Advisory Panel on Rare Disease Meeting Summary

Overview

On December 14, 2018, the PCORI Advisory Panel on Rare Disease (RDAP) held its 12th meeting in Washington, DC.

RDAP's 14 members include patients, caregivers, representatives of patient advocacy organizations and industry, clinicians, payers, and researchers. The meeting was open to the public via webinar, and meeting materials were posted to the PCORI website in advance.

The meeting began with an orientation for the seven new RDAP members that included an overview of RDAP's charter, planning process for meetings, and previous recommendations. A session on dissemination and implementation of research results featured an overview of PCORI's current activities followed by presentations on planned dissemination approaches from principal investigators of three PCORI-funded studies on rare diseases. After a presentation on PCORnet, The National Patient-Centered Clinical Research Network, RDAP discussed the use of PCORnet data for rare disease research. A presentation on PCORI's reauthorization was followed by RDAP discussion and recommendations for enhancing PCORI's rare disease portfolio moving forward. A discussion of future steps for the RDAP included a review of outstanding action items from previous RDAP meetings and recommendations for future RDAP meeting topics.

Related Information

- About this Advisory Panel
- Meeting Details and Materials
- Advisory Panel on Rare Disease June 6, 2018, Meeting
- Rare Disease Research Guide for Merit Reviewers
- PCORnet, the National Patient-Centered Clinical Research Network
- PCORI engagement awards
- An Overview of the Impact of Rare Disease Characteristics on Research Methodology

The Patient-Centered Outcomes Research Institute (PCORI) is an independent organization created to help people make informed healthcare decisions.

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Orientation for New Panelists

Dr. Matt Cheung, Chair of RDAP, gave an overview of PCORI and of the RDAP's function and scope for the panel's seven new members. After presenting PCORI's mission and strategic goals, Dr. Cheung reviewed the language in the Patient Protection and Affordable Care Act that established PCORI and called for PCORI to establish an expert advisory panel for rare disease. Dr. Cheung also summarized the RDAP's responsibilities according to its charter and described the process used to plan RDAP meetings.

Dr. Cheung worked with PCORI staff to create a spreadsheet of RDAP meeting presentations and outcomes of recommendations based on the discussion. Dr. Cheung listed several activities completed by RDAP, including developing the Rare Disease Research Guide for Merit Reviewers, reviewing rare disease research standards, and submitting a rare disease methodology manuscript. In addition, RDAP has issued recommendations on developing a core outcome set for pediatric rare disease research, posting rare disease resources on PCORI's website, and disseminating PCORI research results.

Dissemination and Implementation: Primary Investigator Panel

Dr. Joanna Siegel, Director of Dissemination and Implementation at PCORI, and Dr. Kristin Carman, Director of Public and Patient Engagement, led a session on dissemination and implementation of PCORI research results. They first offered an overview of PCORI's current activities, then the principal investigators of three PCORI-funded studies focused on rare diseases described their studies as well as their dissemination and implementation plans.

Dr. Siegel explained that dissemination is not enough to ensure implementation of research findings, but it is often a necessary first step. Within 90 days of PCORI's acceptance of the final draft research report after peer review, PCORI releases public and professional abstracts and a summary of the peer review process. PCORI pays the fees, when needed, for open access to primary findings published in peer-reviewed journals. PCORI offers three types of engagement awards to disseminate PCORI-funded research findings, develop infrastructure and partnerships for dissemination and implementation of PCORI-funded research findings, and support meetings to communicate PCORI-funded research findings to targeted end users. PCORI also publishes evidence updates and offers continuing medical education.

PCORI's implementation awards are Limited Competition: Implementation of PCORI-Funded Patient-Centered Outcomes Research Results, Implementation of Effective Shared Decision Making Approaches in Practice Settings, and Implementation of Findings from PCORI's Major Research Investments.

Dissemination Activities of PCORI-Funded Rare Disease Studies

Dr. Emily Henkle, an epidemiologist and research assistant professor at Oregon Health & Science University, described a study funded by PCORI to assess the comparative effectiveness and safety of inhaled corticosteroids and macrolide for non–cystic fibrosis bronchiectasis (a chronic, inflammatory lung disease). This project was completed in July 2018, and the draft final research report was submitted to PCORI in October 2018. The investigators are submitting an engagement dissemination initiative award application to work with the American Thoracic Society to develop a continuing medical education program for bronchiectasis treatment and developing a mobile phone app to guide bronchiectasis management.

Dr. Alexander Gelbard, Associate Professor of Otolaryngology at Vanderbilt University, explained that idiopathic subglottic stenosis (iSGS) is a rare disease characterized by repeated narrowing of the upper trachea, making it difficult to breathe. The PCORI-funded study that Dr. Gelbard leads is determining how well the most commonly used iSGS treatments (endoscopic dilation, endoscopic dissection, and open cricotracheal resection) work and the quality-of-life tradeoffs associated with each treatment. The investigators will publish results of the study, which will end in 2019, in a peer-reviewed journal, and they would like to know how to ensure that surgeons implement the findings.

Dr. Jasvinder Singh, a professor of medicine and epidemiology at the University of Alabama at Birmingham, described his PCORI-funded research study that developed and assessed a computerized decision aid to help patients make treatment decisions about lupus nephritis. Compared with the standard American College of Rheumatology lupus pamphlet, the computerized decision aid helped patients better understand lupus and its treatment options, and patients found the aid easier to use than the pamphlet. The next step is an implementation study in 16 sites across the United States which is being funded by a PCORI engagement award.

RDAP offered the following recommendations for disseminating PCORI research findings resulting from studies of rare diseases:

- Partner with Facebook to study how to build leaders of virtual rare disease communities
- Determine how to engage payers in dissemination and implementation
- Blanket the mainstream media when PCORI research results are issued
- Offer funding for efforts to reach small private practices that serve small numbers of patients with rare diseases
- Encourage investigators to develop networks of recipients of the evidence their studies will generate early in the study planning process

Recommendations regarding implementation were as follows:

- Help expert panels that are developing new guidelines incorporate PCORI research findings
- Work with the American Board of Internal Medicine to integrate PCORI research findings into clinician training and certification processes
- Create a toolkit to help patients advocate for their needs when talking to a physician

Leveraging PCORnet, The National Patient-Centered Clinical Research Network

Dr. Keith Marsolo of Duke University described the goals and structure of PCORnet, which is designed to make the conduct of clinical research faster, easier, and less costly by harnessing the power of large amounts of health data and patient partnerships. PCORnet is made up of 13 Clinical Data Research Networks (CDRNs), 20 Patient-Powered Research Networks (PPRNs), and 2 Health Plan Research Networks. This network of networks collects data routinely gathered in a variety of healthcare settings. PCORI is in the process of transferring the network to the People-Centered Research Foundation (PCRF), which was was formed in 2017 to ensure PCORnet’s sustainability.

The PCORnet networks map their data to a common data model, which ensures that the data from different partners are trustworthy and can be compared. The common data model has about 18 domains, including demographic, diagnostic, medication order, and laboratory test data.

Dr. Marsolo gave several examples of uses of PCORnet data, including a PCORnet investigator who wanted to assess the feasibility of conducting a study on multiple sclerosis using PCORnet data. The investigator also hoped to identify other PCORnet investigators who might be interested in collaborating on this study. In less than 3 weeks, the investigator found 88,766 patients with multiple sclerosis in the PCORnet datasets and identified 17 investigators interested in collaboration. While the initial study application was not funded, collaboration between investigators led to the additional opportunities.

Researchers can send a research question to the PCORnet Coordinating Center, which converts the question into a query that it sends to the PCORnet partners. The partners upload their responses, which are sent to the requestor. The queries to PCORnet cover a broad range of issues, including rare diseases, and support different types of research projects, including intervention, observational, and health system studies.

RDAP offered the following recommendations for increasing the feasibility of PCORnet for rare disease:

- Identify lessons learned from a multiple sclerosis application developed using PCORnet data that did not receive funding
- Avoid continuously updating the PCORnet platform whenever new technologies become available to maintain efficiency and minimize potentially high transition costs
- Give presentations about PCORnet to regional genetic counselor and other groups that work with patients who have rare diseases
- Provide funding to link various datasets in better or more efficient ways
- Identify solutions for overcoming the lack of specific diagnostic codes in the PCORnet database which makes it challenging to identify patients with rare diseases.

PCORI's Future Rare Disease Research

PCORI Reauthorization

Andrew Hu, Director of Public Policy and Government Relations at PCORI, explained that Congress will need to reauthorize PCORI's legislation before the funding expires on September 30, 3019. Mr. Hu and others at PCORI have been educating members of Congress, their staffs, and other key stakeholders about the importance of comparative effectiveness research (CER). PCORI has identified a bipartisan group of Senate champions for PCORI's reauthorization, and it is building a similar group among members of the House of Representatives. In addition, several third-party stakeholders are forming a coalition to advocate for PCORI's reauthorization.

Discussion Framing

Dr. Gyasi Moscou-Jackson, Program Officer for Healthcare Delivery and Disparities Research at PCORI, asked the RDAP for suggestions or recommendations about PCORI's authorizing legislation that would benefit research on rare diseases if PCORI's stakeholders have an opportunity to inform this legislation.

She encouraged RDAP to consider funding opportunities beyond support for CER studies, such as initiatives to build capacity for the ability to conduct CER on rare diseases.

Sarah Philbin, Program Associate for Comparative Effectiveness and Decision Sciences at PCORI, briefly described an article she cowrote, "An Overview of the Impact of Rare Disease Characteristics on Research Methodology," published in the *Orphanet Journal of Rare Diseases* in 2018. This paper describes study design and analytic approaches from the published literature that might be relevant to addressing research challenges posed by rare diseases. The article also describes research methods used by PCORI-funded rare disease projects and PCORnet PPRNs that focus on one or more rare diseases.

RDAP members offered the following recommendations to enhance PCORI's rare disease portfolio:

- Provide more targeted funding opportunities for rare disease research
- Develop a framework for community engagement in rare disease research, recruitment strategies, and engagement mechanisms
- Develop catalyst awards to build CER capacity in rare disease research
- Form a rare disease research network that provides support for designing studies and implementing study findings

Future Steps for RDAP

Dr. Cheung explained that the purpose of this session was to review the list of outstanding items from past RDAP meetings and share ideas for future meeting topics and speakers.

Outstanding items from past meetings include:

- Help the rare disease community apply for PCORI funding
- Collaborate with other PCORI advisory panels on activities related to rare disease CER
- Distribute the outreach slide library to RDAP to promote PCORI's rare disease research efforts
- Engage rare disease research teams to identify challenges and opportunities
- The RDAP discussed the value and challenges of developing a core outcome set for pediatric rare diseases, noting that whether such a set can be developed for all rare diseases is not yet clear. RDAP members also recommended that PCORI staff contact other researchers and organizations that are developing core outcome sets.

RDAP members recommended the following future meeting topics:

- Outreach to and solicitation of input from patients with rare diseases
- Methods and case studies for dissemination of research results
- Linkages between clinical and patient-reported outcomes
- Assistance for patient advocacy organizations in developing research proposals for PCORI
- Update on an RDAP member's experience developing a rare disease core outcome set

Other RDAP recommendations were to:

- Use Rare Disease Day (February 28, 2019) as the focus of a social media campaign about opportunities to participate in webinars and join PCORI's rare disease email list
- Create a Facebook group for rare diseases

- Create a rare disease email list to send links to webinars and the results of PCORI-funded research projects
- Lead symposia at professional society meetings to educate researchers about the types of studies PCORI funds

Conclusions

Dr. Cheung summarized the day's presentations and discussions. The main messages were:

- Patients diagnosed with a rare disease need support for shared decision making with their providers and obtaining referrals when needed.
- RDAP recommended that PCORI explore the use of social media to reach out to the rare disease community and disseminate rare disease evidence.
- PCORI should consider extending demonstration projects involving rare diseases beyond 3 years.
- RDAP should determine how to propel rare disease research using PCORnet.
- RDAP should create a working group of RDAP members, PCORnet researchers, and other researchers conducting rare disease research to develop strategies to address the challenges to rare disease research.