DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
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Center for Clinical Standards and Quality/Survey & Certification Group

S&C: 17-46-CLIA

DATE: **September 29, 2017**

TO: State Survey Agency Directors

FROM: Director
Survey and Certification Group

SUBJECT: Clarification Regarding the Use of Control Materials as Calibrators to Determine Test Cut-off Values

Memorandum Summary

- **Controls as Calibration Materials:** Controls provided by manufacturers in a test kit are considered to be calibration materials if they are used to calculate the cutoff value of a test or a patient test result.
- **Testing of Additional External Controls:** If the manufacturer's instructions include a formula which uses the positive and/or negative controls included in the kit to determine the cutoff, additional external positive and/or negative controls must also be tested.
- **Guidance for Surveyors:** The laboratory director is responsible for the determination of what control materials to use in his/her laboratory. Surveyors will ensure that the laboratory is following its own established policies, specifically its Quality Control (QC) procedures.

Background

Quality control is performed on a laboratory test to ensure that the test is performing within the required analytic parameters prior to and during patient testing. The Clinical Laboratory Improvement Amendments (CLIA) regulation §493.1256(d)(3)(ii) requires that for each qualitative procedure, laboratories must include negative and positive control material at least once a day that patient specimens are assayed or examined. In addition, CLIA regulation §493.1256(d)(9) states that "[w]hen using calibration material as a control material, use calibration material from a different lot number than that used to establish a cut-off value or to calibrate the test system."

Therefore, material used to calculate a cut-off is considered a calibrator; thus, a different lot number of the same material, or a different material, must be used as a control. Acceptable positive and negative control materials may include previously tested patient samples, controls from another lot number of the test kit, or control material purchased separately. Control results must meet the laboratory's and, as applicable, the manufacturer's, test system criteria for acceptability prior to reporting patient test results.

Example

Manufacturer X's ELISA protocol states that a laboratory should use a negative control that is normal human serum found to be negative for XYZ antibody. This is material required but not provided.

In this protocol, the negative control is used in two ways. First, the procedure requires that the values of the positive control be divided by the values of the negative control to determine plate validity. Second, the value of the negative control is used to determine specimen value, and as such, the negative control is used in interpreting all patient tests. In this situation, the negative control is classified as a "calibrator", requiring the use of an additional negative control in order to be in compliance with CLIA regulations at §493.1256(d)(3)(ii) and §493.1256(d)(9). Without the additional negative control, there would be no negative control treated like a patient specimen going through the entire testing process.

Guidance for Surveyors

The laboratory director is responsible for the determination of what control materials to use in his/her laboratory. Surveyors will ensure that the laboratory is following its own established policies, specifically its QC procedures.

Contact: Questions related to this policy memorandum may be submitted to: LabExcellence@cms.hhs.gov.

Effective Date: Immediately. This report should be communicated with appropriate survey and certification staff, their managers and the State/Regional Office training coordinators within 30 days of this memorandum.

/s/
David R. Wright

cc: Survey and Certification Regional Office Management

The contents of this letter support activities or actions to improve patient safety and increase quality and reliability of care for better outcomes.