

Classificazione dei disturbi del sonno

**THE
INTERNATIONAL CLASSIFICATION
OF
SLEEP DISORDERS, REVISED**
Diagnostic and Coding Manual



1990

1. Dyssomnias
 - A. Intrinsic Sleep Disorders
 - B. Extrinsic Sleep Disorders
 - C. Circadian Rhythm Sleep Disorders
2. Parasomnias
 - A. Arousal Disorders
 - B. Sleep-Wake Transition Disorders
 - C. Parasomnias Usually Associated with REM Sleep
 - D. Other Parasomnias
3. Sleep Disorders Associated with Mental, Neurologic, or Other Medical Disorders
 - A. Associated with Mental Disorders
 - B. Associated with Neurologic Disorders
 - C. Associated with Other Medical Disorders
4. Proposed Sleep Disorders

ICSD 2 - 2005

Insomnia

Sleep-related breathing disorders

Hypersomnias of central origin

Circadian rhythm sleep disorders

Parasomnias: Disorders of arousal (from NREM sleep); parasomnias usually associated with REM sleep; other parasomnias

Sleep-related movement disorders: Restless legs syndrome; periodic limb movement disorder; sleep related leg cramps; sleep related bruxism; sleep related rhythmic movement disorder; sleep related movement disorder, unspecified; sleep related movement disorder due to drug or substance; sleep related movement disorder due to medical condition

Isolated symptoms, apparently normal variants and unresolved issues: Long sleeper; short sleeper; snoring; sleep talking; sleep starts (hypnic jerks); benign sleep myoclonus of infancy; hypnagogic foot tremor and alternating leg muscle activation during sleep; propriospinal myoclonus at sleep onset; excessive fragmentary myoclonus

Other sleep disorders

Appendix A: Sleep disorders associated with conditions classifiable elsewhere: fatal familial insomnia; fibromyalgia; sleep related epilepsy; sleep related headaches; sleep related gastroesophageal reflux disease; sleep related coronary artery ischaemia; sleep related abnormal swallowing, choking, and laryngospasm

Appendix B: Other psychiatric and behavioural disorders frequently encountered in the differential diagnosis of sleep disorders

ICSD 3 - 2014

Insomnia

Sleep-related Breathing Disorders

Central Disorders of Hypersomnolence

Circadian Rhythm sleep-wake disorder

Parasomnias

Sleep related movement disorders

proposta di classificazione dei disturbi del sonno in base all'età del paziente

neonatale/infantile

- (insonnia infantile su base comportamentale)
- **sleep-related rhythmic movement disorder** (p.es. “jactatio capitis nocturna”)
- **benign neonatal sleep myoclonus**
- **(repetitive sleep starts?)**

età prescolare

- (incubi)
- **parasonnie NREM/REM**
- **pavor** (“sleep terror”)

CHEST

Postgraduate Education Corner

CONTEMPORARY REVIEWS IN SLEEP MEDICINE

A Review of Pediatric Nonrespiratory Sleep Disorders*

Melisa Moore, MA; David Allison, MD; and Carol L. Rosen, MD

(2006)

età scolare

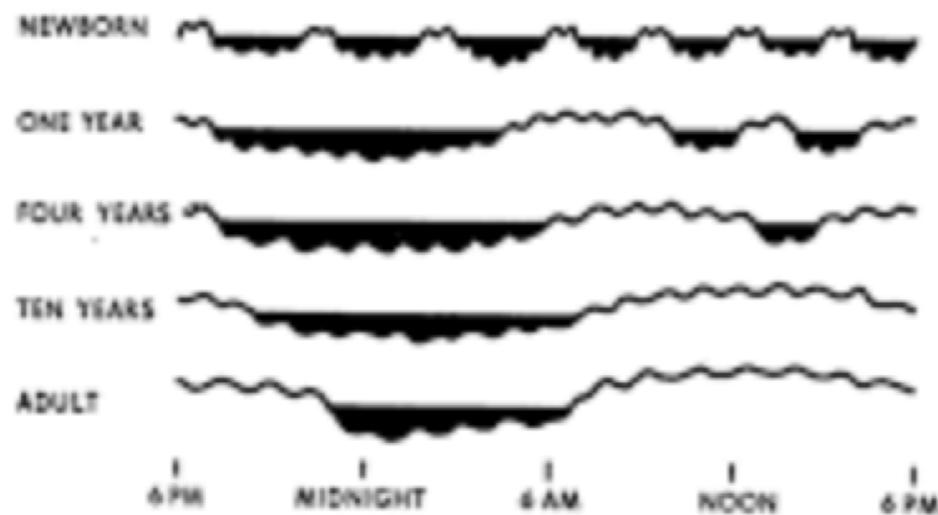
- bruxismo
- sindrome della gambe senza riposo
- parasonnie NREM/REM

età adolescenziale

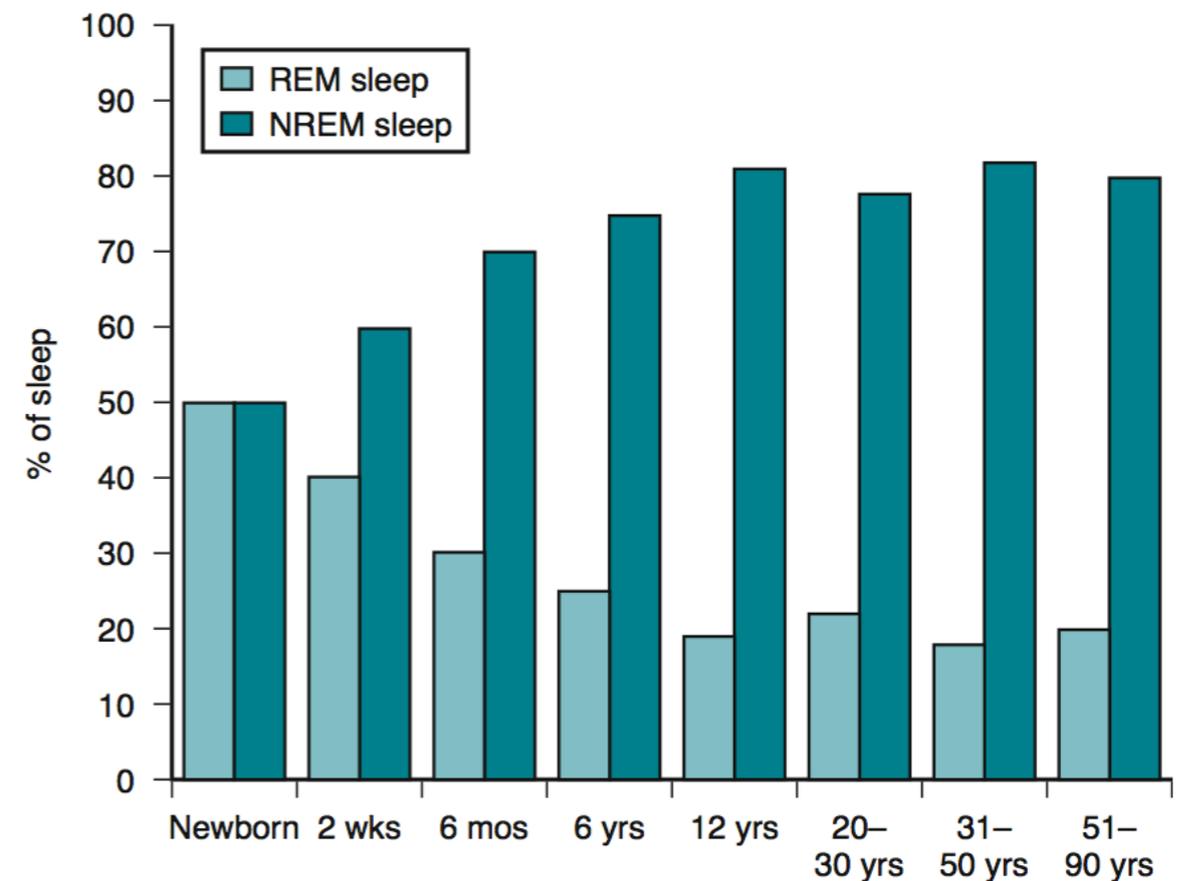
- narcolessia
- **parasonnie NREM/REM**

Recommended amount of sleep per day

4-12 months	12-16 h, including naps
1-2 years	11-14 h, including naps
3-5 years	10-13 h, including naps
6-12 years	9-12 h
13-18 years	8-10 h

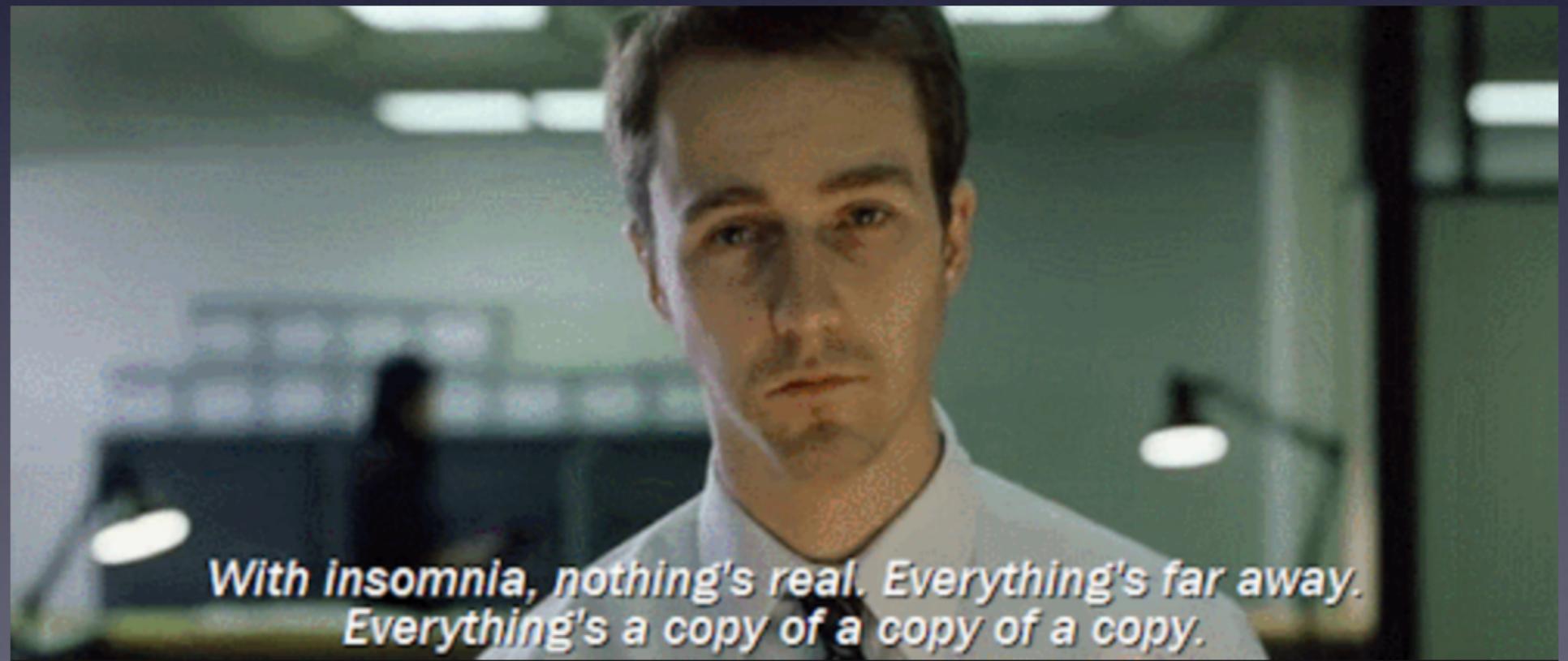


Schematic representation of the ontogenetic transition from the primitive polycyclic alternation of sleep and wakefulness in the newborn infant to the monocyclic sleep-wakefulness rhythm in the adult. In the secondary undulations basic rest-activity periodicity is shown. The 50-60 minute periodicity in the infant gradually lengthens to 80-90 minutes in the adult. Black areas represent sleep. (From Kleitman 1963)



insomnia

- chronic insomnia disorder
- short-term insomnia disorder
- other insomnia disorder
- isolated symptoms and normal variants
(excessive time in bed, short sleeper, > 6h)



insonnia in età pediatrica (?)

alta prevalenza (1-6%, fino al 20-30% se vengono compresi i risvegli notturni e i “bedtime refusal”, 15-25% popolazione “pediatrica” generale)

pz con disabilità intellettiva e/o problematiche comportamentali

- **"infantile"**: insonnia su base comportamentale: alta prevalenza (10-30%); opzioni farmacologiche limitate (??); non necessari ulteriori accertamenti in presenza di paziente con SPM e parametri di crescita normali; escludere RGE e disturbi respiratori nel sonno (??)
- **"toddlers"**: insonnia su base comportamentale; relativamente meno frequente; non necessità di terapia (?)
- **"adolescent"**: forma più comune, "delayed sleep phase syndrome, DSPS"; terapie: melatonina (BDZ?)

farmacologia (?) dell'insonnia pediatrica (?)

- ✓ Istamina, neurotrasmettitore exc secreto dalla parte posteriore dell'ipotalamo (ruolo nell'"allerta"), antagonisti H1/H2 o H (Periactin®)
- ✓ Melatonina, secreto in modo circadiano dalla pineale ("signal of darkness to the brain", soppressa dalla luce), effetto cronobiotico ("delayed sleep phase", nei non-vedenti dalla nascita, 1mg, 2-3h prima), dubbio effetto sulla latenza di sonno (ipnotico/cronobiotico?), 3-6 mg
- ✓ Clonidina: anti-ipertensivo, agonista alpha2 agonista centrale, "effetto rebound"; Catapresan cpr 150 ug, 1/4 compressa.
- ✓ Benzodiazepine o analoghi

sleep-related breathing disorders

patologie respiratorie che si manifestano esclusivamente o sono peggiorate dal sonno:

- apnee centrali (CSA)
- apnee del prematuro
- disturbi ipoventilatori alveolari
- disturbi respiratori periodici (CSR)
- spettro dei disturbi respiratori nel sonno (OSAS, apnee, ipopnee, snoring, “respiratory effort related arousals”-RERAs)

disturbi respiratori su base ostruttiva

spettro di patologie: primary snoring (6-9%), OSAS (2%)

- ipersonnia diurna meno frequente e rilevante (7-10%)
- interessamento cognitivo-comportamentale?
- coinvolgimento cardiovascolare?

cause:

- ipertrofia linfoide tonsillare e adenoidea
- malformazione cranio-facciale
- sindromi con iperlassità legamentosa
- obesità

circadian rhythm sleep-wake disorders CRSDs - ICSD 3

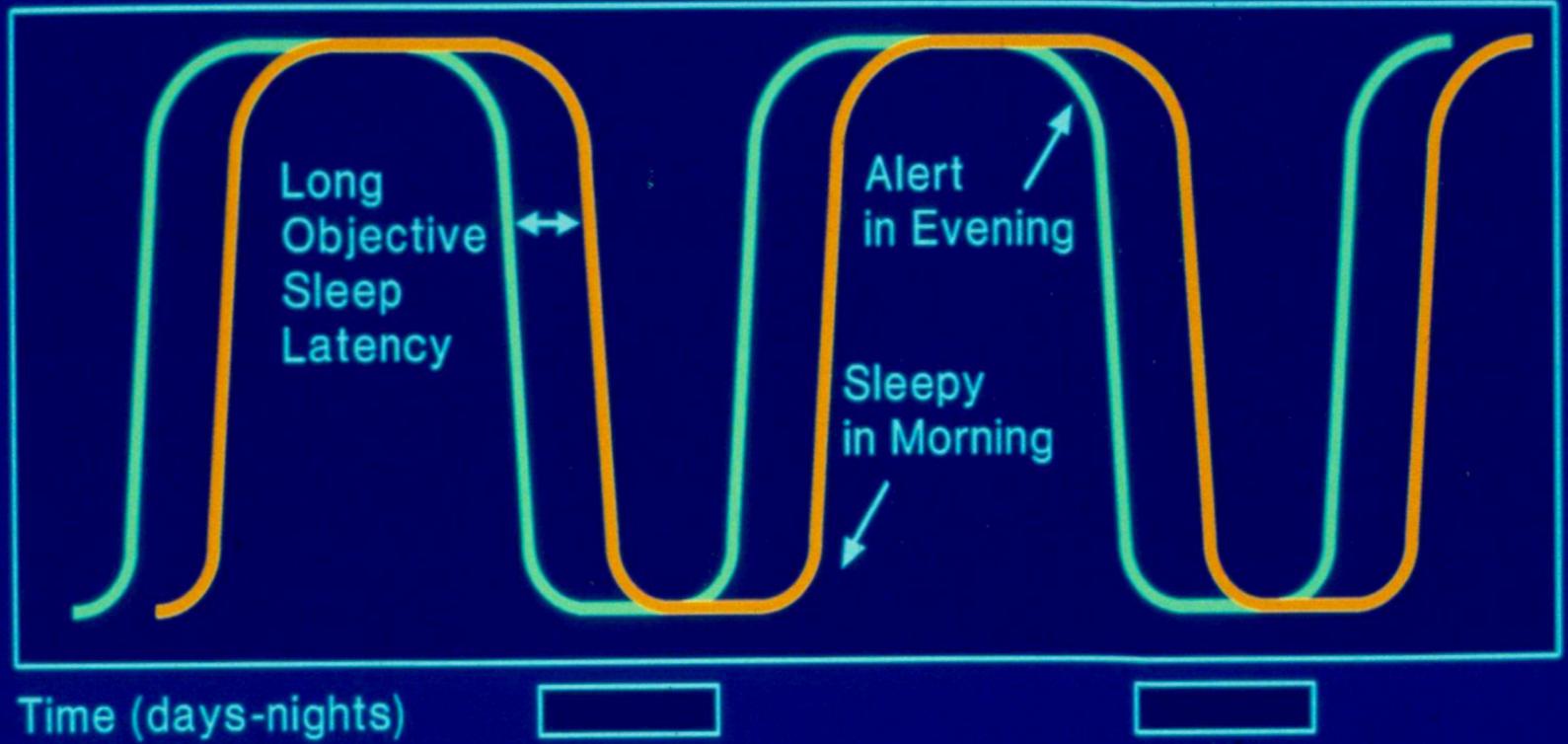
- delayed sleep-wake phase disorder
- advanced sleep-wake phase disorder
- irregular sleep-wake phase disorder
- non-24h sleep-wake rhythm disorder
- shift work disorder
- jet lag disorder
- circadian sleep-wake disorder NOS



Delayed Sleep Phase

Bedtime Ahead - Sleepiness Behind

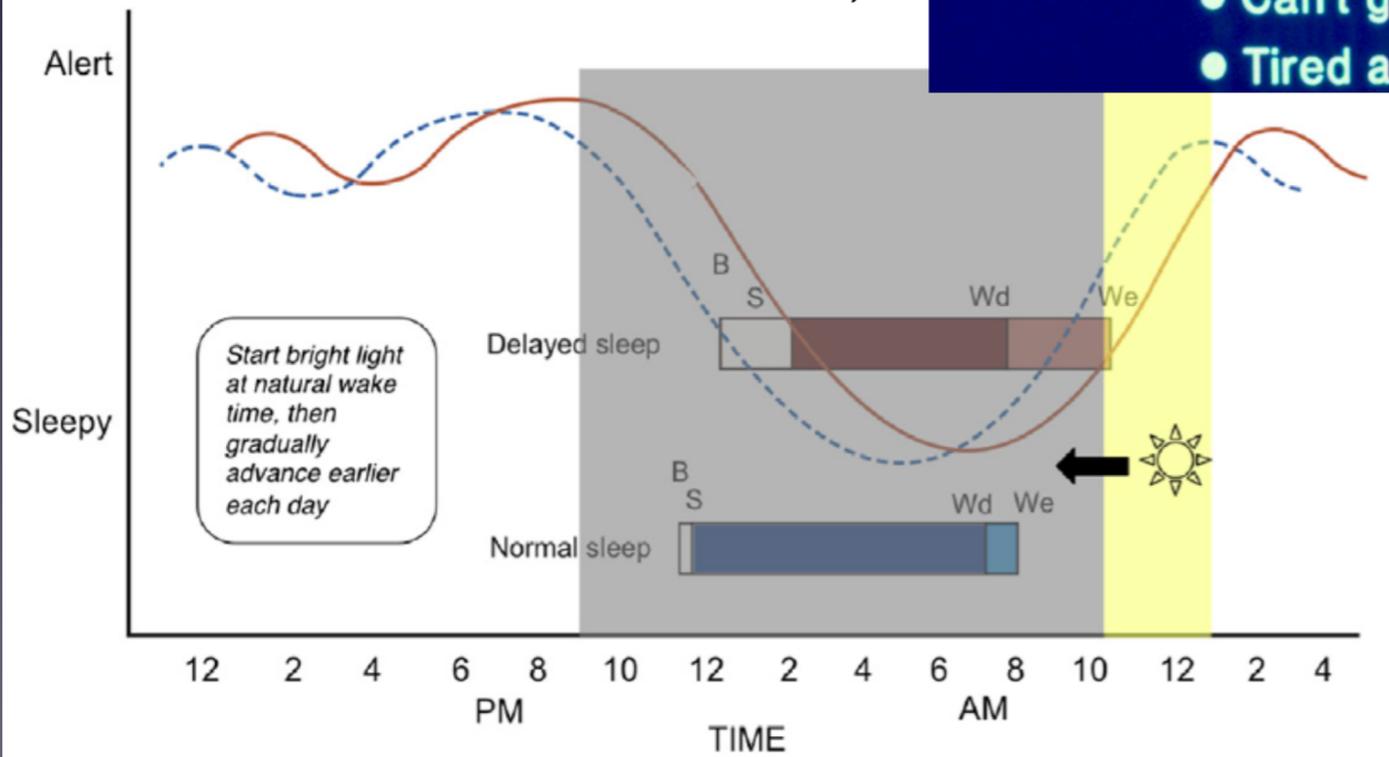
Sleep Tendency



- Symptoms**
- Can't fall asleep at night
 - Can't get up in morning
 - Tired all day except evening

- Scheduled Bedtime Hours
- Circadian Sleep Tendency
- Desired Schedule

Gradisar et al., Sleep

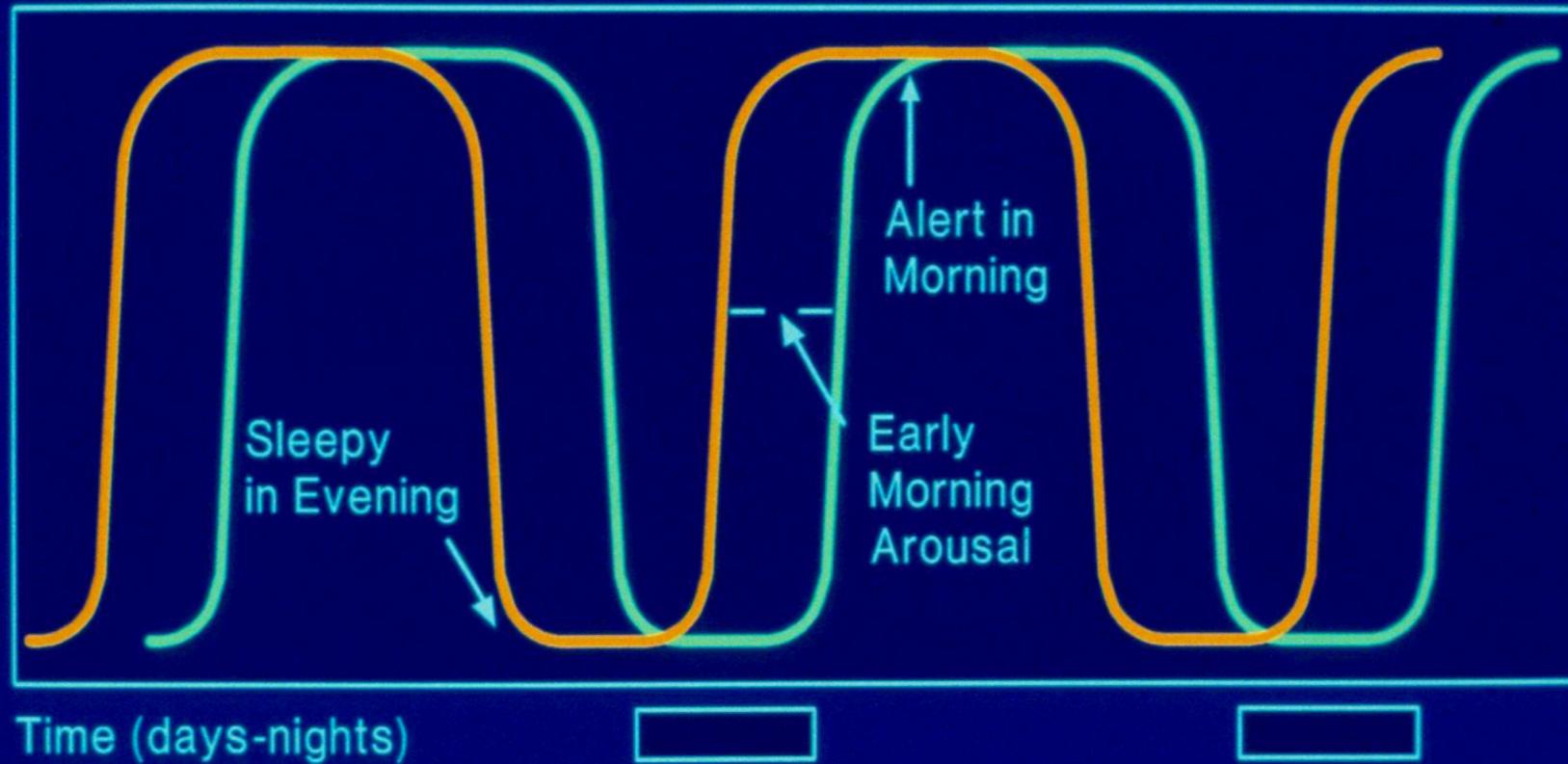




Advanced Sleep Phase

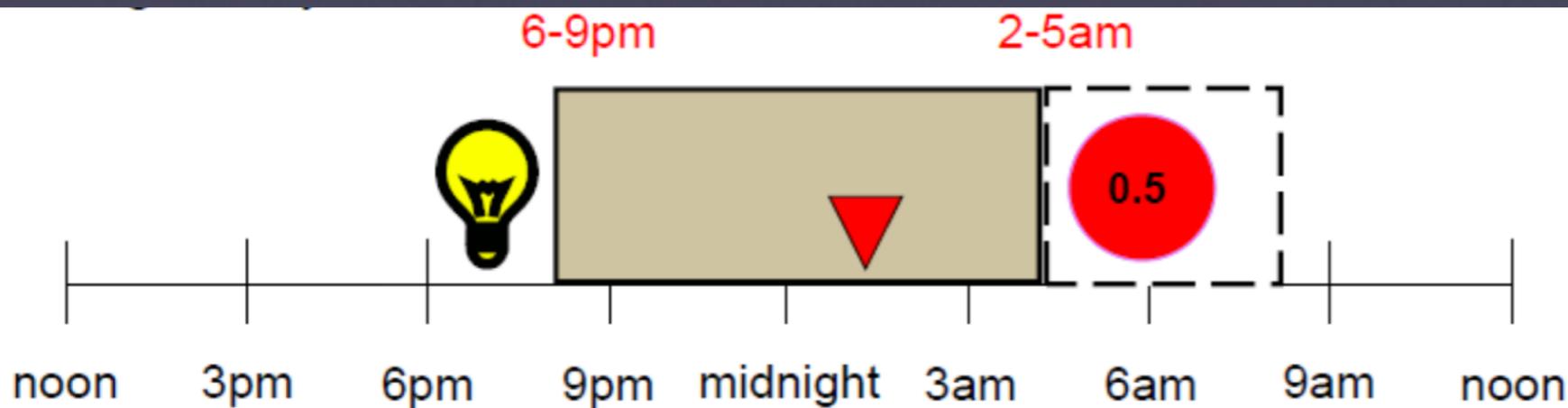
Bedtime Behind - Sleepy Phase Ahead

Sleep Tendency



- Symptoms**
- Early morning arousal
 - Daytime fatigue especially late afternoon & evening

- Scheduled Bedtime Hours
- Circadian Sleep Tendency
- Desired Schedule



HJ Burgess & JS Emens, Curr Sleep Medicine Rep (2016) 2:158-165

SPECIAL ARTICLES

Use of Actigraphy for the Evaluation of Sleep Disorders and Circadian Rhythm Sleep-Wake Disorders: An American Academy of Sleep Medicine Clinical Practice Guideline

Michael T. Smith, MA, PhD¹; Christina S. McCrae, PhD²; Joseph Cheung, MD, MS³; Jennifer L. Martin, PhD^{4,5}; Christopher G. Harrod, MS⁶; Jonathan L. Heald, MA⁶; Kelly A. Carden, MD⁷

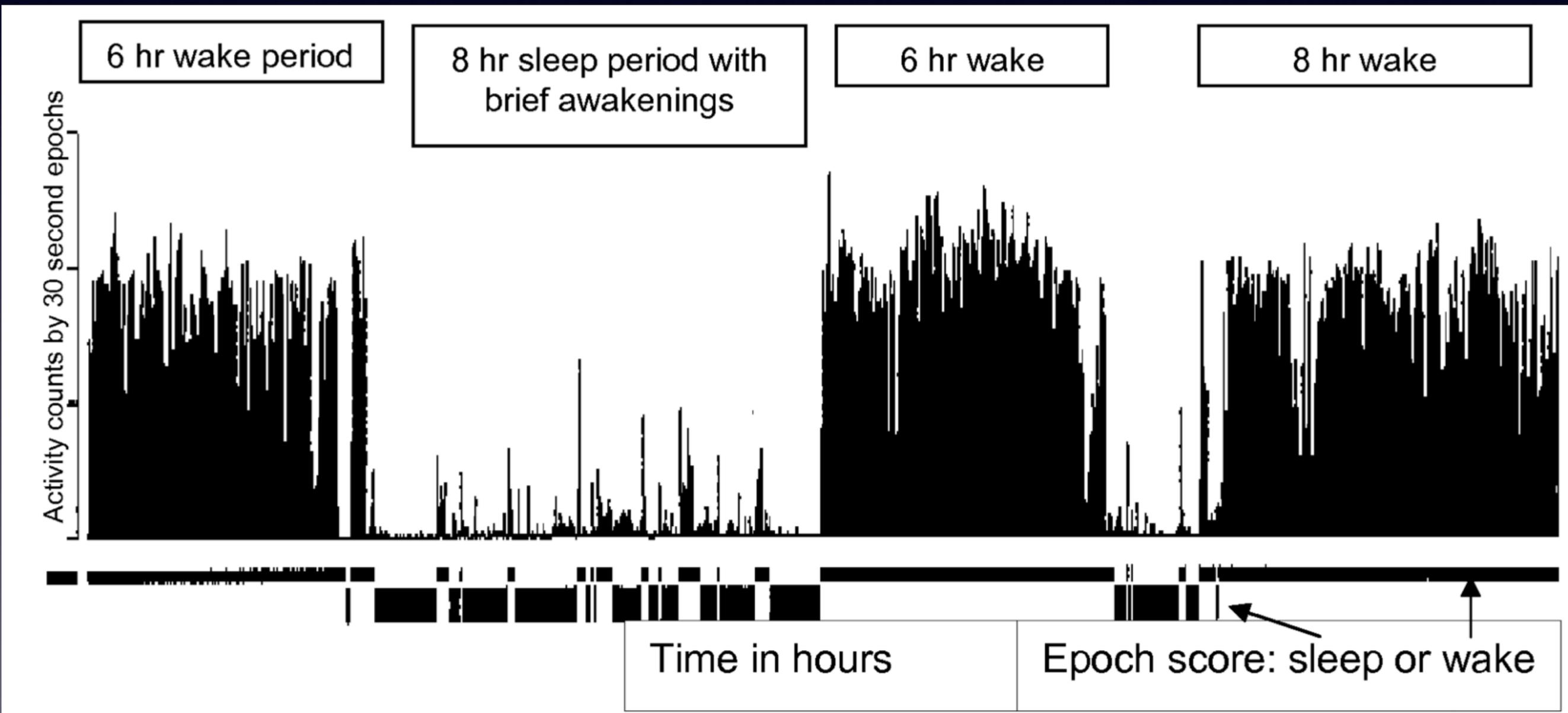
REVIEW ARTICLES

Use of Actigraphy for the Evaluation of Sleep Disorders and Circadian Rhythm Sleep-Wake Disorders: An American Academy of Sleep Medicine Systematic Review, Meta-Analysis, and GRADE Assessment

Michael T. Smith, MA, PhD¹; Christina S. McCrae, PhD²; Joseph Cheung, MD, MS³; Jennifer L. Martin, PhD^{4,5}; Christopher G. Harrod, MS⁶; Jonathan L. Heald, MA⁶; Kelly A. Carden, MD⁷

Sleep parameters

- SL (sleep latency)
- TST (total sleep time)
- WASO (wake after sleep onset)
- SE (sleep efficiency)



ipersomnia/eccessiva sonnolenza diurna (ESD)

- 10-25% popolazione generale "vive e lavora in condizioni di eccessiva sonnolenza diurna" (AIMS, 2016)
- sonnolenza fisiologica ("porta maggiore"/"porta minore") e concetto di vigilanza
- principali cause di ipersomnia/eccessiva sonnolenza diurna
 - ipersomnie centrali (narcolessia di tipo I e II, ipersomnia idiopatica, KLS)
 - ipersomnie secondarie: patologie mediche (PD, Niemann-Pick di tipo C, PWS, ipotiroidismo, insufficienza epatica/renale), farmaci, patologie psichiatriche, sindrome da sonno insufficiente, disturbi da ritmo circadiano, disturbi respiratori in sonno

sindromi con ipersonnia - Mignot E, 2012

- DSM-5: “ipersonnie primarie”
 - a. narcolessia/cataplessia (deficit liquorale di ipocretina + HLA-DQB1*0602 positivo);
 - b. Kleine Levin Syndrome;
 - c. sindromi con ipersonnia (non associate a deficit liquorale di ipocretina)
- ICSD3 (in progress)
 - a. narcolessia tipo I (associata a deficit di ipocretina e a episodi di cataplessia, MIM161400);
 - b. narcolessia tipo II (non associate a deficit di ipocretina ed a cataplessia);