FDA's Patient-Focused Drug Development

Theresa Mullin
Director, Office of Strategic Programs
FDA CDER

M-CERSI Conference on
Patient-Focused Drug Development
March 9, 2015

Benefit-Risk Framework for human drug review

Benefit-Risk Summary and Assessment		
Dimension	**Evidence and Uncertainties**	**Conclusions and Reasons**
Analysis of Condition		
Current Treatment Options		
Benefit		
Risk		
Risk Management		

Provides the therapeutic context for weighing benefits and risks

Incorporates expert judgments about the evidence of efficacy and safety, and efforts to further understand or mitigate risk

Patient-Focused Drug Development (PFDD)

- Establishing the therapeutic context is an important aspect of B-R assessment
  - Patients are uniquely positioned to inform understanding of this context
  - Current mechanisms for obtaining patient input are often limited to discussions related to specific applications under review

- PFDD is part of FDA commitments under the fifth authorization of the Prescription Drug User Fee Act (PDUFA V)
  - FDA will convene at least 20 meetings on specific disease areas through September 2017
  - Meetings can help advance a systematic approach to gathering patients' input on their condition and treatment options

PFDD meetings for FY 2013-2015

Fiscal Year 2013	Fiscal Year 2014	Fiscal Year 2015
• Chronic fatigue syndrome/ myalgic encephalomyelitis • HIV • Lung cancer • Narcolepsy	• Sickle cell disease • Fibromyalgia • Pulmonary arterial hypertension • Inborn errors of metabolism • Hemophilia A, B, and other heritable bleeding disorders • Idiopathic pulmonary fibrosis	• Female sexual dysfunction *To be conducted* • Breast cancer (April 2) • Chagas disease (April 28) • Functional gastrointestinal disorders (May 11) *To be announced* • Alpha-1 antitrypsin deficiency • Parkinson's disease and Huntington's disease

Tailoring Each Meeting

- Meetings follow similar, but tailored, design
  - Takes into account current state of drug development, specific interests of FDA review division, needs of the patient population
- Discussion elicits patients' perspectives on their disease and on treatment approaches
- Input is generated in multiple ways:
  - Patient panel comments and facilitated discussion with in-person participants
  - Interactive webcast and phone line for remote participants
  - Polling questions to aid meeting discussion
  - A federal docket allowing for more detailed comments

A sample of what we ask

- Which symptoms have the most significant impact on your daily life?... On your ability to do specific activities?
- How well does your current treatment regimen treat the most significant symptoms of your disease?
- What specific things would you look for in an ideal treatment for your condition?
- What factors do you take into account when making decisions about using treatments? …. Deciding whether to participate in a clinical trial?

Patient stakeholders have taken initiative

Unite Narcolepsy
Working together toward a brighter future

- Spread word through websites, social media or flyers
- Facilitated registration or docket submission
- Organized transportation, pre or post-meeting get-togethers
- Conducted webinars to prepare participants to “use their voice most effectively”
- Conducted surveys

Participation Estimates

In-Person	Registered	Attended
Patient / Representatives	40 – 185	30 - 80
Other (e.g., NIH, industry)	40 – 115	30 - 140
Webcast	250 - 650	~50% of registered
Docket Submissions	5 - 400	

Voice of the Patient Reports

- Each meeting results in a summary report that captures the input from the various information streams
  - Faithfully summarizes participants' experiences and perspectives, in their own voices
  - May include a sample of the B-R Framework's first two rows, incorporating meeting input

- Input could support other aspects of drug development, e.g.
  - Help identify of areas of unmet need
  - Develop clinical outcome tools (PROs, etc.) that better address patient needs

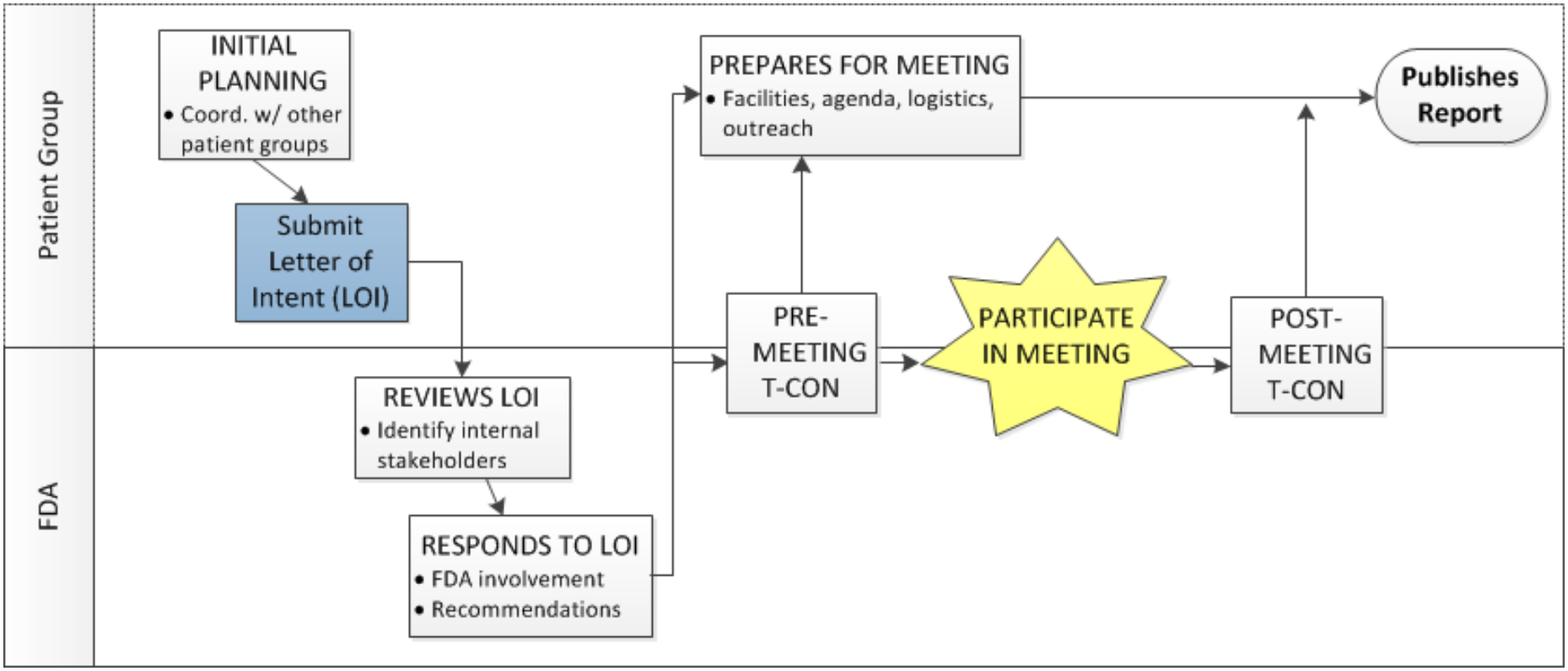
Other Contributions of PFDD

- Complement scientific workshops
  - CFS/ME, Female Sexual Dysfunction, Chagas (upcoming)
- Support development of disease-specific guidance
  - CFS/ME (draft guidance published March 2014)
- Support efforts to develop PRO tools
  - Multi-partner working group on PRO development for CFS/ME
- Identify opportunities for further discussions
  - Brookings workshop in follow up to Sickle Cell Disease meeting
- Channel patient engagement
  - Patient representatives identified for CFS/ME and HIV

External-Led PFDD Meetings

- There is external interest in expanded efforts to gather patient input in support of drug development and evaluation
- Meetings conducted by external stakeholders provide an opportunity to expand the benefits of PFDD
  - Meetings should target disease areas where there is an identified need for patient input on topics related to drug development
  - FDA's PFDD meetings can serve as a model
- Possible mechanisms the patient group could explore:
  - Public meeting (conducted within Metro D.C. area)
  - Web-only meeting
  - Small internal meeting at FDA, with patients
  - Patient surveys and/or written submissions to a public docket

Preliminary Draft Roadmap for External-led PFDD Meetings



Other Considerations on External-Led PFDD Meetings

- The Letter of Intent should communicate the importance of the meeting in the context of the disease area, and the meeting plan:
  - Proposed Timing, Location
  - Proposed Format/Agenda/Qs
  - Patient representation
  - Collaborators, sponsorship
- When determining our level of participation, FDA will consider:
  - Specific need for more input from patient perspective
  - Recent interactions with patients/stakeholders
  - Meeting time/location
  - Division staff capacity

Some PFDD Learnings to Date

- Patients with chronic serious disease are experts on what it's like to live with their condition
- Among the diseases in PFDD meetings to date, the most prominent impacts (symptoms, loss of function) are primarily physiological and often observed and confirmed by other family members
- For progressive degenerative diseases many patients/parents feel an ideal treatment would at minimum stop progression of their/their child's loss of function
- Patients "chief complaints" may not be factored explicitly into drug development plans, including measures of drug benefit planned in trials

Some PFDD Learnings to Date (cont'd)

- Patients want to be as active as possible in the work to develop and evaluate new treatments
- They want their experience described using words that they consider to best describe how it feels
- They and their caregivers are able and willing to engage via the Internet, social media, and all other means at their disposal
- They aren't expecting for FDA to address all the gaps in current treatment or current approaches to drug development but do want FDA to help identify the most effective pathway for them to play major contributing role

FDA's role

- FDA must play a constructive role in guiding, helping or evaluating at some stages of the pre-clinical translational and later clinical development work
- However, FDA recognizes that it is not the agency's role to lead much of the development work

Principles that could guide development of an approach

- Include patient-identified disease impacts, and thus potential measures of benefit from the beginning of drug development
- Measure and report terms that are identified and ratified by patients themselves
- Translate identified key impacts and elements of disease experience into a vetted measurement set that would be made widely available

FDA PFDD
Potential Next Steps

- Advance science of patient input, engaging wider community of patients, clinicians, and social science researchers to discuss:
  - Methodologically sound approaches to bridge from initial patient-focused meetings to more systematic collection of patients' experience living with a particular disease
  - How to best proceed in obtaining patients' reports, assessments, and preferences, to inform patient-centered development and benefit risk assessment.
  - Including, for example:
    - Approaches to recording patients' experiences of impact (burden) of disease over time
    - Understanding preferences for treatment impacts and tolerance of uncertainty about meaningful, significant potential benefits versus harms

FDA PFDD
Potential Next Steps (cont'd)

- Provide guidance to patient advocates and drug developers
  - Pragmatic and methodologically sound strategies, pathways, and methods
  - Based on literature and learnings from meetings and discussions with patients, clinicians and researchers

Immediate Next Steps

- Continue fulfilling commitments for PDUFA V
- Further engagement and discussions with patients and other stakeholders in preparation for PDUFA VI