

Evidence Discussion (SL 2.4)

The Maintenance of Wakefulness Test (MWT) is a series of wake trials used to measure the ability to stay awake during soporific conditions. The American Academy of Sleep Medicine (AASM) recommends four 40-minute wake trials with sleep onset defined as the first epoch of sleep. The AASM protocol requires the study to be done when a patient is clinically stable and when treatments of any known sleep disorders are well-established and effective. In patients with sleep-disordered breathing on positive airway pressure (PAP), downloaded data should show efficacy and adherence.¹

Guidance from federal and state government agencies regarding fitness to drive with regard to sleep disorders are poorly detailed or are found only by gathering information from several different sources in the system.¹⁰ The U.S. Department of Transportation (DOT) and Federal Motor Carrier Safety Administration (FMCSA) recommend only repeat diagnostic testing for obstructive sleep apnea (OSA) if clinically indicated, but no recommendation on the use of the MWT.^{11,12} The Federal Aviation Administration (FAA) also does not require an MWT to evaluate for OSA treatment efficacy,¹³ but does include it as additional data when considering rescinding a prior diagnosis of narcolepsy or idiopathic hypersomnia.¹⁴

The American Academy of Sleep Medicine (AASM) Practice Parameters recommends the MWT 40 minute protocol for when an individual's inability to remain awake constitute a public or personal safety issue. Consideration of public safety in certain fields of employment where MWT may be used, such as commercial driving or flying, should be taken into account. The AASM also recommends the MWT to assess response to treatment in some situations involving patients with disorders of excessive sleepiness (e.g. medication response in patients with narcolepsy or idiopathic hypersomnia). However, the sleep clinician is advised not to rely on the MWT result as a single indicator of impairment or risk for accidents, but also to rely on clinical judgment including integration of clinical history and compliance with treatment.²

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