

Opinion Article / Artigo de Opinião

Value Based Radiology

Radiologia Baseada em Valor

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The concept of value in medicine or value-based medicine, increasingly in fashion, can be simply defined by the equation proposed by Michael Porter, where value is equal to outcomes divided by the costs in delivering those outcomes¹. Refinements of this equation also include in the numerator the costumer or patient's satisfaction in the episode of care. Perhaps better still, and clearly adapting the equation to the Lab tests Radiology field, we would place, before the arithmetic fraction, a multiplication for the degree of appropriateness of the requested exam. If an exam is inappropriate, then one easily concludes that, multiplied by zero, the final value is null.

Let's start then with the numerator of the value equation. How can we improve outcomes and/or satisfaction with our Radiology service? More accurate diagnoses without delay will put the efficient radiologist in advantage and knowledgeable of the current state of the art. Lyrical or flowery reports, unstructured, omitting information, flawed or without objective or non-actionable conclusions, on the other hand, will put other radiologists at a disadvantage when comparing and assessing their performance (benchmarking) in this competitive market of value-based medicine.

Everything that orbits around the patient, namely his/her experience during the radiological visit, whether diagnostic or interventional, will serve to gauge his/her overall satisfaction with the care provided. Access to facilities, cleanliness, waiting times, comfort in different rooms or divisions of the building or department, communication with staff (assistants, technicians, etc.) or with the radiologist himself can all serve for the final benchmarking. Of particular relevance, the communication aspect of the modern radiologist is fundamental in this new Age. To gain value we must gain more visibility. Communication is not only with the patient, family or caregivers but also with colleagues. Different specialty physicians' satisfaction who refer to us for the exams is also, logically, important.

Radiology consultation, bringing those same colleagues to the table or to the multidisciplinary meeting room, for second opinions and reviewing previous images or examinations, is the way to be followed. Gaining relevance again, stage and visibility in the hospital environment is crucial. All means (software/hardware) associated with imaging are on our side, our best weapon and at the same time deterrent to commoditization.

On the denominator side (costs), the main element will be the criterion/appropriateness of the exams. Without the interest in self-referral, so often pointed to other specialties that include some imaging modalities, the disinterested role of the radiologist working on the value-based model will be fundamental in combatting waste and reducing costs, much to the hospital's manager/administrator satisfaction.

And who better than a Radiologist knows the criteria of adequacy of different radiological examinations? The scourge of waste in health testing/exams and procedures, estimated at 30% in several countries (mostly Western!) that comprise the Choosing Wisely campaign,² can only be fought with the contribution of Radiology concerning radiological examinations/interventions. Clinical decision support systems, ie support software to radiology examination prescription/request, are one of the solutions that are beginning to be implemented. In the USA they will be mandatory from January 2020 onwards and, in Europe, pilot experiences have already started.

Just as it is prophesied that radiologists who have knowledge about the artificial intelligence operation will in the future replace those who don't, it is also expected that, given the paradigm change in health financing (fee-for-service for bundled payments or value based performance), in the future, the radiologist who is comfortable with the concepts and application of value-based medicine will succeed.

The new times of radiology are thus challenging. One has to be prepared and know how to be "at the table and not on the menu" to better negotiate and lead this transition.

1. Porter ME. What is value in health care? N Engl J Med. 2010;363:2477-81.

2. <http://abimfoundation.org/news/letter-from-the-foundation/beyond-high-prices-five-reasons-continue-addressing-overuse> (acedido 16 de novembro de 2019).