Total proteins change in reconstituted freeze-dried reference materials used in clinical chemistry

Bára Vinklářková, Vratislav Chromý, Luděk Šprongl and Miroslava Bittová
Masaryk University, Czech Republic

Chromý et al. published in 2009, that albumin-calibrated analysis of serum total protein according to a candidate reference method developed by Doumas working group in 1981 provide results with unacceptable positive bias. The simplest way to change this defect is the use of serum and/or plasma-based protein standards certified by the Kjeldahl method. In our previous papers, we reviewed Kjeldahl methods adopted by laboratory medicine, selected a direct analysis on washed protein precipitates with trichloroacetic acid and verified its analytical performance parameters. During these procedures we noticed that some proteins in reconstituted freeze-dried materials are not quite stable and changes visibly, (mostly goes down), even during the time allowed for their use. In the poster, we describe total protein changes found in various reference materials and for comparison and verification our results we use our direct KM determination and routine automated analyses.

Biography
Bára Vinklářková is second year PhD student of Analytical chemistry at Masaryk University in Brno, Czech Republic. She has published two papers and she regularly participates in international conferences. Her research interests are bio-analytical chemistry, quality and validation.

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