

Treatment of Multiple Sclerosis

LOI Applicant Town Hall

October 22, 2015



PATIENT-CENTERED OUTCOMES RESEARCH INSTITUTE

Agenda

- Welcome
- Introduction to PCORI
- Background for the PFA
- Programmatic Requirements for this PFA
- Administrative Requirements for this PFA
- Resources
- Questions



Submit questions via the chat function in Meeting Bridge.



Ask a question via phone (an operator will standby to take your questions).



Introductions



*Els Houtsmuller, PhD
Senior Program Officer
Improving Healthcare Systems*



*Diane Bild, MD, MPH
Senior Program Officer
Assessment of Prevention,
Diagnosis and Treatment Options*



*Jess Robb, MPH
Program Associate
Assessment of Prevention,
Diagnosis and Treatment Options*



*Suzanne Schrandt, JD
Deputy Director Patient
Engagement*



*Maricon Gardner, CRA
Contracts Associate, Pre-Award
Contracts Management and
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Introduction to PCORI



Diane Bild, MD, MPH
Senior Program Officer
Assessment of Prevention, Diagnosis, and
Treatment Options



PCORI

- An independent, non-profit [501-(c)(1)] research institute authorized by Congress in 2010 and governed by a 21-member Board of Governors representing the entire healthcare community



PCORI's Mission

To help people make informed health care decisions and improve health care delivery and outcomes, by producing and promoting high integrity, evidence-based information that comes from research guided by patients, caregivers and the broader health care community.

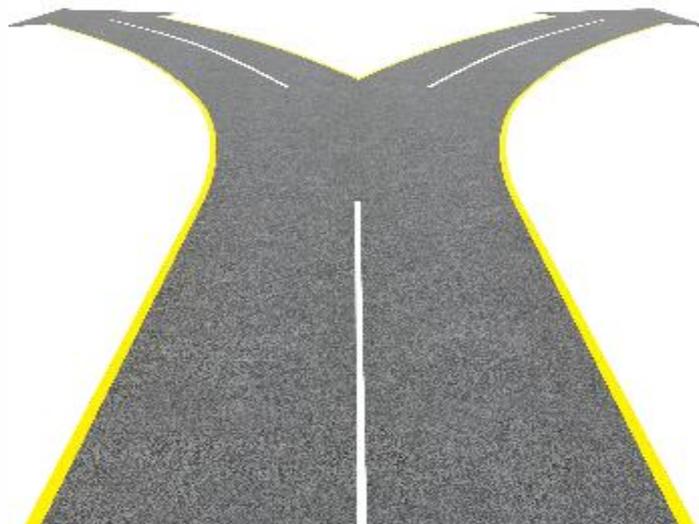


PCORI funds comparative effectiveness research

Research that . . .

- Compares benefits and harms of at least two different methods to prevent, diagnose, treat, or monitor a clinical condition or to improve care delivery
- Is performed in real-world populations
- Informs a specific clinical or policy decision

Adapted from *Initial National Priorities for Comparative Effectiveness Research*, Institute of Medicine of the National Academies



Background for the PFA



Jess Robb, MPH
Program Associate
Assessment of Prevention, Diagnosis, and
Treatment Options



Pathway for this Funding Announcement

Stakeholders proposed topic(s) to PCORI and PCORI staff reviewed them



PCORI APDTO Advisory Panel reviewed topic(s)



PCORI engaged stakeholders for workshop discussions, where they recommended topics and priorities (April 2, 2015)



PCORI staff and Science Oversight Committee further refined topics



PCORI Science Oversight Committee reviewed and approved topics



PCORI Board of Governors reviewed and approved topics for targeted PFA (September 28, 2015)



Need for CER for Multiple Sclerosis

Multiple sclerosis is a significant health condition

- Multiple sclerosis (MS) is a chronic degenerative condition of the central nervous system characterized by damage to the myelin sheaths of nerves, resulting in fatigue, numbness, visual disturbances, bladder problems, mobility difficulties, and other symptoms.
- Approximately 400,000 Americans have MS.
- Most patients are diagnosed between 20 and 40 years of age; ~70% are female.



Need for CER for Multiple Sclerosis

There is considerable uncertainty about treatment options.

1. Disease-modifying therapy (DMT) is used to prevent relapses and slow progression of MS.
 - There are 12 FDA-approved DMTs to treat MS, including three oral therapies introduced since 2010.
 - There are few head-to-head comparisons among the DMTs. (CADTH 2013)



Need for CER for Multiple Sclerosis

There is considerable uncertainty about treatment options.

2. MS has many symptoms and many symptomatic (non-DMT) treatment options.
 - There is a lack of head-to-head comparisons of different treatments, so patients and clinicians do not have complete information for choosing treatments.
 - 17 systematic reviews identified little definitive evidence on treatment of symptoms of MS.



Need for CER for Multiple Sclerosis

There is considerable uncertainty about treatment options.

3. Access to care for rehabilitation is limited; telerehabilitation may be a viable option to improve care.
 - A recent systematic review (9 RCTs) on telerehabilitation for patients with MS concluded there is a need for more robust trials. (Khan 2015)



PFA Budget Limits and Project Duration

Available Funds and Duration:

Total available: \$50 million (direct and indirect costs)

<u>Question</u>	<u>Direct costs per project</u>	<u>Duration</u>
1 - DMTs	\$10 million	5 years
2 - non-DMT symptomatic Rx	\$3 million	3 years
3 - telerehabilitation	\$5 million	4 years



Programmatic Requirements



Diane Bild, MD, MPH
Senior Program Officer
Assessment of Prevention,
Diagnosis and Treatment Options



Els Houtsmuller, PhD
Senior Program Officer
Improving Healthcare Systems



Overview of Letter of Intent Purpose and Process

- To identify ideas and proposals that are programmatically responsive
- To provide feedback to applicants
- Letters of Intent are reviewed by PCORI staff for each of the items requested in the template.
- A decision and feedback are provided by December 18, 2015.



PFA Overview: Treatment of Multiple Sclerosis

Question 1:

- What are the comparative benefits and harms of different disease-modifying therapies (DMTs) or therapeutic strategies in patients with relapsing, remitting multiple sclerosis on symptoms, functioning, quality of life, disease activity, and disease progression?
 - Strategies may include comparisons of initial DMT treatment or comparisons of follow-on treatments in patients for whom initial DMT treatment has failed, including strategies for sequencing or combining agents, changing to a different DMT, or escalating DMT dose.



PFA Overview: Treatment of Multiple Sclerosis

Question 2:

- What are the comparative benefits and harms of different approaches, other than DMTs, for ameliorating important symptoms in people with MS?
 - Symptoms of interest include fatigue, difficulty walking, memory or attention problems (cognition), bladder problems, numbness or tingling, and pain.
 - Studies of patients with progressive forms of MS are of particular interest.



PFA Overview: Treatment of Multiple Sclerosis

Question 3:

- What is the comparative effectiveness of telerehabilitation vs. conventional direct care interventions for improving outcomes in people with MS, such as functional status, fatigue, and quality of life?
 - Studies should evaluate the effectiveness of telerehabilitation interventions to enhance community-based primary care or neurology practice for patients who do not have access to specialty centers. Applications that employ intervention(s) already in practice are especially attractive.
 - Studies should examine the impact of the telerehabilitation strategies in various subpopulations, including individuals with low socioeconomic status and patients with progressive disease.



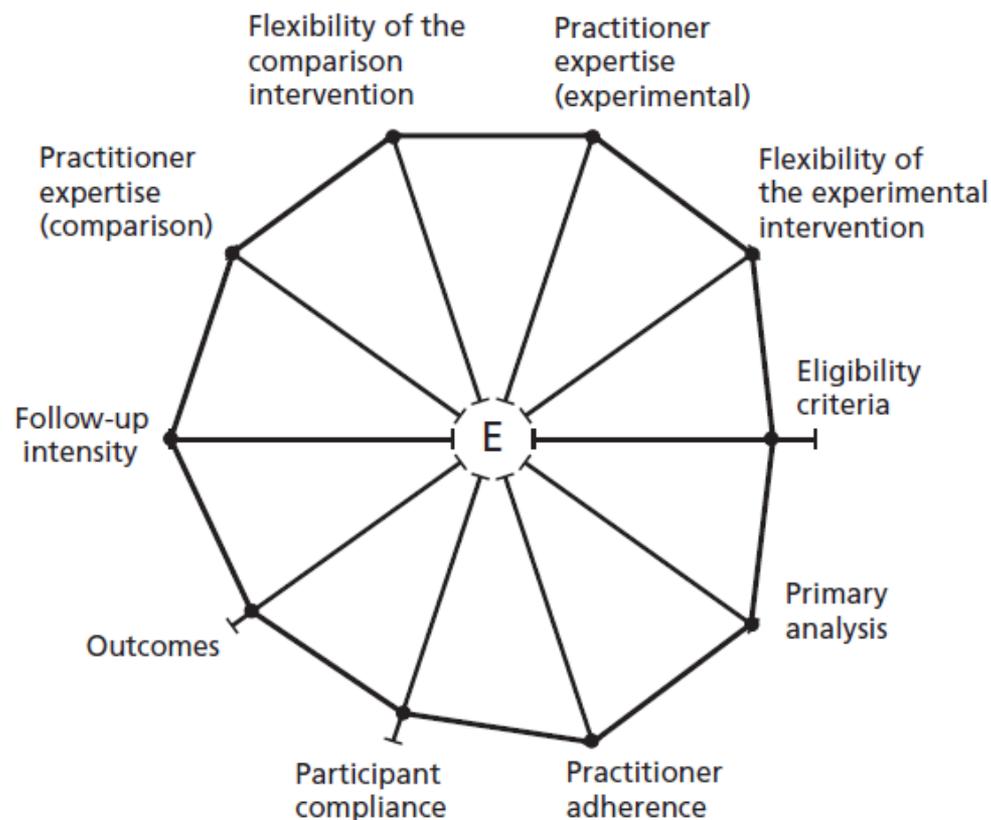
Essential characteristics of studies

- Address at least one of the three priority research questions.
- Include representative patient populations.
- Compare the effectiveness of two or more viable alternative approaches to management of MS.
- Conduct the study in typical clinical care and community settings.
- Have a sufficiently large study population to enable precise estimates of effect sizes and to support evaluation of potential differences in intervention effectiveness in patient subgroups.



Pragmatic vs. explanatory trials

- PCORI aims to produce evidence that can be easily applied in real-world settings and focuses on existing clinical interventions.
- Studies should be on the pragmatic end of the spectrum.



Thorpe, et al. J Clin Epidemiol 2009



Notes about “usual care”

- “Usual care” is generally not an optimal comparator for CER studies.
 - It is ill-defined, difficult to quantify, and subject to considerable geographic and temporal variations, thus limiting interpretability, applicability, and reproducibility.
 - If the applicant proposes “usual care” as a comparator, it must be justified as a legitimate comparator (e.g., usual care is guideline-based).
 - A proposal for a usual care comparator must be accompanied by an explanation of how the care given in the usual care group will be measured and how appropriate inferences will be made.



Research activities not supported by this PFA

- Studies of decision aids, including development of decision aids
- Efficacy trials (testing a new intervention)
- Natural history studies
- Clinical prediction tools
- Fundamental science studies
- Evidence syntheses
- Cost-effectiveness studies, including research that aims to compare the overall costs of care between two or more alternatives and use the results to determine the preferred alternative



PCORI Methodology Standards

Not to be addressed, per se, in LOI, but be aware and prepared!

Methodology Standards: 11 Broad Categories

- Formulating Research Questions
- Patient-Centeredness
- Data Integrity and Rigorous Analyses
- Preventing/Handling Missing Data
- Heterogeneity of Treatment Effects
- Data Networks
- Data Registries
- Adaptive and Bayesian Trial Designs
- Causal Inference
- Studies of Diagnostic Tests
- Systematic Reviews

<http://www.pcori.org/assets/2013/11/PCORI-Methodology-Report.pdf>



PCORI Methodology Standards

- Examples of Methodology Standards:
 - RQ-2 Develop a formal study protocol
 - RQ-4 Identify and assess participant subgroups
 - HT-3 All HTE (heterogeneity of treatment effects) claims must be based on appropriate statistical contrasts among groups being compared, such as interaction tests or estimates of differences in treatment effect
 - MD-1 Describe methods to prevent and monitor missing data
- The Methodology Standards do not address all issues related to study designs and methods and are considered minimal.



What PCORI looks for when reviewing LOIs

An important documented decisional dilemma

- Clinical guidelines based on less than optimal evidence
- Credible reviews calling out a research gap, such as systematic reviews
- CER question stated clearly in your Specific Aims
- Proposed comparators should be viable (realistic) and consistent with the decisional dilemma



What PCORI looks for when reviewing LOIs

A clear statement of the CER question

- Typical wording:
“What are the comparative benefits and harms of _____ vs. _____ in treating patients with [relapsing remitting] multiple sclerosis?”
- Note: There can be more than two clinical options.

TIP: If you are unable to articulate and support a clear, compelling CER question or decisional dilemma, you may want to re-think your decision to submit an LOI to PCORI.



What PCORI looks for when reviewing LOIs

A well-thought out, appropriate, defensible research strategy

- Adequate study power/appropriate sample size
- Realistic assumptions
- Appropriate study design
- Realistic recruitment strategy, if applicable

Note: The LOI is only 4 pages, so there is not room for much detail, but poor methodology is a frequent reason for LOI rejection.

TIP: Work with a biostatistician on the study design.



Patient and Stakeholder Engagement



Suzanne Schrandt, JD
Deputy Director
Patient Engagement



Patient-Centeredness vs. Patient and Stakeholder Engagement

Patient-Centeredness

- Does the LOI mention outcomes (both benefits and harms) important to patients?
- Are the interventions being proposed for comparison available to patients now?

Patient engagement

- Does the LOI mention intent to build an interdisciplinary study team that includes appropriate patient and stakeholder representation in consultation with PCORI?



What PCORI looks for when reviewing LOIs

Evidence of appropriate engagement of relevant stakeholders and researchers

- Funding applicants are expected to consult with patients and other stakeholders on their decisional dilemma and evidence needs or to reference previously documented decisional dilemmas in preparation for the submission of LOIs
- Identify the patients and stakeholders you consulted in determining that the proposed study addresses their evidentiary needs for decision-making and indicate your commitment to continuing to engage them actively in the conduct of the study.



Engagement Resources

- Several approaches to engagement can succeed. PCORI provides many engagement resources for applicants:
 - **PCORI’s “The Engagement Rubric”**
<http://www.pcori.org/sites/default/files/Engagement-Rubric.pdf>
 - **Sample Engagement Plans**
<http://www.pcori.org/sites/default/files/PCORI-Sample-Engagement-Plans.pdf>
 - **Engagement in Research website page**
<http://www.pcori.org/funding-opportunities/what-we-mean-engagement>
 - **PCORI’s Methodology Standards PC-1 to PC-4**
<http://www.pcori.org/assets/PCORI-Methodology-Standards1.pdf>



Administrative Requirements



Maricon Gardner, CRA
Contracts Associate, Pre- Award
Contracts Management and Administration



Eligibility to Submit a Letter of Intent

- Any private sector (non-profit or for-profit) research organization
- Any public sector research organization (university or college hospital or healthcare system, laboratory or manufacturer, unit of local, state, or federal government)
- Non-domestic components of organizations based in the US and foreign organizations may apply, as long as there is demonstrable benefit to the US healthcare system and US efforts in the area of patient-centered research can be clearly shown.
- Individuals are not permitted to apply.



Using the PCORI Online System

- Apply through PCORI Online (<https://pcori.fluxx.io>)
- Access the website using Chrome or Safari browsers only
- Create a new request and begin the LOI
- Designate the LOI with the following individuals:
 - PI, PI Designee, AO, and Financial Officer
- Enter information into all required fields in the system
- Convert the document to PDF file
- Upload the LOI in the system
- An applicant can save information by clicking the ‘Save and Review’ button.



Welcome to PCORI Online



Complete a Letter of Intent (LOI)

- Refer to the PCORI Online User Manual: Submitting a Letter of Intent
 - Pre-Screen Questionnaire
 - PI and Contact Information
 - Project Information
 - Key Personnel
 - Templates and Uploads
- Refer to the PFA-specific LOI Template to address the program's areas of interest
 - Please make sure to address all required sections of the LOI template
 - Please refer to the specific PFA as each program has its own unique characteristics and requirements



Letter of Intent (LOI)

- An LOI is required and must be submitted prior to the deadline. To submit an LOI, download the **Letter of Intent Template specifically for the TREATMENT OF MULTIPLE SCLEROSIS Cycle 3** from the Funding Center to begin your LOI.
- You must answer all questions, including the question on brief justification for the cost (“Will not exceed \$10 million” is not a sufficient answer!).
- Do not upload additional documents as part of your LOI.
- Letters of endorsements or support are not accepted at this stage.
- Only those LOIs deemed most responsive (programmatically and administratively) to this PFA will be invited to submit a full application.
- Please refer to the PFA, Application Guidelines, and PCORI Online User Manuals in the Funding Center here: <http://www.pcori.org/funding-opportunities/announcement/treatment-multiple-sclerosis-cycle-3-2015>



Multiple Sclerosis tPFA LOI requirements

- Four page limit – See requirements for font size and type, margins, and line spacing.
 - LOIs that exceed four pages will not be reviewed.
- References should be listed at the end and are not included in the four-page limit.



Formatting

- Include the Principal Investigator's (PI's) full name on every page in the top left corner of the page header.
- Use at least half-inch margins and single spacing.
- Use size 11 Calibri for the main body of the text. Figures and captions may have smaller type.
- Each page must be numbered consecutively for each PDF upload.
- Keep the numbering of the LOI questions within the LOI template.
- Save the document as, Principal Investigator (PI) Last Name_(last five digits of Request ID)_LOI.pdf. A request ID number will be automatically generated once the LOI has been saved.



Letter of Intent Template



LETTER OF INTENT (LOI) TEMPLATE: TREATMENT OF MULTIPLE SCLEROSIS

Instructions:

Please provide the information requested on the attached template. You must answer all questions listed in the template. Highlight changes if this is a resubmission. Aside from removal of the questions under each section header, **no other modifications** may be made to this template; any modifications will result in administrative withdrawal of the LOI. Applicants are required to follow the rules and guidelines listed below:

1. Replace the questions on the next page with your response, but retain the question numbers.
2. Do not include figures or general tables. Tables can only be included for power calculations.
3. References should be listed at the end and are not included in the four-page limit.
4. Do not upload this cover page.
5. Do not include supplemental materials (e.g., supporting journal articles, letters of support).

Formatting Guidelines:

- **Font:** Calibri size 11, figures and captions may have size 8 font
- **Spacing:** Single
- **Margins:** Half-inch (The header may fall within the top margin, but the body text should not begin closer than a half-inch from the edge of the page.)
- **Page limit:** Four pages
- **File name format:** Principal Investigator (PI) Last Name_ (last five digits of Request ID)_LOI.pdf. A request ID number will be automatically generated once the LOI has been saved. When you select the Save and Review



Letter of Intent Template



PRINCIPAL INVESTIGATOR (LAST, FIRST, MIDDLE):

LETTER OF INTENT (LOI) TEMPLATE: TREATMENT OF MULTIPLE SCLEROSIS

TITLE OF PROPOSED STUDY

RELEVANCE OF THE RESEARCH QUESTION TO CURRENT TREATMENT DECISION

1. Which of the three priority research questions identified in the PCORI Funding Announcement (PFA) (see page 4 in the PFA) will your study address? (Note: To be considered responsive, applications must address at least one of the three priority research questions identified in the PFA.)
2. What is the precise question or clinical dilemma in decision making that your research is designed to address?
3. Describe how your comparative effectiveness research (CER) question aims to address documented or known evidence gaps. Provide references for these known gaps from systematic reviews and clinical practice guidelines. Describe how the proposed study will help address decisional uncertainty currently facing patients and clinicians or other decision makers.

OBJECTIVES

4. What are the specific aims of the study?

METHODS

5. Describe:
 - a) Study design
 - b) Study population and proposed inclusion and exclusion criteria
 - c) Comparators (the two or more options being compared): Provide details about each of the comparators and how you plan to measure their use and implementation within the study. Since "usual care" is often highly variable, it makes for a poor comparator for discerning differences between interventions. If the known evidence gap dictates the comparison to "usual care," then describe how you will assess the fidelity/variability of that "usual care" in the individual patients participating in your study
 - d) Study outcomes, including measures important to patients and families



Budget Information

- In the LOI, provide a realistic estimate of the study's budget.
- Do not just make statements such as “The budget will be within the \$10 million limit.”
- Keep budget estimates reasonable. Do not just propose the maximum amount.



Submission and Key Dates

What	When
LOI due in PCORI Online	November 12, 2015 by 5:00pm ET
Applicants notified as to whether they have been selected to submit a full application	December 18, 2015 by 5:00pm ET
Earliest Start Date	September 2016



Resources



Maricon Gardner, CRA
Contracts Associate, Pre- Award
Contracts Management and Administration



Where to go for help

Quick Links for Applicants

Key Terms Glossary

Frequently Asked Questions (FAQs)

PCORI Online User Manual: Start a LOI

PCORI Online User Manual: Submitting an Application

PCORI Funded Projects: Sample Engagement Plans

Visit pcori.org/apply

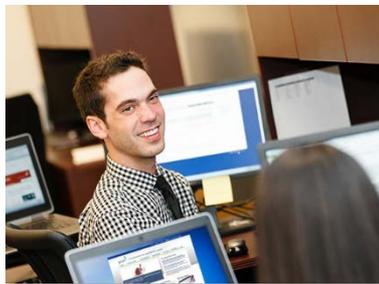
- Application Guidelines
- FAQs
- PCORI Online User Manuals
- Sample Engagement Plans

Schedule a Call with a Program Officer

- Submit a request at pcori.org/content/research-inquiry
- Call 202-627-1884 (programmatic inquiries)
- E-mail sciencequestions@pcori.org

Contact our Helpdesk

- E-mail pfa@pcori.org
- Call 202-627-1885 (administrative and technical inquiries)



Q&A



Ask a question via the chat function in Meeting Bridge.



Ask a question via phone (an operator will standby to take your questions).

If we are unable to address your question during this time, e-mail the Helpdesk at pfa@pcori.org.

