SESSION 2

Part 2: Panel Discussion on the Intersection between Science and Regulatory Needs

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FDA-CERSI Patient Preference Workshop  
December 7-8, 2017
PPI: Where Regulatory Needs Meet Science
## Session 2 Panelists

<table>
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<tr>
<th>Perspective</th>
<th>Panelist</th>
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| FDA         | Telba Irony (CBER)  
|             | Laura Lee Johnson (CDER) |
| CERSI       | Leslie Wilson (UC San Francisco)  
|             | Fadia T. Shaya (University of Maryland)  
|             | Erica S. Spatz (Yale University) |
| Academic    | Brett Hauber (RTI Health Solutions)  
|             | Juan Marcos Gonzalez (Duke University) |
| Industry    | Becky Noel (Eli Lilly and Company) |
Panel Question 1

What values does PPI add to regulatory decision making?

Discussant: Telba Irony  Respondent: Brett Hauber
PPI’s Values for Regulatory Decisions

PPI in early stage of development (e.g. discovery to phase II)

• Exploratory study to inform selection of best endpoints (PROs) for clinical trial designs
• Help understand patients’ views on the benefits and risks of currently available therapies
• Help understand if there are unmet medical needs of the disease, disease burden, symptom relief, adverse events that are particularly important, etc.
• Evaluate how patients value certain benefits and risks

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PPI’s Values for Regulatory Decisions

PPI in late stage development (e.g. phase III to post-market)

- Evaluate how patients make benefit-risk trade-offs and inform overall benefit-risk determinations for regulatory decisions
- Inform of the minimum clinically meaningful benefit that would offset a certain risk from the patient perspective
- Inform of the maximum risk patients would be willing to bear in exchange for a certain benefit
- Assess variability in patient preferences and identify subgroups of patients by their tolerance for risk and/or uncertainty
- Assess the proportions of patients who would select a certain treatment with defined benefits, risks and other attributes
- Evaluate if patients value a benefit more than a reviewer and thus accept more risk (risk tolerance)
Panel Question 2

When designing PPI studies for regulatory purposes, what qualities are necessary and why?

Discussant: Leslie Wilson   Respondent: Laura Lee Johnson
Science and Regulatory: Use of Discrete Choice PPI: Study Qualities

1. **Sample Choice**: Representative, generalizable, heterogeneous

2. **Objective is a relevant question**: Not too narrow, No costs, ability to trade-off risks/benefits, relevant to both developer outcomes & patient priorities

3. **Provide the best PPI method for the regulatory need**: Conjoint analysis, SG, Best/Worst, PROs

4. **Attribute selection is biggest risk for gaming the system**: standardize process for selection with meta-ethnography & conceptual synthesis

5. **Numeracy matters**: takes steps to reduce bias in survey design and methods

6. **Provide a robust analysis**: Utility scores, MARs, trade-offs, sub-analysis

7. **Provide a presentation of results useful to regulatory users**
Numeracy Matters
Panel Question 3

What should a sponsor do when designing the study to achieve these qualities?

Discussant: Juan Marcos Gonzalez  
Respondent: Becky Noel
How Sponsor Ensures the Study Design Meets Quality Needs for Regulatory Use?

- Contact experts
- Consult FDA
- Develop internal capabilities
- Test instrument
- Transparency

Experimental design
Decision context
Attribute & attribute level definitions
Sample/respondents’ characteristics
Response rates
Response validity measures
Ex-post exclusions of respondents
Modeling assumptions
Are there any differences if a study is sponsored by FDA, industry, or a patient group?

- There should not be any differences. All studies should provide robust evidence to support regulatory decisions.
- More broadly, however ...

### Different objectives

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<th>Industry</th>
<th>Patient Groups</th>
<th>FDA</th>
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<tr>
<td>Show that trial evidence represents acceptable tradeoffs for some or most patients</td>
<td>Ensure tradeoffs evaluate patient-centric outcomes Ensure tradeoffs evaluate patient-centric outcomes Help determine whether tradeoffs fully capture patients’ concerns about outcomes</td>
<td>Mitigate Knowledge gaps in PPI literature Facilitate the use of PPI by sponsors</td>
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<td>Identify patients who are more likely to benefit</td>
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### Different flavors of PPI evidence

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<td>Evaluate trial endpoints</td>
<td>Long term impacts Likely follow a top-down approach</td>
<td>Unrelated to product-specific needs Focus on knowledge gaps</td>
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<td>Facilitate the use of PPI by sponsors</td>
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Panel Question 4

How can CERSIs and FDA work together to advance the science of PPI to achieve these qualities?

Discussant: Fadia Shaya    Respondent: Erica Spatz
CERSI and FDA Collaborate to Advance Science of PPI

- Cross training in methodologies
- Inviting FDA to campus workshops
- Leveraging post doctoral experiences to rotate at the FDA
- Pros and Cons of CERSI working together as a group with the FDA? This workshop can be an example.
- Creating courses for FDA staff
Thank you!

Questions?