Topic Brief: Therapies for Parkinson's Disease

Date: 7/26/2023
Nomination Number: 1038

Purpose: This document summarizes the information addressing a nomination submitted on November 18, 2022, through the Effective Health Care Website (Link to nomination). This information was used to inform the Evidence-based Practice Center (EPC) Program decisions about whether to produce an evidence report on the topic, and if so, what type of evidence report would be most suitable.

Issue:

Over the past decade, several new medical and surgical treatments for Parkinson's Disease (PD) have become available in the U.S. These newer treatments are more expensive than older treatments, and formularies have used stepped programs and other strategies to restrict access to them. Notable newer treatments include Rytary, an extended-release formulation of carbidopa/levodopa; newer dopamine agonists and MAO-B inhibitors, and, for advanced PD, MRI-guided focused ultrasound ablation, an alternative to more invasive intracranial surgery, deep brain stimulation.

The nominators, an advocacy group that seeks to broaden access to approved therapies, are interested in whether formulary restrictions, which are often used for Parkinson's Disease drugs, may have unintended consequences on patient outcomes,[1] especially when heterogeneity of treatment outcomes is poorly understood. They note that patients and clinicians struggle to find a therapy or combination of therapies that is compatible with a patient's unique needs. They recognize there are few or no data to support these choices, but they requested a systematic review about "…the heterogeneity of Parkinson's Disease and the value of different types and delivery methods of therapies" and the "…benefit of patient access to a full range of approved therapies for Parkinson's Disease" as a baseline for future policy and research.

Findings The scope of this topic met all EHC Program selection criteria and was considered for a systematic review. However, it was not selected

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Background

In the U.S., about 1.2 million people have Parkinson's Disease (PD), making it the second most common neurodegenerative disease after Alzheimer's disease.[2] People with PD have been shown to have lower quality of life than healthy controls in most domains, and especially in physical function and mental health.[3]

In early PD, symptoms include tremor, rigidity, bradykinesia, and gait impairment. Strategies for people whose initial symptoms are less disabling include supportive care and monitoring

before starting medication for progressing symptoms. Physical therapy, for example, can be offered early. Many patients and providers also consider alternative or complementary therapies in early PD, such as tai chi, massage, and yoga as the main treatments initially. When medication is or becomes necessary, initial therapy with levodopa is often successful in controlling symptoms. Several different levodopa formulations as well as other drug classes such as dopamine agonists and MAO-B inhibitors, are also available.

While symptom control with levodopa can sometimes be maintained for years, the response usually diminishes over time. Many patients also develop complications as a consequence of disease progression, and chronic dopamine replacement therapy can lead to undesirable toxicities and the challenges of compensating for those toxicities. Physical, occupational, and speech therapy as well as diet, exercise, massage, yoga or tai chi are also widely used in addition to medications at these stages.[4]

Of particular interest, patients who have taken levodopa for several years may develop periods of suboptimal drug response, called "OFF" periods, when symptoms are uncontrolled at times over the day. Higher, more frequent dosing of levodopa can, for a time, control these fluctuations but is associated with an increased risk of another movement disorder, levodopa-induced dyskinesia, that causes involuntary movements. As the disease progresses, patients may also experience mental and behavioral changes, sleep problems, depression, memory difficulties, constipation/bowel issues, loss of smell, and fatigue.[4] Treatments for symptom fluctuations, dyskinesia, and other complications are individualized and may require several trials of different agents and strategies. As noted in the topic nomination, however, there are few data available to guide tailoring these therapies.

Patients who have fluctuating motor symptoms (OFF periods), tremor, or dyskinesias that are not responsive to medication adjustments may be candidates for deep brain stimulation or focused ultrasound targeting the thalamus. These advanced treatments are offered in specialized centers.

Scope[1]

Question 1: Which Parkinson's Disease (PD) treatments work best, for whom, for initial treatment of PD?

Question 2: Which PD treatments work best, for whom, for loss of efficacy or fluctuating response to immediate-release levodopa?

a. What is the comparative effectiveness and adverse event profile of different treatments, formulations, combinations of treatments, and modalities?
b. What is the evidence about the heterogeneity of treatment effects—which patients are more likely to benefit or have side effects from one or another drug, formulation, combination of treatments, or modalities?

Contextual Question: What is the effect of formulary restrictions for PD treatments on patient outcomes?

Table 1. Questions and PICOs (population, intervention, comparator, and outcome)

[1] The SRC drafted initial questions, then the nominator reviewed them and suggested edits. Following that, the SRC (Helfand) made additional changes to the questions which the nominator has not reviewed.

Questions	Treatments for Parkinson's disease and for specific complications of Parkinson's disease and of treatment
Population	Adults ≥18 years with a clinical diagnosis of Parkinson's disease
Interventions	Treatments to address symptoms of Parkinson's disease such as: approved pharmaceuticals including levodopa preparations (including different types of administration), DAs and MAO-B inhibitors, FUSA, alternative therapies (e.g., Qigong, acupuncture), and physical/exercise/movement/occupational therapies.
Comparators	Other treatments, treatment as usual, placebo, non-treatment
Outcomes	Quality of life, motor and nonmotor symptom management, treatment adherence, disability, cognitive function, balance, mobility, psychiatric symptom management, patient satisfaction with treatment, and quality of physician-patient relationship. Measures could include patient reported outcomes, clinician ratings, and validated scales such as the Unified Parkinson's Disease Rating Scale.

Abbreviations: DAs=dopaminergic agonists; FUSA=focused ultrasound ablation; MAO-B=monoamine oxidase-B.

Assessment Methods

See Appendix A.

Summary of Literature Findings

Question 1:

In 2017, NICE completed a high-quality, comprehensive systematic review of pharmacologic and nonpharmacologic treatments for motor and non-motor symptoms of PD. [5] However, NICE did not compare different formulations of levodopa.

The American Academy of Neurology (AAN) Guideline Subcommittee conducted a review of studies published through June 2020 to assess the comparative effectiveness of approved drugs for early PD. They found that levodopa was more effective for motor symptoms than dopamine agonists but that there was "…no evidence to support the superiority of one formulation of levodopa over another…" While some initial pharmacogenetic studies suggested patient-specific differences in response to some drugs for PD, clinical evidence about patient characteristics that might be associated with an advantage for one drug or formulation over others was lacking, including for the comparison of extended-release levodopa to immediate-release levodopa. They noted that future research should be informed by the goal of "…moving away from a one-size-fits-all therapeutic approach to initiating treatment for motor symptoms in early PD." The review also found that only poor-quality and low-quality evidence was available for exercise and physiotherapy. In 2021, the American Academy of Neurology then published guidelines for the treatment of early PD and recommended that, when drug therapy became necessary, immediate-release levodopa was the preferred initial agent.

The Movement Disorders Society Evidence-Based Medicine Committee periodically commissions systematic reviews of aspects of PD. They reviewed treatments for nonmotor symptoms of PD, such as cognitive impairment, poor impulse control, apathy, depression or anxiety, autonomic dysfunction, disorders of sleep, pain, fatigue, and others in 2016.[6]

Question 2:

We did not find suitable systematic reviews for treatment of complications of levodopa treatment or for late complications of PD and levodopa. The AAN did not conduct a review of management of advanced PD.

A large number of studies, primarily premarketing drug trials, have addressed the efficacy of different medications in PD. While these studies include some information about patient characteristics (see Table 2), few conducted an analysis of the heterogeneity of treatment effects, and few are comparative effectiveness studies. There are also some primary studies of alternative therapies (acupuncture, dance, singing, yoga, and tai chi), exercise or physical therapy, psychological therapy, and devices and technologies to facilitate management of symptoms.

Contextual Question. We conducted a separate search for this question. We did not find any systematic reviews, meta-analyses, or primary studies that addressed formulary barriers to treatment for PD. Eight articles mentioned formulary restrictions regarding PD but provided no data or citation.

Table 2. Literature identified for each question

Question	Systematic reviews	Primary studies
Question 1&2: Treatments for Parkinson's disease	Question 1 Total: 1 Question 2 Total: 0	Total: 72 • Age[1-51] • Sex [1-51] • PD Duration[2,5-51] • Severity[2,3-5,7-22,24-51] • Concomitant PD therapies[2,6-9,11-12,14-19,23-24,30-51] • Other illnesses [1,5,8-9,11,15-22,28-30] • Race/ethnicity[4-7,9,21] • Nationality[2] Total: 50 Pharmacological: 18[7-24] + new drugs • RCT: 10 • Non-randomized controlled trial: 2 • Observational: 6 Other: 25[25-49] • RCT: 20 • Non-randomized controlled trial:4 • Observational: 1 ClinicalTrials.gov: 20[50-69]
Contextual Question: Formulary Restrictions	0	8*

*Studies that provided no data or citation
Abbreviations: PD=Parkinson's disease; RCT=randomized controlled trial.

Summary of Selection Criteria Assessment

While several reviews and guidelines were identified, none address fluctuating responses to immediate-release levodopa in advanced stage PD, or the impact of formulary restrictions on patient outcomes. There are a large number of relevant primary studies for treatments of interest, and a new systematic review has the potential to result in a guideline (or, for Question 1, a

guideline update.) A new review is not likely to result in robust findings about the comparative effectiveness of different treatments and strategies, but (as the nominator notes) would be an important step in establishing the rationale for new studies to obtain such evidence.

Please see Appendix B for detailed assessments of individual EPC Program selection criteria.

Staff Suggestions

If this topic goes forward, for background or context, the review team should use key informants and publicly facing websites to develop a description of the type and content of formulary restrictions and patient selection criteria used by health plans in the context of 4 categories: initial treatment for PD, treatment for fluctuating responses to immediate release levodopa, use of deep brain stimulation and focused ultrasound ablation therapy, and restrictions on treatments for nonmotor complications of PD.

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Conflict of Interest: None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

Acknowledgements
Christine Chang
Charli Armstrong
Michael Graham
Emily Gean
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Appendix A: Methods

We assessed nomination for priority for a systematic review or other AHRQ Effective Health Care report with a hierarchical process using established selection criteria. Assessment of each criteria determined the need to evaluate the next one. See Appendix B for detailed description of the criteria.

Appropriateness and Importance

We assessed the nomination for appropriateness and importance.

Desirability of New Review/Absence of Duplication

We searched for high-quality, completed or in-process evidence reviews published in the last three years March 17, 2020 - March 17, 2023, on the questions of the nomination from these sources:

- AHRQ: Evidence reports and technology assessments
    - AHRQ Evidence Reports https://www.ahrq.gov/research/findings/evidence-based-reports/index.html
    - EHC Program https://effectivehealthcare.ahrq.gov/
    - US Preventive Services Task Force https://www.uspreventiveservicestaskforce.org/
    - AHRQ Technology Assessment Program https://www.ahrq.gov/research/findings/ta/index.html
- US Department of Veterans Affairs Products publications
    - Evidence Synthesis Program https://www.hsrd.research.va.gov/publications/esp/
    - VA/Department of Defense Evidence-Based Clinical Practice Guideline Program https://www.healthquality.va.gov/
- Cochrane Systematic Reviews https://www.cochranelibrary.com/
- PROSPERO Database (international prospective register of systematic reviews and protocols) http://www.crd.york.ac.uk/prospero/
- PubMed https://www.ncbi.nlm.nih.gov/pubmed/
- Joanna Briggs Institute http://joannabriggs.org/
- Epistemonikos https://www.epistemonikos.org/

Impact of a New Evidence Review

The impact of a new evidence review was qualitatively assessed by analyzing the current standard of care, the existence of potential knowledge gaps, and practice variation. We considered whether it was possible for this review to influence the current state of practice through various dissemination pathways (practice recommendation, clinical guidelines, etc.).

Feasibility of New Evidence Review

We conducted a limited literature search in PubMed for the last five years March 17, 2018 - March 17, 2023. Because a large number of articles were identified, we reviewed a random sample of 200 titles and abstracts for each question for inclusion. We classified identified studies by question and study design, to assess the size and scope of a potential evidence review. We then calculated the projected total number of included studies based on the proportion of studies included from the random sample.

Search strategy
Ovid MEDLINE ALL 1946 to March 15, 2023

Date searched: March 17, 2023
1 *Parkinson Disease/ (68552)
2 (parkinson$1 adj disease).ti. (63207)
3 or/1-2 (81606)
4 exp *Acupuncture Therapy/ or *Complementary Therapies/ or *Deep Brain Stimulation/ or exp *Exercise Therapy/ or *Occupational Therapy/ or exp *Physical Therapy Modalities/ or *Qigong/ or *Yoga/ (172780)
5 (acupuncture or CAM or alternative or (brain adj2 stimulat*) or complement* or "deep brain" or exercis* or interventions or manag* or meditat* or movement or occupational or physical or physio* or Qigong or "Tai Chi" or TCM or "traditional Chinese" or therap* or treat* or yoga).ti. (3583237)
6 *Amantadine/ or *Antiparkinson Agents/ or *Aromatic Amino Acid Decarboxylase Inhibitors/ or *Catechol O-Methyltransferase Inhibitors/ or *Cholinergic Antagonists/ or *Cholinesterase Inhibitors/ or *Dopamine Agonists/ or *Levodopa/ or *Monoamine Oxidase/ or *Selective Serotonin Reuptake Inhibitors/ (59038)
7 (anticholinerg* or anti-cholinerg* or antidepressant$1 or anti-depressant$1 or antiparkinson* or anti-parkinson* or antitremo?r* or anti-tremo?r* or ((COMT or "catechol-O-methyl transferase" or "catechol-O-methyltransferase" or cholinesterase or MAOB or "MAO B" or "Monoamine oxidase B") adj inhibit*) or (dopamine adj (promot* or agonist$1)) or drugs or medications or nonpharmac* or pharmac* or "selective serotonin" or SSRI$1 or tricyclic).ti. (473757)
8 (amantadine or Apokyn or apomorphine or Aricept or Azilect or biperiden or benztropine or bromocriptine or cabergoline or carbidopa or Comtan or donepezil or Eldepryl or Emsam or entacapone or Exelon or galantamine or levodopa or memantine or Mirapex or Namenda or Neupro or nortriptyline or Nourianz or orphenadrine or pramipexole or procyclidine or rasagiline or Razadyne or Requip or rivastigmine or ropinirole or rotigotine or safinamide or selegiline or Symmetrel or Tasmar or tolcapone or trihexyphenidyl or Xadago or Zelapar).ti,kf. (24558)
9 or/4-8 (4099385)
10 (compar* or noninferior* or non-inferior* or versus or vs$1).ti,ab,kf. (7205609)
11 and/3,9-10 (6797)
12 11 not ((exp Animals/ not Humans/) or (animal model* or bitch$2 or bovine or canine or capra or cat or cats or cattle or cow$1 or dog$1 or equine or ewe$1 or feline or goat$1 or hamster$1 or horse$1 or invertebrate$1 or macaque$1 or mare$1 or mice or monkey$1 or mouse or murine or nonhuman or non-human or ovine or pig or pigs or porcine or primate$1 or rabbit$1 or rat$1 or rattus or rhesus or rodent* or sheep or simian or sow$1 or vertebrate$1 or zebrafish).ti.) (6268)
13 limit 12 to english language (6021)
14 limit 13 to yr="2020 -Current" (1390)
15 14 and (Comparative Effectiveness Research/ or meta-analysis.pt. or (meta-anal* or metaanal* or ((compar* or effect* or efficac* or evidence or overview$1 or review or systematic or summar* or umbrella) adj2 (review or synthesis))).ti. or (synthes* and review*).ti.) (181)
16 and/3,9 (25486)
17 16 and ((compar* adj2 (effective* or efficac*)) or noninferior* or non-inferior* or versus or vs$1).ti,ab,kf. (1899)
18 17 not ((exp Animals/ not Humans/) or (animal model* or bitch$2 or bovine or canine or capra or cat or cats or cattle or cow$1 or dog$1 or equine or ewe$1 or feline or goat$1 or hamster$1 or horse$1 or invertebrate$1 or macaque$1 or mare$1 or mice or monkey$1 or mouse or murine or nonhuman or non-human or ovine or pig or pigs or porcine or primate$1 or rabbit$1 or rat$1 or rattus or rhesus or rodent* or sheep or simian or sow$1 or vertebrate$1 or zebrafish).ti.) (1838)

19 limit 18 to yr="2018 -Current" (650)
20 19 and ((controlled clinical trial or randomized controlled trial).pt. or (control or controls or controlled or placebo$1 or random* or trial*).ti.) (191)
21 20 not 15 (183)
22 19 and (Case-Control Studies/ or Cohort Studies/ or Comparative Study/ or Controlled Before-After Studies/ or Cross-Sectional Studies/ or Epidemiologic Studies/ or exp Evaluation Studies as Topic/ or Follow-Up Studies/ or Historically Controlled Study/ or Interrupted Time Series Analysis/ or Longitudinal Studies/ or Prospective Studies/ or Retrospective Studies/ or ("case-control" or cohort$1 or "before-after" or ((comparative or epidemiologic or evaluation) adj3 study) or cross-sectional or follow-up or (historic* adj4 control*) or "interrupted time" or longitudinal$2 or prospective$2 or retrospective$2).ti.) (202)
23 22 not (15 or 21) (134)

Ovid EBM Reviews - Cochrane Central Register of Controlled Trials February 2023
Date searched: March 17, 2023
1 Parkinson Disease/ (5207)
2 (parkinson$1 adj disease).ti. (8160)
3 or/1-2 (9349)
4 exp Acupuncture Therapy/ or Complementary Therapies/ or Deep Brain Stimulation/ or exp Exercise Therapy/ or Occupational Therapy/ or exp Physical Therapy Modalities/ or Qigong/ or Yoga/ (39243)
5 (acupuncture or CAM or alternative or (brain adj2 stimulat*) or complement* or "deep brain" or exercis* or interventions or manag* or meditat* or movement or occupational or physical or physio* or Qigong or "Tai Chi" or TCM or "traditional Chinese" or therap* or treat* or yoga).ti. (560368)
6 Amantadine/ or Antiparkinson Agents/ or Aromatic Amino Acid Decarboxylase Inhibitors/ or Catechol O-Methyltransferase Inhibitors/ or Cholinergic Antagonists/ or Cholinesterase Inhibitors/ or Dopamine Agonists/ or Levodopa/ or Monoamine Oxidase/ or Selective Serotonin Reuptake Inhibitors/ (7677)
7 (anticholinerg* or anti-cholinerg* or antidepressant$1 or anti-depressant$1 or antiparkinson* or anti-parkinson* or antitremo?r* or anti-tremo?r* or ((COMT or "catechol-O-methyl transferase" or "catechol-O-methyltransferase" or cholinesterase or MAOB or "MAO B" or "Monoamine oxidase B") adj inhibit*) or (dopamine adj (promot* or agonist$1)) or drugs or medications or nonpharmac* or pharmac* or "selective serotonin" or SSRI$1 or tricyclic).ti. (56782)
8 (amantadine or Apokyn or apomorphine or Aricept or Azilect or biperiden or benztropine or bromocriptine or cabergoline or carbidopa or Comtan or donepezil or Eldepryl or Emsam or entacapone or Exelon or galantamine or levodopa or memantine or Mirapex or Namenda or Neupro or nortriptyline or Nourianz or orphenadrine or pramipexole or procyclidine or rasagiline or Razadyne or Requip or rivastigmine or ropinirole or rotigotine or safinamide or selegiline or Symmetrel or Tasmar or tolcapone or trihexyphenidyl or Xadago or Zelapar).ti. (7778)
9 or/4-8 (629852)
10 ((compar* adj2 (effective* or efficac*)) or noninferior* or non-inferior* or versus or vs$1).ti,ab. (495405)
11 and/3,9-10 (1309)
12 limit 11 to yr="2018 -Current" (486)
13 12 not Trial registry record.pt. (430)

EPISTEMONIKOS
Date searched: March 17, 2023

(title:(title:(parkinson* AND (compar* OR noninferior* OR non-inferior* OR versus OR vs OR vs.))) OR abstract:(title:(parkinson* AND (compar* OR noninferior* OR non-inferior* OR versus OR vs OR vs.)))) (71)

PROSPERO
Date searched: March 17, 2023
((parkinson* AND (compar* OR noninferior* OR non-inferior* OR versus OR vs OR vs.))):TI AND (Systematic Review OR Meta-Analysis OR Network meta-analysis):RT WHERE CD FROM 17/03/2020 TO 17/03/2023 (35)

Clinical Trials.gov Search Output Link

Value

We assessed the nomination for value. We considered whether or not the clinical, consumer, or policymaking context had the potential to respond with evidence-based change, if a partner organization would use this evidence review to influence practice, and if the topic supports a priority area of AHRQ or the Department of Health and Human Services.

Appendix B. Selection Criteria Assessment

Selection Criteria	Assessment
1. Appropriateness	
1a. Does the nomination represent a health care drug, intervention, device, technology, or health care system/setting available (or soon to be available) in the United States?	Yes.
1b. Is the nomination a request for an evidence report?	Yes.
1c. Is the focus on effectiveness or comparative effectiveness?	Yes.
1d. Is the nomination focus supported by a logic model or biologic plausibility? Is it consistent or coherent with what is known about the topic?	Yes.
2. Importance	
2a. Represents a significant disease burden; large proportion of the population	PD is the second most common neurodegenerative disease after Alzheimer's disease, with the population prevalence increasing from about 1% at age 60 to 4% by age 80.[70]
2b. Is of high public interest; affects health care decision making, outcomes, or costs for a large proportion of the United States population or for a vulnerable population	Yes.
2c. Incorporates issues around both clinical benefits and potential clinical harms	Yes.
2d. Represents high costs due to common use, high unit costs, or high associated costs to consumers, to patients, to health care systems, or to payers	Yes.
3. Desirability of a New Evidence Review/Absence of Duplication	
3. A recent high-quality systematic review or other evidence review is not available on this topic	A recent systematic review addresses the initial treatments for PD, but no recent review addresses treatment for fluctuations (loss of efficacy), other complications of treatment and disease progression, and recently developed treatments.
4. Impact of a New Evidence Review	
4a. Is the standard of care unclear (guidelines not available or guidelines inconsistent, indicating an information gap that may be addressed by a new evidence review)?	For initial treatment, the standard of care is clear, but newly available treatment options may change it. For those with fluctuating response and more advanced disease progression, the standard of care is not clear.
4b. Is there practice variation (guideline inconsistent with current practice, indicating a potential implementation gap and not best addressed by a new evidence review)?	Yes. The most recent guidelines predate new pharmacological treatments.
5. Primary Research	
5. Effectively utilizes existing research and knowledge by considering: - Adequacy (type and volume) of research for conducting a systematic review - Newly available evidence (particularly for updates or new technologies)	Over 70 studies

6. Value	
6a. The proposed topic exists within a clinical, consumer, or policy-making context that is amenable to evidence-based change and supports a priority of AHRQ or Department of Health and Human Services	Yes. Evaluating the effectiveness of treatments for PD is in alignment with AHRQ's mission to support healthcare that is effective.
6b. Identified partner who will use the systematic review to influence practice (such as a guideline or recommendation)	No. The nominator represents an advocacy group that does not develop guidelines. A partner who can develop guidelines would need to be identified.

Abbreviations: AHRQ=Agency for Healthcare Research and Quality; PD=Parkinson's disease; RCT=randomized controlled trial.

Appendix C. Topic Nomination

Submitted on Friday, November 18, 2022 - 15:18

Submit a Topic for a New Evidence Review

1. What is the decision or change (e.g., clinical topic, practice guideline, system design, delivery of care) you are facing or struggling with where a summary of the evidence would be helpful?
Parkinson's Disease is a relentlessly progressive neurogenerative disease that affects both movement and cognition. Patient must exert tremendous effort to complete basic activities of daily living and as the disease progresses, man people come to rely on caregivers. There are no treatments that cure, reverse or stop disease progression. That makes access to treatments that address symptoms all the more important. We are interested in data about the heterogeneity of Parkinson's Disease and the value of different types and delivery methods of therapies. We would like to know the benefit of patient access to a full range of approved therapies for Parkinson's Disease. More specifically, we would like to understand why patients respond differently and how that impacts differing needs for medication.

2. Why are you struggling with this issue?
Currently, anecdotal evidence from patients and clinicians is our best way to understand this issue. We hear that patients and clinicians struggle to find a therapy or combination of therapies that is compatible with a patient's unique needs. However, there is little to no data to support these patient stories. When the one million Americans living with Parkinson's struggle to afford or access their medications, a lack of data that affirms their experience harms their ability to make a case for medical necessity to payers.

3. What do you want to see changed? How will you know that your issue is improving or has been addressed?
We want to be able to use data to help patients make a case for the medical necessity of access to the full range of Parkinson's Disease therapies. This report will allow for greater data and better access to therapies for patients. We will know that the issue is improving when we have a greater ability to analyze policies and formularies, which help us better understand how the landscape is changing.

4. When do you need the evidence report?
Fri, 11/01/2024

5. What will you do with the evidence report?
We will create educational materials explaining the importance of patient access to a full range of Parkinson's Disease therapies. We will also use the data to inform our engagement with federal and state governments and agencies concerning access to care for Parkinson's patients.

Optional Information About You

What is your role or perspective?
Advocacy Coalition

If you are you making a suggestion on behalf of an organization, please state the name of

the organization
Movement Disorders Policy Coalition

May we contact you if we have questions about your nomination?
Yes

Full Name
Elizabeth Simpson

Title
Advocacy Manager

Email Address
esimpson@allianceforpatientaccess.org

is_production
Yes

Form Type
Topic Nomination

The results of this submission may be viewed at:
https://effectivehealthcare.ahrq.gov/admin/structure/webform/manage/topic_nomination_form/submission/1224