It's time we think in terms of a transitional Health-Spectrum!

One of the major problems with our imprecise diagnostic tests is the assumption that disease is either present or absent using man-made standards and interpretation of results.

Diagnostic testing that requires the interpretation of whether disease is present or absent, reflects a fundamental problem with the yes/no testing approach used to determine if someone has cancer, heart disease or some other problem (sensitivity) or doesn't (specificity); and just as importantly whether our treatment for the patient is working or not [1].

For too long physicians and insurance companies have looked at people as either having a disease or not. Medicine is after all the practice of healthcare, not disease care. The entire approach leads to problems with coverage of pre-existing conditions, as well as the consequence of dealing with failures of that approach, when those told they do not have a health problem, later die from it [2,3].

Qualitative and semi-quantitative methods of looking for disease, excludes the understanding that changes in the health of a patient occurs across a continuum — a "Health-Spectrum" - and that patients do not suddenly wake up one day with cancer, heart disease, or some other health problem [4].

The ability to quantitatively measure changes in the Health-Spectrum of a patient is more accurate, consistent and reproducible; and it allows us to measure actual treatment results without guessing [5,6] - thereby decreasing healthcare costs and time while saving lives.

25 February 2020

Richard M Fleming, Ph.D., M.D., J.D.

Physicist-Cardiologist
Matthew R Fleming, BS, NRP (FHHI-OI-Camelot); Tapan K. Chaudhuri, MD
(Eastern Virginia Medical School); William
C. Dooley, MD (University of Oklahoma
Health Science Center)
FHHI-OI-Camelot
Los Angeles, CA

BMJ 2020;368:m149

These measurements are only possible when the calibration of the equipment we use is made against a known standard, which does not flux – but is constant [5,6]. Only by using such constants, will these measurements be accurate, consistent and reproducible – across the Health-Spectrum of the patient – eliminating the "results may vary" error introduced using man-made standards and interpretation [6].

References:

- 1. Fleming RM, Fleming MR, Chaudhuri TK. Are we prescribing the right diets and drugs for CAD, T2D, Cancer and Obesity? Int J Nuclear Med Radioactive Subs 2019;2(2):000115.
- 2. https://www.areyoudense.org/
- 3. https://www.youtube.com/watch?v=RTHEtRtiB3k
- 4. Fleming RM, Fleming MR. The Importance of Thinking about and Quantifying Disease like Cancer and Heart Disease on a "Health-Spectrum" Continuum. J Compr Cancer Rep 2019;3(1):1-3 (Article ID 100011).
- 5. Fleming RM, Fleming MR, Chaudhuri TK, McKusick A. FMTVDM Quantitative Imaging Replaces Current Qualitative Imaging for Coronary Artery Disease and Cancer, Increasing Diagnostic Accuracy and Providing Patient- Specific, Patient-Directed Treatment. Cardio Open 2019;4(3).
- 6. Fleming RM, Fleming MR, Dooley WC, Chaudhuri TK. Invited Editorial. The Importance of Differentiating Between Qualitative, Semi-Quantitative and Quantitative Imaging Close Only Counts in Horseshoes. Eur J Nucl Med Mol Imaging.
 DOI:10.1007/s00259-019-04668-y. Published online 17 January 2020 https://link.springer.com/article/10.1007/s00259-019-04668-y

Competing interests: FMTVDM issued to first author.