Rheumatoid Arthritis Working Group Presented at the Tenth Annual PRO Consortium Workshop – Silver Spring, MD – April 24-25, 2019

Background

Rationale for Rheumatoid Arthritis (RA) Working Group (WG)

 PRO Consortium member representatives and FDA advisors identified RA as a priority area with an unmet need for a fit-for-purpose PRO measure, as defined by the FDA, for use in evaluating clinical benefit in RA clinical trials.

Goal of the RA WG

• To qualify a PRO measure that assesses RA-related fatigue and supports product labeling claims of treatment benefit.

In the Scoping Stage Summary Document submitted to FDA in September 2011, the RA WG proposed that the most important unmet measurement needs in RA trials were standardized PRO instruments assessing RA-related symptoms and RA-defining decrements in physical function. FDA, in its response in December 2011, acknowledged that "the PRO measures" currently used in RA patients could be improved to meet current standards for measurement. We agree to participate in the qualification process for both PRO instruments you have proposed provided that instrument development includes involvement of representatives from the rheumatology academic community including OMERACT and ACR."

In May 2012, a few members of the RA WG met with RA patients and clinical experts to assess interest in a joint development activity. Experts and patients were eager to participate in an activity, which would include representatives from FDA, clinical societies, and other key stakeholders. Subsequently, PRO Consortium leadership, supported by the RA WG, organized a consensus development workshop to identify a path forward (see History).

Milestones

Milestone	Expected Date	Completed Date
FDA confirmed willingness to participate in the project		DEC 2011
Consensus development workshop		AUG 2012
Agreement to conduct preliminary work with OMERACT		JAN 2013
Begin work with OMERACT after agreements are signed		JAN 2014
Submit letter of intent to FDA: Qualification of a Patient- Reported Measure of Fatigue for Use in Assessing Treatment Benefit in Rheumatoid Arthritis Trials		JUN 2016
Vendor selection and contracting for continuation of Content Validity Stage		FEB 2017
Submit Initial Briefing Package		AUG 2017
Submit Qualification Plan (QP)		MAR 2019
Submit Full Qualification Package to FDA	TBD	

Highlights

Example Endpoint Model for Treatment of RA

Endpoint Hierarchy	Endpoint Concept(s)	Endpoint Type
Primary	American College of Rheumatology (ACR) criteria	
(Composite	Patient assessment of pain	• PRO
endpoint for	Inflammation (CRP or ESR)	Biomarker
indication [i.e.,	• Signs (swollen joint count, tender joint count)	ClinRO
Treatment of	Disease activity	ClinRO and PRO
RA])	 Patient assessment of physical function 	• PRO
Secondary	Fatigue severity	PRO (<i>PROMIS®</i> Fatigue Short Form 10a)

Hypothesized Conceptual Framework (based on the PROMIS® Fatigue Short

Form 10a)	
	I feel fatigued
	I feel tired
Fatigue	I have trouble starting things because I am tired
	I have trouble finishing things because I am tired
	I have energy
	I am able to do my usual activities
	I need to sleep during the day
	I need help doing my usual activities
	I am frustrated by being too tired to do the things I want to do
History	I have to limit my social activity because I am tired

- As requested by FDA, the RA WG involved outside stakeholders in this qualification initiative.
- The RA WG held the workshop, titled "Toward Consensus Development: Qualifying Endpoint Measures for Rheumatoid Arthritis Clinical Trials," on August 28, 2012, in Silver Spring, MD.
- Along with RA WG members and C-Path personnel, participants included persons with RA and representatives from FDA, American College of Rheumatology (ACR), Outcome Measures in Rheumatology (OMERACT), European League Against Rheumatism (EULAR), and the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMSD).
- Objective: To identify RA-related symptoms and RA-defining decrements in physical functioning that could be investigated by the RA WG for use as PRO-based endpoint measures in clinical trials to support label claims.
- Outcome: Fatigue was identified as the most commonly reported troublesome symptom that is not currently assessed by the ACR response criteria. Hence, the measurement of fatigue was selected as the focus for FDA qualification to support a secondary endpoint to document treatment benefit.

Following the consensus development workshop, the WG has collaborated with OMERACT and PROMIS investigators, and with Drs. Bartlett and Bingham to review the literature and gather clinical experts' input to define fatigue and explore its measurement in patients with mild to severe RA.

Based on the work of Kaiser and colleagues (2016)*, the PROMIS® Fatigue Short Form 10a was selected to move forward for qualification. It is comprised of 10 of the 13 items in the FACIT-Fatigue, which has been used extensively in RA research and RA clinical trials.

*Kaiser K, Shaunfield S, Clayman ML, Ruderman E, Cella D. Content validation of the Functional Assessment of Chronic Illness Therapy (FACIT)-Fatigue Scale in moderately to highly active rheumatoid arthritis. *Rheumatology* 2016; 6:193. doi: 10.4172/2161-1149.1000193



Working Group Activities

Completed Activities

On July 20, 2015, the RA WG met with the FDA/NIH Interagency Clinical Outcome Assessment Working Group (ICOA WG); Dr. Clifton Bingham presented evidence from the observational research in which he and Dr. Susan J. Bartlett are assessing fatigue in RA. Drs. Bingham and Bartlett's data suggests that in a subset of RA patients, fatigue is unique (i.e., not part of other measured outcomes) and that its measurement will add value over and above existing outcome measures since it is a common and debilitating impact of RA. FDA recommended that the RA WG submit a revised Letter of Intent (LOI) summarizing the key points presented by Drs. Bingham and Bartlett.

• RA WG submitted Initial Briefing Package to FDA in August 2017 in support of qualification of the *PROMIS® Fatigue Short Form 10a*. FDA responded with several comments and information requests in March 2018, which were addressed.

Contract between C-Path and Northwestern University was executed in August 2018 to prepare the Qualification Plan.

• RA WG submitted the Qualification Plan to FDA in March 2019.

Unique Issues for the Working Group

Due to the delays in progression of milestone achievements, several members have withdrawn from the RA WG due to a lack of funding from their respective organizations. Several measures have been used in clinical trials to measure fatigue in RA but none have led to fatigue-related label claims.

PROMIS[®] fatigue short forms and the PROMIS[®] T-score metric have the potential to effectively measure RA-related fatigue in RA treatment trials and lead to label claims. **Next Steps**

• After receipt of FDA feedback on the Qualification Plan, submit Full Qualification Package for the *PROMIS® Fatigue Short Form 10a* for the assessment of clinical benefit in RA trials.

Working Group Participants

Company/Organization	Representative
AbbVie	Pankaj Patel, PharmD, MS; Namita Tundia, PhD
Boehringer Ingelheim	Tristan Gloede, PhD
Eli Lilly and Company	Nicki Bush, MHS; Carol Gaich, PharmD, RPh, April Naegeli, DrPH, MPH
Merck KGaA (EMD Serono)	Christian Henke, PhD; Paul Kamudoni, PhD
GlaxoSmithKline	Brandon Becker, PhD, MPH
UCB Pharma	Kristina Harris, PhD
Other Participants	Affiliation
Amye Leong, MBA	Patient Representative
Lee S. Simon, MD; Vibeke Strand, MD	OMERACT
James Witter, MD, PhD	NIAMSD/PROMIS
Clifton O. Bingham III, MD	Johns Hopkins University
San Keller, PhD	American Institutes for Research
Susan J. Bartlett, PhD	McGill University
Research Partner	Research Team
Northwestern University	David Cella, PhD; Robert Chapman; George J. Greene, PhD; Kathryn Jackson, MS; Sally Jensen, PhD; John Devin Peipert, PhD