Update on CDER’s Drug Development Tool Qualification Program

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DDT Qualification Activities

- Clinical Outcome Assessments
- Biomarkers
- Animal Models
What I have discussed in previous updates...

• Evolution of the DDT Guidance
• Development of the Qualification Program/Process
• Implementation Efforts Underway
Focus for Today’s Discussion....

LESSONS LEARNED......
## COA Qualification Process

<table>
<thead>
<tr>
<th>DDT Stage</th>
<th>FDA Process Activities</th>
<th>Content Considered During Each Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initiation Stage</strong></td>
<td>• DDT # assigned&lt;br&gt;• LOI received&lt;br&gt;• QRT formed and review meeting scheduled&lt;br&gt;• LOI response letter drafted&lt;br&gt;• LOI response letter discussed during QRT meeting&lt;br&gt;• LOI response letter finalized and signed&lt;br&gt;• LOI response letter sent&lt;br&gt;• <strong>Potential: Revised LOI requested</strong></td>
<td>• Concept(s) of interest&lt;br&gt;• Context of use (disease definition; population characteristics; etc.)&lt;br&gt;• Hypothesized concepts and potential claims&lt;br&gt;• Hypothesized conceptual framework&lt;br&gt;• COA placement within preliminary endpoint model</td>
</tr>
<tr>
<td><strong>Consultation and Advice (C&amp;A) Stage</strong></td>
<td>• Initial Briefing Package (IBP) requested&lt;br&gt;• Active C&amp;A:&lt;br&gt;  • Qualitative summary reviewed and response letter sent&lt;br&gt;  • Quantitative summary reviewed and response letter sent&lt;br&gt;  • Other submissions as requested&lt;br&gt;• QRT meetings held to discuss each submission and response letters sent (using same process described in stage above)&lt;br&gt;• <strong>Potential: Revised submissions or additional information requested</strong></td>
<td>• <strong>Summary</strong> of qualitative research includes documentation of content validity:&lt;br&gt;  • Concept elicitation interview findings&lt;br&gt;  • Item generation summary (decisions for recall period, response options and format, mode/method of administration)&lt;br&gt;  • Cognitive debriefing interview findings&lt;br&gt;• <strong>Summary</strong> of quantitative research includes documentation of content validity and other measurement properties&lt;br&gt;  • Further documentation of content validity using new methods (e.g., IRT, Rasch)&lt;br&gt;  • Confirm conceptual framework and scoring&lt;br&gt;  • Reliability, construct validity, and ability to detect change&lt;br&gt;  • Final instrument content (format, scoring procedures)&lt;br&gt;• Other submissions (e.g., study protocols; interim findings) as requested by submitters</td>
</tr>
<tr>
<td><strong>Review Stage</strong></td>
<td>• Final Qualification Package requested&lt;br&gt;• QRT meeting(s) held&lt;br&gt;• Qualification decision made&lt;br&gt;• <strong>Potential: Revised package or additional information requested</strong></td>
<td>• Final documentation (including all primary data and detailed results) of instrument development work</td>
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**DDT** = Design, Development, and Technology

**QRT** = Qualification Review Team

**LOI** = Letter of Intent

**COA** = Content Outline Assessment
## Project Status Report (as of 3/31/13)

<table>
<thead>
<tr>
<th>DDT Stage</th>
<th>Number in Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initiation Stage</strong></td>
<td>16</td>
</tr>
<tr>
<td>Initiation – DDT # assigned</td>
<td>10</td>
</tr>
<tr>
<td>Initiation – LOI received</td>
<td>2</td>
</tr>
<tr>
<td>Initiation – revised LOI requested</td>
<td>4</td>
</tr>
<tr>
<td><strong>Consultation and Advice Stage (C&amp;A)</strong></td>
<td>19</td>
</tr>
<tr>
<td>C&amp;A – IBP requested</td>
<td>6</td>
</tr>
<tr>
<td>C&amp;A – Active</td>
<td>13</td>
</tr>
<tr>
<td><strong>Review Stage</strong></td>
<td>2</td>
</tr>
<tr>
<td>Cancelled</td>
<td>3</td>
</tr>
<tr>
<td>On Hold</td>
<td>3</td>
</tr>
<tr>
<td>Declined</td>
<td>9</td>
</tr>
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What are we learning?

- Refining and streamlining processes
- Discussions regarding the evidence necessary to support COA measurement
- Providing tools to therapeutic review divisions to organize thinking about disease definitions and subpopulations
WARNING

CHALLENGES AHEAD
Time Delays Identified

- We have identified a number of factors that contribute to time delays
  - Delays on the part of both FDA and submitters
  - Delays related to
    - Process
    - Lack of understanding or knowledge
    - Competing priorities / work backlog
    - Unable to reach internal and external agreement on COA development
**Formation of QRT and Scheduling QRT meetings for each submission**

- Internal deliberations / senior management agreement on goals of qualification
- Coordination with EMA
- Drafting responses and review by QRT members-- time to think through issues
- Reviewer training on what is expected of them as part of the QRT (goals, steps, timeline, etc.)
<table>
<thead>
<tr>
<th>Challenge / Cause of Time Delay</th>
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<tbody>
<tr>
<td>Understanding the goals of the qualification process and relevance to the review process</td>
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<tr>
<td>Reviewer workload</td>
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<tr>
<td>Internal consensus on concept of interest or endpoint model</td>
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<tr>
<td>Consensus on the level of detail that should be included in submissions; multiple requests for additional information</td>
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</table>
**Challenge / Cause of Time Delay**

- False starts because submitters due to the meaning of: Qualification, Context of Use and needed specificity, and/or Concept of Interest

- Understanding of the PRO Guidance

- Delays in sending updates/new submissions
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<tr>
<td>Instrument development process can be naturally lengthy (several years to complete)</td>
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<tr>
<td>Multi-company consortia with conflicting internal policies that take time to resolve</td>
</tr>
<tr>
<td>Submitters human resource, funding, and contracting issues</td>
</tr>
<tr>
<td>Consensus among external groups (disease consortia, scientific/clinical community, drug developers) on concept of interest or endpoint model</td>
</tr>
<tr>
<td>Challenge / Cause of Time Delay</td>
</tr>
<tr>
<td>---------------------------------</td>
</tr>
<tr>
<td>Agreement on concept of interest, context of use, endpoint model. This is a new way of thinking about the process for both FDA and instrument developers.</td>
</tr>
<tr>
<td>Need for consensus on concept of interest, endpoint model, context of use (e.g., depression impact proposed, FDA interested in depression symptoms)</td>
</tr>
<tr>
<td>Scientific disagreements (e.g., best practices)</td>
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<tr>
<td>Agreement on disease definitions</td>
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Other DDT Qualification Challenges

• Divisions and developers may not see the need for qualification if a tool has already been used in labeling

• Existing tools risk going through the DDT qualification process and being deemed ‘unqualifiable’ without modifications
  – Costs to qualification process
  – Modifications to tool might provide competitors with a market advantage
How do we fix?

- Enhanced/early communication internal and external
- Clear communication of context of use
- Enhanced training for reviewers
- Liaisons to help address questions from submitters
- Identify narrow context of use for qualification that can subsequently be expanded...
- Streamline processes/identify time bottlenecks
- Development and dissemination of office specific MAPPs
What are we working on currently?

• Finalizing the DDT Qualification Draft Guidance
  – Definition of “Context of Use”
  – Letter of Intent and Briefing Package Materials
• Finalizing CDER MAPPs (general and program-specific) in development
• Knowledge management and electronic filing tools/capabilities established
• Qualification Review Teams forming
• EMA and FDA are having discussions about the COA qualification process
  – Aim to harmonize submission templates during both the Advice and Consultation as well as the Review Stages
  – E.g., both use the same process for all COA—PROs, ClinROs, ObsROs
• Under our MOU, EMA and FDA having discussions about specific COA qualification projects that are under concurrent review by the two agencies and we encourage concurrent submissions.
How can you help?

- Give us constructive feedback
- Review our guidance documents
- Ask questions early and often
- Watch our website
**Drug Development Tools (DDT) Qualification Programs**

The Drug[1] Development Tools (DDT) Qualification Program was created by CDER as part of the FDA’s Critical Path Initiative (CPI) to provide a framework for development and regulatory acceptance of scientific tools for use in drug development programs. DDT qualification programs currently exist for biomarkers, clinical outcome assessments (COAs), and animal models for use under the Animal Rule.

The Drug[1] Development Tool (DDT) Qualification Programs allow CDER to work with submitters to guide them as they develop or refine a DDT for a specific context of use. CDER will rigorously evaluate the submission for use in the regulatory process. Qualifying a DDT will allow sponsors to use the DDT in the qualified context of use during drug development without requesting that CDER reconsider and reconfirm the suitability of the DDT for the qualified context of use.

**Mission and Objectives**

- To qualify and make DDTs publicly available for a specific context of use to expedite drug development and review of regulatory applications
- To provide a framework for scientific collaboration to facilitate DDT development
- To facilitate integration of qualified DDTs in regulatory review
- To encourage development of DDTs for contexts of use with unmet needs
- To encourage the formation of collaborative groups to undertake DDT development programs to increase the efficiency and lessen the individual resource burden incumbent with DDT development
- To encourage innovation in drug development
Summary

• CDER is committed to continuing to support the DDT Qualification Program
• We appreciate the dedication of the PRO Consortium members
• We understand that this is uncharted territory
• We are learning as we go
• We look forward to the outcome of producing qualified publicly available tools which serve to enhance the drug development process
To contact us:

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