ATLANTA NEUROLOGY SPECIALISTS

Movement Disorders & Deep Brain Stimulation Center
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PRE-AUTHORIZATION REQUEST

Deep Brain Stimulation for Parkinson's Disease

REQUEST INFORMATION

Date of Submission:	October 3, 2025
Requested Procedure:	Bilateral Subthalamic Nucleus (STN) Deep Brain Stimulation
CPT Codes:	61863 (bilateral DBS electrode insertion), 61868 (neurostimulator placement)

PATIENT INFORMATION

Patient Name:	Johnson, Patricia Lynn
Date of Birth:	March 8, 1958
Age:	67 years
Sex:	Female
Medical Record #:	ANS-334287
Insurance:	Medicare Part B
Medicare Number:	3FG-HJ74-LK89

DIAGNOSIS

Primary:	G20 - Parkinson's Disease
Onset:	2018 (7 years duration)

CLINICAL HISTORY

Mrs. Johnson is a 67-year-old female with a 7-year history of parkinsonism. Initial symptoms in 2018 included bilateral hand tremor (right slightly more than left) and generalized slowing of movements. She was evaluated by a neurologist and diagnosed with Parkinson's disease. Treatment with carbidopa-levodopa was initiated.

Over the past 7 years, patient has experienced progressive worsening of symptoms despite medication adjustments. She currently experiences significant disability with bradykinesia, rigidity, and tremor affecting her ability to perform activities of daily living. Patient reports she is unable to dress herself independently, has difficulty with eating due to tremor, and requires assistance with most household tasks.

Cardinal Features of Parkinson's Disease - Present:

- **Tremor:** Bilateral resting tremor of hands, present at rest, improves somewhat with action
- **Rigidity:** Cogwheel rigidity present in all extremities bilaterally
- **Bradykinesia:** Generalized slowing of movements, difficulty initiating movements, reduced amplitude of movements

Patient reports symptoms are present most of the day and interfere significantly with quality of life. She is motivated for deep brain stimulation surgery to improve motor function.

MOTOR ASSESSMENT

Examination Date: September 25, 2025

Unified Parkinson's Disease Rating Scale (UPDRS) Part III - Motor Examination:

State	Total Score	Date
OFF medications (held overnight, >12 hours)	41 / 132	09/25/2025
ON medications (approximately 1 hour after usual morning dose)	37 / 132	09/25/2025
Improvement	**4 points (approximately 10%)**	

Hoehn and Yahr Stage: Stage 3 (bilateral disease with postural instability)

Motor Examination Details (OFF state):

- Facial expression: Mild hypomimia
- Tremor: Bilateral hand resting tremor, amplitude 2/4, right = left
- Rigidity: Cogwheel rigidity present in all extremities, scored 2/4
- Finger tapping: Slowed bilaterally with mild decrement
- Hand movements: Bradykinetic bilaterally
- Leg agility: Reduced bilaterally
- Arising from chair: Requires 2 attempts, no arm support
- Posture: Mildly stooped
- Gait: Slightly reduced arm swing, shortened stride
- Postural stability: Mild instability on pull test (1-2 steps backward)

Motor Examination Details (ON state):

Repeat examination performed approximately 60 minutes after administration of patient's usual morning medication dose (carbidopa-levodopa 25/100 mg, two tablets). Minimal change observed from OFF state. Tremor amplitude slightly decreased (from 2/4 to 1-2/4). Rigidity unchanged. Bradykinesia minimally improved. Patient and family report this is typical - they do not observe dramatic differences between "good" and "bad" times with medications.

Note: Patient states she has "some good days and bad days" but cannot clearly identify specific times when medications are working well versus wearing off. When asked about "on" periods, patient states "I'm not really sure I have those."

LEVODOPA RESPONSIVENESS

Clinical Assessment of Response:

Based on serial UPDRS examinations in documented OFF and ON states, patient demonstrates approximately 10% improvement in motor score with levodopa (4-point reduction from 41 to 37). This represents a minimal response to dopaminergic therapy.

Patient and family do not report clear "on-off" fluctuations. Patient cannot reliably identify when medications are "working" versus "wearing off." She describes symptoms as "pretty much the same all day" with some day-to-day variability but no predictable pattern related to medication timing.

When specifically questioned about the presence of periods during the day when she feels significantly better after taking medication, patient states she feels "maybe a little less stiff" sometimes but cannot identify a consistent pattern.

Medication Effect Documentation: Chart review shows that over 7 years of treatment, multiple medication adjustments have been attempted. Escalating doses of carbidopa-levodopa have not resulted in dramatic improvements in function. Patient has never described clear, robust "on" periods even at higher doses.

CURRENT MEDICATIONS

Medication	Dose	Frequency	Duration of Use
Carbidopa-Levodopa	25/100 mg, 2 tablets	Three times daily	7 years (dose escalated over time)
Pramipexole	1.5 mg	Three times daily	5 years
Rasagiline	1 mg	Once daily	4 years

Medication History and Optimization: Patient has been on carbidopa-levodopa for 7 years with gradual dose increases from initial dose of 25/100 mg twice daily up to current dose of 25/100 mg two tablets three times daily. Dopamine agonist (pramipexole) added 5 years ago. MAO-B inhibitor (rasagiline) added 4 years ago. Despite these additions and dose adjustments, patient continues to have significant disability without clear medication-responsive periods.

Attempts to further increase levodopa dose (to 25/100 mg two tablets four times daily) resulted in nausea without significant motor benefit, so dose was reduced back to three times daily regimen.

DIAGNOSTIC STUDIES

MRI Brain (August 10, 2025):

No acute abnormalities. No stroke, tumor, or vascular malformation. Basal ganglia demonstrate normal signal intensity. Mild age-appropriate cerebral volume loss. No structural lesions identified. Images adequate for stereotactic surgical planning if needed.

Other Studies: No DaTscan performed to date.

COGNITIVE AND PSYCHIATRIC ASSESSMENT

Montreal Cognitive Assessment (MOCA): 26/30 (within normal limits)

Patient demonstrates intact cognitive function. No evidence of dementia. Memory, attention, language, and executive functions all within normal limits for age.

Psychiatric Assessment: Patient reports frustration with disease limitations but denies significant depression. Beck Depression Inventory score: 11 (minimal depression). No anxiety disorder. No psychosis or hallucinations. No history of alcohol or drug abuse.

FUNCTIONAL IMPACT

Activities of Daily Living: Patient requires assistance with dressing (buttons, zippers), has difficulty with eating due to tremor, cannot write legibly, unable to perform fine motor tasks. Ambulatory with walker for stability. Requires supervision for most activities.

Schwab & England ADL Scale: Approximately 60% (some dependency, tasks take twice as long, requires assistance with some activities)

Quality of Life: Significantly impacted by motor symptoms. Patient expresses desire for improvement in function to regain independence.

ASSESSMENT OF EXCLUSION CRITERIA

Review of Exclusion Criteria for DBS:

- **Atypical Parkinsonism:** No clear features of MSA, PSP, or CBD documented. No prominent autonomic dysfunction, no supranuclear gaze palsy, no apraxia. Presentation appears consistent with parkinsonism, though poor levodopa response raises some question about diagnosis.
- **Cognitive Impairment/Dementia:** ABSENT - MOCA 26/30, no dementia
- **Depression:** Minimal only (BDI 11), not interfering with function
- **Psychosis:** ABSENT
- **Substance Abuse:** ABSENT
- **Structural Lesions:** ABSENT - MRI normal
- **Prior Movement Disorder Surgery:** ABSENT
- **Comorbidities:** Patient has well-controlled hypertension and hyperlipidemia. Otherwise medically stable. Cleared by cardiology and anesthesia for surgery.

PATIENT COOPERATION AND UNDERSTANDING

Patient and husband attended DBS educational session on September 10, 2025. Patient demonstrates understanding of the surgical procedure, need for awake participation during surgery, and post-operative programming requirements. Patient expresses strong desire to proceed with surgery and willingness to cooperate with all aspects of care. Husband will provide transportation and support for programming visits.

DEVICE AND PROVIDER INFORMATION

Proposed Device:	Medtronic Percept PC Neurostimulator
FDA Status:	FDA approved for DBS in Parkinson's disease
Target:	Bilateral Subthalamic Nucleus

Neurosurgeon: Dr. James Williams, MD - Board Certified Neurosurgery, 15+ years experience with DBS, 150+ cases performed

Neurologist: Dr. Catherine Brown, MD - Board Certified Neurology with Movement Disorders subspecialty, 12 years experience managing Parkinson's disease patients

Facility: Atlanta Neuroscience Institute - Tertiary care center with established DBS program, dedicated stereotactic OR, experienced multidisciplinary team, 40+ DBS cases annually

CLINICAL SUMMARY

Mrs. Johnson is a 67-year-old female with 7-year history of parkinsonism diagnosed as Parkinson's disease. She demonstrates cardinal features of PD including tremor, rigidity, and bradykinesia. UPDRS motor score of 41 in OFF state indicates significant disability with Hoehn & Yahr Stage 3 disease.

Patient has been on multiple Parkinson's medications for years including carbidopa-levodopa (current dose: 600 mg levodopa daily), dopamine agonist, and MAO-B inhibitor. Multiple medication adjustments have been attempted.

However, patient demonstrates minimal response to levodopa therapy with only approximately 10% improvement in UPDRS motor score (4-point improvement from 41 to 37). Patient and family do not report clear "on-off" periods or predictable times when medications provide robust benefit. Patient cannot reliably identify "on" periods. This poor and non-robust response to levodopa is atypical for idiopathic Parkinson's disease and raises questions about diagnosis and potential benefit from DBS.

Comprehensive evaluation shows no dementia, no psychiatric contraindications, no structural brain lesions, and no other exclusion criteria. Patient is medically cleared for surgery and demonstrates willingness to cooperate with procedure and programming.

The primary concern is the poor levodopa responsiveness (approximately 10% improvement) without clearly defined "on" periods, which does not meet typical criteria for good DBS candidacy in the Parkinson's disease population.

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Catherine Brown, MD
Movement Disorders Neurology
Atlanta Neurology Specialists
Date: October 3, 2025