FDA Perspective on Validation of Hepatitis In Vitro Diagnostic Assays

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Risk Based Regulation of IVDs

Class I - Low likelihood of harm
register & list (21CFR §807)
General Controls

Class II - Moderate likelihood of harm or risk can be mitigated
Special Controls

Class III - High or unknown likelihood of harm
Significant Risk
Pre-market Approval

Class I most 510(k) exempt

Class III - PMA
PreMarket Data Requirements

• **Analytical performance measures**
  – Precision (repeatability, reproducibility)
  – Accuracy
  – Reactivity (inclusivity)
  – Sensitivity, Limit of Detection
  – Specificity (interference, cross-reactivity)
  – Sample type / matrix
  – Sample preparation / conditions
  – Performance around the LLoQ and ULoQ, ‘cutoffs’
  – Linearity
  – Potential for carryover, cross-hybridization
  – Stability

• Studies and specifications may vary depending on technology or other unique device characteristics

• Similar for Class II and Class III
What Is Different In Class III and Class II Device Evaluation

• Manufacturing section: Complete study reports and documentation are required for Class III submissions. Similar studies are conducted but are not included in the FDA submission for Class II.

• Pre-approval inspection (GMP compliance) only for Class III (standard manufacturer inspections are unchanged).

• BIMO (bioresearch monitoring visit to clinical and/or sponsor sites) for Class III submissions only.

• Post-approval: Requirements for annual reports for Class III approval, not for Class II clearance.

• Validation studies should test multiple lots in performance studies in Class III submissions.

• Stability protocols for Class III may differ from Class II submission and may include additional information.
Thank you
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