



# Objectives

- By the end of this presentation participants will:
- Understand ACGME requirements for fatigue management & mitigation
- Recognize the *signs of excessive fatigue* & risk factors
- Challenge *common misconceptions* among physicians about sleep and sleep loss
- Describe *fatigue mitigation* strategies

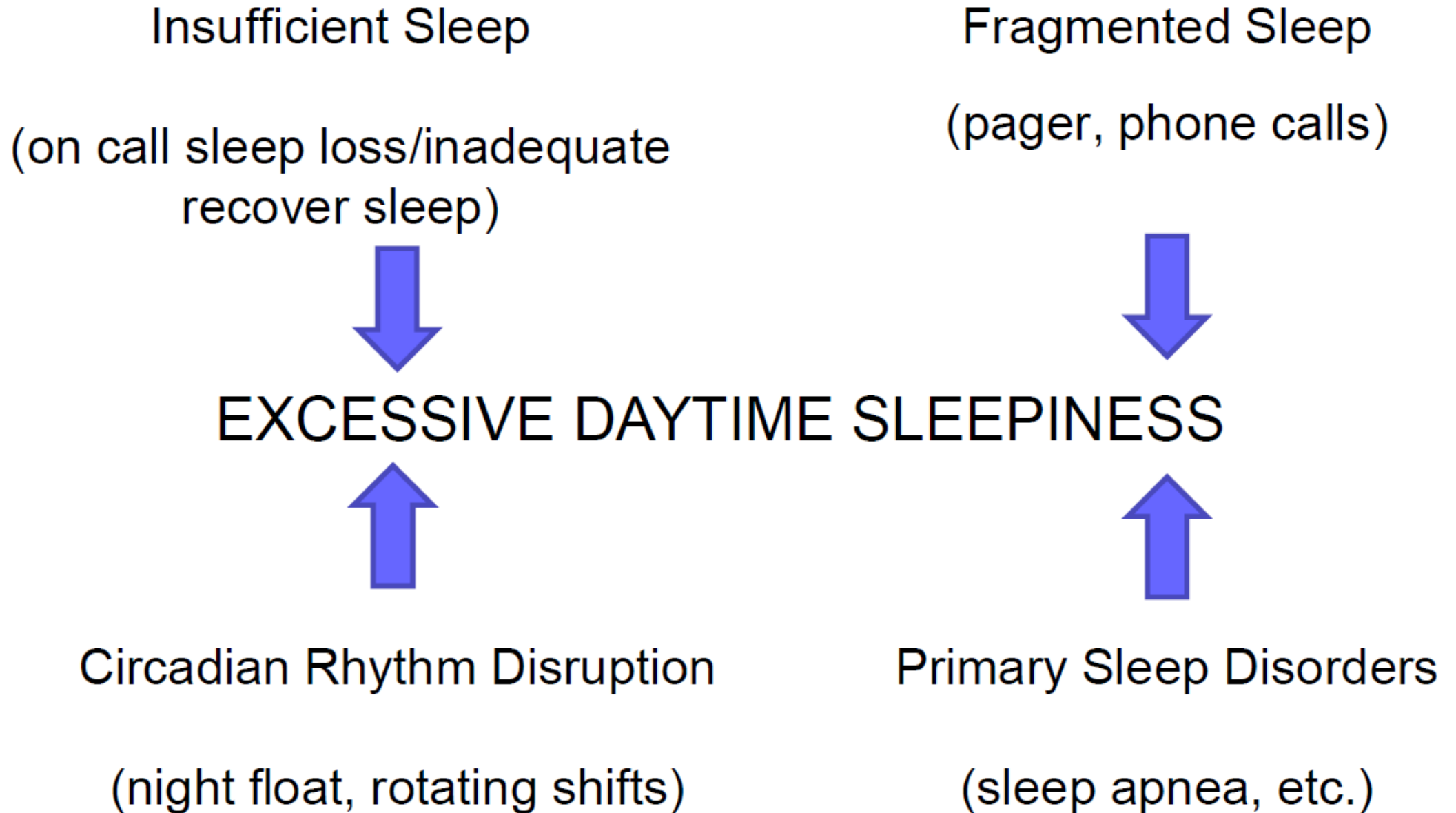
# ACGME: Common Program Requirements:

- Programs and Sponsoring Institutions (SI) must educate residents & faculty members concerning the professional responsibilities of physicians to appear fit for duty, appropriately rested, fit to provide services required by their patients
- Program must **educate** all faculty members & residents to **recognize** the signs of fatigue & sleep deprivation
- Program must **educate** all faculty & residents in **alertness management & fatigue mitigation** processes & adopt fatigue mitigation processes to manage potential negative effects of fatigue on patient care & learning
- Each program must have a process to ensure **continuity of care** in the event that a resident may be unable to perform his/her patient care duties
- SI must provide adequate **sleep facilities and/or safe transportation** options for residents who may be too fatigued to safely return home
- One of the 6 focus areas of CLER

# Why?

- Sleep deprivation and fatigue interfere with concentration, cognition, fine motor *tasks*, decision-making, and *emotional stability*.
- Impacts *patient safety*, as well as safety of resident physicians, especially when driving while drowsy after call.
- Our institution requires residents & fellows to receive training about managing sleep and fatigue each year.

# Conceptual Framework for GME



# Myths & Facts

- **Myth:** I only need 5 hours of sleep so none of this applies to me
- **Fact:** Individuals vary in their tolerance to the effect of sleep loss, but are ***unable to accurately*** judge this themselves
- **Fact:** Human beings need ***8 hours*** of sleep to perform at an optimal level
- **Fact:** Getting less than 8 hours of sleep starts to create a “***sleep debt***” which must be paid off

# Myths & Facts

- **Myth:** I will adapt to less sleep
- **Fact:** Sleep needs are *genetically determined* and cannot be changed
- **Fact:** Human beings *do not “adapt”* to getting less sleep than they need
- **Fact:** Task performance may improve somewhat with effort; **optimal** performance and **consistency** of performance *do not!*

# Myths & Facts

- **Myth:** I know when I am too tired to perform and am not functioning optimally
- **Fact:** Studies show sleepy people *underestimate* their level of sleepiness and overestimate their alertness
- **Fact:** The sleepier you are, the *less accurate* your perception of impairment is
- **Fact:** You can fall asleep briefly (*microsleeps*) without knowing it



# Myths & Facts

- **Myth:** A nap will only make me more tired; I get used to night shifts right away
- **Fact:** *Some* sleep is better than no sleep
- **Fact:** What *time* and for *how long* you sleep are key to getting the most out of napping
- **Fact:** Circadian rhythms and sleep patterns take at least a week to *adjust*
- **Fact:** Adjustment usually includes *physical & mental* systems

# Signs of sleep deprivation & fatigue:

- Difficulty keeping eyes open
- Repeated yawning and nodding off
- “Micro sleeps”
  - (Examples: When you all of a sudden realize you missed a “chunk” of a lecture)
- Increased tolerance for risk-taking
- Lack of engagement
- Inattention to detail
- Decreased cognitive function
- Irritability
- Increased errors
- Loss of appetite
- Increased susceptibility to illness

# Signs While Driving

- Trouble focusing on road
- Drifting lanes, missing exits
- Don't remember driving the past few miles
- Closing eyes at traffic lights
- You realize you don't remember going through an intersection and wonder if the light was red

# You might be fatigued if you experience any of the following:

## • **Mental Symptoms:**

- ➤ Narrow attention span
- ➤ Forgetfulness
- ➤ Reduced performance standards
- ➤ Feelings of depression
- ➤ Impaired judgment/decision making

## • **Physical Symptoms:**

- ➤ Frequent unexplained headaches
- ➤ Muscular aches pains
- ➤ Blurred/double vision
- ➤ Loss of appetite

## Recognize Warning Signs of Excessive Fatigue

- Falling asleep in conferences or during rounds
- Feeling restless and irritable with staff, colleagues, family and friends
- Having to check your work repeatedly
- Having difficulty focusing on the care of your patients
- Feeling like you just don't care

# You might see the following in someone who is fatigued:

## • Mental Symptoms:

- ➤ Narrow attention span
- ➤ Forgetfulness
- ➤ Reduced performance standards
- ➤ Feelings of depression
- ➤ Impaired judgment/decision making

## • Physical Symptoms:

- ➤ Irritability/intolerance
- ➤ Reduced short-term memory
- ➤ Lack of interest and drive
- ➤ Confusion and fearfulness
- ➤ Decreased startle response
- ➤ Anxiety
- ➤ Social withdrawal

# Professionalism

- Professionalism is demonstrated through a personal role in the following:
  - ➤ Assurance of one's fitness for duty.
  - ➤ Time management before, during, and after clinical assignments.
  - ➤ Assurance of safety and welfare of patients.
  - ➤ Acting on impairment in oneself and others.
  - ➤ Healthcare professionals must be aware of the negative effects of sleep deprivation & fatigue on ability to provide safe & effective patient care.
  - ➤ Healthcare professionals must recognize that sometimes the best interests of the patient may be served by transitioning care to another qualified and rested provider
  - ➤ Consider & Avoid:
    - Errors of commission – doing something incorrectly.
    - Errors of omission – not doing something that should be done

# Effects

- **Chronic sleep deprivation manifests in:**

- Impaired memory consolidation
- Reduced reaction time
- Decreased ability to process information –shown in numerous studies on medical residents
- Sleep deprived residents generally grossly inaccurate judges of impairment level
- Reduced ability to handle stress on the job

- Increased errors in judgment
- Increased accident rates
- Being awake for 17 hours impairs performance to the same level as having a 0.05 blood alcohol content
- Being awake for 20 hours impairs performance to the same level as having a 0.1 blood alcohol content



# Strategic napping

- 30 minutes for a short nap to avoid grogginess that occurs when awakening from deep sleep (sleep inertia)
- If time allows, take a longer 2-hour nap
- Allow 15 minutes wake up time after a longer nap
- Take advantage of circadian rhythm windows of opportunity: 2-5am & 2-5pm
- If not, nap when you can
- Be aware of sleep inertia and allow yourself enough time to recover from a longer nap
- Bottom line: Naps take the edge off but do not replace adequate sleep

# Fatigue Mitigation Tips

## What To Do If Drowsy But Need To Drive

- Find alternative – don't drive.
- Call friend or take cab or Uber.
- ARMC will reimburse a 1-way local ride.
- Use call room in the hospital & take nap.
- If already driving & you notice signs of sleepiness, stop driving
- Pull over at safe place & take a short nap

# Fatigue Mitigation Tips

## What To Do If Drowsy But Need To Work

- Immediately contact a Chain of command (i.e. upper level resident/fellow, attending, program director) if you are too fatigued to work.
- Strategically nap. 20-30 minutes improves alertness and performance
- Drink a caffeinated beverage
- Be aware that if you are up all night, your least alert time is often 6am-11am.
- Utilize your program's call room/nap room or available transportation.

# What To Do If A Colleague Or Supervisor Appears Drowsy Or Fatigued

- Tell them they appear sleep-deprived & you're concerned.
- If they're working, ***suggest they take a nap < 30 minutes.***
- If they're about to drive, suggest they nap first, or ***get ride*** from friend, bus, or cab/Uber or use call rooms to take naps.
- If needed, ***inform supervising*** faculty, chief resident, mentor, or program director.
- Explain: Sleep deprivation & fatigue can impact patient care & documentation, which can be harmful to patients—and may place the hospital at risk.
- If needed, go up the Chain of Command to PD, Chair and then DIO and CMO.
- **?** If this is a chronic issue, suggest that they see a doctor or counselor, which are covered through ARMC health plan.

# Healthy Sleep Habits

The best way to stay safe & keep your patients safe is to prevent fatigue & sleep deprivation. Since physician training sometimes requires inconsistent schedules & long hours, it is important to follow these sleep promotion guidelines when possible:

- Know your own alertness/sleep pattern.
- Go to bed & get up at same time daily
- Develop pre-sleep routine.
- Use relaxation to help you fall asleep.
- Protect sleep time of at least 7 hours.
- Avoid going to bed hungry or too full.
- Get regular exercise.
- Reduce fluid intake before bedtime.
- Avoid caffeine late afternoon or evening.
- Avoid nicotine.
- Avoid alcohol before bedtime
- Protect your sleep time! Enlist the help of your family and friends
- Ensure sleeping environment is:
  - Cooler temperature
  - Dark (eye shades, room darkening blinds)
  - Quiet (silence phone, turn off pager, use ear plugs, white noise machine)
- Bedroom only for sleep & intimacy.
- Do not use electronic devices

# AVOID

- **AVOID** starting call with a sleep deficit.
  - ◆ Get 7-9 hours of sleep.
- **AVOID** heavy meals within 3 hours of sleep.
- **AVOID** stimulants to keep you up.
- **AVOID** alcohol to help you sleep.
- **AVOID** heavy exercise 2-3 hours before sleep.
- **AVOID** going to bed hungry, however, no heavy meals within 3 hours of going to sleep
- ➤ **AVOID** exercising within 3 hours of going to sleep
  - ◆ Get regular exercise but



## **5 WARNING SIGNS YOU NEED SLEEP**

- **You start to doze off while driving.**
  - **You are forgetful or make mistakes.**
  - **You feel fatigued or lack energy.**
  - **You are irritable, grouchy, or easily lose your temper.**
  - **You rely on caffeine to get through the day.**
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