

Evidence Discussion (SL 2.3)

PSG and Multiple Sleep Latency Testing (Excessive sleepiness)

In light of the relatively uncommon nature of narcolepsy, as compared to more common sleep and medical disorders, guidelines are meticulously followed to exclude these common disorders before approval of testing for narcolepsy or idiopathic hypersomnia, treatment of which can be dangerous. To achieve a correct diagnosis of narcolepsy or idiopathic hypersomnia, the American Academy of Sleep Medicine (AASM) has published a protocol that requires the following:

- Adequate sleep documented by sleep diary or actigraphy for 2 weeks before testing.
- Testing be performed when the patient is clinically stable and when treatment for existing sleep disorders are well-established and effective.
- Medications that have alerting, sedating, and/or REM-sleep-modulating properties should be stopped at least 2 weeks before the Multiple Sleep Latency Test (MSLT).
- An overnight polysomnography (PSG) should be done on the night before the MSLT with optimal sleep apnea treatment (if applicable) for the purpose of documenting sufficient sleep, determining if a sleep-onset REM period (SOREMP) within 15 minutes of nighttime sleep onset occurred, and confirming the lack of any other sleep disorder that may be more common, such as sleep apnea. Split-night PSG should be avoided because it does not represent a full night of sleep uninterrupted by respiratory events and or PAP therapy adjustments.^{8,9}

The test-retest reliability of the MSLT is low in narcolepsy type 2 and idiopathic hypersomnia (IH), with a confirmatory second MSLT in 18-47% of narcolepsy type 2 and 25% of idiopathic hypersomnia.¹⁰⁻¹³ Although a diagnosis of narcolepsy type 1 has a high rate of reproducibility on repeat MSLT, it can be missed on an initial MSLT and later confirmed in 20% of patients on a second MSLT who were not diagnosed during their first MSLT.¹⁴ Therefore repeat MSLT's can be done in the following circumstances:

- Narcolepsy and or idiopathic hypersomnia are still reasonably suspected but were not confirmed on the prior PSG/MSLT.
- A previous diagnosis of narcolepsy or IH is now in question due to a change in symptoms.

References

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