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Room for Improvement in National Academy of Clinical Biochemistry Laboratory Medicine Practice Guidelines

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Patrick M.M. Bossuyt.
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Guest:
Dr. Alain Verstraete is Head of the Toxicology Laboratory of the Department of Laboratory Medicine at Ghent University Hospital in Belgium.

Bob Barrett: This is the podcast from *Clinical Chemistry*. I am Bob Barrett.

Practice guidelines are everywhere in healthcare. They have been around for decades, but their development, dissemination, and use have grown considerably over the past 10 years.

In the October 2012 issue of *Clinical Chemistry*, Patrick Bossuyt published a provocative editorial suggesting that there is room for improvement in practice guidelines issued by the National Academy of Clinical Biochemistry, or NACB.

Professor Bossuyt is Head of the Department of Clinical Epidemiology and Biostatistics of the Academic Medical Center of the University of Amsterdam in the Netherlands. He is our guest in this podcast.

Professor, what exactly are practice guidelines?

Prof. Patrick Bossuyt: Well, practice guidelines are systematically developed statements to healthcare professionals and their patients in making appropriate decisions in healthcare. These are statements that tell healthcare professionals what the best line of action is in their specific circumstances, and that way, they are informative for patients as well, telling them what not to do and what to do in specific circumstances.

And these practice guidelines used to be based on a consensus, so on the seniority by senior people, but nowadays they are being developed based on the

current best available evidence from the scientific literature.

Bob Barrett: And over the past few years, we've seen a number of practice guidelines grow, why is that?

Prof. Patrick Bossuyt: Well, there are a number of reasons actually that you can mention for that process. One is that it's no doubt that healthcare cost have been rising. And there have been several studies that pointed out practice variations, and that means that, one particular procedure is used very often in one area and far less often in another area without actually a clear indication for that difference.

So, these developments actually have started people to doubt whether healthcare professionals were behaving in an appropriate way. So, practice guidelines could help to contain cost and reduce practice variability.

On the other hand, if you believe in evidence-based medicine, that the healthcare practice should be based on the best available evidence, it's very difficult for an individual to be on top of the literature to know about all of the research that has been done in a particular area.

So, practice guidelines actually can help to improve quality, reduce waste in healthcare, and at the same time being based on the synthesis of the current best available evidence from the scientific literature. So, they can be a real help for the healthcare professionals and their patients.

Bob Barrett: Has this increase also been going on in the area of clinical chemistry and laboratory medicine?

Prof. Patrick Bossuyt: Yes, I think it has been started, initially started in other areas like in general medicine and surgery and somewhat later but not much later, we've seen the same process in laboratory medicine and clinical chemistry, yes.

Bob Barrett: Your editorial comments on an evaluation of guidelines developed for laboratory professionals. In that paper, the authors used the so-called AGREE process or Appraisal of Guidelines for Research and Evaluation. What were the conclusions from that evaluation?

Prof. Patrick Bossuyt: Yes, the authors have analyzed 11 guidelines that have been developed by the National Academy of

Clinical Biochemistry, and their conclusion actually was not very positive in the sense that their conclusions said that the quality of these 11 guidelines was generally rather poor. Actually, they're using the AGREE instrument, they were forced to assign quite low scores for these guidelines in clinical biochemistry.

Bob Barrett: Well, how do you explain the poor state of those guidelines in clinical chemistry, in laboratory medicine?

Prof. Patrick Bossuyt: Well, unlike actually for pharmaceuticals or for other types of interventions, there's usually very little direct evidence that links the actions of people in clinical chemistry and laboratory medicine to health outcomes of patients.

So, people actually usually do not get better from taking a laboratory test in itself. There should be other actions by other healthcare professionals, and if these people make the appropriate decisions, people would get better.

So, unlike for example, other areas in medicine where we have randomized trials to guide practice actually, there are very few randomized trials to guide practice in laboratory medicine. And that's why the people that have developed these guidelines in clinical biochemistry, I think, could not rely on a very firmly developed methodology for developing practice guidelines.

And it's interesting to know that only the last guideline, actually the one on diabetes actually received quite high scores by these investigators, by this Canadian group that used the AGREE instrument.

Bob Barrett: Well, finally then, let's look ahead. What needs to be done in order to improve the state of guidelines in laboratory medicine?

Prof. Patrick Bossuyt: Well, the authors that did this analysis have a number of recommendations, and in general, their recommendation comes down to a more systematic method for developing practice guidelines, because practice guidelines should be systematically developed statements to guide healthcare professionals actually, which is my response to your first question.

So, these guidelines in biochemistry and laboratory medicine should be developed in a more systematic way. And if that happens actually, they probably will have more impact on laboratory medicine in general and that will lead to better health outcomes in patients.

Bob Barrett: Patrick Bossuyt is an expert in medical decision-making at the University of Amsterdam in the Netherlands. He has been our guest in this podcast from *Clinical Chemistry*.

I am Bob Barrett. Thanks for listening!