Science-based practice for methadone treatment: another step forward

Dr. van den Brink is professor of Psychiatry and Addiction at the Academic Medical Center University of Amsterdam and director of the Amsterdam Institute for Addiction Research

Addiction is no longer regarded to be just a behavioural problem of weak-willed people who are not motivated to change their misconduct. Nowadays, addiction is generally regarded to be a chronic, relapsing disorder with demonstrable abnormalities in brain functioning as the underlying mechanism responsible for continuing drug use and relapse following periods of abstinence. Together with this recognition, the appropriateness of pharmacological treatments of addiction has been accepted without major reservations. As in most medical conditions, not all treatments work in all patients, and some treatments do not seem to work at all.

In the last four decades, a range of pharmacological interventions have been tested using increasingly sophisticated designs, and many of these interventions can now be regarded to belong to the domain of evidence-based addiction treatment. It should be noted, however, that in most chronic disorders different treatment goals can be distinguished depending on the stage of the disorder and the success of previous interventions.

In the treatment of heroin addiction, the following treatment goals can be distinguished: (a) crisis intervention directed towards immediate survival (e.g., naloxone in case of heroin overdose), (b) cure through restoration of the abnormal brain functions and directed towards stable abstinence (e.g., naltrexone assisted detoxification and maintenance for heroin addicts), (c) care directed at long-term survival and improvement of the quality of the existence of the patients despite continued dependence on the drug or a legal substitute for that drug (e.g., methadone maintenance for heroin addicts), and (d) palliation directed towards the preservation of personal dignity and remaining quality of life in patients with a limited lifetime expectancy (e.g., intravenous morphine or heroin prescription in terminal heroin addicts).

Methadone maintenance treatment is the most extensively tested and probably the most effective intervention in heroin addicts when cure is no longer the primary treatment objective. Other proven-effective treatments in this stage of the heroin addiction are buprenorphine maintenance and probably heroin maintenance.

The current evaluation by an expert panel of the appropriateness of methadone maintenance treatment seems to take this as its starting point (although stages of the disorder and treatment goals were not explicitly mentioned).

The authors of the paper are absolutely right when they conclude that the problem with evidence-based addiction treatment in its current form is that treatment recommendations are almost exclusively based on population data obtained from (a meta-analyses of) randomised controlled trials (RCTs) with highly controlled treatments among highly selected groups of heroin addicts often with the exclusion of atypical (pregnant women, minors) or difficult (antisocial, incarcerated) patients. These recommendations are not always useful for clinical decisions about individual patients who may be very different from the ones in the trials and who may live under very different conditions. Fortunately, the authors did not conclude that the evidence from RCTs is thus worthless, but decided to take this information – together with other pieces of (local) information – as the starting point for a scientifically informed process of clinical reasoning aiming at consensus about clinical problems, but not forcing to consensus where consensus was not possible. The choice of the RAND appropriateness method (RAM) with two rounds of appropriateness evaluations of more than 500 clinical scenarios separated by an intensive period of discussion has been very productive in this respect.

The most important finding is probably that serious disagreement between the panel members was observed in only 7%, and that uncertainty about the appropriateness was present in only 25% of the 537 clinical scenarios. These findings indicate that reading the scientific literature and

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sharing knowledge and clinical experience can produce high levels of scientifically informed consensus about medical interventions in real-life clinical situations. Unfortunately, the authors do not provide comparative data from other RAM evaluations in other domains of medicine, and consequently no comparative statements can be made regarding the obtained levels of agreement and certainty about important clinical decisions.

Another important finding is that almost all panel members seem to be in favour of an extensive initial assessment battery, although it is well-known that such assessments are rarely made in routine practice. It is remarkable that routine physical examination and routine blood analysis are not listed. However, these items might not have been included in the pre-defined clinical scenarios.

The issue of the (most) appropriate setting for the initiation of MMT is a particularly relevant issue given the situation with buprenorphine in France and a similar social experiment with buprenorphine that is currently taking place in the USA. In general, it is very positive if unnecessary restrictions and regulations are withdrawn resulting in destigmatisation, lower thresholds for entering treatment and more patients in treatment, but this should not be at the expense of the quality of the treatment with no or very limited psychosocial treatments available resulting in sub-optimal treatment outcomes. It seems that the expert panel in this study was very well aware of the delicate balance of opportunities and risks involved in office-based methadone or buprenorphine maintenance treatment.

The high levels of disagreement on clinical scenarios regarding the initiation of MMT in (run-away) minors and the counter indications for MMT might be related to the already mentioned lack of a clear statement regarding the stage of the disorder and the treatment goals for which methadone maintenance seems to be the (most) appropriate intervention. This lack of clarity about treatment goals of MMT is also obvious in the listed aims under the heading of dosage schedules, where alleviation of craving and discontinuation of the consumption of illegal opioids are not mentioned.

A final remark needs to be made about the scope of this panel evaluation. The current evaluation is restricted to methadone maintenance treatment directed at stabilisation and improvement of the quality of life of the patient and does not include appropriateness ratings for treatments with other treatment goals such as stable abstinence (naltrexone) or treatments with other compounds for similar treatment goals (buprenorphine, heroin). Future expert panel evaluations should include these issues in order to give proper attention to the course and staging of the disorder, the changes in the environment of the patient, and the developments in the motivation of the patient for certain interventions based on previous treatment experiences.

Soz.- Präventivmed. 48 (2003) S15–S16