



CV of Hassan Bayat

- Doctor of Clinical Laboratory Science (DCLS); Beheshti University (Tehran, Iran)
- Member of the Task and Finish Group on Total Error (TFG-TE) established by the EFLM (April 2015 to April 2015). Chosen by the chair of the TFG (Dr. Wytze Oosterhuis) as the expert on the Total Error model to work with him and Dr. Elvar Theodorsson (as the expert on Measurement Uncertainty model) on finalizing the TFG-TE's consensus paper.
- Co-editor (with Professor J. Westgard and Sten Westgard) of special issue on Six Sigma published in *Bichemia Medica* [Issue 2018;28(2)]
- Chair of Iranian Accreditation Body (Since October 2022) for accrediting medical laboratories established by Iranian Association of Clinical Laboratory Doctors (IACLD)
- **Member of CLSI Expert Panel on Evaluation Protocols (CLSI Exp-EP)** (Since January 2023)
- Member of Laboratory Management Committee of Asia Pacific Federation of Clinical Biochemistry (Since January 2023)
- **Member of IFCC Method Evaluation Protocols (IFCC MEP)** (Since February 2023)

❖ **Activities**

- Presenting many lectures and workshops on QC topics throughout Iran since 2010
- Publishing various papers related to different issues in the medical laboratory in Iranian journals
- Translating from English in Farsi various papers related to different issues in the medical laboratory published in Iranian journals

- **Lectures presented in international meeting out of Iran:**
 - Presenting a lecture in the Quality in the Spotlight Conference (Antwerp 2018)
 - Presenting a lecture in the TBD 2018 Congress (Turkey)
 - Presenting a lecture in the Lab Quality Days 2019 Congress (Finland)
 - Presenting a lecture in the Labac 2019 Conference (France)
 - Presenting a lecture and workshop in the Balkan Biochemistry 2019 Congress (Turkey)
 - Presenting a lecture on COVID-19 Ag/Ab tests. KSCC 2022 Satellite Meeting (S. Korea)

- **Webinars hosted by Westgard QC Inc.**
 - The inner, hidden, deeper secret meaning of MaxE(Nuf) model (January 2022)
 - The inner, hidden, deeper secret meaning of Six Sigma (April 2022)

- **Papers published in English journals:**
 - 1) Wytze P. Oosterhuis, Hassan Bayat et al. The use of error and uncertainty methods in the medical laboratory. *Clin Chem Lab Med* 2018; 56(2): 209–219;
<https://doi.org/10.1515/cclm-2017-0341>

- 2) H. Bayat. Selecting multi-rule quality control procedures based on patient risk. CCLM; 2017. DOI 10.1515/cclm-2016-1077
- 3) H. Bayat, S. Westgard, J. O. Westgard. Planning Risk-Based Statistical Quality Control Strategies: Graphical Tools to Support the New Clinical and Laboratory Standards Institute C24-Ed4 Guidance. JAML; September 2017. DOI: 10.1373/jalm.2017.023192
- 4) S. Westgard, H. Bayat, J. O. Westgard. Selecting a Risk-Based SQC Procedure for a HbA1c Total QC Plan. DST; 2017. DOI: 10.1177/1932296817729488
- 5) J. O. Westgard, H. Bayat, S. Westgard. Planning Risk-Based SQC Schedules for Bracketed Operation of Continuous Production Analyzers. Clin Chem; 2017. DOI: 10.1373/clinchem.2017.278291
- 6) Sten Westgard, Hassan Bayat, James O Westgard. Special issue on Six Sigma metrics - experiences and recommendations (Editorial). Biochemia Medica 2018;28(2):020301. <https://doi.org/10.11613/BM.2018.020301>
- 7) Hassan Bayat. Expected long-term defect rate of analytical performance in the medical laboratory: Assured Sigma versus observed Sigma. Biochemia Medica. 2018;28(2):020101. <https://doi.org/10.11613/BM.2018.020101>
- 8) Sten Westgard, Hassan Bayat, James O Westgard. Analytical Sigma metrics: A review of Six Sigma implementation tools for medical laboratories. Biochemia Medica 2018;28(2):020502. <https://doi.org/10.11613/BM.2018.020502>
- 9) Sten Westgard, Hassan Bayat, James O Westgard. Mistaken assumptions drive new Six Sigma model off the road. Biochemia Medica 2018;29(1):010903 <https://www.biochemia-medica.com/en/journal/29/1/10.11613/BM.2019.010903>
- 10) James O. Westgard, Hassan Bayat, Sten A. Westgard. Planning SQC strategies and adapting QC frequency for patient risk. Clinica Chimica Acta 523 (2021) 1–5 <https://doi.org/10.1016/j.cca.2021.08.028>
- 11) Sten A. Westgard, Hassan Bayat, James O. Westgard. A multi-test planning model for risk based statistical quality control strategies. Clinica Chimica Acta 523 (2021) 216–223 <https://doi.org/10.1016/j.cca.2021.09.020>
- 12) Westgard JO, Bayat H, Westgard SA. Planning SQC strategies and adapting QC frequency for patient risk. Clin Chim Acta 2021; 523:1-5
- 13) Westgard SA, Bayat H, Westgard JO. A multi-test planning model for risk based statistical quality control strategies. Clin Chim Acta 2021;523;216-233
- 14) Bayat H, Westgard SA, Westgard JO. Multirule procedures vs moving average algorithms for IQC: An appropriate comparison reveals how best to combine their strengths. Clin Biochem Jan 2022. <https://doi.org/10.1016/j.clinbiochem.2022.01.001>
- 15) Westgard JO, Bayat H, Westgard SA. How to evaluate fixed clinical QC limits vs. risk-based SQC strategies. CCLM 2022. <https://doi.org/10.1515/cclm-2022-0539>

16) Bayat, Hassan, Johansen, Jesper V., Bachmann, Lorin and Person, Nils. "Limitations in using the EFLM WG-A/ISO approach for assessment of reagent lot variability" *Clinical Chemistry and Laboratory Medicine (CCLM)*, 2023. <https://doi.org/10.1515/cclm-2023-0430>

▪ **Papers published on Westgard website:**

- 1) In favor of full QC. May 2013. <https://www.westgard.com/full-qc.htm>
- 2) QC-dependent Risk Reduction: Clinical Chemistry Journal Club Comments. January 2015. <https://www.westgard.com/qc-risk-reduction.htm>
- 3) Westgard JO, Bayat H, Schilling P, Westgard SA. A new online tool to help you determine your QC Frequency (Run Size). July 2021. <https://www.westgard.com/qc-frequency-calculator.htm>
- 4) Westgard JO, Bayat H, Schilling P, Westgard SA. QC Frequency: It's Time to Change your Tune! October 2021. <https://www.westgard.com/new-frequency-calculators.htm>
- 5) It's time to talk about bias – is it a shift or an uncertainty? September 2022. <https://westgard.us1.list-manage.com/track/click?u=51c1c1d980436009705de9f46&id=64dc07bd44&e=72f34621e5>

▪ **Book:**

Advanced QC Strategies. J. O. Westgard, H. Bayat, S. Westgard. Westgard QC Inc. 2022

▪ **Poster:**

Sigma Metric Equation proposed by James O. Westgard is [not] wrong. H. Bayat, S. Westgard. 2022 AACC Annual Scientific Meeting (July 24-28, Chicago) <https://www.westgard.com/advanced-qc-strategies.htm>

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