



## Why unbox Evidence-based Medicine?

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I've been teaching evidence-based medicine with enthusiasm for over 15 years, to undergraduate medical students within my university and for medical doctors in extra-mural activities. As time passes by, my feeling of uneasy with this discipline increases to the point that I come to the conclusion that evidence-based medicine should not be a discipline at all. Nowadays, I finish my course every semester confessing to my students that I have a dream: one day my discipline will cease to exist, because evidence-based medicine will be recognized as just medicine.

In fact, I recently looked into the etymology of the word "medicine". It originates from the latim "mederi", which means "to know the best way". I then realized that medicine is not knowing the certain way, because "medicine is a science of uncertainty", as stated by Willian Osler in the first half of the 20th century. Best choice does not mean the right choice, it only provides the best chance. Only afterwards, we will learn about right or wrong, when we see the outcome result.

Maybe we should consider Osler as the father of evidence-based medicine. Once he recognized the uncertainty of medicine, he suggested a solution: "medicine is the art of probability". He proposed probability-based medicine, as empirical evidence is the way to assess diagnostic,

prognostic and treatment probabilities. In fact, "evidence" is just a means to an end: the end of critical thinking based on uncertainty.

First, we need to unbox evidence-based medicine into uncertainty-based medicine. Second, we are not supposed to consider evidence-based medicine a medical field or a form to practice medicine. It is just medicine as it should be.

I have a feeling that evidence-based medicine has been presented in a way too methodological package that creates a gap between the realworld physician and the scientific way of thinking. Evidence-based medicine should be presented with more sensibility and grace. It is not about the evidence, it is about the patient.

Evidence is the means to acquire the probability to be used in an individual decision, that takes into account clinical aspects of the patient, as well as their values and preferences. Evidencebased medicine is the art of medicine, the art of probability. And now I understand why Osler said art of probability, instead of science of probability. Because we need sensibility to apply probabilities to a unique patient, taking into account their clinical, mental, spiritual particularities.



Unboxing evidence-based medicine is presenting it to the consumer of science, as opposed to the researcher. Evidence-based medicine is not the field of trialists or systematic reviewers, it is the field of the caregiver. This caregiver should know how to judge the quality of evidence, how to best employ the knowledge from a systematic review, but does not need to learn how to make one. He needs to develop more attitude than knowledge. The knowledge to read an article is easy to acquire, but the skepticism and critical attitude is one to be developed over the years. Again, it takes sensibility and affection for this matter.

Unboxing evidence-based medicine is to put emphasis in the general concept of chance in determining outcomes, one step beyond P values or confidence intervals. It is to understand the real world as full of bias to promote illusions. Concepts have to be created in a controlled environment and then applied with art in the real world.

The intention of this Journal is not to make easy a supposedly difficult discipline. It is to make it interesting. In fact, medicine is not supposed to be easy, but it can be very interesting and fulfilling. It is what evidence-based medicine should be about.