

Direct Referral to the Sleep Disorders Center

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Presentation

Excessive daytime sleepiness / fatigue

Insomnia

Abnormal sleep-related behavior

Snoring

Pauses in breathing

Unusual movements in sleep

RLS/PLMD

Consider ordering a ferritin level, even if CBC does not indicate anemia.

Current research indicates the problem may be with iron transport into the nervous system.

Ferritin is the best screen for iron transport

Ferritin normal levels 30-330 ng/ml (per VCUHS Lab)

Ferritin < 50 should consider iron therapy

Presentation continued

- Poor growth
- Irritability
- Hyperactivity
- Inattentiveness
- Increased oppositional behavior
- Learning disabilities

Direct Referral for Sleep Studies

- Requires completed referral in its ENTIRETY
 - First page is patient information and reason for referral
 - Second page is Epworth Sleepiness Scale
 - Referral is required by American Academy of Sleep Medicine.
 - Indicator for referral
 - Obligated to have a screen tool for proof of necessity of testing

Direct Referral for Sleep Studies Contd

Referral Form Page 1

- Pertinent patient information
 - Can use patient label
- Reason for referral
- Patient PMH

Direct Referral for Sleep Studies Contd

Epworth Sleepiness Scale

Epworth Sleepiness Scale

Use the following scale to choose the most appropriate number for each situation:

0 = would *never* doze or sleep.

1 = *slight* chance of dozing or sleeping

2 = *moderate* chance of dozing or sleeping

3 = *high* chance of dozing or sleeping

Situation

Chance of Dozing or Sleeping

Sitting and reading

Watching TV

Sitting inactive in a public place

Being a passenger in a motor
vehicle for an hour or more

Lying down in the afternoon

Sitting and talking to someone

Sitting quietly after lunch
(no alcohol)

Stopped for a few minutes in
traffic while driving

Total score (add the scores up)

Direct Referral for Sleep Studies Contd

- Include all pertinent documents
 - Clinical notes indicating reasons for testing
 - Laboratory tests
 - Note any special accommodations required
 - i.e. consideration of patient phobias or fears
 - Can make a note on the front of the fax or include an additional letter

Education of the direct referral patient

- Sleep Apnea
- Narcolepsy
- Insomnia
- Polysomnogram
- CPAP titration
- Multiple Sleep Latency Test (MSLT)

Sleep Apnea

- Obstructive sleep apnea is a disorder in which breathing is briefly and repeatedly interrupted during sleep. The "apnea" in sleep apnea refers to a breathing pause that lasts at least ten seconds.
- **Obstructive sleep apnea occurs when the muscles in the back of the throat fail to keep the airway open, despite efforts to breathe.**
- Another form of sleep apnea is central sleep apnea, in which the brain fails to properly control breathing during sleep.
- Obstructive sleep apnea is far more common than central sleep apnea.
 - National Sleep Foundation, www.sleepfoundation.org

Sleep Apnea Contd

- Treatment of Obstructive Sleep Apnea
 - Aggressive weight loss (15-20%)
 - Oral appliance
 - ENT referrals
 - OSA treated with CPAP
 - Continuous positive airway pressure
 - Mask fits around the nose, within the nose, or around the nose and mouth
 - Applies continuous pressure to all the airway to remain open during sleep

Narcolepsy

- Narcolepsy is a neurological disorder caused by the brain's inability to regulate sleep-wake cycles normally.
- The main features of narcolepsy are excessive daytime sleepiness and cataplexy. The disease is also often associated with sudden sleep attacks, insomnia, dream-like hallucinations, and a condition called sleep paralysis.
- Researchers believe that narcolepsy may be caused by a deficiency in hypocretin production in the brain.
 - National Sleep Foundation, www.sleepfoundation.org
- Requires a Multiple Sleep Latency Test to confirm diagnosis

Insomnia

- Referral to sleep center for management
- Due to medical or psychiatric disorders and/or poor sleep hygiene
- Manage medical issues such as chronic pain
- Manage psychiatric issues such as depression
- Many adults and children practice poor sleep hygiene
 - Requires education for patient to make changes
- May require psychologist for cognitive behavioral therapy
 - Community Resource
 - Dr. Bruce Rybarczyk – VCU Dept of Psychology
 - 828-8069

Polysomnography

- An overnight diagnostic test during which a number of physiologic variables are measured and recorded during sleep.



Polysomnography Contd

- Sensor leads are placed on the patient to record:
 - Brain electrical activity
 - Eye and jaw muscle movement
 - Leg muscle movement
 - Airflow
 - Respiratory effort in chest and abdominal excursion
 - EKG
 - Oxygen saturation
 - Carbon dioxide retention if indicated

Polysomnography Preparation

- Patient needs to arrive at the sleep center on time
 - 2529 Professional Road
- One guardian may accompany the child
 - One roll out bed to accommodate a parent
- Any education you can provide to prepare the child and the parent for the leads, cannulas, pulse ox, and belts would be appreciated

Polysomnography Preparation Contd

- Please stress the following
 - Arrive with clean/dry skin and scalp
 - No lotions, oils, moisturizers, mousse, gels
 - Bring 2 piece pajamas.
 - May be t-shirt and shorts
 - No caffeine or sugar after 3 pm
 - Bring evening medications with them
 - Preferably no nap the day of the study

CPAP Titration

- Will require the child to stay a second night in the sleep center
- A mask is placed on his/her face
- While he/she sleeps the pressure is increased until the apnea is resolved

MSLT

- If you suspect Narcolepsy...
- Patient will have a polysomnogram followed by MSLT
- Daytime test
- Four or five naps given every 2 hours after awakening
- Patient may be at sleep center until 5 pm the next day