



## Complete Summary

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### GUIDELINE TITLE

Sleep disorders.

### BIBLIOGRAPHIC SOURCE(S)

American Medical Directors Association (AMDA). Sleep disorders. Columbia (MD): American Medical Directors Association (AMDA); 2006. 38 p. [48 references]

### GUIDELINE STATUS

This is the current release of the guideline.

## \*\* REGULATORY ALERT \*\*

### FDA WARNING/REGULATORY ALERT

**Note from the National Guideline Clearinghouse:** This guideline references a drug(s) for which important revised regulatory and/or warning information has been released.

- [May 2, 2007, Antidepressant drugs](#): Update to the existing black box warning on the prescribing information on all antidepressant medications to include warnings about the increased risks of suicidal thinking and behavior in young adults ages 18 to 24 years old during the first one to two months of treatment.
- [March 14, 2007, Sedative-hypnotic drug products](#): Revisions to product labeling to include stronger language concerning potential risks including severe allergic reactions and complex sleep-related behaviors, such as sleep-driving.

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## SCOPE

### **DISEASE/CONDITION(S)**

Sleep disorders in the long-term care setting that are secondary to chronic medical conditions or environmental issues, including insomnia, hypersomnia, and parasomnias

**Note:** The management of primary sleep disorders (e.g., central or obstructive sleep apnea, restless legs syndrome, periodic limb movement during sleep) in the long-term care setting is beyond the scope of this guideline.

### **GUIDELINE CATEGORY**

Diagnosis  
Evaluation  
Management  
Prevention  
Treatment

### **CLINICAL SPECIALTY**

Family Practice  
Geriatrics  
Internal Medicine  
Sleep Medicine

### **INTENDED USERS**

Advanced Practice Nurses  
Allied Health Personnel  
Nurses  
Pharmacists  
Physician Assistants  
Physicians  
Social Workers

### **GUIDELINE OBJECTIVE(S)**

- To improve the quality of care delivered to patients in long-term care settings
- To offer care providers and practitioners in long-term care facilities a systematic approach to recognizing, assessing, treating, and monitoring patients with sleep disorders

### **TARGET POPULATION**

Elderly individuals and/or residents of long-term care facilities with sleep disorders

## **INTERVENTIONS AND PRACTICES CONSIDERED**

### **Recognition/Assessment**

1. Obtaining medical and sleep history and evaluate signs and symptoms
2. Assessing risk factors for sleep disorder
3. Offering interim measures such as environmental adjustments and individualized comfort measures while assessment proceeds
4. Determining characteristics and possible causes of sleep disorder
5. Collecting information and making direct observations pertinent to the patient's sleep disorder
6. Assessing environmental, behavioral, and psychosocial factors that may be contributing to sleep disorders
7. Assessing medical conditions and medications that may be contributing to sleep disorder
8. Specialist evaluation, if indicated

### **Management/Treatment**

1. Implementing nonpharmacologic interventions
2. Reconsidering medications that may be interfering with sleep
3. Treating the medical condition that is the underlying cause of sleep disorder
4. Prescribing medication in combination with nonpharmacologic therapy

### **Monitoring**

1. Monitor the effectiveness of interventions
2. Maintaining or modifying interventions according to the patient's response to treatment
3. Monitoring the facility's management of sleep disorders

## **MAJOR OUTCOMES CONSIDERED**

- Signs and symptoms indicating the presence of a sleep disorder
- Use of medications
- Quality of life
- Side effects of sleep medications

## **METHODOLOGY**

### **METHODS USED TO COLLECT/SELECT EVIDENCE**

Searches of Electronic Databases

### **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

Not stated

### **NUMBER OF SOURCE DOCUMENTS**

Not stated

## **METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Expert Consensus

## **RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

Not applicable

## **METHODS USED TO ANALYZE THE EVIDENCE**

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**

This guideline was developed by an interdisciplinary workgroup, using a process that combined evidence and consensus-based approaches. Workgroups include practitioners and others involved in patient care in long-term care facilities. Beginning with a general guideline developed by an agency, association, or organization such as the Agency for Healthcare Research and Quality (AHRQ), pertinent articles and information, and a draft outline, each group works to make a concise, usable guideline that is tailored to the long-term care setting. Because scientific research in the long-term care population is limited, many recommendations are based on the expert opinion of practitioners in the field.

## **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

Guideline revisions are completed under the direction of the Clinical Practice Guideline Steering Committee. The committee incorporates information published in peer-reviewed journals after the original guidelines appeared, as well as comments and recommendations not only from experts in the field addressed by the guideline but also from "hands-on" long-term care practitioners and staff.

All American Medical Directors Association (AMDA) clinical practice guidelines undergo external review. The draft guideline is sent to approximately 175+ reviewers. These reviewers include AMDA physician members and independent physicians, specialists, and organizations that are knowledgeable of the guideline topic and the long-term care setting.

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

The algorithm [Sleep Disorders in the Long-Term Care Setting](#) is to be used in conjunction with the clinical practice guideline. The numbers next to the different components of the algorithm correspond with the steps in the text. Refer to the "Guideline Availability" field for information on obtaining the full text guideline.

### CLINICAL ALGORITHM(S)

A clinical algorithm is provided for [Sleep Disorders in the Long-Term Care Setting](#).

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not specifically stated.

The guideline was developed by an interdisciplinary work group using a process that combined evidence- and consensus-based thinking.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

**Outcomes that may be expected from implementation of this clinical practice guideline include:**

- Better awareness and understanding of sleep disorders among patients and caregivers
- Decreased long-term use of pharmacologic agents to promote sleep
- Decreased use of pharmacologic sleep agents that may be inappropriate in a frail, elderly population

- Greater acceptance of individualized scheduling (i.e., enabling patients to get up, go to bed, and eat meals at times of their choosing rather than at institutionally established times)
- Reduction in the frequency of daytime drowsiness, increased levels of participation in activities, improved social interaction, and enhanced quality of life for patients with sleep difficulties
- Improved physical and cognitive function and fewer falls
- Reduction in nighttime disruptive behavior caused by noise or bright lights
- Reduction in distressed daytime behavior in patients with dementia
- Decline in geriatric psychiatry referrals for evaluation of behavioral problems related to sleep disorders
- Increased participation in rehabilitation programs and better rehabilitation outcomes
- Increased job satisfaction among caregivers

## POTENTIAL HARMS

### Adverse Effects of Medications

- The most frequent adverse effect of *eszopiclone* is an unpleasant taste.
- Continuous use of *benzodiazepine hypnotic agents* should be discouraged in the long-term care setting because of the risk of side effects, physiological tolerance, and adverse effects on discontinuation. Adverse events such as memory impairment, falls, excessive daytime sleepiness, and accidents occur more often at higher doses and with the use of long-acting agents. In addition, prolonged use of long-acting benzodiazepines can lead to cognitive impairment, incoordination, and worsening of depression. These agents are associated with anterograde amnesia, rebound insomnia, and residual daytime sedation, especially at high doses. These adverse effects generally appear to be worse in the elderly.
- Side effects of *tricyclic antidepressants* include anticholinergic effects and various degrees of suppression of rapid eye movement (REM) sleep.
- Potential side effects of *trazodone* include induction of cardiac arrhythmias (in patients with heart disease) and orthostatic hypotension.
- All *antidepressants* have potentially significant adverse effects, raising concerns about the risk-benefit ratio.
- Patients with renal and hepatic insufficiency may be at greater risk for side effects from *sedatives*.
- In patients with underlying obstructive sleep apnea, *hypnotics* can produce further nocturnal hypoxemia.
- The anticholinergic and sedative side effects of *tricyclic antidepressants* and *antihistamines* can increase cognitive deficits.
- *Antipsychotic medications* can cause orthostatic hypotension, possibly increasing the risk of falls.

## CONTRAINDICATIONS

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Patients with severe liver disease should not take *ramelteon*.

## QUALIFYING STATEMENTS

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- This clinical practice guideline is provided for discussion and educational purposes only and should not be used or in any way relied upon without consultation with and supervision of a qualified physician based on the case history and medical condition of a particular patient. The American Medical Directors Association and the American Health Care Association, their heirs, executors, administrators, successors, and assigns hereby disclaim any and all liability for damages of whatever kind resulting from the use, negligent or otherwise, of this clinical practice guideline.
- The utilization of the American Medical Director Association's Clinical Practice Guideline does not preclude compliance with State and Federal regulation as well as facility policies and procedures. They are not substitutes for the experience and judgment of clinicians and care-givers. The Clinical Practice Guidelines are not to be considered as standards of care but are developed to enhance the clinician's ability to practice.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

The implementation of this clinical practice guideline (CPG) is outlined in four phases. Each phase presents a series of steps, which should be carried out in the process of implementing the practices presented in this guideline. Each phase is summarized below.

- I. **Recognition**
  - Define the area of improvement and determine if there is a CPG available for the defined area. Then evaluate the pertinence and feasibility of implementing the CPG
- II. **Assessment**
  - Define the functions necessary for implementation and then educate and train staff. Assess and document performance and outcome indicators and then develop a system to measure outcomes
- III. **Implementation**
  - Identify and document how each step of the CPG will be carried out and develop an implementation timetable
  - Identify individual responsible for each step of the CPG
  - Identify support systems that impact the direct care
  - Educate and train appropriate individuals in specific CPG implementation and then implement the CPG
- IV. **Monitoring**
  - Evaluate performance based on relevant indicators and identify areas for improvement
  - Evaluate the predefined performance measures and obtain and provide feedback

### IMPLEMENTATION TOOLS

Audit Criteria/Indicators  
Chart Documentation/Checklists/Forms  
Clinical Algorithm  
Resources  
Tool Kits

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

### IOM DOMAIN

Effectiveness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

American Medical Directors Association (AMDA). Sleep disorders. Columbia (MD): American Medical Directors Association (AMDA); 2006. 38 p. [48 references]

### ADAPTATION

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

### DATE RELEASED

2006

### GUIDELINE DEVELOPER(S)

American Medical Directors Association - Professional Association

### GUIDELINE DEVELOPER COMMENT

Organizational participants included:

- American Association of Homes and Services for the Aging
- American College of Health Care Administrators
- American Geriatrics Society
- American Health Care Association
- American Society of Consultant Pharmacists
- National Association of Directors of Nursing Administration in Long-Term Care

- National Association of Geriatric Nursing Assistants
- National Conference of Gerontological Nurse Practitioners

### **SOURCE(S) OF FUNDING**

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### **GUIDELINE COMMITTEE**

Steering Committee

### **COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

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### **FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

Not stated

### **GUIDELINE STATUS**

This is the current release of the guideline.

### **GUIDELINE AVAILABILITY**

Electronic copies: None available

Print copies: Available from the American Medical Directors Association, 10480 Little Patuxent Pkwy, Suite 760, Columbia, MD 21044. Telephone: (800) 876-2632 or (410) 740-9743; Fax (410) 740-4572. Web site: [www.amda.com](http://www.amda.com)

### **AVAILABILITY OF COMPANION DOCUMENTS**

The following are available:

- Guideline implementation: clinical practice guidelines. Columbia, MD: American Medical Directors Association, 1998, 28 p.
- We care: implementing clinical practice guidelines tool kit. Columbia, MD: American Medical Directors Association, 2003

Electronic copies: None available

Print copies: Available from the American Medical Directors Association, 10480 Little Patuxent Pkwy, Suite 760, Columbia, MD 21044. Telephone: (800) 876-2632 or (410) 740-9743; Fax (410) 740-4572. Web site: [www.amda.com](http://www.amda.com)

Additionally, process and quality indicators, a sample sleep log, and sleep rating scales can be found in the tables and appendices in the original guideline document.

## **PATIENT RESOURCES**

None available

## **NGC STATUS**

This summary was completed by ECRI on June 23, 2006. This summary was updated by ECRI Institute on April 30, 2007, following the FDA advisory on Sedative-hypnotic drug products. This summary was updated by ECRI Institute on November 9, 2007, following the U.S. Food and Drug Administration advisory on Antidepressant drugs.

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