Sleep in the Elderly

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Overview

- Changes in Sleep with Aging
- Sleep Apnea in Older Adults
- Insomnia in Older Adults
- Hypersomnia in Older Adults
Changes in Sleep with Aging

- Reduced sleep efficiency
  - Predominantly increased WASO
  - Some increased sleep latency
- REM and SWS decreases

Ohayon et al., Sleep 2004
Maximal Capacity for Sleep

- Average maximal sleep in older subjects: 7.4 (+/- 0.4) hrs.
- Average maximal sleep in younger subjects: 8.9 (+/- 0.4) hrs.

(Klerman and Dijk, Curr Biol, 2008)
Driving Safety, Sleep Deprivation and Age

Filtoness et al., Biol Psychol, 2012
Overview

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- Sleep Apnea in Older Adults
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How does sleep apnea differ in older versus younger patients?
Prevalence of Sleep Disordered Breathing

-Young et al, Arch Intern Med 2002
What are risk factors for sleep apnea in older adults?
Sleep Apnea Symptoms

- History (symptoms) often less accurate due to lack of a bed partner
- Falling asleep while talking to friends was identified as one of only two predictors of RDI>10 (other was BMI)
- Eliciting additional history from friends or family during vacation/visits

BMI and SDB

- OR for RDI>=15 as a function of elevated BMI and various age categories.
- Young et al., Arch Int Med 2002
Risk Factors: Edentulous

- Edentulous patients have higher rates of SDB (AHJ>=15)
  - Denture use: OR 6.29 (95% CI: 1.71-23.22)
  - BMI: OR 1.15 (95% CI: 0.97-1.37)
  - Endeshaw et al., J Public Health Dent, 2004

- Mechanism
  - Reduced retropharyngeal space (Bucca et al., Resp Res, 2006)
  - Chronic inflammatory changes affecting tongue associated with denture use
Prevalence of Sleep Apnea in Institutionalized AD

Varying AHI Criteria for Sleep Apnea

- 38 institutionalized AD patients. MMSE 6.5 (range 0-16).
- Gehrman et al., Am J Geriatric Psychiatry, 2003