

Quality Control in Laboratory Medicine

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The sole purpose of a medical laboratory is to aid in the decision-making ability of a clinician. When patient samples are sent to any medical laboratory, it then becomes an implied responsibility of the laboratory to give accurate results and in a timely fashion. Quality control aids in validating medical results and increases confidence among the patient and the clinician that the results generated are accurate and of the

highest order. The National Accreditation Board for Testing and Calibration Laboratories (NABL) has set predefined guidelines for medical laboratories, which has helped improve the quality of medical laboratories. Quality control material, whose matrix is the same as patient specimens, is available. This material could be assayed or unassayed. The material is generally run in the morning before actual patient processing starts. It could be run after an interval of 8–12 hours depending on the size of the laboratory and sample load. The material could be liquid or lyophilized form. Apart from the material there is a list of quality control indicators that facilitate in assessing whether the laboratory is following standard protocols. There are statistical charts where control results are plotted and it helps in calculating the precision and accuracy of the analytes which are performed in the laboratory. It also helps in validating the machines and reagents being used to perform the investigations. In a crux, quality control in laboratory medicine improves standards in the laboratory and helps in providing reliable results, thus helping in patient management.

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