Are Guidelines Useful in the World of Imaging? To Measure or Not To Measure, That Is the Question

¿Son útiles las guías en el mundo de las imágenes? Medir o no medir, esta es la pregunta

Dubium sapientiae initium
(Doubt is the origin of wisdom)

Rene Descartes (1596-1650)

Regarding cardiovascular imaging, an exponential proliferation of guidelines with recommendations, measurements, figures and formulas is found in the world's scientific literature, so that we know them all in detail. Nevertheless, it should be recalled that guidelines are not the Bible; unlike a dogma that is always an act of faith and fidelity, guidelines change over the years.

Guidelines have lost credibility, and it has been said that the best guideline is the one that is not read. However, the immense work involved in making this type of document should not be underestimated, and if its authors are suitable and have no conflicts of interest, their conclusions are based on strong evidence without bias, and there is an expert external review, they are a tool that, interpreted with critical wisdom, is useful in the practice of cardiology and in the world of imaging.

Medicine is a science of uncertainties and an art of probability. "Certainty is an illusion", said the great William Osler, and only uncertainty is a sure thing.

We know that, in most imaging techniques, measurements are inaccurate (excessive intraobserver and interobserver variability) and that medicine is much more complicated than a number.

There should be no fundamentalism in medicine. Except for ethics and morality, everything is subject to change; something that seems to be of benefit today could be discarded tomorrow, and its value recognized again later by simply changing the methodology of the statistical analysis.

We should be flexible and always doubt what we cannot easily reproduce.

Guidelines are not commandments; they are usually supported by expert consensuses, based on evidences, sometimes on meta-analyses, and rarely on large trials. The truth is that patients will rarely adjust to guidelines, either due to age, comorbidities, the environment in which they interact, chances to access the recommended tests, etc.

Imaging is science and art, but this concept is not taken into consideration in guidelines. In general, guidelines are written by experts from Europe and the United States, and what can be considered as very appropriate in a certain place may not be so in another due to multiple reasons, such as cultural and socio-economic issues, resources and personal choices, among others.

One of our most important tasks is to customize those guidelines according to the specific patient in front of us.

Since Newton, we know that mathematics is the most reliable and effective method to understand the world around us. It was Newton who established the basic rules of the scientific method and liberated the interpretation of reality from speculative biases, myths and dogmas.

We must continue measuring; being quantitative is more accurate than being qualitative. Guidelines teach us what should be measured and how to do it, so that we can standardize conducts with the best quality standards, and our reports do not turn into a Tower of Babel.

In the 5th century B.C., Filloa of Crotone, a disciple of Pythagoras, referring to the number as the essence of reality, argued that all known things have a number, because it is impossible that something without number can be known or conceived.

We need a lot of training, less subjective appreciation, measuring several times, using averages, and always remembering that very complex formulas can lead us to a lot of mistakes.

However, we are not slaves of a number; the trend is what is worthy, and its follow-up will tell us if our patient is going to be in the group with the best or worst prognosis. We will always be imperfect because medicine is very complex, and although we tend to be more accurate and precise in the imaging field thanks to enhanced technologies, its application and elucidation must always fit the patient's clinical condition, which is much more than a figure or an image of his body.

As Dr. Hernán Doval, Director of this Journal, wrote in a brilliant editorial: "Guidelines should not be interpreted as the new scholastic dogma but simply as an orientation." (1)

The end of the year is around the corner, and the last issue of the Argentine Journal of Cardiology, as usual, is dedicated to cardiovascular imaging; all modalities are represented, but the works on echocar-

diography are more numerous because it is the most used imaging technique in daily practice in Argentina and worldwide.

In this issue, five original papers are highlighted, including one on basic research, two editorials and a review article, two brief reports, two scientific letters and one article on images in cardiology; the usual RAC President's letter and RAC Director's letter. This special issue is completed with the usual comment on the Journal's cover illustration, the critical analysis of the most outstanding publications in cardiology and the updated information for patients.

As always, we hope that the 6th issue content of the 2018 Journal will be of great interest and benefit to you.

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REFERENCES

1. Visión crítica de las guías, o guías de la visión crítica. Hernán Doval