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Biography

Loredana Liliana Hurjui, is Associate Professor, MD, PhD in the Department of Morpho functional Sciences II, Grigore T. Popa University of Medicine and Pharmacy in Iasi, Romania. At the same time, she is a Medicine Laboratory Physician at the Sf. Spiridon Hospital, Iasi, Romania. Since 2017, she has been the coordinator of EMC-credited postgraduate courses for specialists in the clinic and medical analysis laboratories. She has over 120 papers in Web of Science totaling over 1000 citations.

The Importance of Nursing Training to Eliminate Laboratory Pre-Analytical Errors

Abstract:

Minimizing human error in laboratory diagnostics is critical for ensuring accurate and reliable test results. Human factors may contribute to laboratory errors, particularly during the pre-analytical and analytical phases of testing. To address these challenges, a variety of strategies can be implemented to enhance quality control and standardize practices across clinical and laboratory environments. Implementing comprehensive training and ongoing education for clinical and laboratory departments specialists is fundamental to prevent errors. Ensuring staff are well-versed in standard operating procedures (SOPs), quality control protocols, and safety practices is essential. Regular training sessions can help reinforce the importance of adherence to proper techniques and protocols. It is also vital that new staff undergo rigorous orientation programs that highlight common pitfalls and best practices in laboratory diagnostics. Establishing clear and accessible SOPs is essential for uniformity in laboratory procedures. SOPs serve as a guideline for clinical and laboratory personnel, providing clear instructions on sample collection, handling, testing methods, and reporting. Compliance with these procedures reduces the variance that can be introduced by individual practices and limits opportunities for errors. It's necessary to regularly review and update these SOPs to account for advancements in technologies or methods in laboratory testing. Clinicians and laboratory personnel must remain vigilant in identifying potential sources of interference throughout the total testing process—spanning pre-analytical, analytical, and post-analytical phases—to mitigate their effects on diagnostic accuracy. Implementing stringent guidelines for specimen collection and analysis, alongside consistent training and education, is crucial in addressing the challenges posed by these interfering substances.