



Assessment of lodine Intake: Analytical Methods and Quality Control July 22-23, 2014

PRESENTATION ABSTRACT

Commutability

W. Greg Miller, Ph.D. — Virginia Commonwealth University, Richmond, VA

Abstract

Commutability is a property of a reference material that describes the closeness of agreement between the relationship observed for a reference material and the relationship observed for patients' samples between two measurement procedures. It is essential that a reference material intended to be used as a common calibrator in a traceability scheme be commutable with patients' samples for all of the routine methods for which it will be used. If a method manufacturer or laboratory developing a test procedure establishes calibration traceability to a noncommutable reference material, then the results for patient samples will not agree with those from other methods for that analyte. The Clinical and Laboratory Standards Institute has published a guideline for demonstrating commutability of reference materials. In 2013, the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) established a Working Group for Commutability to advance understanding of the technical issues involved in commutability assessment and to develop improved approaches to validate commutability of reference materials. The current issues and approaches to improve the procedures to evaluate commutability of reference materials will be presented.

References

- 1. Miller WG, Myers GL, Rej R. Why commutability matters. Clin Chem 2006;52:553-4.
- 2. Vesper HW, Miller WG, Myers GL. Reference Materials and Commutability. Clin Biochem Rev 2007;28:139-147.
- 3. Characterization and qualification of commutable reference materials for laboratory medicine; approved guideline. CLSI document EP30-A, Clinical and Laboratory Standards Institute, Wayne, PA, 2010.
- 4. Miller WG, Myers GL. Commutability still matters. Clin Chem 2013;59:1291-3.
- 5. Miller WG, Tate JR, Barth JH, Jones GR. Harmonization: the sample, the measurement and the report. Ann Lab Med 2014; 34(3):187-97.



