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The Downsides of Evidence-Based Medicine

—A Cautionary Tale

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Abstract

There exist problems in the actual evidence-based in the practice of medicine relating to the time available and the stringent algorithms employed by the attending physicians. The mistakes are often serious. Illustrating clinical examples are given as to how things can go wrong under the pressure baring on clinicians by the factors given.

Keywords

Evidence-Based Medicine, Misdiagnoses, Comorbidities

1. Introduction

The prompting to practice medicine using an evidence-based mandate should immensely benefit the patient. It provides a measurable tract and obliges the physician to stay focused on the problems at hand while providing a uniform method of reporting that is simple and readily available to the various, attending physicians [1] [2]. Unfortunately, the actual practice of it is fraught with unattended problems [3].

2. Methods

The author, a psychiatrist, uses illustrative examples from actual clinical events that happened to him. Medical cases originated from exposure to different medical specialties and practitioners in order to address clinical conditions.

2.1. Participants

In the practice of evidence-based medicine, the practitioners from various specialties were captivated by the algorithms of the obligation to record the often procrustean, evidence-based syndromes, while being constrained by the allotted

time. This prevents physicians from exercising their accumulated education and experience, from considering alternative variant syndromes and from empathizing with the patient. The latter is essential to bolster recovery.

The attending physician is reduced by the mandates and the time available to a "mere technician". In addition, despite the enormous advances in medicine, the time has not yet come to reduce the evaluation process to a series of simple, algorithmic steps. The clinician does not have the time allowed to contemplate and record the ever-present complexity of each patient's predicament, especially for patients with multiple pathologies. The latter is a serious problem by itself. In actuality, the brief follow-up time assigned for the patient which is usually fifteen minutes to half an hour with the constraints mentioned above creates mistakes both in omission and commission [3].

2.2. Examples

The article includes several examples of actual misdiagnosis, some serious, occurring in the span of several years to the author, who is a physician himself.

The patient, an eighty-one-year-old man scheduled for heart surgery, warned the admitting officer who had made a note of it in the records, his allergy to heparin. Subsequently, the admitting physician overlooked the written warning and instead, followed the prescribed algorithms and administered heparin. The heart surgeon also overlooked the warning, following successful surgery, and the patient developed heparin-induced thrombocytopenia! The consulting hematologist, also ignored the heparin warning, while thinking the patient had a simple thrombotic event. He administered more heparin! The patient now developed organ failure. While moribund, he was taken off heparin and all supports to promptly revive from a coma but, not before developing gangrene in both feet and hands. It tragically resulted in the bilateral amputation below both knees and several fingers on both hands.

A gastroenterologist captive of routines for diagnosing and not investigating further was consulted by the patient regarding severe dyspepsia. The physician performed the following tests: an X-ray, a radio tracing of the propulsion of food, an echo gram, and a gastroscopy. All test and scan results failed to demonstrate any pathology. The gastroenterologist failed to consider the fact that the patient was taking magnesium oxide for neurological pain. The oxide form of magnesium salt was pillaging hydrochloride from the stomach resulting in severe dyspepsia. The patient, on his own, switched to magnesium citrate with prompt recovery.

Several months later, the patient visited the emergency room for a developed cellulitis on the right side of his amputated stump in order to obtain an antibiotic. The attendant, ignored the protest of the patient, and sliced the phlegm, a result of poor circulation. Hence, he developed an ulcer below the knee for several months causing great difficulty and agony. He was deprived of using his prosthesis thus, preventing him from going to the bathroom.

The same patient sought help from an internist for severe, dry coughing and

persistent heaving. The internist pressured by the scheduled number of patients failed to consider the patient's heart condition and proceeded erroneously to diagnose bronchitis. He ordered an inhaler with a sympathomimetic medication. The unconsidered, volume-overload responsible for the symptoms resulted in an impending heart failure by the symptoms exhibited. The patient proceeded on his own to be hospitalized where he was administered furosemide IV, resulting in recovery.

When seen by another physician, the patient with arthritic and neurological pains was ordered bupropion. The patient was never asked by the attendant how he was feeling emotionally since the patient had neither a loss of appetite nor a mood of bad quality with the accompanying symptoms of anhedonia and disengagement from daily activities.

Again, while consulting an ophthalmologist for dry maculopathy, the patient informed him of a severe difficulty to comprehend what he was reading. The ophthalmologist erroneously stated that the condition was due to an existing dry, age-related, macular degeneration. The patient suspected a defect in the central nervous system, and indeed following a complete blood count (CBC), his hemoglobin was 7 with severe anemia due to a small but, persistent hemorrhage in the digestive system, caused by Cliquish. The anemia was treated and the patient promptly recovered from visual agnosia.

3. Results

Illustrative medical examples after testing and diagnoses demonstrate poignantly how under the factors during the evaluation process, simple mistakes can be made. The practicing physicians pressured by the limited time available and the stringent categorical guidelines of the medical texts, and rules create frequent mistakes both in omission (*i.e.*, missing a diagnosis) and commission (*i.e.*, mistreating a patient for a misdiagnosed condition).

4. Discussion

All cases treated mainly at two different healthcare systems spanning several years cannot be considered unavoidable incidences due to rare mistakes. The attending physicians involved were dedicated and well-qualified practitioners. The misdiagnoses and mismanagement instead, should be considered as the result of defects in the rigid algorithms of the proclaimed evidence-based medicine and the limited, allotted time. The practitioners were unable to consider all the factors bearing on the patient's condition and idiosyncrasies to medications. Significantly, except for the cardiologist in the second institution, there was an absence of an empathic alliance as the attending physician mechanically "interrogated" the patient.

Finally, we still consider the fact that all humans are biological variants of each other. Each patient expresses pathological processes and diseases variously, nevertheless, the practitioner conforms to proverbial, pathological processes and

diseases inconsistantly. The practitioner conforms to a proverbial adage by an insouciant tourist in Europe when asked where he was, he replied "If it is Tuesday, it must be Belgium", following his algorithm!

To reiterate, these narrated mishaps were made under the proclaimed "evidence-based medicine." It is clear, that the attending physicians should be given more time to contemplate and review the diagnosis of each patient. This may reduce mistakes made on account of the brevity of time available which obliges the practitioner to rely mechanically on the algorithms which chiefly were responsible for making quick and inaccurate diagnoses. Colleagues still in training and for making accurate diagnoses, treatment and management should be taught to rely on critical, clinical judgment, consultation with other doctors, their accumulated experience, and the efficacy of an empathic interaction with a patient.

Comorbidities are often ignored and overlooked in terms of preexisting conditions and the medications prescribed by other specialists for possible side effects, synergies, and idiosyncratic responses whereby contributing to mistakes. An example is bipolar affective disorder which rarely accommodates the algorithms assigned for its diagnosis. Frequently, it expresses itself variously with behavioural problems alone, often subtle, instead of the traditional exaggerated, emotional ones.

Conflicts of Interest

The author declares no conflicts of interest.

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