- EDUCATIONAL WEBINAR -

The concept of traceability and its impact to laboratory medicine

PRESENTED BY PROF. MARIO PLEBANI
Friday, January 21st, 2022

12:00 GMT | 13:00 CET | 07:00 ET

Webinar Description

The concept of traceability in laboratory medicine usually concerns the analytical phase. In particular, traceability to a common reference, ideally up to the International System of Units [SI], ensures a high quality and long-term equivalence of measurement results obtained by different measuring systems. The traceability of measurement results is achieved by an unbroken sequence of calibrations, each contributing to the uncertainty of results of clinical samples (CS). Reference materials (RMs) have been described as one of the six pillars of the "temple of laboratory standardization", together with other classical key elements of the reference measurement system (i.e. higher order reference procedures and reference laboratories performing them), the implementation of analytical quality control programs that meet metrological criteria, and the establishment of targets for uncertainty and error of measurement that are fit for purpose (1) However, traceability strongly affects the post-analytical phase particularly regarding the definition of traceable reference intervals and decision limits, and the pre-analytical phase. In fact, without good quality samples and a valuable chain between patient identification, blood collection and sample transportation, even a standardized method does not allow to achieve clinically reliable and accurate results (2).

Reference

1) Panteghini M, Braga F. Implementation of metrological traceability in laboratory medicine: where we are and what is missing. Clin Chem Lab Med. 2020;58(8):1200-1204.

20) Plebani M. Towards a new paradigm in laboratory medicine: the five rights. Clin Chem Lab Med. 2016;54(12):1881-1891.

Learning Objectives

- 1. Concepts of Traceability in the Clinical Laboratory
- 2. Impact of Traceability on laboratory quality
- 3. Contributing factors to Traceability in the clinical laboratory

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