HOW TO ASSIST TO BETTER AND FASTER MEDICAL DIAGNOSES THROUGH MEDICAL SAPIENS WEB PLATFORM

ABSTRACT

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The medical diagnosis error corresponds to any failure or mistake in the patient care process that leads to the lack of a diagnosis, an incorrect or delayed one.

The main reasons for error in medical diagnosis can be grouped into two fundamental pillars: incorrect/inaccurate diagnosis, and lack of information access.

Damage due to errors in medical diagnosis are due to the delay or failure to treat existing conditions or from wrong treatments, mostly associated to unexisting conditions.

Studies carried out in the United States reveal that the average diagnostic error varies from 4% to 59%, depending on the nature of the disease and the conditions of medical care. Other autopsy studies have shown error rates ranging from 10% to 14%.

Therefore, information technologies and specifically Health Information Systems (HIS) provide security tools that are widely validated in healthcare practice, but still require significant development and implementation strategies to be finally accepted by physicians.

In contrast, the Medical Sapiens (MS) web platform allows medical diagnosis based on cardinal description of patients' symptoms and signs , under an additive medicine approach (adding information that increases diagnostic certainty). This approach provides, better, easier and faster identification of possible diagnosis. Currently MS is being tested in several clinical centers in Chile.

MS's most valuable feature is its database which contains detailed assessment of 1,396 disease profiles over 9000+ weighted criteria, derived from 35 AHNP linked models, which in turn are the topographycal representation of the human body.

The elements definition within each one of the 35 models (criteria, sub-criteria and intensity scales), was carried out in conjunction with a team of medical specialists with a big expertise coming from different universities, plus medicine texts and evidence-based medicine, during four years in stage I and the last two years (2019-20) in stage II.

The opportunities that the implementation of the MS web platform can generate are:
- Decrease in the rate of medical errors through increased diagnostic certainty.
- Reduction of health risks for patients / Increased safety and quality of medical care.
- Reduction in the costs of the disease to patients due to misdiagnoses.
- Cost reduction for the health system (public or private).
- The reduction of insurance / legal costs.

Alleviate the scarcity or absence of medical specialists in places far away from capital cities and not yet developed countries.

About the last point, it is worth mentioning the significant scarcity of medical specialists outside the Capitals of many not yet developed Countries. This absence of specialists can in part be alleviated by implementing MS software in rural posts and provincial hospitals (always under the review of a general practitioner on the MS web platform).