



## General

### Guideline Title

Management of chronic insomnia disorder in adults: a clinical practice guideline from the American College of Physicians.

### Bibliographic Source(s)

Qaseem A, Kansagara D, Forcica MA, Cooke M, Denberg TD, Clinical Guidelines Committee of the American College of Physicians. Management of chronic insomnia disorder in adults: a clinical practice guideline from the American College of Physicians. *Ann Intern Med.* 2016 Jul 19;165(2):125-33. [80 references] [PubMed](#)

### Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

## Recommendations

### Major Recommendations

Definitions for the overall quality of evidence (high, moderate, low, or insufficient evidence to determine net benefits or risks) and the strength of the recommendations (strong, weak) are provided at the end of the "Major Recommendations" field.

Recommendation 1: The American College of Physicians (ACP) recommends that all adult patients receive cognitive behavioral therapy for insomnia (CBT-I) as the initial treatment for chronic insomnia disorder. (Grade: strong recommendation, moderate-quality evidence)

Cognitive behavioral therapy for insomnia consists of a combination of treatments that include cognitive therapy around sleep, behavioral interventions (such as sleep restriction and stimulus control), and education (such as sleep hygiene). It can be performed in primary care. There are various delivery methods for CBT-I, such as individual or group therapy, telephone- or Web-based modules, or self-help books. Most studies focused on in-person CBT-I; however, the data suggest that other delivery methods are also effective.

Cognitive behavioral therapy for insomnia should be considered first-line treatment for adults with chronic insomnia disorder. Although the current evidence is insufficient to show the harms associated with behavioral interventions, any such harms are likely to be mild. Moderate-quality evidence showed that CBT-I improved global outcomes in the general population, including increased remission and treatment response and reduced Insomnia Severity Index (ISI) and Pittsburgh Sleep Quality Index (PSQI) scores compared with controls. Moderate-quality evidence showed that CBT-I also improved sleep outcomes in the general population, including reduced sleep onset latency and wake after sleep onset and improved sleep efficiency and sleep quality. Low- to moderate-quality evidence showed that CBT-I also improved global and sleep outcomes in older adults, including improved PSQI and ISI scores, reduced sleep onset latency, and improved sleep efficiency. Moderate-quality evidence showed that CBT-I reduced wake after sleep onset in older adults.

Recommendation 2: ACP recommends that clinicians use a shared decision-making approach, including a discussion of the benefits, harms, and costs of short-term use of medications, to decide whether to add pharmacological therapy in adults with chronic insomnia disorder in whom cognitive behavioral therapy for insomnia (CBT-I) alone was unsuccessful. (Grade: weak recommendation, low-quality evidence)

Benefits of pharmacologic treatment include improved sleep outcomes, such as sleep onset latency and total sleep time, and in some cases improved global outcomes in the general population and in older adults. Most studies have examined newer medications, whereas commonly used older and generic medications, such as diphenhydramine and trazodone, have not been studied. Low-quality evidence showed that both eszopiclone and zolpidem improved global outcomes in the general population, and low- to moderate-quality evidence showed that eszopiclone, zolpidem, and doxepin improved sleep outcomes, such as sleep onset latency, total sleep time, and wake after sleep onset. Moderate-quality evidence showed that suvorexant, an orexin antagonist recently approved by the U.S. Food and Drug Administration (FDA), improved treatment response and sleep outcomes in mixed general and adult populations. Low-quality evidence showed no statistically significant difference between ramelteon and placebo for sleep outcomes in the general population.

In older adults, low-quality evidence showed that eszopiclone improved global and sleep outcomes and both zolpidem and ramelteon decreased sleep onset latency. Moderate-quality evidence showed that doxepin improved ISI scores, and low- to moderate-quality evidence showed that it improved sleep outcomes.

Evidence was insufficient for melatonin in the general population and in older adults. Benzodiazepines, although widely used, were not addressed in this guideline because few studies met the inclusion criteria of the systematic review (insufficient evidence).

Evidence on harms was limited from randomized, controlled trials (RCTs) that met the inclusion criteria for the review, which mostly reported on study withdrawals. However, observational studies have shown that hypnotic drugs may be associated with infrequent but serious adverse effects, such as dementia, serious injury, and fractures. In addition, FDA labels warn of daytime impairment, "sleep driving," behavioral abnormalities, and worsening depression. The FDA suggests dosages lower than those used in many of the included studies, especially for older adults.

Evidence is insufficient to evaluate the balance of the benefits and harms of long-term use of pharmacologic treatments in adults with chronic insomnia disorder. The FDA has approved pharmacologic therapy for short-term use (4 to 5 weeks), and patients should not continue using the drugs for extended periods. The FDA also recommends that patients with insomnia that does not remit within 7 to 10 days of treatment should be further evaluated.

There was insufficient evidence overall on the comparative effectiveness and safety of the various pharmacologic treatments. See Appendix Tables 4 and 5 in the original guideline document for a summary of efficacy, adverse events, and costs for pharmacologic treatments and the Figure for clinical considerations.

## Definitions

### Grading of Quality of Evidence

**High-Quality Evidence:** Evidence is considered high quality when it is obtained from 1 or more well-designed and well-executed randomized controlled trials (RCTs) that yield consistent and directly applicable results. This also means that further research is very unlikely to change confidence in the estimate of effect.

**Moderate-Quality Evidence:** Evidence is considered moderate quality when it is obtained from RCTs with important limitations—for example, biased assessment of the treatment effect, large loss to follow-up, lack of blinding, unexplained heterogeneity (even if it is generated from rigorous RCTs), indirect evidence originating from similar (but not identical) populations of interest, and RCTs with a very small number of participants or observed events. In addition, evidence from well-designed controlled trials without randomization, well-designed cohort or case-control analytic studies, and multiple time series with or without intervention are in this category. Moderate-quality evidence also means that further research will probably have an important effect on confidence in the estimate of effect and may change the estimate.

**Low-Quality Evidence:** Evidence obtained from observational studies would typically be rated as low quality because of the risk for bias. Low-quality evidence means that further research is very likely to have an important effect on confidence in the estimate of effect and will probably change the estimate. However, the quality of evidence may be rated as moderate or even high, depending on circumstances under which evidence is obtained from observational studies. Factors that may contribute to upgrading the quality of evidence include a large magnitude of the observed effect, a dose-response association, or the presence of an observed effect when all plausible confounders would decrease the observed effect.

**Insufficient Evidence to Determine Net Benefits or Risks:** When the evidence is insufficient to determine for or against routinely providing a service, the recommendation was graded as "insufficient evidence to determine net benefits or risks." Evidence may be conflicting, of poor quality, or lacking, and hence the balance of benefits and harms cannot be determined. Any estimate of effect that is very uncertain as evidence is either unavailable or does not permit a conclusion.

Quality of Evidence	Strength of Recommendation	
	Benefits Clearly Outweigh Risks and Burden or Risks and Burden Clearly Outweigh Benefits	Benefits Finely Balanced With Risks and Burden
High	Strong	Weak
Moderate	Strong	Weak
Low	Strong	Weak
Insufficient evidence to determine net benefits or risks		

\*Adopted from the classification developed by the GRADE (Grading of Recommendations Assessment, Development and Evaluation) workgroup.

## Clinical Algorithm(s)

None provided

## Scope

### Disease/Condition(s)

Chronic insomnia disorder

### Guideline Category

Management

Treatment

### Clinical Specialty

Family Practice

Sleep Medicine

### Intended Users

Advanced Practice Nurses

Physician Assistants

Physicians

### Guideline Objective(s)

To present recommendations based on the evidence on the efficacy, comparative effectiveness, and safety of treatments for chronic insomnia disorder

### Target Population

## Interventions and Practices Considered

1. Cognitive behavioral therapy for insomnia (CBT-I)
2. Shared-decision making regarding adding pharmacological therapy

## Major Outcomes Considered

- Global outcomes
  - Clinical Global Impression (CGI)
  - Pittsburgh Sleep Quality Index (PSQI)
  - Patient Global Impression Scale
  - Insomnia Severity Index (ISI)
- Sleep outcomes (patient-reported)
  - Sleep onset latency (SOL)
  - Number of awakenings
  - Wake time after sleep onset (WASO)
  - Total sleep time (TST)
  - Sleep efficiency (total sleep time/total time in bed)
  - Sleep quality
- Adverse effects
- Study withdrawals

## 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

Searches of Unpublished Data

### Description of Methods Used to Collect/Select the Evidence

Note from the National Guideline Clearinghouse (NGC): Two systematic evidence reviews were prepared by the Minnesota Evidence-based Practice Center (see the "Availability of Companion Documents" field).

[Pharmacologic Treatment of Insomnia Disorder: an Evidence Report for a Clinical Practice Guideline by the American College of Physicians](#)

Data Sources and Searches

The investigators searched MEDLINE, EMBASE, Cochrane Central Register of Controlled Trials, and PsycINFO from 2004 through September 2015 for relevant English-language literature (refer to Table 1 of the Supplement [see the "Availability of Companion Documents" field]), reference lists of pertinent studies, U.S. Food and Drug Administration (FDA) Web sites and product labels, and ClinicalTrials.gov.

Study Selection

Two investigators independently reviewed titles and abstracts of search results and screened the full text of potentially eligible English-language references. They included randomized, controlled trials (RCTs) of pharmacologic therapies available in the United States, regardless of the comparator (placebo, another medication, nonpharmacologic therapy), if they enrolled adults with insomnia disorder, provided at least 4 weeks of

follow-up, and reported global or sleep outcomes. Studies deemed to have high risk of bias were excluded from analysis. The investigators included observational studies that reported harms if 1) the population included 100 or more adults with chronic insomnia without other major diagnoses, such as cancer and Parkinson disease; 2) the pharmacologic agents evaluated were FDA-indicated for insomnia and probably administered for sleep disorders; 3) study duration was at least 6 months; and 4) harms were reported by drug class. They also examined harms reported in the following: eligible trials; FDA Web sites for nonbenzodiazepine hypnotics, eszopiclone, zaleplon, zolpidem, and the orexin receptor antagonist suvorexant; FDA product labels for all pharmacologic therapies; and systematic reviews.

### Psychological and Behavioral Interventions for Managing Insomnia Disorder: An Evidence Report for a Clinical Practice Guideline by the American College of Physicians

#### Data Sources and Searches

The investigators searched bibliographic databases, including MEDLINE, EMBASE, and PsycINFO via Ovid, as well as the Cochrane Library, to identify RCTs published from 2004 through September 2015 (refer to the Supplement [see the "Availability of Companion Documents" field]). They identified studies published before 2004 by searching the citations in relevant systematic reviews.

#### Study Selection

Two investigators independently reviewed titles and abstracts of search results to identify potentially eligible references. Two investigators independently screened full texts of those references to determine whether inclusion criteria were met. RCTs of psychological and behavioral interventions were included if they enrolled adults, provided at least 4 weeks of treatment, reported global or sleep outcomes, and were published in English. The investigators excluded trials enrolling pure subgroups of patients with major medical conditions or conditions that may explain the sleep problems (such as menopause, pregnancy, and neurologic conditions).

## Number of Source Documents

### Pharmacologic Treatment of Insomnia Disorder: an Evidence Report for a Clinical Practice Guideline by the American College of Physicians

Thirty-five randomized, controlled trials (RCTs) with acceptable risk of bias evaluated pharmacologic treatments (refer to figure in the systematic review [see the "Availability of Companion Documents" field]).

### Psychological and Behavioral Interventions for Managing Insomnia Disorder: an Evidence Report for a Clinical Practice Guideline by the American College of Physicians

The investigators identified 3572 citations; 559 required full-text review after title and abstract screening (refer to figure in the systematic review [see the "Availability of Companion Documents" field]). Seventy-six articles reporting on 70 trials that compared psychological and behavioral interventions with inactive controls or other psychological and behavioral interventions were eligible.

## 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

### Grading of Quality of Evidence

**High-Quality Evidence:** Evidence is considered high quality when it is obtained from 1 or more well-designed and well-executed randomized, controlled trials (RCTs) that yield consistent and directly applicable results. This also means that further research is very unlikely to change confidence in the estimate of effect.

**Moderate-Quality Evidence:** Evidence is considered moderate quality when it is obtained from RCTs with important limitations—for example, biased assessment of the treatment effect, large loss to follow-up, lack of blinding, unexplained heterogeneity (even if it is generated from rigorous RCTs), indirect evidence originating from similar (but not identical) populations of interest, and RCTs with a very small number of participants or observed events. In addition, evidence from well-designed controlled trials without randomization, well-designed cohort or case-control analytic studies, and multiple time series with or without intervention are in this category. Moderate-quality evidence also means that further research will probably have an important effect on confidence in the estimate of effect and may change the estimate.

Low-Quality Evidence: Evidence obtained from observational studies would typically be rated as low quality because of the risk for bias. Low-quality evidence means that further research is very likely to have an important effect on confidence in the estimate of effect and will probably change the estimate. However, the quality of evidence may be rated as moderate or even high, depending on circumstances under which evidence is obtained from observational studies. Factors that may contribute to upgrading the quality of evidence include a large magnitude of the observed effect, a dose–response association, or the presence of an observed effect when all plausible confounders would decrease the observed effect.

Insufficient Evidence to Determine Net Benefits or Risks: When the evidence is insufficient to determine for or against routinely providing a service, the recommendation was graded as "insufficient evidence to determine net benefits or risks." Evidence may be conflicting, of poor quality, or lacking, and hence the balance of benefits and harms cannot be determined. Any estimate of effect that is very uncertain as evidence is either unavailable or does not permit a conclusion.

## Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

## Description of the Methods Used to Analyze the Evidence

Pharmacologic Treatment of Insomnia Disorder: an Evidence Report for a Clinical Practice Guideline by the American College of Physicians

Data Extraction and Quality Assessment

One investigator extracted study data, which was independently checked by a second investigator. The main outcome of interest was patient-reported global measure of effectiveness: improvement in sleep variables and daytime functioning and distress. The 7-item Insomnia Severity Index (ISI) (score range, 0 to 28) or the 7-component, 19-item Pittsburgh Sleep Quality Index (score range, 0 to 21) were commonly used instruments measuring both problems and worry about sleep and accompanying distress or dysfunction (refer to Table 2 of the Supplement [see the "Availability of Companion Documents" field]). Investigators also assessed sleep-specific parameters on the basis of patient-recorded sleep diaries, including sleep onset latency (SOL), total sleep time (TST), wake time after sleep onset (WASO), sleep efficiency, sleep quality, function, mood, and quality of life.

Risk of bias for randomized, controlled trials (RCTs) was independently assessed by 2 investigators using an instrument developed for this project. Overall risk of bias for each study was classified as low, moderate, or high according to a summary of bias risk across domains and confidence that the results were believable given the study's limitations. Studies with high risk of bias were excluded from analysis.

Data Synthesis and Analysis

The investigators grouped studies and rated strength of evidence by drug. Evidence ratings within each comparison were determined as high, moderate, low, or insufficient by at least 2 trained research associates and the principal investigator; final determinations were ascertained through consensus. For assessments of efficacy, investigators used established minimum important differences for main outcomes if they were available and statistical significance alone if minimum important differences were not established.

The investigators pooled results for doses approved by the U.S. Food and Drug Administration (FDA) if more than 1 study assessed that dose, used a similar comparator (such as placebo), involved a similar study population (for example, elderly patients), and assessed similar outcomes (such as the same sleep variable). Data were analyzed in RevMan 5.3 (Nordic Cochrane Center). DerSimonian and Laird random-effects models were used to calculate pooled risk ratios and absolute risk differences with 95% confidence intervals (CIs) for categorical outcomes. Weighted mean differences or standardized mean differences with 95% CIs were calculated for continuous outcomes. Statistical heterogeneity was assessed with the Cochran Q test and measured magnitude with the  $I^2$  statistic ( $I^2 > 75\%$  indicates substantial heterogeneity). Investigators searched several databases to identify and reduce potential publication bias.

Psychological and Behavioral Interventions for Managing Insomnia Disorder: an Evidence report for a Clinical Practice Guideline by the American College of Physicians

Data Extraction and Quality Assessment

Risk of bias was independently assessed by two investigators using an instrument developed using Agency for Healthcare Research and Quality guidance and was summarized as low, medium, or high on the basis of summary risk of bias and confidence that results were believable given

limitations. Study, participant, and treatment characteristics; outcomes; and adverse events were extracted from eligible trials with low or moderate risk of bias.

#### Data Synthesis and Analysis

The investigators used RevMan 5.2 (Nordic Cochrane Center) for pooling when adequate data were provided and populations, interventions, and outcomes were similar. DerSimonian and Laird random-effects estimates of risk ratios and absolute risk differences with 95% CIs were calculated for categorical outcomes, and weighted mean differences (WMDs) and/or standardized mean differences with 95% CIs were calculated for continuous outcomes. Heterogeneity was assessed with the Cochran Q test and  $I^2$  statistic ( $\geq 75\%$  indicates substantial heterogeneity). The general adult population and older adults were analyzed separately because sleep measures vary.

The investigators used established minimum important differences (MIDs) to capture clinical significance in global outcomes. The MID for the ISI is a 6-point change from baseline. Trials that conducted remitter or responder analysis on the basis of established MID offer simplistic interpretation. When trials provided mean scores, the investigators interpreted WMDs in relation to MID by using the method of Johnson and colleagues. Weighted mean differences equal to or greater than the MID suggest that many patients gain important benefits, WMDs greater than half the MID but less than the MID suggest that an appreciable number of patients benefit, and WMDs less than half of the MID suggest that patients do not achieve important benefits.

One investigator assessed strength of evidence for unique comparisons as high, moderate, low, or insufficient; assessments were confirmed through consensus.

## Methods Used to Formulate the Recommendations

#### Expert Consensus

### Description of Methods Used to Formulate the Recommendations

These recommendations are based on 2 background evidence review papers and an evidence review sponsored by the Agency for Healthcare Research and Quality (AHRQ) that addressed the following key questions:

1. What are the efficacy and comparative effectiveness of treatments for insomnia disorder in adults?
  - a. What are the efficacy and comparative effectiveness of treatments for insomnia disorder in specific subgroups of adults?
  - b. What are the efficacy and comparative effectiveness of combined treatments (e.g., cognitive behavioral therapy and drug therapy) for the treatment of insomnia disorder in adults?
  - c. What are the long-term efficacy and comparative effectiveness of treatments for insomnia disorder in adults?
2. What are the harms of treatments for insomnia disorder in adults?
  - a. What are the harms of treatments for insomnia disorder in specific subgroups of adults?
  - b. What are the harms of combined treatments (e.g., cognitive behavioral therapy and drug therapy) for insomnia disorder in adults?
  - c. What are the long-term harms of treatments for insomnia disorder in adults?

This guideline rates the evidence and recommendations by using the American College of Physicians' (ACP's) guideline grading system (see the "Rating Scheme for the Strength of the Evidence" and "Rating Scheme for the Strength of the Recommendations" fields). Details of the guideline development process can be found in the ACP methods paper (see the "Availability of Companion Documents" field).

### Rating Scheme for the Strength of the Recommendations

The American College of Physicians' Guideline Grading System\*

Quality of Evidence	Strength of Recommendation	
	Benefits Clearly Outweigh Risks and Burden or Risks and Burden Clearly Outweigh Benefits	Benefits Finely Balanced With Risks and Burden
High	Strong	Weak
Moderate	Strong	Weak

Quality of Evidence	Strong	Weak
	<b>Strength of Recommendation</b> Insufficient evidence to determine net benefits or risks <b>Benefits Clearly Outweigh Risks and Burden or Risks and Burden</b> <b>Clearly Outweigh Benefits</b>	<b>Benefits Finely Balanced With Risks and Burden</b>

\*Adopted from the classification developed by the GRADE (Grading of Recommendations Assessment, Development, and Evaluation) workgroup.

## Cost Analysis

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

## Method of Guideline Validation

Internal Peer Review

## Description of Method of Guideline Validation

The guideline underwent a peer review process through the journal and was posted online for comments from American College of Physicians (ACP) Regents and Governors, who represent physician members at the national level.

This guideline was approved by the ACP Board of Regents on July 25, 2015.

## Evidence Supporting the Recommendations

### Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

## Benefits/Harms of Implementing the Guideline Recommendations

### Potential Benefits

#### Psychological Treatment

Evidence for most psychological therapies was limited, and there was insufficient evidence to determine the comparative effectiveness of different psychological treatments for chronic insomnia disorder in the general population or in older adults.

#### Pharmacologic Treatment

Evidence was insufficient to determine the benefits of pharmacologic therapy with benzodiazepines in the general population or in older adults. Few trials met the inclusion criteria for the evidence review, largely because many assessed short durations of treatment.

#### Complementary and Alternative Treatments

There was insufficient evidence to determine the safety or efficacy of complementary and alternative treatments for insomnia disorder in the general population or in older adults.

Refer to the "Benefits of Treatments for Chronic Insomnia Disorder" section of the original guideline document for additional information.

### Potential Harms

#### Psychological Treatment

Specific adverse effects were not reported for psychological interventions, and withdrawals were not reported for treatment versus control groups. Therefore, evidence was insufficient to determine the harms of psychological interventions. However, due to the noninvasive nature of cognitive behavioral therapy for insomnia (CBT-I), adverse effects are likely to be mild.

### Pharmacologic Treatment

Harms were insufficiently reported in many of the included randomized controlled trials (RCTs), which most often provided data only on study withdrawals. In addition to evidence from the systematic review on study withdrawals and adverse effects, specific adverse effects associated with the various pharmacologic treatments are summarized in Appendix Tables 4 and 5 of the original guideline document.

Data from observational studies suggest that serious adverse effects, such as dementia and fractures, may be associated with hypnotic drugs. Product labels from the U.S. Food and Drug Administration (FDA) warn patients about cognitive and behavioral changes, such as possible driving impairment and motor vehicle accidents, as well as other adverse effects. The FDA also recommends lower doses of benzodiazepine and nonbenzodiazepine hypnotics in women and in older or debilitated adults. In addition, the FDA recommends short-term use of these drugs, although many patients may continue their use for extended periods.

### Comparative Safety of Pharmacologic Treatments

Evidence was generally insufficient to determine the comparative safety of various pharmacologic treatments.

## Qualifying Statements

### Qualifying Statements

- Clinical practice guidelines are "guides" only and may not apply to all patients and all clinical situations. Thus, they are not intended to override clinicians' judgment. All American College of Physicians (ACP) clinical practice guidelines are considered automatically withdrawn or invalid 5 years after publication or once an update has been issued.
- The authors of this article are responsible for its contents, including any clinical or treatment recommendations.

## Implementation of the Guideline

### Description of Implementation Strategy

An implementation strategy was not provided.

### Implementation Tools

Patient Resources

Staff Training/Competency Material

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

## IOM Domain

Effectiveness

Patient-centeredness

## Identifying Information and Availability

### Bibliographic Source(s)

Qaseem A, Kansagara D, Forcica MA, Cooke M, Denberg TD, Clinical Guidelines Committee of the American College of Physicians. Management of chronic insomnia disorder in adults: a clinical practice guideline from the American College of Physicians. *Ann Intern Med.* 2016 Jul 19;165(2):125-33. [80 references] [PubMed](#)

### Adaptation

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

### Date Released

2016 Jul 19

### Guideline Developer(s)

American College of Physicians - Medical Specialty Society

### Source(s) of Funding

Financial support for the development of this guideline comes exclusively from the American College of Physicians (ACP) operating budget.

### Guideline Committee

Clinical Guidelines Committee of the American College of Physicians

### Composition of Group That Authored the Guideline

*Primary Authors:* Amir Qaseem, MD, PhD, MHA; Devan Kansagara, MD, MCR; Mary Ann Forcica, MD; Molly Cooke, MD; Thomas D. Denberg, MD, PhD

*Clinical Practice Guidelines Committee of the American College of Physicians:* Mary Ann Forcica, MD (*Chair*); Thomas D. Denberg, MD, PhD (*Immediate Past Chair*); Michael J. Barry, MD; Cynthia Boyd, MD, MPH; R. Dobbin Chow, MD, MBA; Molly Cooke, MD; Nick Fitterman, MD; Russell P. Harris, MD, MPH; Linda L. Humphrey, MD, MPH; Devan Kansagara, MD, MCR; Scott Manaker, MD, PhD; Robert McLean, MD; Tanveer P. Mir, MD; Holger J. Schünemann, MD, PhD; Sandeep Vijan, MD, MS; Timothy Wilt, MD, MPH

### Financial Disclosures/Conflicts of Interest

Dr. Barry reports grants, personal fees, and nonfinancial support from the Informed Medical Decisions Foundation and Healthwise outside the submitted work. Dr. Manaker reports personal fees from work as a grand rounds speaker, lecturer, consultant, and expert witness on documentation, coding, billing, and reimbursement to hospitals, physicians, departments, practice groups, professional societies, insurers, and attorneys; personal fees from work as an expert witness in workers' compensation and medical negligence matters; dividend income from stock held by his spouse in Pfizer and Johnson & Johnson; and meal and travel expenses for serving on the Centers for Medicare & Medicaid Services Hospital Outpatient Panel, the American Medical Association/Specialty Society Relative Value Unit Update Committee, the Board of Regents of the American College of Chest Physicians (ACCP), and the Board of Directors of ACCP Enterprises. Authors not named here have disclosed no conflicts of interest. Disclosures can also be viewed at [www.acponline.org/authors/icmje/ConflictOfInterestForms.do?msNum=M15-2175](http://www.acponline.org/authors/icmje/ConflictOfInterestForms.do?msNum=M15-2175)

. All financial and intellectual disclosures of interest were declared, and potential conflicts were discussed and managed. Drs. Boyd and Wilt participated in the discussion for this guideline but were each recused from voting on the recommendations because of an active indirect conflict. A record of disclosures and management of conflicts of interest is kept for each Clinical Guidelines Committee meeting and conference call and can be viewed at [www.acponline.org/clinical\\_information/guidelines/guidelines/conflicts\\_cgc.htm](http://www.acponline.org/clinical_information/guidelines/guidelines/conflicts_cgc.htm) .

## Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

## Guideline Availability

Available from the [Annals of Internal Medicine Web site](#) .

## Availability of Companion Documents

The following are available:

- Wilt TJ, MacDonald R, Brasure M, Olson CM, Carlyle M, Fuchs E, Khawaja IS, Diem S, Koffel E, Ouellette J, Butler M, Kane RL. Pharmacologic treatment of insomnia disorder: an evidence report for a clinical practice guideline by the American College of Physicians. *Ann Intern Med.* 2016 Jul 19;165(2):103-112. Available from the [Annals of Internal Medicine Web site](#) .
- Pharmacologic treatment of insomnia disorder: an evidence report for a clinical practice guideline by the American College of Physicians. Supplement. 2016. 37 p. Available from the [Annals of Internal Medicine Web site](#) .
- Brasure M, Fuchs E, MacDonald R, Nelson VA, Koffel E, Olson CM, Khawaja IS, Diem S, Carlyle M, Wilt TJ, Ouellette J, Butler M, Kane RL. Psychological and behavioral interventions for managing insomnia disorder: an evidence report for a clinical practice guideline by the American College of Physicians. *Ann Intern Med.* 2016 Jul 19;165(2):113-124. Available from the [Annals of Internal Medicine Web site](#) .
- Psychological and behavioral interventions for managing insomnia disorder: an evidence report for a clinical practice guideline by the American College of Physicians. Supplement. 2016. 21 p. Available from the [Annals of Internal Medicine Web site](#) .
- Brasure M, MacDonald R, Fuchs E, Olson CM, Carlyle M, Diem S, Koffel E, Khawaja IS, Ouellette J, Butler M, Kane RL, Wilt TJ. Management of insomnia disorder. Comparative Effectiveness Review No. 159. AHRQ Publication No. 15(16)-EHC027-EF. Rockville (MD): Agency for Healthcare Research and Quality; 2015 Dec. 288 p. Available from the [AHRQ Web site](#) .
- Qaseem A, Snow V, Owens DK, Shekelle P. The development of clinical practice guidelines and guidance statements of the American College of Physicians: summary of methods. *Ann Intern Med.* 2010 Aug 3;153(3):194-9. Available from the [Annals of Internal Medicine Web site](#) .

A continuing medical education (CME) activity is available from the [Annals of Internal Medicine Web site](#) .

## Patient Resources

The following is available:

- Management of chronic insomnia disorder in adults: a clinical practice guideline from the American College of Physicians. Summaries for patients. Ann Intern Med 2016 Jul 19;165(2):I-26. Available from the [Annals of Internal Medicine Web site](#) .

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

## NGC Status

This NGC summary was completed by ECRI Institute on October 18, 2016.

## Copyright Statement

This NGC summary is based on the original guideline, which is subject to the guideline developer's copyright restrictions.

## Disclaimer

### NGC Disclaimer

The National Guideline Clearinghouse<sup>®</sup>,<sup>©</sup> (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the [NGC Inclusion Criteria](#).

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.