



RESEARCH SPOTLIGHT ON

# Multiple Sclerosis

Multiple sclerosis (MS) is a chronic, unpredictable disease that damages the central nervous system and can affect nearly any function, but the most common symptoms are overwhelming fatigue, vision problems, and difficulties with mobility. This incurable disease has a significant impact on quality of life and can place high financial burdens on those with the disorder. There are currently 14 approved disease-modifying drugs for MS patients. While effective, many are expensive and may carry other health risks.

Multiple sclerosis affects an estimated

# 400,000 TO 1 MILLION AMERICANS

Source: World Health Organization and National MS Society

## Research Addressing Questions That Matter

PCORI funds **comparative clinical effectiveness research (CER)** to determine which healthcare options work best for which patients, based on their needs and preferences. CER produces evidence that helps people make better-informed healthcare choices.



### PATIENT

I live more than 50 miles from the nearest city and getting to a physical therapist or clinic is difficult to treat my MS. Would a home-based exercise program work well to improve my fitness and reduce my pain?



### CLINICIAN

I need more information on what drugs might work best for my patients with MS, whether they are using drugs for the first time, or they want to switch medications. Is there any research that can provide me the evidence I need to help my patients make the best choices?

## STUDY SPOTLIGHTS

### Comparative Effectiveness of Two MS Drugs

Two oral medications for MS, fingolimod and dimethyl fumarate, have been shown effective in reducing the rate of relapse in patients with the relapsing-remitting form of the disease. This project is the first head-to-head comparison of these medications' safety and effectiveness in staving off relapses. It is also the first study to consider patients' overall disease experience and quality of life as important outcomes. The study will include sites in the United States, Europe, Italy, and Israel. More information about this project may be found at [www.pcori.org/Mantegazza016](http://www.pcori.org/Mantegazza016).

### Comparing the Effectiveness of Clinic- and Home-Based Telerehabilitation

This study is measuring whether people with MS get as much benefit from an exercise-based rehabilitation program delivered via Internet or telephone as when the same therapy is provided in a clinic. Clinics that can provide such services are scarce in rural and low-income areas. More information about this project may be found at [www.pcori.org/Rimmer017](http://www.pcori.org/Rimmer017).

## Building Capacity for Patient-Centered Research

PCORI is investing in people and infrastructure to support high-quality patient-centered research for years to come. **PCORnet, the National Patient-Centered Clinical Research Network**, will enable us to learn from the data and experiences of 100 million Americans. It is building capacity for research and other studies by supporting patient-driven networks and helping them connect with researchers who are studying similar topics, including multiple sclerosis.



PCORI has invested \$2.3 million to develop **iConquerMS**, one of the patient-powered networks within PCORnet. It is helping to drive research that is led and informed by those living with MS. People can securely contribute their health information to iConquerMS and provide researchers with data they need to find answers. It has enrolled more than 3,000 patients with a goal of enrolling 20,000. It is endorsed by the National Multiple Sclerosis Society, the Multiple Sclerosis Foundation, the Multiple Sclerosis Association of America and the Multiple Sclerosis Coalition.

As of December 2018, PCORI has awarded

**\$69** MILLION TO FUND **12**

comparative clinical effectiveness research studies related to multiple sclerosis.

### BY THE NUMBER OF PROJECTS

#### Special Populations Studied

