



## The Downside of Evidence-Based Medicine

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### Introduction

The current mandate to practice medicine using evidence-based decisions ought to be of great benefit to the patient. Unfortunately, the actual practice of it is fraught with unrecognized problems.

The inadequately follow-up time for each patient-usually half an hour-, creates mistakes, both in omission and commission. Pressured for time, the clinician often mechanically adheres to the algorithms, devoid of intuition or wisdom. Thus, comorbidities are often ignored or overlooked, also medications, given by other specialists, with their possible side effects, synergies, and idiosyncratic responses of the patient, all contribute to the mistakes, especially by the current reality of the ubiquitous practice of poly-pharmacy. The mistakes, often serious, are made despite data available in the records, now unheeded.

To demonstrate these points, the following case is outlined. An 81-year-old patient scheduled for heart surgery. Warned the admission's assistant, who made a note of it in the record, about his allergy to heparin. The admitting physician, pressured for time, overlooked the written warning and administered heparin. The heart surgeon overlooked it also. Following successful surgery, the patient developed heparin-induced thrombocytopenia.

The consulting hematologist, also ignored the warning, instead, on the clinical assumption that the patient had a simple thrombotic event, administered more heparin! Now, the patient developed organ failure, moribund he was taken off heparin and all supports. As a result, he promptly revived from the coma but, not before developing gangrene in both legs and hands resulting in a bilateral amputation of his legs and several fingers on both hands!

On a different occasion, the same patient consulted a gastroenterologist for severe dyspepsia. The specialist, himself captive of routines, not asking any questions, proceeded to perform one after another, an X-ray, a radio tracing of the propulsion of food, an echogram as well as a gastroscopy, all failed to demonstrate any pathology. The attending ignored that the patient was taking magnesium oxide for neurological pains in his legs, the oxide form of magnesium salt was robbing hydrochloride from the stomach of the aging patient, resulting in severe dyspepsia. The patient himself switched to magnesium citrate with the prompt recovery from his dyspepsia.

On another occasion, the same patient sought help from the internist of the same academic healthcare facility for severe dry cough and persistent heaving. Again, this physician himself pressured by the scheduled number of patients, failed to consider the patient's heart condition and proceeded erroneously to diagnose severe bronchitis and ordered an inhaler with a sympathetic mimetic medicine. The unconsidered volume-overload responsible for the patient's symptoms resulted in heart failure. The heart problems were available in the record. The patient subsequently was hospitalized where was administered an IV diuretic resulting in recovery from the heart crisis.

Yet, on another occasion by another physician, he was ordered Bupropion for an assumed depression while the patient was seeking help for arthritic and neurological pains. He was never asked how he was feeling. In fact, was no loss of appetite or mood of bad quality (e.g., anhedonia, disengagement from his daily enjoyable activities, or loss of appetite).

Also, he was given by the main physician Seroquel for insomnia with good response but, the Seroquel has a warning for possible prolongation of QT interval. However, the attending physician ignored the recorded fact the patient suffered from atrial fibrillation, bradycardia, and chronic coronary heart disease.

The patient and author of this report, a physician himself, was also at the receiving end of these mishaps, thus, able to discern the missed diagnoses and misapplications as defects in the system. The average patient may very well have assumed that these conditions that he suffered and endured were properly diagnosed. All these numerous mishaps as they occurred at two different university

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Received Date: 29 Mar 2022

Accepted Date: 08 Apr 2022

Published Date: 14 Apr 2022

#### Citation:

Pediaditakis N. The Downside of Evidence-Based Medicine. *Ann Psychiatr Clin Neurosci.* 2022; 5(1): 1043.

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healthcare institutions within several months cannot be considered just unavoidable incidences due to rare mistakes.

All the attending physicians involved, were dedicated and well-qualified practitioners. The misdiagnoses and subsequently mismanagements instead, should be considered as the result of defects in the system. The practitioners pressured for time, while under the mandate of evidence-based medicine with its strict categorical guideline fitting all-relied mechanically on the algorithms without considering all the factors bearing on the patient's condition, idiosyncrasy, and the numerous medications, with possible synergies or antagonisms. Each colleague considered only the medications they ordered.

Ironically, these defects were further masked by the lopsided routine evaluation-questionnaires sent to the patient by the institution requesting response to the quality of service received. Questionnaires were arranged with a bias towards positive results with a "yes/no" format, without a space given for the patient to narrate problems or concerns, and enabling the institutions involved, to correct the mistakes. These particular problems tend to be more evident in the modern practice of psychiatry, where practitioners are now allowed only 15 min for a follow-up and medications. The effectiveness of the interaction is jeopardized by the absence of empathic interactions with a patient, due to the brevity of the interaction, important in the therapeutic effort, and despite the spectacular advances in molecular genetics regarding the mechanism of major mental disorders, in reality are still all work in progress not allowing to be utilized correctly in the actual practice. The psychiatrists rely on medications with their putative mechanisms cited and for some marginal efficacy. The application of antidepressants whose efficacy touted by the industry is marginal (i.e., 10% extra help if added to psychotherapy) and often counterproductive to therapy of the depressed patient, due to often severe side effects (i.e., anhedonia, impaired libido, and disassociation feelings) hence the high drop-out rate by the patients.

To reiterate; all these narrated mishaps were made under the proclaimed "evidence-based medicine." It is painfully clear; attending physicians should be given more time to consider the total picture of each patient thus, reducing the pressure felt for a time which chiefly was responsible for making snappy diagnoses. Also, colleagues in training should be taught to rely more on their critical clinical judgment and accumulated experience. The institutions are arranged at present for maximum efficiency aimed perhaps for-profits, and should instead attend and aim for effectiveness, as well as for the benefit of the patient [1-3].

## Discussion

These incidences on one person, some of them tragic, occurring through the years, cannot be considered as statistically random, and rare events. Instead, they demonstrate defects in the system. We may have to consider that the mandate of evidence-based medical practice is a wishful at present proposition, since many of medical scientific advances are not yet ready to be implemented, and the practice of medicine is not ready yet to divorce itself, if ever, from intuition, experience, wisdom, and the timely consideration of the facts at hand. The evaluation of the effectiveness of the system should not be arranged with bias for positive responses while masking defects. Once more; we should keep in mind, the time may not be ripe to relinquish the use of wisdom which is a mixture of intuitiveness, experience, and a consideration of facts at hand.

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