

# A general treatment approach

### Using the rubric of evidence-based medicine

Evidence-based medicine (EBM) is not just about the evidence, but how to use it in a meaningful way [1]; practicing EBM is not “cookbook medicine.” Sackett et al [2] have summarized this well: “EBM is the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients.” As such, there is a need to integrate individual clinical experience and expertise with external evidence. This evidence can be from a variety of sources and not necessarily from meta-analyses or randomized controlled trials. Key to this process is incorporating the individual patients’ values and preferences.

External evidence that focuses on “effectiveness” may be the most useful, and “pragmatic clinical trials” may more closely resemble clinical practice. Effectiveness can be defined as how well an intervention will work in the “real world.” In order to be effective, an intervention needs to be efficacious (ie, reduce symptoms), tolerable and safe (ie, not be associated with problematic side effects), and the patient has to be adherent [3]. Outcome measures such as time to all-cause discontinuation can serve as a proxy measure for effectiveness because continuation of a medicine is dependent on efficacy, tolerability, and adherence [4]. In contrast, randomized controlled trials used for regulatory approval of new medications often have strict inclusion and exclusion criteria that can render generalizability of the results difficult. Moreover, the principal outcome measure is ordinarily focused on a narrow definition of efficacy such as

reduction from baseline on a rating scale score such as the Positive and Negative Syndrome Scale (PANSS). In these trials, tolerability and safety is tested among relatively healthy individuals with a minimum of comorbid conditions, which is quite a different situation from what practitioners can typically expect to encounter in the clinic. Nonetheless, in the absence of relevant pragmatic effectiveness trials, the availability of other evidence can still be informative, provided that the trial limitations are acknowledged.

EBM makes clinical decision-making explicit; Figure 2.1 illustrates the 5 steps in the EBM process [5]. Formulating the question accurately will aid in productive online searches for possible answers. Appraising the evidence will require the clinician to ensure that the research is relevant to the patient at hand. Familiarity with concepts such as number needed to treat and number needed to harm will aid in the determination of clinical relevance of results that are statistically significant [6]. Applying the results and assessing the outcome are the final steps and need to be patient-centered.

## The therapeutic alliance

Without a therapeutic alliance, adherence is challenging, communication between clinician and patient is subpar, and outcomes are poor. A therapeutic alliance involves three essential components: tasks (in-therapy behaviors and cognitions that form the therapeutic process); goals (mutually endorsed and valued, and are the targets of an intervention); and bonds (the patient–therapist attachment that includes mutual trust, acceptance, and confidence) [7]. This collaborative bond between therapist and patient can enhance treatment effectiveness through safe and supportive interaction, psychoeducation, and the involvement of the patient in the prescribing process rather than the patient simply receiving the prescription. In patients with schizophrenia it may be difficult to determine if rapport has been established as negative symptoms may mask it. Also, cognition may make understanding of basic disease concepts difficult; lack of insight generally interferes with a patient’s ability to recognize many potentially disabling symptoms. The challenge is thus to identify what is important and understandable to the patient and to build from there. This can include feelings of anxiety and anger that the patient

## The 5-step evidence-based medicine process

### Step 1 Formulate the question

What kind of patient or problem?

What intervention, treatment, diagnostic test, risk factor, or prognostic factor are you interested in?

What comparisons are you making (treatment A versus treatment B, treatment versus no treatment, etc.)?



### Step 2 Search for answers

Does it work?

Has a systematic review been conducted (search Medline or the Cochrane Database)?

Are there RCTs that enrolled similar patients to yours?

If using guidelines, are they evidence-based or eminence-based?

Well formulated questions make it easier to locate an answer, if one exists.



### Step 3 Appraise the evidence

Will it work in the "real world"?

Is it relevant to your question and your patient?

Is the statistically significant result clinically significant?

If effect size is not mentioned in the research report, is there sufficient information available to calculate the NNT for the categorical outcomes of interest?



### Step 4 Apply the results

Is it worth it?

Is the intervention, treatment, diagnostic test, etc., important to you within the context of your clinical experience and important to the patient in terms of their preferences?



### Step 5 Assess the outcome

Did you ask the right question?

Did you find answers?

Were the answers you found based on a high-quality level of evidence?

Did it make clinical sense?

Did it make a difference?

Can you quantify this?

Does the patient agree?

**Figure 2.1 The 5-step evidence-based medicine process.** NNT, number needed to treat; RCT, randomized clinical trial. Reproduced with permission from Citrome and Ketter [5].

can more easily articulate, or a patient's wants or desires that appear to be thwarted. This can include issues regarding being able to sleep late in the morning, favorite foods, desire to have more funds, or a place to live. Asking innocuous questions about sleep and appetite can be a good tactic before discussing more emotionally laden topics. It is particularly important to avoid appearing judgmental regarding unpleasant personal habits, minor legal infractions, or other behaviors, otherwise a clinician may be less likely to hear about potentially clinically relevant information.

A therapeutic alliance is essential in order to be able to practice EBM. One of the key components of EBM is integrating a patient's values and preferences into medical decision-making.

## **Motivational interviewing**

Motivational interviewing is a treatment technique that builds upon a therapeutic alliance and further develops it as a means to elicit change. Motivational interviewing is a patient-centered and directive therapeutic style that increases the potential to resolve ambivalence and change behaviors. A central concept is exploring the patient's own motivations for change [8]. A meta-analysis of motivational interviewing outcomes in 72 clinical trials spanning a range of target problems found effect sizes that were highly clinically relevant in the short-term and somewhat less robust in the long-term [9].

Motivational interviewing has been used to develop insight or coping skills, and helps make changes in health-related behaviors in patients with schizophrenia [10], including adherence [11] as well as comorbid substance use disorders [12]. Motivational interviewing has been proposed as a foundation for "recovery-oriented care" [13].\*

## **Identifying obstacles**

Obstacles to treatment response, remission, and recovery can fall under several categories [14] and should be reviewed as an essential part in the general treatment approach:

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*\*A full discussion of motivational interviewing is beyond the scope of this handbook and the reader is urged to consult the Motivational Interviewing website at [www.motivationalinterview.org](http://www.motivationalinterview.org) for additional resources.*

- Patient-related issues, including:
  - poor insight;
  - a negative attitude toward interventions, including medication;
  - cognitive impairment;
  - negative symptoms;
  - poor language skills; and
  - active alcohol or substance use.
- Treatment-related issues, including:
  - side effects of medications; or
  - inadequate reduction of symptoms.
- Environmental and relationship-related issues, including:
  - absence of a supportive family environment;
  - lack of social supports in the community;
  - problems with the therapeutic alliance with any of the clinicians involved in the care of the patient; and
  - practical problems in getting to appointments; paying for medication; or other barriers to access to care.
- Societal-related barriers, including the stigma attached to:
  - having a mental disorder; and
  - visibly obvious medication side effects such as abnormal motor movements, sedation, or substantial weight gain.
- Clinician barriers, including:
  - underestimating the importance of the therapeutic alliance;
  - the conveyance of hopelessness; and
  - the lack of interest in the life goals and other issues important to the patient.

Having a mental checklist is useful in order to systematically assess these obstacles for each individual patient. All of these barriers can impact the patient's adherence [15] and ultimately their response, remission, and recovery.

## Summary

The philosophy of EBM takes into account a clinician's experience and the patient's values and preferences. It also makes explicit the process of searching for, appraising, and implementing evidence-based treatment

recommendations. The therapeutic alliance is central to this process of medical decision-making. Motivational interviewing builds upon a therapeutic alliance and further develops it as a means to elicit change. The identification of treatment obstacles and the skillful resolution of them are important in the assessment and treatment of people with schizophrenia.

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