Postgraduate Certificate in Sleep Dentistry

Assessment and Diagnosis of Sleep Disorders

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Assessment and diagnosis of sleep disorders are crucial steps in the treatment process for individuals suffering from various sleep-related issues. Proper evaluation and identification of the specific sleep disorder are essential for implementing appropriate treatment strategies and improving overall quality of life.

Actigraphy:
Actigraphy is a non-invasive method of monitoring the sleep-wake patterns of an individual over an extended period. It involves wearing a small device called an actigraph on the wrist, which records movement data to estimate sleep parameters such as sleep duration, efficiency, and timing.

Airway Assessment:
Airway assessment is a critical component of evaluating individuals for potential sleep-related breathing disorders such as obstructive sleep apnea (OSA). It involves assessing the anatomy of the upper airway to identify any obstructions or abnormalities that may contribute to breathing disturbances during sleep.

Arousal Index:
The arousal index is a measure used in sleep studies to quantify the frequency of arousals from sleep during the night. A higher arousal index indicates disrupted sleep patterns and may be indicative of underlying sleep disorders such as insomnia or sleep apnea.

CPAP Titration:
Continuous positive airway pressure (CPAP) titration is a process used to determine the optimal pressure settings for CPAP therapy in individuals with OSA. It involves gradually increasing the air pressure delivered by the CPAP machine until the patient experiences effective relief from breathing obstructions during sleep.

Epworth Sleepiness Scale (ESS):
The Epworth Sleepiness Scale is a self-administered questionnaire designed to assess daytime sleepiness in individuals. It consists of eight questions that ask the individual to rate their likelihood of falling asleep in various situations, providing valuable information for evaluating excessive daytime sleepiness.

Home Sleep Apnea Test (HSAT):
A home sleep apnea test is a convenient and cost-effective alternative to in-lab polysomnography for diagnosing obstructive sleep apnea. It typically involves wearing a portable monitoring device at home to record breathing patterns, oxygen levels, and other sleep parameters during the night.

Multiple Sleep Latency Test (MSLT):
The Multiple Sleep Latency Test is a diagnostic tool used to evaluate daytime sleepiness and assess for conditions such as narcolepsy. It involves measuring the time it takes for an individual to fall asleep during scheduled naps throughout the day, providing valuable insights into their level of sleepiness.

Nocturnal Polysomnography:
Nocturnal polysomnography is a comprehensive sleep study conducted in a sleep laboratory to monitor various physiological parameters during sleep. It involves the simultaneous recording of brain waves, muscle activity, eye movements, heart rate, and breathing patterns to diagnose sleep disorders accurately.

Obstructive Sleep Apnea (OSA):
Obstructive sleep apnea is a common sleep disorder characterized by repetitive pauses in breathing during sleep due to upper airway obstructions. It can lead to fragmented sleep, daytime fatigue, and increased risks of cardiovascular complications if left untreated.

Oral Appliance Therapy:
Oral appliance therapy is a non-invasive treatment option for individuals with mild to moderate obstructive sleep apnea or snoring. It involves wearing a custom-fitted oral appliance during sleep to reposition the jaw and tongue, preventing airway obstructions and improving breathing.

Oximetry:
Oximetry is a method of monitoring blood oxygen levels during sleep using a device called a pulse oximeter. It provides valuable information about oxygen saturation levels throughout the night, helping to diagnose conditions such as sleep apnea and assess the effectiveness of treatment interventions.

Periodic Limb Movement Disorder (PLMD):
Periodic limb movement disorder is a sleep-related movement disorder characterized by repetitive leg movements during sleep. It can cause disruptions in sleep quality and lead to daytime fatigue and impaired functioning if not properly diagnosed and treated.

Polysomnography:
Polysomnography is a comprehensive sleep study conducted in a sleep laboratory to monitor various physiological parameters during sleep. It involves the simultaneous recording of brain waves, muscle activity, eye movements, heart rate, and breathing patterns to diagnose sleep disorders accurately.

REM Sleep Behavior Disorder (RBD):
REM sleep behavior disorder is a sleep disorder characterized by the absence of muscle paralysis during REM (rapid eye movement) sleep, leading to abnormal movements and behaviors during sleep. It can result in injuries to the individual or their sleep partner and is often associated with neurodegenerative conditions.

Sleep Diary:
A sleep diary is a self-reported record of an individual's sleep patterns and habits over a specified period. It

typically includes information on bedtime, wake time, sleep duration, quality of sleep, and any factors that may influence sleep, providing valuable insights for assessing sleep disorders.

Snoring:
Snoring is a common symptom of sleep-disordered breathing characterized by noisy breathing during sleep due to partial airway obstructions. While occasional snoring may be benign, persistent and loud snoring can be indicative of underlying sleep disorders such as obstructive sleep apnea.

Split-Night Polysomnography:
Split-night polysomnography is a diagnostic sleep study that combines diagnostic testing and CPAP titration in a single night. The first half of the night is dedicated to diagnosing sleep disorders, while the second half focuses on titrating CPAP therapy to determine optimal pressure settings.

Titration Study:
A titration study is a sleep study conducted to determine the optimal settings for positive airway pressure therapy in individuals with sleep-related breathing disorders such as obstructive sleep apnea. It involves adjusting the pressure levels of the CPAP or bilevel device to effectively treat breathing disturbances during sleep.

Upper Airway Resistance Syndrome (UARS):
Upper airway resistance syndrome is a sleep disorder characterized by increased resistance to airflow in the upper airway during sleep, leading to breathing disturbances and fragmented sleep. It shares similarities with obstructive sleep apnea but may not meet the criteria for apneas or hypopneas on diagnostic tests.

Wakefulness Testing:
Wakefulness testing is a diagnostic procedure used to assess an individual's ability to stay awake and alert during the day. It may involve tasks such as the Maintenance of Wakefulness Test (MWT) or the Psychomotor Vigilance Test (PVT) to evaluate daytime vigilance and cognitive functioning.

References:
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