

## REFERENCES

- 1) Department of Health and Human Services, Centers for Medicare and Medicaid Services. Clinical laboratory improvement amendments of 1988; final rule. *Fed Register*. 2003(Jan 24): [42CFR493.1256(h)].

**CHM.14300 QC Data****Phase II**

**Quality control data are organized and presented so they can be evaluated daily by the technical staff to detect problems, trends, etc.**

*NOTE: Results of controls must be recorded or plotted to readily detect a malfunction in the instrument or in the analytic system. These control records must be readily available to the person performing the test.*

## REFERENCES

- 1) Clinical and Laboratory Standards Institute (CLSI). *Statistical Quality Control for Quantitative Measurement Procedures: Principles and Definitions*. 4th ed. CLSI guideline C24. Clinical and Laboratory Standards Institute, Wayne, PA, 2016.

**CHM.14500 Numeric QC Data****Phase II**

**For numeric QC data, quality control statistics (eg, SD and CV) are calculated monthly to define and monitor analytic imprecision.**

*NOTE: The laboratory must evaluate the imprecision statistics (eg, SD and CV, or other appropriate statistics) monthly to confirm that the test system is performing within acceptable limits. For whole blood methods, where stabilized whole blood or other suitable material is not available for QC, such statistics may be generated from previous patient/client samples using the SD of duplicate pairs or other patient data based statistical procedures.*

*This checklist requirement does not apply to external controls run only to verify new lots/ shipments of test materials. However the laboratory should have defined acceptable limits for such controls (either from the manufacturer, or developed by the laboratory).*

**Evidence of Compliance:**

- ✓ QC records showing monthly monitoring for imprecision

## REFERENCES

- 1) Rifai N, Horvath AR, Wittwer CT, eds. *Tietz Textbook of Clinical Chemistry and Molecular Diagnostics*. 6th ed. St. Louis, MO: Elsevier; 2018.
- 2) Department of Health and Human Services, Centers for Medicare and Medicaid Services. Clinical laboratory improvement amendments of 1988; final rule. *Fed Register*. 2003(Jan 24):7146 [42CFR493.1256(d)(10)(i)]
- 3) Ross JW, Lawson NS. Analytic goals, concentrations relationships, and the state of the art for clinical laboratory precision. *Arch Pathol Lab Med*. 1995;119:495-513
- 4) Clinical and Laboratory Standards Institute (CLSI). *Statistical Quality Control for Quantitative Measurement Procedures: Principles and Definitions*. 4th ed. CLSI guideline C24. Clinical and Laboratory Standards Institute, Wayne, PA, 2016.
- 5) Brooks ZC, et al. Critical systematic error supports used of varied QC rules in routine chemistry. *Clin Chem*. 2000;46:A70

**CHM.14600 QC Corrective Action****Phase II**

**The laboratory performs and records corrective action when control results exceed defined acceptability limits.**

*NOTE: The actions taken must be consistent with the laboratory's quality control program (GEN.30000). Patient/client test results obtained in an analytically unacceptable test run or since the last acceptable test run must be re-evaluated to determine if there is a significant clinical difference in patient/client results. Re-evaluation may or may not include re-testing patient samples, depending on the circumstances.*

*Even if patient samples are no longer available, test results can be re-evaluated to search for evidence of an out-of-control condition that might have affected patient results. For example, evaluation could include comparison of patient means for the run in question to historical patient means, and/or review of selected patient results against previous results to see if there are consistent biases (all results higher or lower currently than previously) for the test(s) in question.*

*The corrective action for tests that have an IQCP approved by the laboratory director must include an assessment of whether further evaluation of the risk assessment and quality control plan is needed based on the problems identified (eg, trending for repeat failures, etc.).*

**Evidence of Compliance:**

- ✓ Records of corrective action for unacceptable control results

**REFERENCES**

- 1) Department of Health and Human Services, Centers for Medicare and Medicaid Services. Clinical laboratory improvement amendments of 1988; final rule. *Fed Register*. 2003(Oct 1):1046[42CFR493.1282(b)(2)]
- 2) Department of Health and Human Services, Centers for Medicare and Medicaid Services. Clinical laboratory improvement amendments of 1988; final rule. *Fed Register*. 2003(Oct 1):[42CFR493.1282(b)(1)(i)]

**CHM.14800 QC Handling**

**Phase II**



**The laboratory tests control specimens in the same manner and by the same personnel as patient/client samples.**

*NOTE: Personnel who routinely perform patient testing must analyze QC specimens; however, this does not imply that each operator must perform QC daily. Personnel must participate in QC on a regular basis. To the extent possible, all steps of the testing process must be controlled.*

**Evidence of Compliance:**

- ✓ Records reflecting that QC is run by the same personnel performing patient testing

**REFERENCES**

- 1) Department of Health and Human Services, Centers for Medicare and Medicaid Services. Clinical laboratory improvement amendments of 1988; final rule. *Fed Register*. 2003(Jan 24):7166 [42CFR493.1256(d)(8)]
- 2) *ibid*, 2003(Jan 24):3708[42CFR493.1256(d)(7-8)]

**CHM.14900 QC Confirmation of Acceptability**

**Phase II**

**Personnel review control results for acceptability before reporting patient/client results.**

**Evidence of Compliance:**

- ✓ Records of control result approval

**REFERENCES**

- 1) Department of Health and Human Services, Centers for Medicare and Medicaid Services. Clinical laboratory improvement amendments of 1988; final rule. *Fed Register*. 2003(Jan 24):7166 [42CFR493.1256(f)]
- 2) Department of Health and Human Services, Centers for Medicare and Medicaid Services. Clinical laboratory improvement amendments of 1988; final rule. *Fed Register*. 2003(Jan 24):3708 [42CFR493.1256(d)(6)]

**CHM.14916 Monthly QC Review**

**Phase II**

**The laboratory director or designee reviews and assesses quality control data at least monthly.**

*NOTE: The reviewer must record follow-up for outliers, trends, or omissions that were not previously addressed.*

*The QC data for tests performed less frequently than once per month may be reviewed when the tests are performed.*

*The review of quality control data for tests that have an IQCP approved by the laboratory director must include an assessment of whether further evaluation of the risk assessment and quality control plan is needed based on problems identified (eg, trending for repeat failures, etc.).*

**Evidence of Compliance:**

- ✓ Records of QC review **AND**
- ✓ Records of corrective action taken when acceptability criteria are not met