



Guideline Summary NGC-9712

Guideline Title

Excessive sleepiness. In: Evidence-based geriatric nursing protocols for best practice.

Bibliographic Source(s)

Chasens ER, Umlauf MG. Excessive sleepiness. In: Boltz M, Capezuti E, Fulmer T, Zwicker D, editor(s). Evidence-based geriatric nursing protocols for best practice. 4th ed. New York (NY): Springer Publishing Company; 2012. p. 74-88.

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Chasens ER, Williams LL, Umlauf MG. Excessive sleepiness. In: Capezuti E, Zwicker D, Mezey M, Fulmer T, editor(s). Evidence-based geriatric nursing protocols for best practice. 3rd ed. New York (NY): Springer Publishing Company; 2008. p. 459-76.

Scope

Disease/Condition(s)

- Excessive sleepiness (also called excessive daytime sleepiness, hypersomnia, subjective sleepiness, and somnolence)
- Sleep disorders (obstructive sleep apnea, insomnia, restless leg syndrome)

Guideline Category

Evaluation

Management

Clinical Specialty

Family Practice

Geriatrics

Nursing

Sleep Medicine

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Health Care Providers

Hospitals

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

To provide a standard of practice protocol for assisting older adults in maintaining an optimal state of alertness while awake and optimal quality and quantity of sleep during their preferred sleep interval

Target Population

Older adults

Interventions and Practices Considered

Assessment/Evaluation

1. Sleep history
2. Use of the Epworth Sleepiness Scale or Pittsburgh Sleep Quality Index

Management

1. Management of medical conditions, psychological disorders and symptoms that can interfere with sleep
2. Treatment with continuous positive airway pressure (CPAP)
3. Instruction and reinforcement of prescriptions for sleep hygiene, medications, and/or devices to support respiration during sleep
4. Review and adjustment of medications if necessary
5. Referral to sleep specialists
6. Ongoing assessment of adherence to medications and devices
7. Assessment of obesity as a complicating factor and lifestyle changes
8. Follow-up monitoring including long-term reinforcement of the original interventions; adjustment or refitting of CPAP masks, if indicated; ongoing assessment of napping habits and sleepiness; and regular exercise

Major Outcomes Considered

- Alertness while awake
- Sleep quality score
- Sleep quantity
- Weight loss in obese patients

Methodology

Methods Used to Collect/Select the Evidence

- Hand-searches of Published Literature (Primary Sources)
- Hand-searches of Published Literature (Secondary Sources)
- Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Although the Appraisal of Guidelines for Research and Evaluation (AGREE) instrument (described in Chapter 1 of the original guideline document, *Evidence-based Geriatric Nursing Protocols for Best Practice*, 4th ed.) was created to critically appraise clinical practice guidelines, the process and criteria can also be applied to the development and evaluation of clinical practice protocols. Thus, the AGREE instrument has been expanded (i.e., AGREE II) for that purpose to standardize the creation and revision of the geriatric nursing practice guidelines.

The Search for Evidence Process

Locating the best evidence in the published research is dependent on framing a focused, searchable clinical question. The PICO format—an acronym for population, intervention (or occurrence or risk factor), comparison (or control), and outcome—can frame an effective literature search. The editors enlisted the assistance of the New York University Health Sciences librarian to ensure a standardized and efficient approach to collecting evidence on clinical topics. A literature search was conducted to find the best available evidence for each clinical question addressed. The results were rated for level of evidence and sent to the respective chapter author(s) to provide possible substantiation for the nursing practice protocol being developed.

In addition to rating each literature citation as to its level of evidence, each citation was given a general classification, coded as "Risks," "Assessment," "Prevention," "Management," "Evaluation/Follow-up," or "Comprehensive." The citations were organized in a searchable database for later retrieval and output to chapter authors. All authors had to review the evidence and decide on its quality and relevance for inclusion in their chapter or protocol. They had the option, of course, to reject or not use the evidence provided as a result of the search or to dispute the applied level of evidence.

Developing a Search Strategy

Development of a search strategy to capture best evidence begins with database selection and translation of search terms into the controlled vocabulary of the database, if possible. In descending order of importance, the three major databases for finding the best primary evidence for most clinical nursing questions are the Cochrane Database of Systematic Reviews, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Medline or PubMed. In addition, the PsycINFO database was used to ensure capture of relevant evidence in the psychology and behavioral sciences literature for many of the topics. Synthesis sources such as UpToDate® and British Medical Journal (BMJ) Clinical Evidence and abstract journals such as Evidence Based Nursing supplemented the initial searches. Searching of other specialty databases may have to be warranted depending on the clinical question.

It bears noting that the database architecture can be exploited to limit the search to articles tagged with the publication type "meta-analysis" in Medline or "systematic review" in CINAHL. Filtering by standard age groups such as "65 and over" is another standard categorical limit for narrowing for relevance. A literature search retrieves the initial citations that begin to provide evidence. Appraisal of the initial literature retrieved may lead the searcher to other cited articles, triggering new ideas for expanding or narrowing the literature search with related descriptors or terms in the article abstract.

Number of Source Documents

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Levels of Evidence

Level I: Systematic reviews (integrative/meta-analyses/clinical practice guidelines based on systematic reviews)

Level II: Single experimental study (randomized controlled trials [RCTs])

Level III: Quasi-experimental studies

Level IV: Non-experimental studies

Level V: Care report/program evaluation/narrative literature reviews

Level VI: Opinions of respected authorities/consensus panels

AGREE Next Steps Consortium (2009). Appraisal of guidelines for research & evaluation II. Retrieved from <http://www.agreetrust.org/?o=1397>.

Adapted from: Melnyck, B. M. & Fineout-Overholt, E. (2005). Evidence-based practice in nursing & health care: A guide to best practice. Philadelphia, PA: Lippincott Williams & Wilkins and Stetler, C.B., Morsi, D., Rucki, S., Broughton, S., Corrigan, B., Fitzgerald, J., et al. (1998). Utilization-focused integrative reviews in a nursing service. Applied Nursing Research, 11(4) 195-206.

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Not stated

Rating Scheme for the Strength of the Recommendations

Not applicable

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Not stated

Recommendations

Major Recommendations

Levels of evidence (I–VI) are defined at the end of the "Major Recommendations" field.

Parameters of Assessment

- A sleep history (see Table 5.1 in the original guideline document) should include information from both the patient and family members. People who share living and sleeping spaces can provide important information about sleep behavior that the patient may not be able to convey.
- The Epworth Sleepiness Scale (Johns, 1991 [**Level II**]) is a brief instrument to screen for severity of daytime sleepiness in the community setting (see *Try This*® – issue 6.2. The Epworth Sleepiness Scale; see the "Availability of Companion Documents" field).
- The Pittsburgh Sleep Quality Index (Buysse et al., 1989 [**Level IV**]) is useful to screen for sleep problems in the home environment and to monitor changes in sleep quality (see *Try This*® – issue 6.1. The Pittsburgh Sleep Quality

home environment and to monitor changes in sleep quality (see *Try This @ Issue 0.1: The Pittsburgh Sleep Quality Index [PSQI]*; see the "Availability of Companion Documents" field).

Nursing Care Strategies

- Vigilance by nursing staff in observing patients for snoring, apneas during sleep, excessive leg movements during sleep, and difficulty staying awake during normal daytime activities (Ancoli-Israel & Martin, 2006 [Level IV]; Avidan, 2005 [Level I]).
- Management of medical conditions, psychological disorders, and symptoms that interfere with sleep such as depression, pain, hot flashes, anemia, or uremia (Ancoli-Israel & Martin, 2006 [Level IV]; Avidan, 2005 [Level I]).
- For patients with a current diagnosis of a sleep disorder, ongoing treatments such as continuous positive airway pressure (CPAP) should be documented, maintained, and reinforced through patient and family education (Avidan, 2005 [Level I]). Nursing staff should reinforce patient instruction in cleaning and maintaining positive airway pressure equipment and masks.
- Instruction for patients and families regarding sleep hygiene techniques to protect and promote sleep among all family members (see Table 5.3 in the original guideline document) (Avidan, 2005 [Level I]).
- Review and, if necessary, adjustment of medications that interact with one another or whose side effects include drowsiness or sleep impairment (Ancoli-Israel & Martin, 2006 [Level IV]).
- Referral to a sleep specialist for moderate or severe sleepiness or a clinical profile consistent with major sleep disorders such as obstructive sleep apnea (OSA) or restless legs syndrome (Avidan, 2005 [Level I]).
- Aggressive planning, monitoring, and management of patients with OSA when sedative medications or anesthesia are given (Avidan, 2005 [Level I]).
- Ongoing assessment of adherence to prescriptions for sleep hygiene, medications, and devices to support respiration during sleep (Avidan, 2005 [Level I]).

Follow-up Monitoring

- Depending on the diagnosis, follow-up may include long-term reinforcement of the original interventions along with support for adhering to treatments prescribed by a sleep specialist. For example, patient compliance with CPAP therapy for OSA is critical to its efficacy and should be assessed during the first week of treatment (Weaver et al., 1997 [Level IV]). All patients benefit from positive reinforcement while trying to acclimate to nightly use of a positive airway pressure device.
- CPAP masks may require minor adjustments or refitting to find the most comfortable fit. Most such changes are needed during the acclimation period, but patients should be encouraged to seek assistance if mask problems develop (Weaver et al., 1997 [Level IV]). In the acute care setting, respiratory care technicians are valuable in-house resources when staff from a sleep center is not readily available.
- During the initial treatment phase of insomnia, sleep deprivation may cause rebound sleepiness, which should subside over time. Follow-up should include ongoing assessment of napping habits and sleepiness to track treatment effectiveness (Avidan, 2005 [Level I]).
- If obesity has been a complicating health factor, weight loss is a desirable long-term goal. With reduction in daytime sleepiness, the timing is ripe for increasing the activity level. Treatment of sleep disorders should include planning for strategic changes in lifestyle that include regular exercise, which is also consistent with cardiovascular health and long-term diabetes control (Ancoli-Israel & Ayalon, 2006 [Level I]).

Definitions:

Levels of Evidence

Level I: Systematic reviews (integrative/meta-analyses/clinical practice guidelines based on systematic reviews)

Level II: Single experimental study (randomized controlled trials [RCTs])

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Clinical Algorithm(s)


None provided


Evidence Supporting the Recommendations


References Supporting the Recommendations

Ancoli-Israel S, Ayalon L. Diagnosis and treatment of sleep disorders in older adults. *Am J Geriatr Psychiatry*. 2006 Feb;14(2):95-103. [76 references] [PubMed](#)

Ancoli-Israel S, Martin JL. Insomnia and daytime napping in older adults. *J Clin Sleep Med*. 2006 Jul 15;2(3):333-42. [83 references] [PubMed](#)

Avidan AY. Sleep disorders in the older patient. *Prim Care*. 2005 Jun;32(2):563-86. [80 references] [PubMed](#) 

Buyse DJ, Reynolds CF 3rd, Monk TH, Berman SR, Kupfer DJ. The Pittsburgh Sleep Quality Index: a new instrument for psychiatric practice and research. *Psychiatry Res*. 1989 May;28(2):193-213. [PubMed](#) 

Johns MW. A new method for measuring daytime sleepiness: the Epworth sleepiness scale. *Sleep - Europe*. 1991 Dec;14(6):540-5. [PubMed](#) 

Weaver TE, Chugh DK, Maislin G, Schwab RJ, George CF, Kader GA, et al. Impact of obstructive sleep apnea on the conduct of daily activities. *Sleep Res*. 1997;26:530.

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for selected recommendations (see the "Availability of Companion Documents" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Improved quality and/or quantity of sleep during normal sleep intervals, as reported by patients and staff, through quality assurance actions such as staff education, environmental surveys regarding noise level, strategies to reduce sleep disruption, etc.

Potential Harms

Not stated

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Chart Documentation/Checklists/Forms

Mobile Device Resources

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2003 (revised 2012)

Guideline Developer(s)

Guideline Developer Comment

The guidelines were developed by a group of nursing experts from across the country as part of the Nurses Improving Care for Health System Elders (NICHE) project, under sponsorship of the Hartford Institute for Geriatric Nursing, New York University, College of Nursing.

Source(s) of Funding

Hartford Institute for Geriatric Nursing

Guideline Committee

Not stated

Composition of Group That Authored the Guideline

Primary Authors: Eileen R. Chasens, DSN, Assistant Professor, University of Pittsburgh, Pittsburgh, PA; Mary Grace Umlauf, RN, PhD, FAAN, Professor, The University of Alabama, Tuscaloosa, AL

Financial Disclosures/Conflicts of Interest

Not stated


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Guideline Availability


Electronic copies: Available from the [Hartford Institute for Geriatric Nursing Web site](#) .

Copies of the book *Evidence-Based Geriatric Nursing Protocols for Best Practice*, 4th edition: Available from Springer Publishing Company, 536 Broadway, New York, NY 10012; Phone: (212) 431-4370; Fax: (212) 941-7842; Web: www.springerpub.com .

Availability of Companion Documents

The following are available:

- *Try This*® - issue 6.1: The Pittsburgh Sleep Quality Index (PSQI). New York (NY): Hartford Institute for Geriatric Nursing; 2 p. 2012. Electronic copies: Available in Portable Document Format (PDF) from the [Hartford Institute for Geriatric Nursing Web site](#) .
- *Try This*® - issue 6.2: The Epworth Sleepiness Scale. New York (NY): Hartford Institute for Geriatric Nursing; 2 p. 2012. Electronic copies: Available in PDF from the [Hartford Institute for Geriatric Nursing Web site](#) .
- The Pittsburgh Sleep Quality Index (PSQI). How to Try This video. Available from the [Hartford Institute for Geriatric Nursing Web site](#) .

The ConsultGerIRN app for mobile devices is available from the [Hartford Institute for Geriatric Nursing Web site](#) .

Patient Resources

None available

NGC Status

This summary was completed by ECRI on May 30, 2003. The information was verified by the guideline developer on August 25, 2003. This summary was updated by ECRI Institute on June 19, 2008. The updated information was verified by the guideline developer on August 4, 2008. This NGC summary was updated by ECRI Institute on June 24, 2013. The updated information was verified by the guideline developer on August 6, 2013.

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