

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