A2LA TNI PT Oversight Program

The Forum on Laboratory Accreditation

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Overview

• One issue – “assigned value”
• Oversight Activities
• Database Now Active, 4th Q09, 1st Q 10
  – 174 studies uploaded
  – Nearing sufficient data for comparisons
• Plans for 2010/2011
• Defined effectively the same in TNI Vol 3 and in ISO/IEC 17043

• Used differently for those analytes where
  – Consensus mean is used as expected mean
  – a, b regression coefficients used to determine the expected mean

• Confusion in application of footnotes

• Confusion in application of some 17043
Oversight Reviews

- 1st year: focused on getting successful uploads PTPs and then reviewing flags
  - Illegal units; non-TNI studies; additional post-study results; idiosyncrasies of each PTP
  - Required active oversight from A2LA, including review of flags and formats
  - Required special encouragements (some providers)
Automatic Screens

• All submitted studies are screened:
  – Analytes in proper groups, use proper units
  – Analytes in TNI range
  – Evaluation limits calculated per FoPT
  – Verification mean close to assigned value
  – Homogeneity within accepted limits
  – Stability within accepted limits
Initial activities

- Clean up formatting in reports before flags could be used
- Review individual approaches by PTPs
- Error detection and correction
  - Incorrect assigned values for calculating limits
  - Failure to apply 10% and 110% limits
  - Incorrect FoPT coefficients
1<sup>st</sup> year process improvements

- Revised some flag limits;
- Designed revisions to streamline input options, and interpretation of flags;
- Reporting specific problems and other findings to the renewal assessment teams.
PT Study – Ongoing Monitoring

• 174 Studies Uploaded, from all providers
• All parts of database working for nearly all providers, most of the time
• Some PTP input processes are stable, some not.
Oversight Analyses

- Database now (8/2010) has a practical minimum numbers of studies for extended analyses
  - Uniform concentration ranges (12-20 per PTP)
  - Unacceptable rates (3 per PTP, 50 for %tiles)
  - Recovery (6-12 per PTP, 50 overall)
Uniform Concentration

- Look for sample concentrations to span range of PT testing
  - 12-20 samples per analyte per provider
  - 4 equal quartiles of concentration range
  - Chi-Square analyses (expect 3-5 samples per quartile)
- Conducted semi-annually
Unacceptable Rates

- For every analyte, for all PTPs, calculate distribution of unacceptable rates for all studies with n>50.
- Accumulate 3-5 consecutive studies for each analyte
- Calculate all-PTP distribution (not average)
- Flag unaccept = 0%, <5%tile or > 95%tile
- Conducted semi-annually
Unacceptable Rates

• For all analytes in a group, and all PTPs, calculate distribution of combined unacceptable rates for all studies.
• Calculate for all analyte groups
• Flag unaccept < 5%tile or > 95%tile
  • Conducted semi-annually
Recovery

- Regression of study mean vs. expected mean (assigned value or calculated)
- Flag slope $\neq 1.0$ or intercept $\neq 0.0$
- Data query to study recovery vs. expected and vs. all PTPs
  - Conducted monthly
Imminent changes

• Changes soon (this week?):
  • First set of revisions, to streamline data for analytes determined to be stable and analytes not tested for homogeneity
  • Modified flagging criteria
  • Corrections for excluded analytes (BOD, COD, phenols, etc.)
2010/2011 Changes

• Implement new FoPT Tables – maintain multiple levels of tables, as PTPs implement new requirements.
• Change Experimental to Listed analytes
• Develop review analysis templates
• Streamline flags
PT Study Monitoring

- Will start planned monthly and semi-annual analysis reviews in Sept, 2010, when 2nd Qtr results are uploaded
- Not enough data to update FoPT tables, but will have by next year at this time
  - Identify analytes with poorest agreement
  - Identify opportunities for fixed limits
Slide 17, 18 and 19 were examples of the data base. They were deleted because they included specific provider data.
Questions?