FROM: MIDWEST NEUROLOGY ASSOCIATES - FAX: (312) 555-0198 TO: INSURANCE AUTHORIZATION DEPT - FAX: (800) 555-0123

DATE: 09/25/2025 10:42 AM | PAGES: 6 | RE: DBS PRE-AUTH - WILLIAMS, JAMES

MIDWEST NEUROLOGY ASSOCIATES

Movement Disorders Center
455 Michigan Avenue, Suite 800, Chicago, IL 60611
Phone (312) 555-0197 | Fax (312) 555-0198



PRE-AUTHORIZATION REQUEST - DEEP BRAIN STIMULATION

Request Date: September 25, 2025

Procedure: BILATERAL GLOBUS PALLIDUS INTERNA (GPI) DBS IMPLANTATION

CPT: 61863, 61868

PATIENT DEMOGRAPHICS:

Name: WILLIAMS, JAMES ROBERT DOB: 11/03/1955 (Age 69 years)

Sex: M

MRN: MNA-098765

Insurance: Medicare Advantage Plus

Member ID: MAP887766554

DIAGNOSIS:

Primary: G20 - Parkinson's Disease, Advanced Secondary: G24.01 - Drug-induced dyskinesias

G25.83 - Motor fluctuations

CLINICAL HISTORY:

Mr. Williams is a 69 y/o RHD male w/ 10-year h/o idiopathic Parkinson's disease. Initial sx: R hand tremor + mild bradykinesia in 2015. Dx by Dr. Susan Park (movement disorder specialist). Started on C/L with excellent initial response.

Over past 3-4 years: Progressive motor complications developed. Currently experiences unpredictable OFF periods (3-4 hrs daily total) + severe peak-dose dyskinesias. Dyskinesias have become DOSE-LIMITING - cannot increase L-dopa further d/t severe chorea/dystonia at peak.

Pt reports dyskinesias more disabling than PD symptoms - constant involuntary movements affecting trunk, arms, head

CARDINAL PD FEATURES:

1	Bradykinesia - marked slowing,	esp L	side
1	Rigidity - cogwheel, bilateral	UE/LE	

Resting tremor - minimal now (was present initially)

MOTOR EXAM FINDINGS (09/22/2025):

UPDRS PART III (Motor Score):

OFF state (>12 hrs off meds): 52/132

ON state (peak dose): 22/132 **IMPROVEMENT: 58% (30 points)**

Hoehn & Yahr Staging:

OFF medications: Stage 3 (bilateral disease w/ postural instability) ON medications: Stage 2 (bilateral disease, no balance issues)

OFF State Exam:

- Severe bradykinesia L>R
- Cogwheel rigidity 2+ bilateral arms, 1+ legs
- Mild resting tremor R hand only
- Reduced arm swing bilaterally
- Mild postural instability (pull test: 2 steps back)

ON State Exam (BUT WITH DYSKINESIAS):

- Improved bradykinesia
- Reduced rigidity
- **SEVERE DYSKINESIAS: Choreiform movements affecting head, trunk, bilateral arms. Score 3-4/4 severity. Constant, flowing, involuntary movements. Pt unable to sit still. Interferes w/ ADLs.**

CURRENT MEDICATIONS (ALL AT MAXIMUM TOLERATED DOSES):

Medication	Dose	Frequency	Years
Carbidopa-Levodopa 25/100	2 tablets	5x daily	10
Carbidopa-Levodopa CR 50/200	1 tablet	HS	6
Entacapone	200mg	w/ each C/L	5
Ropinirole ER	8mg	daily	7
Rasagiline	1mg	daily	6
Amantadine ER	274mg	HS (for dyskinesia)	2

MEDICATION OPTIMIZATION ATTEMPTS:

- Multiple dose adjustments over 10 years
- Tried: Pramipexole (switched to ropinirole d/t edema), Selegiline (switched to rasagiline), IR C/L timing modifications
- CANNOT increase L-dopa further \rightarrow worsens dyskinesias
- Amantadine ER added 2 yrs ago for dyskinesias \rightarrow minimal benefit
- Consider: Trials exhausted, at therapeutic ceiling

LEVODOPA CHALLENGE TEST (Documented 08/15/2025):

Protocol: Held all PD meds overnight (>12 hrs). Baseline UPDRS performed. Given C/L 25/250 (2.5x usual dose).

Results:

- Baseline OFF UPDRS Part III: 54
- Peak ON UPDRS Part III (90 min post-dose): 22
- Improvement: 59% (32 points)

- Clear ON period: 2.5-3 hours duration
- Dyskinesias appeared at 45 min, peaked at 90 min (severe, score 3/4)

INTERPRETATION: EXCELLENT L-DOPA RESPONSIVENESS with clearly defined ON periods. Confirms idiopathic PD. Dyskinesias are dose-limiting complication.

DIAGNOSTIC IMAGING:

MRI Brain w/ & w/o contrast (09/05/2025):

No acute findings. No stroke, tumor, or vascular malformation. Basal ganglia structures normal signal. Mild generalized volume loss appropriate for age. No contraindications to stereotactic surgery. Images adequate for surgical planning.

NEUROPSYCHOLOGICAL EVALUATION (07/28/2025):

Dr. Rachel Cohen, PhD

MOCA: 25/30 (borderline, -1 for age/education adjusted = 26)
Lost points: 2 in delayed recall, 2 in visuospatial, 1 in attention

Comprehensive testing (2.5 hours):

- Memory: WMS-IV Low average range
- Executive function: Preserved
- Language: Intact
- Attention: Mildly reduced (likely medication-related)

IMPRESSION: Mild cognitive slowing but DOES NOT meet criteria for dementia. Age-appropriate performance. No evidence cognitive deficits would interfere with DBS benefit or ability to participate in programming. CLEARED FOR DBS CANDIDACY.

Mood: BDI-II score: 14 (mild depression, situational r/t disability) No psychosis, no suicidal ideation

PSYCHIATRIC CLEARANCE (08/10/2025):

Dr. Michael Torres, Neuropsychiatry

Pt demonstrates good insight, realistic expectations. Mild reactive depression $(r/t \ PD \ disability)$ - does NOT meet exclusion criteria. No active psychiatric illness. No h/o psychosis. CLEARED for DBS.

EXCLUSION CRITERIA ASSESSMENT:

- NOT atypical parkinsonism idiopathic PD confirmed by excellent L-dopa response, no red flags
- NO dementia neuropsych testing: mild cog slowing but NOT dementia, cleared by psychologist
- ✓ NO significant depression interfering w/ DBS benefit (mild reactive only)
- ✓ NO psychosis
 - NO alcohol abuse (social drinker, 1-2 beers/week)
- ✓ NO drug abuse
- ✓ NO structural lesions (MRI negative)
- ✓ NO prior movement disorder surgery
- $\overline{\prime}$ NO significant comorbidities contraindicating surgery:

- HTN: controlled on lisinopril
- Type 2 DM: controlled (HbA1c 6.8%)
- Cardiology clearance: 09/15/2025 (Dr. James Liu)
- Anesthesia clearance: 09/18/2025

FUNCTIONAL IMPACT & QUALITY OF LIFE:

Schwab & England ADL Scale:

- OFF state: 50% (requires assistance w/ most tasks)
- ON state (with dyskinesias): 60% (improved mobility but dyskinesias interfere)

PDQ-39 QOL: 128/156 (severe impact)

Dyskinesias prevent: eating in public (food spills), writing, fine motor tasks, staying still for tasks requiring precision. Pt reports dyskinesias MORE DISABLING than PD OFF symptoms. Cannot increase meds to improve OFF periods d/t intolerable dyskinesias.

RATIONALE FOR GPi TARGET:

GPi chosen over 5M specifically for severe dyskinesias - literature supports GPi superior for dyskinesia control

Patient's primary complaint: severe peak-dose dyskinesias limiting medication escalation. While STN effective for motor symptoms, GPi DBS shown superior for controlling dyskinesias. Pt's OFF periods manageable (3-4 hrs daily) but dyskinesias completely disabling and prevent med optimization.

PATIENT EDUCATION & COOPERATION:

Pt + wife attended 2-hour DBS education class on 09/10/2025. Excellent comprehension demonstrated:

- Understands awake surgery requirements
- Willing to cooperate w/ intraop testing
- Commits to post-op programming (minimum 5-6 visits)
- Realistic expectations: expects dyskinesia improvement, understands may still need meds
- Aware of risks (hemorrhage, infection, hardware issues)

Wife (primary caregiver) very supportive, will assist w/ all post-op care + transportation.

DEVICE INFORMATION:

Proposed: Boston Scientific Vercise Genus DBS System

FDA Status: APPROVED (PMA P180027) for bilateral GPi or STN stimulation for PD

Target: Bilateral Globus Pallidus Interna (GPi)

PROVIDER QUALIFICATIONS:

Neurosurgeon: Dr. David Kim, MD PhD

- Board Certified Neurosurgery (2009)
- Fellowship: Functional & Stereotactic Neurosurgery, UCSF (2010)
- Experience: 200+ DBS cases, 14 years

- Active: American Society for Stereotactic & Functional Neurosurgery

Movement Disorder Neurologist: Dr. Susan Park, MD

- Board Certified Neurology (2011), Movement Disorders subspecialty (2013)
- Experience: 12 yrs treating PD, 150+ DBS patients managed
- Will perform pre-op selection + all post-op programming

Facility: Midwest Neurology Associates / Chicago Medical Center

- Academic tertiary center, Level 1 trauma
- Dedicated stereotactic OR suite (Leksell frame, microelectrode recording)
- Intraop 1.5T MRI available
- ICU, neurocritical care team
- DBS Center: >60 cases/year, established 2008

SUMMARY & CLINICAL ASSESSMENT:

Mr. Williams has 10-yr h/o idiopathic PD with excellent documented L-dopa responsiveness (58-59% UPDRS improvement, clearly defined ON periods lasting 2.5-3~hrs). He has advanced disease (Hoehn & Yahr Stage 3 OFF, Stage 2 ON) with UPDRS motor scores demonstrating significant disability OFF medications (52-54).

Primary issue: SEVERE PEAK-DOSE DYSKINESIAS that are dose-limiting. Cannot increase L-dopa to adequately cover OFF periods (3-4 hrs daily) because dyskinesias become intolerable. Six different PD medications at maximum tolerated doses. Amantadine ER (specifically for dyskinesias) provides minimal benefit. Medical therapy optimization exhausted.

Comprehensive evaluation excludes atypical parkinsonism (excellent L-dopa response confirms idiopathic PD). Neuropsych testing: mild cognitive slowing but NOT dementia, psychologist cleared for DBS. No psychiatric contraindications (mild reactive depression only). MRI: no structural lesions. No prior brain surgery. Medical comorbidities controlled, clearances obtained.

Patient demonstrates excellent understanding, realistic expectations, strong motivation. Wife provides strong support system.

BILATERAL GPi DBS recommended (over STN) specifically for superior dyskinesia control based on literature + patient's primary complaint.

Susan Park, MD Movement Disorders Neurology

Date: Sept 25, 2025