Multiple Sclerosis Outcome Assessments Consortium (MSOAC)

MSOAC Data Acquisition Highlights
Presented by Jesse Cedarbaum (Biogen) on behalf of Richard Rudick and the MSOAC Consortium

The material presented herein does not reflect the policies or practices of Biogen
The Genesis of the MSOAC

- **May 2011 - NMSS-ECTRIMS Workshop on Disability Outcome Measures in MS**

- **December 2011 – MSFC Task Force Meeting**
  - General agreement on the value of analyzing existing clinical trial data to optimize a clinical outcome measure (Ontaneda et al., Multiple Sclerosis Journal 18(8):1074-1080, 2012).
The Mission of MSOAC

The Multiple Sclerosis Outcome Assessments Consortium (MSOAC), funded by the National MS Society, aims to:

• Evaluate existing clinical trial data to qualify a new primary clinical outcome assessment (COA) measure for disability in MS clinical trials. The new measure will be designed to reflect disease progression, assessing the impact of new treatments intended to slow or stop the neuropathological changes associated with MS.
Framework for Developing a COA Performance Measure for MS Clinical Trials

1. Target Population

People with Multiple Sclerosis

2. Concept of interest

“Disability”

3. Examples of Activities of Daily Living Limited by Disability in MS

Walking quickly to make an appointment
Keeping up with conversations
Remembering to take medications
Reading a newspaper or screen
Using a knife and fork, writing, using a computer keyboard

4. Bodily Functions Involved in Activities of Daily Living

Walking
Higher Level Cognitive functions
Vision functions
Muscle Power functions
Control of Voluntary Movement

5. Sub-components of Bodily Functions

Speed
Information Processing Speed
Memory
Acuity
Fine Hand Use
Eye-Hand Coordination

6. Methods of Measurement

T25FW
PASAT
SDMT
CVLT2
BVMTR
7/24 SRT
LCVA
9-HPT

7. Generation of Overall Measurement

Disability measurement (score)

8. “Validation” and Interpretation

Meaning of scores, changes, and differences

Multiple Sclerosis Outcome Assessments Consortium (MSOAC)
MSOAC Specific Research Aims

1. Create MS therapeutic area data standards, leveraging efforts already underway.

2. Remap existing MS clinical trial data into common MS therapeutic area data standards.

3. Create an online MS database of aggregated, standardized clinical data, and make the placebo arm of the database available to qualified researchers.

4. Create scientific consensus on the optimal components of a new Performance Outcome (PerfO) measure.

5. Advance a new PerfO measure to the FDA and EMA for qualification for use as a primary endpoint in MS clinical trials.
Key: Establishing Clinical Meaningfulness

- A priority global aim of MSOAC is to contribute evidence towards the meaningfulness in the lives of persons with MS of walking speed, dexterity, visual acuity, and speed of information processing.

- MSOAC has identified three approaches that will be used in this regard:
  1. A Literature Review
  2. The Modified Delphi Process ("Voice of the Patient")
  3. Analysis of data from PRO instruments in the contributed datasets
Multiple Sclerosis Outcome Assessments Consortium (MSOAC)

**MSOAC Project Overview**

- Develop and support adoption of a clinical outcome assessment tool, and obtain regulatory qualification for use as a primary or secondary endpoint in MS clinical trials.
- The qualified methodology will measure neuroperformance and will be sensitive to limitations in daily living activities of patients affected by MS.

![Diagram of project overview](image)
## MSOAC Data Acquisition Status

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RRMS = 12: 12105, 11905 Received, 200 In-Process
S/PPMS = 5: 3395, 1987 Received, 1408 In-Process
All MS = 2: 540, 540 Received, 0 In-Process
Total = 19: 16040, 14432 Received, 1608 In-Process
MSOAC Data Highlights

New MS Data Standard

- CDISC Version 1.0 MS Therapeutic Area Data Standard published on May 2nd, 2014.
- Version 2 (primarily to address imaging data) is in-process

Data Acquisition and Mapping Status (currently in-process)

- Total Subjects In-House = 14,432  (RR = 11,905, PP = 2517)
  - Treatment Arm Subjects = 11,454
  - Placebo Arm Subjects = 2,978
- Percent of data mapped currently to CDISC MS Data Standard = 70%
## MSOAC Timeline: Project and Regulatory Milestones

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### Dataset Identification, Acquisition, and Mapping
- Develop of MS Data Standard
- Develop Initial Briefing Package
- Develop, refine, and execute Literature Review, MDP, and SAP

### FDA/LDA Liaison
- FDA Initiation
- Submit FDA LOI
- FDA Response to LOI
- EMA LOI Clarification
- EMA LOI #2
- FDA Review
- FDA Response to BP
- Request for Informal Mtg
- Mtg Held
- Submit Supplementary Materials

### EMA Liaison
- Submit EMA LOI
- EMA List of Issues
- EMA CHMP Final Qualification Advice
- EMA Response (List of Issues)
- EMA CHMP Final Qualification Advice
- EMA Review
- EMA Response to List of Issues

### Regulatory
- FDA Response to LOI
- EMA LOI
- Revised EMA LOI
- Response to SAWP List of Issues
- Submit Initial BP to FDA
- Submit Initial BP to EMA
- Extended Mtg Held

### Other
- FDA Review
- EMA List of Issues
- Response to List of Issues

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**Multiple Sclerosis Outcome Assessments Consortium (MSOAC)**

**National Multiple Sclerosis Society**

**CRITICAL PATH INSTITUTE**

**OT-US-0046**
Thank You!