

# Advancing the Science of Patient Input in Medical Product R&D: Towards a Research Agenda

**Session 1:** 

**Understanding Patient Experience with Disease or Medical Condition** 

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### Listening to Patients and Caregivers



### Case Study:

Sharing a sampling of perspectives shared at Duchenne Patient Focused Compass Meeting in March 2018 convened by Parent Project Muscular Dystrophy





Fiscal Year 2013	Fiscal Year 2014	Fiscal Year 2015	Fiscal Year 2016	Fiscal Year 2017
<ul> <li>Chronic Fatigue         Syndrome/         Myalgic         Encephalo-myelitis</li> <li>HIV</li> <li>Lung Cancer</li> <li>Narcolepsy</li> </ul>	<ul> <li>Sickle Cell Disease</li> <li>Fibromyalgia</li> <li>Pulmonary Arterial Hypertension</li> <li>Inborn Errors of Metabolism</li> <li>Hemophilia A, B, and other Heritable Bleeding Disorders</li> <li>Idiopathic Pulmonary Fibrosis</li> </ul>	<ul> <li>Female Sexual Dysfunction</li> <li>Breast Cancer</li> <li>Chagas Disease</li> <li>Functional Gastrointestinal Disorders</li> <li>Parkinson's Disease and Huntington's Disease</li> <li>Alpha-1 Antitrypsin Deficiency</li> </ul>	<ul> <li>Non-Tuberculous         Mycobacterial         Lung infections</li> <li>Psoriasis</li> <li>Neuropathic pain         associated with         peripheral         neuropathy</li> <li>Patients who have         received an organ         transplant</li> </ul>	<ul> <li>Sarcopenia</li> <li>Autism</li> <li>Alopecia Areata</li> <li>Hereditary Angioedema</li> </ul>

# Further integrating patient perspective into medical product development and decision making



#### Need to build in the patient's perspective starting in the translational phase

What impacts (burden of disease and burden of treatment) matter most to patients and how to measure them?

What aspects of clinical trials can be better tailored to meet the patients who (might) participate in the trial?

How to better integrate patient reported outcome data or elicited patient preferences into BR assessments?

How to best communicate the information to patients and prescribers?

#### **Translational**

- How do we ensure that we get input representative of the whole disease population?
- •What symptom or functions matter most to people with this disease?
- How to best measure?
   (endpoints, frequency, mode of reporting, etc.)

#### **Clinical Studies**

- Do endpoints planned for the trial include the ones that matter most to patients?
- Does the protocol facilitate (or discourage) enrollment or continued participation?
- •Do informed consent and other processes within the trial reflect the needs and preferences of people with that disease?

#### **Pre-market review**

- How to utilize elicited patient preference studies?
- •How to factor in key uncertainties?
- •How could individual differences in patient experience (or preference) of benefit versus harm be considered?

#### **Post-market**

- How to convey info that helps facilitate patients' and clinicians' informed decision making?
- How to convey uncertainty to inform and support clinical decisionmaking?

## Some Key Topics to be Addressed in the PDUFA VI Guidance



- Collecting comprehensive patient community input on burden of disease and current therapy
  - How to engage with patients to collect meaningful patient input?
  - What methodological considerations to address?
- 2. Development of holistic set of impacts (e.g., burden of disease and burden of treatment) most important to patients
  - How to develop a set of impacts of the disease and treatment?
  - How to identify impacts that are most important to patients?
- 3. Identifying and developing good measures for the identified set of impacts that can then be used in clinical trials.
  - How to best measure impacts (e.g., endpoints, frequency..) in a meaningful way?
  - How to identify measure(s) that matter most to patients?
- Incorporating measures (COAs) into endpoints considered significantly robust for regulatory decision making
  - Topics including technologies to support collection through analysis of the data

### When would the methods addressed in these guidances be applicable?

Discovery	Pre-Clinical Development	Clinical Development	FI Revi	Post- Approval Studies
Activities including but not limited to:	Activities including but not limited to:	Activities including but not limited to:		Activities including but not limited to:
Identify disease & treatment burden to patients & families that suggest outcomes, other design issues to address  Complete identifying, developing, testing data collection instruments (COA) for readiness & suitability for use in CTs	Complete identifying, developing, testing data collection instruments (COA) for readiness & suitability for use in CTS	Conduct clinical trials; assess whether changes in COA during the course of the trials are meaningful to patients and clinically meaningful		Collect data to assess degree to which benefits, risks, burden reported in clinical trials persist or change in larger population or in identified subpopulations
Guid				
Gui		dance 3		
Guidance 4				

https://www.fda.gov/downloads/forindustry/userfees/prescriptiondruguserfee/ucm563618.pdf

# Understanding Patient Experience—Sampling of Questions of Interest to FDA



- What disease impacts matter most to patients?
  - How does that vary by socio-demographic factors? By subgroup group of patients (e.g., a pediatric subpopulation, geriatric subpopulation, subpopulation with major co-morbidities), by culture? Severity of disease? Other life circumstances?
- How do attitudes toward or tolerance of potential drug risks or therapy side effects ("preference" considerations) vary by patient subgroup?
  - By subgroup group of patients (e.g., a pediatric subpopulation, geriatric subpopulation, subpopulation with major co-morbidities), by culture? Severity of disease? Other life circumstances?
- How well do the most commonly studied endpoints in clinical trials for a given disease area align with outcomes or aspects of disease that matter most to patients? How does that vary by subgroup?

# Understanding Patient Experience—Sampling of Questions of Interest to FDA (cont.)



- Are currently conducted clinical trials in a given disease area excluding patients who want to be enrolled? If so, why and how might it be addressed?
- Are currently or commonly used clinical trial protocols intolerable or otherwise unworkable for some patients who are otherwise eligible to participate?
  - Why? What might be done to address that?
- What measures can be taken to increase the likelihood of patient enrollment in a study and increase the likelihood of participant retention in a study in a given disease area?
  - Are there further suggested considerations by patient subgroup?
- What if any challenges do patients face in trying to adhere to their prescribed drug regimen?
  - How does this vary by patient subgroup? What might be considered to address this?

