. Finally we must consider a few basic questions on the role of addiction treatment. In this perspective, best practice has to build on knowledge of and respect for research evidence, but also on knowledge of and respect for all circumstantial factors which have an impact on good treatment outcomes.

The following are examples from everyday practice. Some are quite banal, others more specific.

- Availability of a recommended treatment, in a given region with adequate quality and affordable costs.
- Therapist familiarity with the relevant treatment options.
- Therapist willingness to refer a patient to a recommended treatment in case he or she has no training or infrastructure for this treatment.
- Patient is ready to accept and comply with a recommended treatment.

The absence of any one of these factors creates problems for implementing the recommended treatment or for a satisfactory outcome. Best practice means finding an acceptable therapeutic answer under the given conditions which may not be, and often enough are not, ideal (Summerskill, 2005).

For the therapist, this is the great challenge in daily practice. "The responsibility remains with the clinician to combine this evidence with clinical expertise and patient values in managing individual patients and achieving optimal outcomes" (Scalzitti, 2001). To provide a treatment network or system which allows for implementing best practice is another responsibility.



## STRATEGIC FACTORS AT THE SYSTEM LEVEL

Service providers and planners are responsible for developing the treatment network into a system where the implementation of best treatment practice is facilitated. This includes strategic decisions which go beyond the usual guideline recommendations.

- Guidelines usually recommend how a given treatment should be performed, but not if a given treatment should be made available.
- Best practice guidelines rarely provide minimum recommendations in case best practice is not available or affordable; an exception are the WHO Guidelines on psychosocially assisted pharmacological treatments of opioid dependence (WHO, 2009).
- Guidelines recommend how a treatment indication should be made, but not who -and on the basis of which criteria- is entitled to determine the indication; in some models of stepped care in addiction treatment the indication is no longer in the competence of services but of a central assessment and indication group (Schippers, Schramade and Walburg, 2002).
- Guidelines provide standards for treatment quality, but not for treatment coverage (scope of services in response to estimated treatment needs in the population); an analysis of guidelines and other documents at international level found no standards or benchmarks for coverage (Uchtenhagen and Schaub, 2011).

Treatment systems have their own invested interests, and therapeutic recommendations

navigate in a field of conflicting interests. The most prominent examples are the controversy between drug-free approaches and maintenance programmes (so far limited to opioid and nicotine replacement therapies), and the controversy between addiction treatment and harm reduction interventions. The paradigm of an integrated treatment and care system, where all approaches have their specific place and function, is a promising answer to this struggle (Stevens, Hallam and Trace, 2006).

Usually, treatment systems and services are not built up from scratch. The problem is not how to set up the perfect system, but how to improve the existing system. This is not only a matter of continued education and training of staff. Health policy is about updating and improving the system in response to changing population needs, changing patient characteristics and changing research evidence. Research which is specifically focusing on service improvement has a major role to play. Examples are the US National Treatment Improvement Evaluation Survey NTIES and the WHO instrument SAIMS. NTIES demonstrated how the assessment of patient needs at entry influence the therapeutic outcome (Gerstein et al., 1997). SAIMS is an instrument for assessing and improving national systems for drug prevention and treatment (WHO, 2012).

*Strategic decisions therefore are about priorities: which therapeutic approaches have to be made available or developed, what is an acceptable balance of coverage and quality of treatment, how can best use be made of the available human and financial resources in order to facilitate the best possible way of good practice implementation.*



## AND THE FUTURE?

Major changes in medical concepts are under way. Molecular genetics generate data which allow to assess individual risk factors, health potentials, treatment responsiveness and interactions with the environment. The concept of personalised medicine is more than a vision and develops into the 'P4 medicine' (predictive, preventive, personalised and participative medicine). New standardised tools will be required for clinical decision support (Ginsburg and Willard, 2009). The implications for optimising addiction treatment are a challenge for the future.

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