BlueCross BlueShield Arizona

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PHARMACY COVERAGE GUIDELINES		**ORIGINAL EFFECTIVE DATE:**	**4/08/2010**
SECTION:	**DRUGS**	**LAST REVIEW DATE:**	**2/17/2022**
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Armodafinil oral tablet
NUVIGIL™ (armodafinil) oral tablet
SUNOSI™ (solriamfetol) oral tablet
WAKIX® (pitolisant) oral tablet

Coverage for services, procedures, medical devices and drugs are dependent upon benefit eligibility as outlined in the member's specific benefit plan. This Pharmacy Coverage Guideline must be read in its entirety to determine coverage eligibility, if any.

This Pharmacy Coverage Guideline provides information related to coverage determinations only and does not imply that a service or treatment is clinically appropriate or inappropriate. The provider and the member are responsible for all decisions regarding the appropriateness of care. Providers should provide BCBSAZ complete medical rationale when requesting any exceptions to these guidelines.

The section identified as "Description" defines or describes a service, procedure, medical device or drug and is in no way intended as a statement of medical necessity and/or coverage.

The section identified as "Criteria" defines criteria to determine whether a service, procedure, medical device or drug is considered medically necessary or experimental or investigational.

State or federal mandates, e.g., FEP program, may dictate that any drug, device or biological product approved by the U.S. Food and Drug Administration (FDA) may not be considered experimental or investigational and thus the drug, device or biological product may be assessed only on the basis of medical necessity.

Pharmacy Coverage Guidelines are subject to change as new information becomes available.

For purposes of this Pharmacy Coverage Guideline, the terms "experimental" and "investigational" are considered to be interchangeable.

This Pharmacy Coverage Guideline does not apply to FEP or other states' Blues Plans.

Information about medications that require precertification is available at www.azblue.com/pharmacy.

Some large (100+) benefit plan groups may customize certain benefits, including adding or deleting precertification requirements.

All applicable benefit plan provisions apply, e.g., waiting periods, limitations, exclusions, waivers and benefit maximums.

Precertification for medication(s) or product(s) indicated in this guideline requires completion of the request form in its entirety with the chart notes as documentation. **All requested data must be provided.** Once completed the

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form must be signed by the prescribing provider and faxed back to BCBSAZ Pharmacy Management at (602) 864-3126 or emailed to Pharmacyprecert@azblue.com. **Incomplete forms or forms without the chart notes will be returned.**

Criteria:

Armodafinil
NUVIGIL (armodafinil)

- **Criteria for initial therapy:** Nuvigil (armodafinil) or generic armodafinil is considered ***medically necessary*** and will be approved when **ALL** of the following criteria are met:

1. Prescriber is a physician specializing in the patient's diagnosis or is in consultation with Pulmonologist or Sleep Medicine Physician

2. Individual is 17 years of age and older

3. A confirmed diagnosis of **ONE** of the following:
    a. A patient with **excessive daytime sleepiness** (EDS) associated **with narcolepsy** with **ALL** of the following:
        i. Diagnosis confirmed by presence of clinical symptoms and polysomnography followed by a multiple sleep latency test (MSLT) indicating sleep onset of less than 8 minutes and ≥ 2 sleep onset REM periods (a SOREMP (within 15 min of sleep onset) on the preceding nocturnal polysomnogram may replace one of the SOREMPs on the MSLT) **AND** has an Epworth Sleep Scale (ESS) score of 10 or more
        ii. Failure, contraindication per FDA label, or intolerance to **TWO of the following**:
            1. Modafinil
            2. Methylphenidate
            3. An amphetamine

    b. A patient with **excessive daytime sleepiness** (EDS) associated **with obstructive sleep apnea (OSA)** on continuous positive airway pressure (CPAP) therapy with **ALL** of the following:
        i. Using CPAP for at least one month prior to initiating treatment
        ii. CPAP will be continued during treatment
        iii. Diagnosis confirmed by presence of clinical symptoms and polysomnography showing ≥ 5 respiratory events/hour (apneas, hypopneas, respiratory effort-related arousals) with respiratory effort during each **AND** has an Epworth Sleep Scale (ESS) score of 10 or more
        iv. Failure, contraindication per FDA label, or intolerance to **modafinil**

c. A patient with persistent and frequent **excessive daytime sleepiness** (EDS) and/or falling asleep while at work associated **with shift work sleep disorder (SWSD)** with **ALL** of the following:
   i. Diagnosis confirmed by **ALL** of the following:
      1. Must frequently work night shifts (5 or more times per month)
      2. Works at least 6 hours of the night shift between 10 PM and 8 AM
      3. Experiences sleepiness at the time of their shift (has MLST score of 6 minutes or less) and impaired performance while at work
      4. A daytime polysomnogram shows daytime insomnia or experience insomnia symptoms when trying to sleep and/or excessive sleepiness when they are awake
   ii. Failure, contraindication per FDA label, or intolerance to **modafinil**

d. A patient with **fatigue related to multiple sclerosis (MS),** not receiving other drugs known to cause or contribute to sleepiness or fatigue, **and** has failure, contraindication per FDA label or intolerance to **ALL**:
   i. Modafinil
   ii. Amantadine
   iii. Methylphenidate
   iv. An amphetamine

4. Will not be used with Sunosi (solriamfetol) or Wakix (pitolisant) or modafinil or Xyrem (sodium oxybate), or Xywav (sodium oxybate)

5. There are **NO** FDA-label contraindications, such as:
   a. Known hypersensitivity to modafinil

6. There are no significant interacting drugs

Initial approval duration: 6 months

- **Criteria for continuation of coverage (renewal request):** Nuvigil (armodafinil) or generic armodafinil is considered ***medically necessary*** and will be approved when **ALL** of the following criteria are met:

1. Individual continues to be seen by a physician specializing in the patient's diagnosis or is in consultation with Pulmonologist or Sleep Medicine Physician

2. Individual's condition responded while on therapy
   a. Response is defined by improvement in quantifying sleepiness tests:
      i. Multiple sleep latency test (MSLT) for SWSD
      ii. Maintenance of wakefulness test (MWT) for OSA and Narcolepsy
      iii. Or other measure of improvement as measured by other tests such as:

1. Epworth sleepiness scale
2. Stanford sleepiness scale
3. Osler test

3. Individual has been adherent with the medication

4. **For OSA only**: continuous use of CPAP

5. Will not be used with Sunosi (solriamfetol) or Wakix (pitolisant) or modafinil or Xyrem (sodium oxybate), or Xywav (sodium oxybate)

6. Individual has not developed any contraindications or other significant adverse drug effects that may exclude continued use
   a. Contraindications as listed in the criteria for initial therapy section
   b. Significant adverse effect such as:
      i. Serious dermatologic reaction including Stevens-Johnson Syndrome, toxic epidermal necrosis
      ii. Drug rash with eosinophilia and systemic symptoms (DRESS)/Multi-organ hypersensitivity
      iii. Angioedema

7. There are no significant interacting drugs

Renewal duration: 12 months

- Criteria for a request for non-FDA use or indication, treatment with dosing, frequency, or duration outside the FDA-approved dosing, frequency, and duration, refer to one of the following Pharmacy Coverage Guideline:

1. **Off-Label Use of Non-cancer Medications**

2. **Off-Label Use of Cancer Medications**

SUNOSI (solriamfetol)

- **Criteria for initial therapy:** Sunosi (solriamfetol) is considered ***medically necessary*** and will be approved when **ALL** of the following criteria are met:

1. Prescriber is a physician specializing in the patient's diagnosis or is in consultation with Pulmonologist or Sleep Medicine Physician

2. Individual is 18 years of age or older

3. A confirmed diagnosis of **ONE** of the following:
    a. A patient with **excessive daytime sleepiness** (EDS) associated **with narcolepsy** with **ALL** of the following:
        i. Diagnosis confirmed by presence of clinical symptoms and polysomnography followed by a multiple sleep latency test (MSLT) indicating sleep onset of less than 8 minutes and 2 or more sleep onset REM periods (A SOREMP (within 15 min of sleep onset) on the preceding nocturnal polysomnogram may replace one of the SOREMPs on the MSLT) **AND** has an Epworth Sleep Scale (ESS) score of 10 or more
        ii. Failure, contraindication per FDA label, or intolerance to **TWO of the following**:
            1. Modafinil
            2. Methylphenidate
            3. An amphetamine

    b. A patient with **excessive daytime sleepiness** (EDS) associated **with obstructive sleep apnea (OSA)** on continuous positive airway pressure (CPAP) therapy with **ALL** of the following:
        i. Using CPAP for at least one month prior to initiating treatment
        ii. CPAP will be continued during treatment
        iii. Diagnosis confirmed by presence of clinical symptoms and polysomnography showing 5 or more respiratory events/hour (apneas, hypopneas, respiratory effort-related arousals) with respiratory effort during each **AND** has an Epworth Sleep Scale (ESS) score of 10 or more
        iv. Failure, contraindication per FDA label or intolerance to **modafinil**

4. **ALL** of the following baseline tests have been completed before initiation of treatment with continued monitoring as clinically appropriate:
    a. Blood pressure, if not adequately controlled appropriate medical treatment is initiated or dose(s) adjusted for individuals already on blood pressure medication
    b. Evaluation for potential abuse in an individual with a recent history of drug abuse of stimulants (e.g., methylphenidate, amphetamine, or cocaine) or alcohol

5. Individual does not have end stage renal impairment (eGFR less than 15 mL/min/1.73m^2)

6. Will not be used in an individual with unstable cardiovascular disease, serious heart arrhythmias, or other serious heart problem

7. Will not be used with Nuvigil (armodafinil) or generic armodafinil or Wakix (pitolisant) or modafinil or Xyrem (sodium oxybate), or Xywav (sodium oxybate)

8. There are **NO** FDA-label contraindications, such as:
    a. Concurrent treatment with a monoamine oxidase inhibitor (MAOI) or use of an MAOI within the preceding 14 days

9. There are no significant drug interactions

Initial approval duration: 6 months

- **Criteria for continuation of coverage (renewal request):** Sunosi (solriamfetol) is considered ***medically necessary*** and will be approved when **ALL** of the following criteria are met:

1. Individual continues to be seen by a physician specializing in the patient's diagnosis or is in consultation with Pulmonologist or Sleep Medicine Physician

2. Individual's condition responded while on therapy
    a. Response is defined by improvement in quantifying sleepiness tests:
        i. Multiple sleep latency test (MSLT) for SWSD
        ii. Maintenance of wakefulness test (MWT) for OSA and Narcolepsy
        iii. Or other measure of improvement as measured by other tests such as:
            1. Epworth sleepiness scale
            2. Stanford sleepiness scale
            3. Osler test

3. Individual has been adherent with the medication

4. **For OSA only:** continuous use of CPAP

5. Individual does not have end stage renal impairment (eGFR less than 15 mL/min/1.73m^2)

6. Will not be used in an individual with unstable cardiovascular disease, serious heart arrhythmias, or other serious heart problem

7. There are no signs of misuse or abuse for Sunosi (solriamfetol)

8. Will not be used with Nuvigil (armodafinil) or generic armodafinil or Wakix (pitolisant) or modafinil or Xyrem (sodium oxybate), or Xywav (sodium oxybate)

9. Individual has not developed any contraindications or other significant adverse drug effects that may exclude continued use
    a. Contraindications as listed in the criteria for initial therapy section
    b. Significant adverse effect such as:

i. Emergence or exacerbation of psychiatric symptoms
ii. BP or HR cannot be managed with dose reduction or use of appropriate medical interventions

10. There are no significant interacting drugs

Renewal duration: 12 months

- Criteria for a request for non-FDA use or indication, treatment with dosing, frequency, or duration outside the FDA-approved dosing, frequency, and duration, refer to one of the following Pharmacy Coverage Guideline:

1. **Off-Label Use of Non-cancer Medications**

2. **Off-Label Use of Cancer Medications**

WAKIX (pitolisant)

- **Criteria for initial therapy:** Wakix (pitolisant) is considered ***medically necessary*** and will be approved when **ALL** of the following criteria are met:

1. Prescriber is a physician specializing in the patient's diagnosis or is in consultation with Pulmonologist or Sleep Medicine Physician

2. Individual is 18 years of age or older

3. A confirmed diagnosis of **excessive daytime sleepiness** (EDS) associated **with narcolepsy with or without cataplexy** confirmed by presence of clinical symptoms and polysomnography followed by a multiple sleep latency test (MSLT) indicating sleep onset of less than 8 minutes and 2 or more sleep onset REM periods (A SOREMP (within 15 min of sleep onset) on the preceding nocturnal polysomnogram may replace one of the SOREMPs on the MSLT) **AND** has an Epworth Sleep Scale (ESS) score of 10 or more

4. **For EDS symptoms:** Individual has failure, contraindication per FDA label, or intolerance to the following agents:
   a. **TWO** of the following medications:
      i. Modafinil
      ii. Methylphenidate
      iii. An amphetamine
   b. Sunosi (solriamfetol)

5. **For cataplexy symptoms**: Individual has failure, contraindication per FDA label, or intolerance to **TWO** REM sleep-suppressing drugs for cataplexy:
    i. Venlafaxine (generic or brand Effexor XR)
    ii. Duloxetine (generic or brand Cymbalta)
    iii. Fluoxetine (generic or brand Prozac)
    iv. Protriptyline (generic or brand Vivactil)
    v. Clomipramine

6. Individual does not have end stage renal impairment (eGFR less than 15 mL/min/1.73m^2)

7. Individual does not have a history of cardiac arrhythmias, torsade de point, symptomatic bradycardia, hypokalemia, hypomagnesemia, or congenital prolongation of QT interval

8. Will not be used with Nuvigil (armodafinil) or generic armodafinil or Sunosi (solriamfetol) or modafinil or Xyrem (sodium oxybate), or Xywav (sodium oxybate)

9. There are **NO** FDA-label contraindications, such as:
    a. Severe hepatic impairment (Child-Pugh Class C)

10. There are no significant drug interactions

Initial approval duration: 12 months

- **Criteria for continuation of coverage (renewal request):** Wakix (pitolisant) is considered ***medically necessary*** and will be approved when **ALL** of the following criteria are met:

1. Individual continues to be seen by a physician specializing in the patient's diagnosis or is in consultation with Pulmonologist or Sleep Medicine Physician

2. Individual's condition responded while on therapy
    a. Response is defined by improvement in **ONE** of the following:
        i. Improvement in Epworth sleepiness scale of at least 3 points
        ii. Achieved and maintains at least a 25% reduction in the severity or frequency of cataplexy attacks over baseline

3. Individual has been adherent with the medication

4. Individual does not have end stage renal impairment (eGFR less than 15 mL/min/1.73m^2)

5. Will not be used with Nuvigil (armodafinil) or generic armodafinil or Sunosi (solriamfetol) or modafinil or Xyrem (sodium oxybate), or Xywav (sodium oxybate)

6. Individual has not developed any contraindications or other significant adverse drug effects that may exclude continued use
    a. Contraindications as listed in the criteria for initial therapy section
    b. Significant adverse effect such as:
        i. QT interval prolongation
        ii. Torsade de pointe

7. There are no significant interacting drugs

Renewal duration: 12 months

- Criteria for a request for non-FDA use or indication, treatment with dosing, frequency, or duration outside the FDA-approved dosing, frequency, and duration, refer to one of the following Pharmacy Coverage Guideline:

1. **Off-Label Use of Non-cancer Medications**

2. **Off-Label Use of Cancer Medications**

Description:

Nuvigil (armodafinil) and generic armodafinil are non-amphetamine wake-promoting agents for oral administration. Nuvigil (armodafinil) and generic armodafinil are approved by the Food and Drug Administration (FDA) to improve wakefulness in individuals with excessive sleepiness associated with narcolepsy, obstructive sleep apnea (OSA) and shift work sleep disorder (SWSD).

Sunosi (solriamfetol) is indicated to improve wakefulness in adult patients with excessive daytime sleepiness (EDS) associated with narcolepsy or OSA. Sunosi (solriamfetol) is not indicated to treat the underlying airway obstruction in OSA. The underlying airway obstruction should be treated (e.g., with continuous positive airway pressure (CPAP)) for at least one month prior to initiating Sunosi (solriamfetol) for excessive daytime sleepiness. Modalities to treat the underlying airway obstruction should be continued during treatment with Sunosi (solriamfetol). Sunosi (solriamfetol) is not a substitute for these modalities.

Wakix (pitolisant) is indicated for the treatment of EDS or cataplexy in adult patients with narcolepsy.

The American Academy of Sleep Medicine has subdivided narcolepsy into two types: narcolepsy type 1 and narcolepsy type 2. In both EDS is an essential feature, with cataplexy a core feature in narcolepsy type1. Both types require laboratory tests to confirm the diagnosis. Laboratory testing includes sleep laboratory testing with overnight polysomnography (PSG) followed by a multiple sleep latency test (MSLT) and may also include cerebrospinal fluid (CSF) assessment of hypocretin-1 levels.

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Narcolepsy is a chronic neurologic disorder of the central nervous system characterized by the brain's inability to control sleep-wake cycles, resulting in EDS and intermittent bouts of rapid eye movement (REM) sleep during wakefulness. At various times throughout the day, individuals with narcolepsy experience irresistible and sudden bouts of sleep, which can last from a few seconds to several minutes. In addition to EDS, other major symptoms of narcolepsy include cataplexy (an emotionally triggered transient sudden loss of voluntary muscle tone), hypnagogic hallucinations (vivid dream-like images often frightening tactile, or auditory hallucinations during sleep onset or upon waking), and sleep paralysis (brief episodes of total paralysis, also during sleep onset or upon waking). Most individuals experience poor sleep quality that can involve frequent awakenings during nighttime sleep, and other sleep disorders. Sleep may be disrupted by insomnia, vivid dreaming, sleep talking, acting out while dreaming, and periodic leg movements. Patients with sleepiness severe enough to require medication can be treated with stimulant medications, such as armodafinil, modafinil, methylphenidate, or amphetamines.

SWSD is a persistent or recurrent pattern of sleep disruption in which late night or rotating shift work disrupts normal sleep patterns leading to misalignment with the individual’s endogenous circadian sleep-wake cycle and exogenous demands in regard to timing and duration of sleep. This misalignment causes disturbed sleep, which is associated with symptoms of excessive sleepiness during shift work hours and insomnia during sleep hours. The diagnosis should be reserved for those patients in whom there is clinically significant distress or impairment in social, occupational, or other important areas of functioning related to the sleep disorder and in whom the sleep disturbance is not better explained by another current sleep disorder, medical or neurological disorder, mental disorder, medication use, or substance abuse disorder. Criteria for SWSD often includes documentation of symptoms for at least 3 months, excessive sleepiness at the time of their night shifts, work a minimum 5 night shifts per month, and have documented daytime insomnia. Management of SWSD includes use of short-acting hypnotic agents and melatonin for insomnia or initiating sleep during the desired time, caffeine for alertness, modafinil or armodafinil for excessive sleepiness during work shift.

OSA is the most common type of sleep apnea and is characterized by repeated episodes of complete or partial obstructions of the upper airway during sleep, despite the effort to breathe, and is usually associated with a reduction in blood oxygen saturation. In the OSA, the episodes of decreased breathing are called “hypopnea” (defined as a ≥ 30% drop in flow for 10 seconds or longer, associated with ≥ 3% oxygen desaturation). The episodes of breathing cessations are called “apneas” (literally, “without breath”) and are defined, as a ≥ 90% drop in flow for 10 seconds or longer and associated with ≥3 % oxygen desaturation, or an arousal. The number of events per hour are measured and reported as an apnea hypopnea index (AHI).

Moderate to severe OSA, is defined as a respiratory disturbance index [RDI] greater than 15 events per hour. Like the AHI, the RDI reports on respiratory events during sleep, but unlike the AHI, it also includes respiratory-effort related arousals (RERAs). RERAs are arousals from sleep that do not technically meet the definitions of apneas or hypopneas, but do disrupt sleep. They are abrupt transitions from a deeper stage of sleep to a shallower. A RERA is characterized by increasing respiratory effort (and thus decreasing esophageal pressures) for 10 seconds or more leading to an arousal from sleep, but one that does not fulfill the criteria for a hypopnea or apnea.

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CPAP is the treatment of choice for a patient with OSA. A maximal effort to treat with CPAP for an adequate period of time should be made prior to initiating Sunosi (solriamfetol). Encouragement of and periodic assessment of CPAP compliance is strongly recommended. Certain medications with inhibitory effects on the central nervous system should be avoided if reasonable alternatives exist. Medications that may exacerbate OSA and worsen daytime sleepiness include benzodiazepine receptor agonists, barbiturates, other antiepileptic drugs, sedating antidepressants, antihistamines, and opiates. When such medications are felt to be necessary, their use in a patient with OSA should be monitored closely and the dose carefully titrated if possible

In OSA, Nuvigil (armodafinil), generic armodafinil, or Sunosi (solriamfetol) are indicated as an adjunct to standard treatment(s) for the underlying obstruction. If CPAP is the treatment of choice for a patient, a maximal effort to treat with CPAP for an adequate period of time should be made prior to initiating Nuvigil (armodafinil), generic armodafinil, or Sunosi (solriamfetol). If Nuvigil (armodafinil), generic armodafinil, or Sunosi (solriamfetol) are used adjunctively with CPAP, the encouragement of and periodic assessment of CPAP compliance is strongly recommended. Certain medications with inhibitory effects on the central nervous system should be avoided if reasonable alternatives exist. Medications that may exacerbate OSA and worsen daytime sleepiness include benzodiazepine receptor agonists, barbiturates, other antiepileptic drugs, sedating antidepressants, antihistamines, and opiates. When such medications are felt to be necessary, their use in a patient with OSA should be monitored closely and the dose carefully titrated if possible.

Multiple sclerosis (MS) is a disease of the central nervous system whose symptoms wax and wane. Symptoms of MS are numerous, but fatigue is a common and potentially disabling complaint. The mechanism of fatigue is poorly understood. Recommendations on management of MS related fatigue include identification of reversible or manageable causes such as side effects of other medications, untreated co-existing medical illnesses, poor sleep hygiene, etc. Medications known to result in fatigue or sleepiness include certain anticonvulsants, sedative-hypnotics, antihistamines, some antidepressants, antispasmodics, opioids, certain antihypertensive medications, and others. A critical evaluation of their use and/or dose reduction should be undertaken to minimize their impact as a cause of fatigue.

Pharmacologic management of fatigue of MS includes off-label use of amantadine, methylphenidate, amphetamines, and aspirin. Amantadine is the most extensively studied agent and has been shown to significantly reduce fatigue. Methylphenidate and amphetamines have been used and have shown positive results. Modafanil (Provigil and generics), Nuvigil (armodafinil), and generic armodafinil are suggested as off-label alternative to these agents.

The mechanism(s) through which armodafinil promotes wakefulness is unknown. Armodafinil (R-modafinil) has pharmacological properties similar to those of modafinil (a mixture of R- and S-modafinil), to the extent tested in animal and in vitro studies. The R- and S-enantiomers have similar pharmacological actions in animals. Armodafinil and modafinil have wake-promoting actions similar to sympathomimetic agents including amphetamine and methylphenidate, although their pharmacologic profile is not identical to that of the sympathomimetic amines. Armodafinil is also an indirect dopamine receptor agonist; both armodafinil and modafinil bind *in vitro* to the dopamine transporter and inhibit dopamine reuptake.

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The mechanism of action of solriamfetol is unclear, but its efficacy may be related to its activity as a dopamine and norepinephrine reuptake inhibitor (DNRI). Solriamfetol is a derivative of phenylalanine.

The mechanism of action of pitolisant in EDS in adult patients with narcolepsy is unclear. However, its efficacy could be mediated through its activity as an antagonist/inverse agonist at histamine-3 (H3) receptors. An inverse agonist is a drug that binds to the same receptor as an agonist but induces a pharmacological response opposite to that of the agonist. Pitolisant binds to the H3 receptor with high affinity and has no appreciable binding to other histamine (H1, H2, or H4) receptors.

Definitions:

Narcolepsy:
A disorder of sleep-wake control in which elements of sleep intrude into wakefulness and elements of wakefulness intrude into sleep. The result is the classic tetrad of chronic daytime sleepiness with varying amounts of cataplexy, hypnagogic hallucinations, and sleep paralysis. All patients have sleepiness, but only one-third of patients will have all of these symptoms

Cataplexy:
Sudden loss of muscle tone triggered by strong emotions (fear, surprise, joking or laughing); this is transient (less than 2 minutes); symptoms may involve the entire body, or only the knees, neck, or face

Epworth Sleepiness Scale (ESS):
- The ESS subjectively measures sleepiness as it occurs in ordinary life situations
- Can be used to screen for excessive sleepiness or to follow a subjective response to an intervention
- The ESS can be performed in the examination room or waiting room
- It is relatively simple and generally takes only a few minutes to complete
- It should be repeated at subsequent visits to assess for change
- A questionnaire describes eight situations:
    - Sitting and reading
    - Watching television
    - Sitting inactively in a public place
    - Riding as a passenger in a car for one hour without a break
    - Lying down to rest in the afternoon when circumstances permit
    - Sitting and talking with someone
    - Sitting quietly after lunch without alcohol
    - Sitting in a car as the driver, while stopped for a few minutes in traffic
- Each situation receives a score of 0-3, which relates to the likelihood that sleep will be induced:
    - 0 = would never doze
    - 1 = slight chance of dozing
    - 2 = moderate chance of dozing

  - 3 = high chance of dozing
- The total ESS score ranges from 0-24, with higher scores correlating with increasing degrees of sleepiness
  - A score > 10 is consistent with excessive sleepiness

Maintenance of Wakefulness Test (MWT):

- MWT is the ability to stay awake
- It objectively measures the ability of an individual to remain awake for a defined period of time
- It is based on the premise that individuals with a greater degree of sleepiness are less likely to remain awake than individuals with less sleepiness
- MWT may be used to assess an individual's response to therapy
- It is the direction of change, not the degree of change, that is meaningful
- During the MWT:
  - Sit in a recumbent position
  - Instructed to sit still and try to remain awake for as long as possible
  - Look directly ahead and do not look directly at the light
  - Avoid extraordinary measures to stay awake (e.g., slapping the face, singing)
  - A session is ended after unequivocal sleep, or after 40 minutes if sleep does not occur
  - Sleep is considered unequivocal after three consecutive periods of stage 1 sleep or one period of any other stage of sleep
  - For each session, the sleep latency is recorded
  - It is documented as being 40 minutes if the patient does not fall asleep
  - This is repeated every two hours, until the patient has completed four sessions
- The primary measure from the MWT is the mean sleep latency
- Healthy individuals who complete four 40-minute protocol sessions, the mean sleep latency is approximately 30 minutes, with > 97% of individuals having a mean sleep latency of $\geq$ 8 minutes
  - A mean sleep latency of < 8 minutes is generally considered abnormal
  - Staying awake for at least 40 minutes during all four sessions is strong objective evidence that an individual can stay awake
  - A mean sleep latency between 8 and 40 minutes has uncertain significance

Multiple sleep latency test (MSLT):

- MSLT is the tendency to fall asleep
- It tests for excessive daytime sleepiness (EDS) by measuring how quickly one falls asleep in a quiet environment during the day
  - EDS occurs when you are sleepy when you should be awake and alert
- MSLT is the standard tool used to diagnose narcolepsy and idiopathic hypersomnia
- MSLT is a full-day test that consists of five scheduled naps separated by two-hour breaks
- During the MSLT
  - Lying flat in bed for the MSLT
  - Instructed to lie quietly, assume a comfortable position, keep eyes closed, and try to fall asleep

- The test will measure how long it takes for to fall asleep
- You will be awakened after sleeping 15 minutes
- If you do not fall asleep within 20 minutes, the nap trial will end

Residual excessive sleepiness (RES) in patients with obstructive sleep apnea (OSA):
Subjective complaint of excessive daytime sleepiness (EDS) that is present even when breathing and oxygenation parameters during sleep are normalized by successful use of OSA therapy. EDS is defined as the inability to maintain wakefulness and alertness during the major waking episodes of the day, with sleep occurring unintentionally or at inappropriate times.

Apnea Hypopnea Index (AHI):
- The AHI is the number of apneas or hypopneas events per hour of sleep
- It is a measure sleep apnea severity; the apnea must last for at least 10 seconds and be associated with a decrease in blood oxygenation
- Based on the AHI, the severity of OSA is classified as follows:
  - None/Minimal: AHI < 5 per hour
  - Mild: AHI ≥ 5, but < 15 per hour
  - Moderate: AHI ≥ 15, but < 30 per hour
  - Severe: AHI ≥ 30 per hour

Oxygen Desaturation:
- Reductions in blood oxygen levels (desaturation) are recorded during polysomnography or limited channel monitoring
- At sea level, a normal blood oxygen level (saturation) is usually 96-97%
- Although there are no generally accepted classifications for severity of oxygen desaturation, reductions to not less than 90% usually are considered mild
- Dips into the 80-89% range can be considered moderate, and those below 80% are severe

Respiratory Disturbance (or distress) Index (RDI):
- Like the AHI, it reports on respiratory events during sleep, but unlike the AHI, it also includes respiratory-effort related arousals (RERAs)
- RERAs are arousals from sleep that do not technically meet the definitions of apneas or hypopneas but do disrupt sleep. They are abrupt transitions from a deeper stage of sleep to a shallower stage
  - A RERA is characterized by increasing respiratory effort (and thus decreasing esophageal pressures) for 10 seconds or more leading to an arousal from sleep, but one that does not fulfill the criteria for a hypopnea or apnea
- RDI = (RERAs + Hypopneas + apneas) X 60 / TST (in minutes), where TST is total sleep time

Armodafinil oral tablet
NUVIGIL™ (armodafinil) oral tablet
SUNOSI™ (solriamfetol) oral tablet
WAKIX® (pitolisant) oral tablet

Resources:

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