Staying Rested as a Resident

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“Patients have a right to expect a healthy, alert, responsible, and responsive physician.”

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Sleepiness in residents is equivalent to that found in patients with serious sleep disorders.

Objectives

• Describe the symptoms, contributing factors, and effects of sleep deprivation & poor sleep quality
• Develop an action plan for improving sleep quality
• Create an individualized strategy for managing duty hours in a healthy way
Symptoms

• People with sleep deprivation will commonly have a decline in work performance and also present as:
  – anxious
  – forgetful
  – easily distracted
  – sad
  – more prone to have accidents
The challenge of shift work

• 75% of people who work at night report feeling drowsy at work
• Rotating shifts between day, night and evening often result in disturbed sleep and reduced alertness
• Disruptions in sleep can lead to change in mood including increased irritability
Basic facts

• Insomnia is the most frequent health complaint following pain and headaches.
• 1/3 of adults experience chronic insomnia
• 1/2 of adults have experienced insomnia at one point in their lives
• Twice as common in women as in men
  – May be attributed to women being more likely to report symptoms of insomnia to their physician
Types of insomnia

• The definition of insomnia is difficulty falling asleep or staying asleep that occurs 3 times per week for at least a month
  – **Initial**: difficulty falling asleep
  – **Middle**: difficulty sleeping through the night without waking up and difficulty going back to sleep
  – **Terminal**: early morning awakening
The effects of substance use

- **Alcohol**
  - Common “nightcap” myth
    - Easier to fall asleep
    - Suppresses deep sleep
  - Produces mild withdrawal symptoms, causing fragmented sleep (decreased REM sleep) and early morning awakenings
The effects of substance use

- **Caffeine**
  - Stimulant that promotes alertness and reduces fatigue
  - Can produce nervousness, irritability, and shakiness
  - Works in as little as 15 minutes and can last up to 6 hours leading to disturbed sleep
The effects of substance use

- **Nicotine**
  - Similar effects to caffeine including increased heart rate and increased amounts of stress hormones
  - Stimulant effects can last for several hours after smoking a cigarette leading to poor sleep
  - Insomnia ranks as one of the major health complaints of smokers
Common “remedies”

- People with sleep deprivation will often engage in the following habits to promote sleep:
  - Going to bed earlier and spending more time in bed to catch up on sleep
  - Trying to force themselves to go to sleep
  - Attempt to relax in bed by reading or watching television
  - Take naps
  - Use alcohol to promote sleep and caffeine to lessen daytime fatigue
  - Reduce exercise because of fatigue from sleep deprivation

All of the above worsen symptoms of sleep deprivation!
Rx: Improving sleep quality

- Avoid caffeine, nicotine, alcohol, and chocolate several hours before bedtime
- A fixed sleeping and waking schedule for all 7 days a week (not always possible)
- Daily exercise (but not before bedtime)
- Relaxation techniques
- Development of a series of behaviors associated with bedtime (“a sleep ritual”)
- Avoid exposure to electronic light 60 minutes before bedtime
Rx: Improving sleep quality

- Restrict time spent in bed to actual amount of time spent asleep
- Go to bed only when sleepy
- Leave the bedroom if you’re not sleeping within 15-20 minutes.
- Avoid a visible bedroom clock with lighted dial. Checking the time will increase anxiety and further delay sleep
- Avoid daytime naps
Sleep hygiene

• Enhance the bedroom environment
  – “Dark and cool”- sleep is better in a cool room (65-68F) and with the least light present
  – White noise machine or air conditioner produces soothing sounds
  – Comfort is key! Comfortable mattresses and pillows are essential for a good night’s rest
Assessment

• Recall your sleep habits for the last 3 days
• Sleep diary
  – What time did you get into bed?
  – How long did it take you to fall asleep?
  – How many times did you awaken during the night?
    How long were you awake?
  – What time did you get out of bed?
  – Approximately how many hours did you sleep each night?
  – Rate the quality of each night’s sleep on a 1-5 scale
  – Note any barriers to good sleep
Discussion

• 3 common scenarios causing sleep deprivation for residents:
  – Night shifts
  – Sleeping post-call
  – Busy months

  – What’s difficult about each?
  – What are some solutions people have developed for getting better rest on these rotations?
Healthy Sleep Habits: Prior to Sleep Loss

Get adequate (7 to 9 hours) sleep before anticipated sleep loss.

Avoid starting out with a sleep deficit!
Napping

**Pros:** Naps temporarily improve alertness.

**Types:**
- Preventive (pre-call)
- Operational (on the job)

Naps as short as 15 minutes can ameliorate performance decrements if provided at 2-3 hour intervals.

**Timing:**
-- if possible, take advantage of circadian “windows of opportunity” (2-5 am and 2-5 pm)
Caffeine

• The strategic use of caffeine involves ingestion at times that will promote alertness and performance during periods of vulnerability.

• A significant performance and alertness boost can be obtained from 200 mg of caffeine, with positive effects at doses ranging from 100 to 600 mg.
<table>
<thead>
<tr>
<th>Caffeine content</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Red Bull</td>
<td>80 mg</td>
</tr>
<tr>
<td>Jolt</td>
<td>72 mg</td>
</tr>
<tr>
<td>Mountain Dew</td>
<td>55 mg</td>
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<tr>
<td>Diet Coke</td>
<td>46 mg</td>
</tr>
<tr>
<td>Iced Tea (black)</td>
<td>40-60 mg</td>
</tr>
<tr>
<td>Green Tea</td>
<td>35 mg</td>
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</tbody>
</table>
Coffee

Starbucks *Venti* 550 mg

Starbucks *Grande* 375 mg

Starbucks *Tall* 250 mg

Espresso (2 oz) 100 mg

Instant coffee 65-100 mg
Managing shift work

• Guidelines to minimize disruption:
  – Maintain the same sleep-wake schedule on days off to synchronize your sleep rhythms
  – Allow sufficient time to wind down after work. If you finish work at 8 am, don’t force yourself to be asleep by 9 am
  – Ensure that your sleep won’t be interrupted by telephones, people, street noises or doorbells. Use earplugs or fan to reduce noise
Managing shift work

• Guidelines continued:
  – When preparing for a shift change, adjust your bedtime and wake-up times a few days prior to new shift
  – Avoid exposure to bright light during the few hours before bedtime. Wearing dark glasses when leaving work in the morning may prevent sunlight from increasing alertness level.
  – Avoid stimulants during the few hours before bedtime
Medications

• Always explore nonpharmacologic treatment before considering pharmacologic treatment
• Not intended for treatment of chronic insomnia
• Tolerance and withdrawal may occur
Free Ride Home!

Residents can use Lyft for a ride home with a next-day return trip.

PLEASE NOTE:
1) The pick up from any affiliated training site at which residents/fellows are rotating.
2) Drop off can only be at a residential address.
3) All rides will be audited.
Sleep well!
References


