

Internal QC in a production laboratory with large series of automated analyses

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Planning and follow-up on quality control in production laboratory (i.e. a laboratory that is continually analysing large numbers of samples on a routine basis, often using automated systems). with large series of analyses give rise to a number of issues compared to analysis in an non-routine or research type laboratory.

The main benefit of large series of analyses is that the burden of initial calibration and QC decreases relative to the number of actual samples. However, the risk of changes in the course of the series as well as the consequences of analyses that are not according to specifications increases. Furthermore, analysis may be semi-continuous requiring thought as to where the series begins and ends.

The following aspects will be covered from the point of view of analyses performed in large series:

Planning of QC:

- control before starting analyses, intermediate checks, control at the end of the series

Daily interpretation:

- actions to detect problems and prevent incorrect data from being reported

Periodic review

- trends, shifts, frequency of out-of-control situations, general quality of analysis