

Knowledge is not enough the Prominence of the Laboratory in Clinical Decision Making Through Creative Imagination, Communication and Leadership

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Laboratory data intervenes in 70% of clinical decisions [1]. Even so, to achieve a real contribution to patient outcome, it needs to deliver knowledge, not just data [2]. Orphaned information is, indeed, prone to be misinterpreted [3]. Data is delivered by analyzers; knowledge is provided by the interpretation of this information through the knowledge and experience of the laboratory professionals. As stated more than one century ago, “a medical student often leaves the walls of his alma mater with a false conception of the use of the laboratory in diagnosis” or “there is a danger that laboratory findings may be allowed to take the place of the keen thinking and the educated senses which our professional ancestors used to such good purpose” [4]. Currently, this problem not only continues, but is even more serious. For instance, the degree of knowledge shown by physicians regarding the variability of laboratory results is scarce [5]. Beyond the importance of the biological and analytical variability, the knowledge of the reference value theory and the clinical sensitivity and specificity of laboratory tests is crucial for an appropriate data interpretation and, hence, for a real laboratory contribution to clinical decision making.

There is no other medical specialty that intervenes in such a large magnitude of medical procedures; Laboratory is, indeed, at the centre of the patient care [6]. Nevertheless, to play a leading role in clinical decision making, knowledge is not enough. Other skills are necessary to conduct the laboratory to the pivotal role that it really deserves as, for instance, creative imagination, communication and leadership.

Through their imagination, laboratory professionals should catch any opportunity to help clinicians to request tests appropriately and to add the most of value to the test results. The needs of our “customers” can partially be satisfied by the use of our powerful laboratory information systems. Anyhow, when implementing new technologies, it is crucial not to abandon the execution of skills and processes that contribute to the organization value. On the contrary, those habits should be maintained, improved and automated. For instance, to implement our so called “electronic primary care alert value reporting

system” [7] - a means to help primary care physicians to “catch” useful clinically data – we first applied our creative imagination to design the ideal approach. Second, communication with general practitioners was used to discuss and finally implement such a strategy.

Regarding leadership, the strategies designed and established in the laboratory to improve clinical decision making can have a great impact in the patient outcome [8]. Laboratory contribution to decision making will further promote communication with the rest of medical specialties.

That’s how, in the long term, laboratory may become a key process - not only a support process - in the healthcare system [9] through knowledge, creative imagination, communication and leadership.

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