MIDWEST TREMOR CENTER

Comprehensive Movement Disorder Care
890 Medical Plaza, Minneapolis, MN 55415
Phone: (612) 555-0834 | Fax: (612) 555-0835

SUPPLEMENTAL DOCUMENTATION

Response to Request for Additional Information

RE: SUPPLEMENTAL INFORMATION FOR PENDING AUTHORIZATION

Original Request Date:	October 12, 2025
Info Request Received:	October 17, 2025
Supplemental Response Date:	October 23, 2025
Patient:	Sullivan, Brian Patrick
DOB:	09/03/1962
MRN:	MTC-338475
Medicare ID:	8GH-TJ56-PL92

Purpose of Supplemental Submission

This document provides additional information requested by utilization management review dated October 17, 2025. The initial pre-authorization request submitted October 12, 2025 was noted to have incomplete documentation regarding medication optimization history.

Specific items requested:

1. Detailed documentation of propranolol dose escalation attempts, maximum doses tried, and reasons for not escalating to higher doses
2. Detailed documentation of primidone dose escalation attempts, maximum doses tried, and reasons for current dose
3. Documentation of trials of second-line agents for essential tremor (topiramate, gabapentin, etc.)
4. Timeline of medication trials demonstrating adequate duration and systematic optimization

This supplemental submission provides comprehensive medication history documentation addressing all requested items.

Comprehensive Medication History

1. Propranolol - Detailed Trial History

Time Period	Dose	Response/Side Effects	Action Taken

March 2018 - May 2018	20 mg BID (40 mg/day)	Initial starting dose. Minimal tremor improvement (~10%). No side effects.	Dose increased
May 2018 - August 2018	40 mg BID (80 mg/day)	Modest tremor improvement (~20-25%). Tolerated well.	Dose increased
August 2018 - December 2018	60 mg BID (120 mg/day)	Tremor improvement ~30%. No significant side effects.	Dose increased
December 2018 - April 2019	80 mg BID (160 mg/day)	Tremor improvement ~30-35% (no additional benefit over 120 mg). Patient developed fatigue and bradycardia (HR 48-52 bpm at rest).	Dose reduced due to bradycardia
April 2019 - August 2019	80 mg TID (240 mg/day)	Attempted different dosing schedule. Severe fatigue, lightheadedness, bradycardia (HR 45 bpm), hypotension (BP 95/60).	Dose reduced due to cardiovascular side effects
August 2019 - Present	60 mg BID (120 mg/day)	Maximum tolerated dose. Tremor improvement ~30%. Higher doses cause bradycardia and fatigue.	Maintained at this dose as maximum tolerated

Summary of Propranolol Trial:

- **Duration of trial:** 7+ years (March 2018 - present)
- **Maximum dose attempted:** 240 mg/day (attempted in 2019)
- **Typical therapeutic range for ET:** 120-320 mg/day
- **Maximum tolerated dose:** 120 mg/day (current dose)
- **Reason for not escalating further:** Doses above 120 mg/day cause significant bradycardia (heart rate dropping to 45-50 bpm), fatigue, and hypotension. Cardiology consultation in May 2019 (Dr. Robert Thompson) recommended not exceeding 120 mg/day due to cardiovascular effects. • **Benefit at optimal dose:** Approximately 30% tremor reduction - inadequate for functional improvement. Tremor remains 4/4 severity on Fahn-Tolosa-Marin scale despite maximum tolerated propranolol dose.

2. Primidone - Detailed Trial History

Time Period	Dose	Response/Side Effects	Action Taken
June 2020 - July 2020	50 mg at bedtime	Initial starting dose (low due to known first-dose phenomenon). Severe sedation, dizziness, nausea on first dose. Continued at this dose for 4 weeks - sedation improved but still significant.	Dose increased slowly
August 2020 - October 2020	125 mg at bedtime	Tremor improvement ~15-20%. Tolerable sedation at night but significant morning grogginess/hangover effect. Patient reports feeling "drugged" in mornings.	Dose increased
October 2020 - December 2020	125 mg BID (250 mg/day)	Attempted to split dose. Severe daytime sedation patient could not function at work. Tremor improvement ~20-25% but functional impairment from sedation worse than tremor itself.	Dose adjustment attempted

December 2020 February 2021	250 mg at bedtime (single evening dose)	Intolerable sedation and ataxia. Patient fell twice in evening due to unsteadiness. Morning hangover lasted until afternoon. Patient unable to function.	Dose reduced
February 2021 - Present	125 mg at bedtime	Maximum tolerated dose. Provides ~15-20% tremor benefit with acceptable (though still present) morning grogginess. Higher doses cause intolerable sedation.	Maintained at this dose as maximum tolerated

Summary of Primidone Trial:

- **Duration of trial:** 5+ years (June 2020 - present)
- **Maximum dose attempted:** 250 mg at bedtime
- **Typical therapeutic range for ET:** 250-750 mg/day
- **Maximum tolerated dose:** 125 mg at bedtime (current dose)
- **Reason for not escalating further:** Doses above 125 mg cause severe sedation, morning hangover effect, ataxia, and functional impairment. Patient unable to tolerate standard therapeutic doses of primidone despite slow titration attempts over 18 months.
- **Benefit at optimal dose:** Approximately 15-20% tremor reduction at maximum tolerated dose inadequate for functional improvement. **3. Second-Line Agents - Trial History Topiramate Trial:**

> **Trial Period:** March 2021 - July 2021 (4 months)
> **Dosing:**
> - Started 25 mg at bedtime (March 2021)
> - Increased to 25 mg BID (April 2021)
> - Increased to 50 mg BID (May 2021)
> - Increased to 75 mg BID (June 2021)
> - Maximum dose: 150 mg/day
>
> **Response:**
> - Tremor improvement: Minimal (~10% at most)
> - Side effects: Severe cognitive side effects including word-finding difficulty, mental fog, short-termmemory problems. Patient describes feeling "stupid" and "confused." Difficulty concentrating at work (patient still working at time). Paresthesias in hands and feet. Weight loss (12 lbs in 3 months unintended).
>
> **Outcome:** Discontinued July 2021 due to intolerable cognitive side effects with minimal tremor benefit. Attempted dose of 150 mg/day for 6 weeks at steady state - no significant benefit, severe side effects.
> **Gabapentin Trial:**

Trial Period: September 2021 - January 2022 (4 months)
Dosing:
- Started 300 mg at bedtime (September 2021)
- Increased to 300 mg TID (October 2021)
- Increased to 600 mg TID (November 2021)
- Increased to 800 mg TID (December 2021)
- Maximum dose: 2400 mg/day

Response:
- Tremor improvement: None. No appreciable tremor reduction at any dose.
- Side effects: Significant sedation and dizziness at doses above 1800 mg/day. Weight gain (8 lbs in 3 months). Peripheral edema.

Outcome: Discontinued January 2022 due to complete lack of efficacy despite reaching doses of 2400 mg/day. No tremor benefit observed even after 6 weeks at maximum dose.

Alprazolam (Trial for Tremor - used cautiously given addiction potential):

Trial Period: February 2022 - April 2022 (2 months)
Dosing: 0.25 mg TID as needed
Response: Tremor improved ~25% within 30 minutes of dose, but effect only lasted 2-3 hours. Required frequent dosing. Concerns about tolerance and dependence.
Outcome: Discontinued April 2022 due to concerns about benzodiazepine dependence with chronic use. Not appropriate long-term solution.

Zonisamide Trial:

Trial Period: June 2022 - September 2022 (3 months)
Dosing:
- Started 100 mg daily (June 2022)
- Increased to 200 mg daily (July 2022)
- Increased to 300 mg daily (August 2022) - Maximum dose: 300 mg/day

Response:
- Tremor improvement: Minimal (~5-10%)
- Side effects: Significant fatigue, loss of appetite, cognitive dulling

Outcome: Discontinued September 2022 due to minimal benefit and side effects.

Combined Medication Optimization

Current Regimen (October 2025):

- Propranolol 60 mg BID (120 mg/day) - at maximum tolerated dose
- Primidone 125 mg at bedtime - at maximum tolerated dose

Combined effect: Approximately 40-45% tremor reduction when both medications at peak effect, but tremor still scores 3-4/4 on Fahn-Tolosa-Marin scale and remains severely functionally disabling. Patient still cannot eat, drink, or write independently.

Summary of Medical Optimization

Mr. Sullivan has undergone comprehensive and systematic medication trials for essential tremor over a 7+ year period (2018-2025):

First-Line Agents:

- ✓ **Propranolol:** Maximum tolerated dose 120 mg/day (attempted up to 240 mg/day but limited by bradycardia). At maximum tolerated dose for 6+ years. Benefit: ~30%.
- ✓ **Primidone:** Maximum tolerated dose 125 mg at bedtime (attempted up to 250 mg but limited by severe sedation). At maximum tolerated dose for 4+ years. Benefit: ~15-20%.

Second-Line Agents Tried:

- ✓ **Topiramate:** Trial 4 months, up to 150 mg/day - minimal benefit, severe cognitive side
- effects
- ✓ **Gabapentin:** Trial 4 months, up to 2400 mg/day - no benefit
- ✓ **Zonisamide:** Trial 3 months, up to 300 mg/day - minimal benefit

✓ **Alprazolam:** Brief trial, discontinued due to dependence concerns

Total duration of systematic medication trials: 7+ years (2018-2025)

Outcome: Despite first-line agents at maximum tolerated doses and multiple second-line agent trials, tremor remains severely disabling with Fahn-Tolosa-Marin scores of 3-4/4 bilaterally, causing complete functional dependence for eating, drinking, and writing. Patient forced to retire from career (graphic designer) at age 58 due to tremor. Quality of life severely impacted.

MEDICAL THERAPY HAS BEEN COMPREHENSIVELY OPTIMIZED AND EXHAUSTED.

Patient has been on first-line agents (propranolol and primidone) for 5-7 years at maximum tolerated doses. Multiple second-line agents have been systematically trialed with inadequate benefit or intolerable side effects. Further medication options exhausted.

Tremor remains severely functionally disabling (Fahn-Tolosa-Marin 4/4 bilaterally) despite optimal medical management, meeting policy criteria for DBS consideration: "marked disabling tremor...causing significant limitation in daily activities despite optimal medical therapy."

Documentation of Medical Records

The following source documents support this medication history:

- Office visit notes 2018-2025 documenting dose adjustments and patient responses
- Pharmacy records showing prescription fills and dose changes over time

- Cardiology consultation note (Dr. Robert Thompson, 05/15/2019) recommending propranolol not exceed 120 mg/day due to bradycardia
- Documented telephone encounters regarding medication side effects
- Patient medication diary logs (submitted by patient) documenting tremor response and side effects *(Copies of selected supporting documents available upon request)*

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Karen Williams, MD
Movement Disorders Neurology
Midwest Tremor Center
Date: October 23, 2025