Complete Summary

GUIDELINE TITLE

Evidence-based interventions to improve the palliative care of pain, dyspnea, and depression at the end of life: a clinical practice guideline from the American College of Physicians.

BIBLIOGRAPHIC SOURCE(S)

Qaseem A, Snow V, Shekelle P, Casey DE Jr, Cross JT Jr, Owens DK, Clinical Efficacy Assessment Subcommittee of the American College of Physicians, Dallas P, Dolan NC, Forciea MA, Halasyamani L, Hopkins RH Jr, Shekelle P. Evidence-based interventions to improve the palliative care of pain, dyspnea, and depression at the end of life: a clinical practice guideline from the American College of Physicians. Ann Intern Med 2008 Jan 15;148(2):141-6. PubMed

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.

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SCOPE

DISEASE/CONDITION(S)

Pain, dyspnea, and depression associated with serious illness at the end of life

GUIDELINE CATEGORY

Counseling
Evaluation
Management
Treatment

CLINICAL SPECIALTY

Family Practice
Geriatrics
Internal Medicine
Nursing
Oncology
Psychology

INTENDED USERS

Advanced Practice Nurses
Nurses
Physician Assistants
Physicians
Psychologists/Non-physician Behavioral Health Clinicians

GUIDELINE OBJECTIVE(S)

To present the available evidence to improve palliative care at the end of life

TARGET POPULATION

Everyone with seriously disabling or symptomatic chronic conditions at the end of life

INTERVENTIONS AND PRACTICES CONSIDERED

1. Assessment of patient for pain, dyspnea, and depression
2. Therapies to manage pain (including nonsteroidal anti-inflammatory drugs, opioids, and bisphosphonates for cancer patients)
3. Therapies to manage dyspnea (including opioids in patients with unrelieved dyspnea and oxygen for short-term relief of hypoxemia)

4. Therapies to manage depression (including tricyclic antidepressants, selective serotonin reuptake inhibitors, or psychosocial intervention for cancer patients)
5. Advance care planning, including completion of advance directives

MAJOR OUTCOMES CONSIDERED

Pain, Dyspnea, and Depression

- Efficacy of pain relief
- Quality of life
- Level of dyspnea
- Level of physical endurance, fatigue, and physical limitations
- Levels of blood gases (oxygen and carbon dioxide) and blood oxygen saturation
- Quality of sleep
- Competency in coping techniques
- Rates and level of depression
- Sense of well being (e.g., existential, emotional, spiritual)

Advance Care Planning

- Level of patient knowledge, psychological adjustment, and satisfaction
- Rate of utilization of services (e.g., use of hospital, intensive care, or ventilator) and healthcare costs
- Rate of hospice use
- Use of pain management orders
- Rate of effectiveness of communication about late-life goals and advance care planning (e.g., living wills, pain management, patient-provider and patient-caregiver understanding)
- Caregiver outcomes (e.g. ability and knowledge; satisfaction; burden and depression)

METHODOLOGY

METHODS USED TO COLLECT/SELECT 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

Literature Search

National Library of Medicine librarians searched MEDLINE for English-language publications (January 1990 to April 2004), and one reviewer used the Database of Abstracts of Reviews of Effects to search for reviews on cancer, congestive heart failure (CHF), and dementia. Citations identified by the National Consensus Project for Quality Palliative Care were added. An advisory panel and peer reviewers suggested additional references until September 2004. The original search strategy was updated through November 2005 and the literature further updated

to January 2007 by using the American Academy of Hospice and Palliative Medicine literature surveillance (for example, Fast Article Critical Summaries for Clinicians in Palliative Care) and the Annual Update (available at www.aahpm.org/membership/pcfacs.html). Gray literature was not searched because it did not contribute to a recent review of the effectiveness of palliative care teams.

Literature Selection and Abstraction

Eight reviewers familiar with palliative care formed topic-oriented, two-person teams. English language publications from the United States, Canada, Western Europe, Australia, and New Zealand were accepted. Studies about the definition of end-of-life care were included. Advance care planning reports had to address process or outcomes for patients and families (not just clinicians). Continuity publications had to address relationships with providers over time. Informal caregiving articles excluded bereavement. Spiritual care outcomes when reported with emotional well-being were described. Studies that addressed only surgery, chemotherapy, radiotherapy, stents, lasers, and similar technical interventions or studies that reported only physiologic, laboratory, or radiologic outcomes were rejected. Articles were characterized by research design quality, study population, settings, intervention, and outcomes. Studies addressing several topics are included in each topic's section.

The April 2004 search identified 24,423 titles, from which 6,381 potentially relevant abstracts and then 1,274 potentially relevant articles were identified. Accepted articles included 95 systematic reviews and 109 reports of interventions. The November 2005 update identified an additional 944 titles, including eight systematic reviews and 19 reports of interventions. After November 2005, expert sources added an additional three systematic reviews and three interventions. This report includes 33 high-quality systematic reviews and 89 intervention reports.

NUMBER OF SOURCE DOCUMENTS

33 systematic reviews and 89 intervention studies

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

This guideline grades the evidence and recommendations by using the American College of Physicians' clinical practice guidelines grading system adopted from the classification developed by the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) workgroup (see "Rating Scheme for the Strength of the Recommendations" field, below).

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

Several methods reduced bias and enhanced accuracy, and one reviewer screened each citation. Two experts in systematic reviews conducted a structured, implicit evaluation of the quality of reviews. For intervention studies, each reviewer completed a training set, and one principal investigator reviewed a random subset from each reviewer's citations and double-reviewed outlier sets. Reviewers discussed uncertain decisions, and full articles were abstracted in teams, coming to consensus after independent review. Two principal investigators reviewed abstractions from articles, and piloted, standard forms were used throughout.

Data Analysis

The variety of outcome measures and study designs required qualitative synthesis of the evidence. Strength of evidence related to each of the six questions (see the "Description of the Methods Used to Formulate the Recommendations" field, below) for each of the three clinical and functional trajectories (for example, cancer, chronic heart failure, and dementia) were evaluated. Specific interventions only for reports not previously covered in high-quality reviews were discussed. In each area, the overall evidence based on unique studies within each domain were rated, qualitatively taking into account studies addressed by several reviews.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Guideline developers systematically reviewed the literature to address the following questions posed by the American College of Physicians Clinical Efficacy Assessment Subcommittee:

1. What are the *critical elements* for clinicians to address when caring for persons coming to the end of life?
2. What do definitions of the *end of life* suggest about identifying patients who could benefit from palliative approaches?
3. What treatment strategies work well for *pain*, *dyspnea*, and *depression*?
4. What elements are important in *advance care planning* for patients coming to the end of life?
5. What elements of *collaboration and consultation* are effective in promoting improved end of life care?
6. What elements of *assessment and support* are effective for serving caregivers, including family, when patients are coming to the end of life?

In addressing the six questions posed by this report, the guideline authors focused on the clinical problems and literature related to pain, dyspnea, and depression; advance care planning; continuity; and caregiver concerns because

they are especially important to patients and families. They focused on cancer, chronic heart failure, and dementia to illustrate differences in patient and caregiver experiences in the three characteristic trajectories of clinical and functional decline.

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
Low	Strong	Weak
Insufficient evidence to determine benefits or risks	I - recommendation	

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

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

This guideline was approved by the American College of Physicians Board of Regents on 14 July 2007.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Definitions for the strength of evidence (high, moderate low, insufficient evidence to determine benefits or risks) and strength of recommendations (strong, weak, I - recommendation) are repeated at the end of the Major Recommendations.

Recommendation 1: *In patients with serious illness at the end of life, clinicians should regularly assess patients for pain, dyspnea, and depression.* **(Grade: strong recommendation, moderate quality of evidence.)**

Patients needing end-of-life care may present with substantial symptoms, including pain; discontinuity in care; and substantial caregiver burdens. These concerns are critically important for patients and families coping with serious chronic illnesses. Although each patient and family will require individualized assessment and care, the evidence shows that a set of general issues is shared widely among patients needing end-of-life care. These issues include pain and other symptom management, psychological well-being, care coordination, and advance care planning, and caregiver burden. The evidence was classified as moderate quality because it was mostly derived from studies of patients with cancer or cancer-predominant populations in addition to being heterogeneous.

Recommendation 2: *In patients with serious illness at the end of life, clinicians should use therapies of proven effectiveness to manage pain. For patients with cancer, this includes nonsteroidal anti-inflammatory drugs, opioids, and bisphosphonates.* **(Grade: strong recommendation, moderate quality of evidence.)**

Clinicians should use specific effective therapies for all patients with acute and chronic pain. Strong evidence supports using nonsteroidal anti-inflammatory drugs, opioids, and bisphosphonates for pain relief in patients with cancer. Bisphosphonates are effective for bone pain relief in patients with breast cancer and myeloma.

Recommendation 3: *In patients with serious illness at the end of life, clinicians should use therapies of proven effectiveness to manage dyspnea, which include opioids in patients with unrelieved dyspnea and oxygen for short-term relief of hypoxemia.* **(Grade: strong recommendation, moderate quality of evidence.)**

Opioids should be considered in patients with severe and unrelieved dyspnea, for example, in cancer and cardiopulmonary disease at the end of life. Clinicians should consider the use of oxygen for hypoxemia for advanced chronic obstructive pulmonary disease. Evidence also supports the use of beta-agonists for treating dyspnea in chronic obstructive pulmonary disease, but this use has not been studied for end-of-life care.

Recommendation 4: *In patients with serious illness at the end of life, clinicians should use therapies of proven effectiveness to manage depression. For patients with cancer, this includes tricyclic antidepressants, selective serotonin reuptake inhibitors, or psychosocial intervention.* **(Grade: strong recommendation, moderate quality of evidence.)**

Clinicians should assess for and manage symptoms of depression in patients with serious chronic diseases. For patients with cancer, strong evidence shows that

depression should be treated with generally effective therapies, including tricyclic antidepressants, selective serotonin reuptake inhibitors, or psychosocial interventions. Because the strong evidence is derived only from the studies that included patients with cancer and not for all patients at the end of life, it is classified as moderate on average.

Recommendation 5: *Clinicians should ensure that advance care planning, including completion of advance directives, occurs for all patients with serious illness.* **(Grade: strong recommendation, low quality of evidence.)**

All care planning must address certain elements, such as surrogate decision makers, resuscitation, and emergency treatment, and should occur as early as possible in the course of serious illness before the end of life. Care planning must anticipate specific issues for each patient's clinical course, for example, the management of dementia, including tube feeding; whether to initiate or continue chemotherapy in patients with cancer; and whether to deactivate implantable cardioverter defibrillators in patients who have intractable congestive heart failure. Care plans should be reassessed when significant clinical change occurs. Moderate evidence supports the effectiveness of multicomponent interventions in increasing advance directives. Research shows that skilled facilitators and a system focusing on various key decision makers, such as patients, caregivers, and providers, as well as improving shared understanding of values are critical in the planning of care.

Definitions:

Strength of Evidence

This guideline grades the evidence and recommendations by using the American College of Physicians' clinical practice guidelines grading system adopted from the classification developed by the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) workgroup (see table below).

The American College of Physicians' Guideline Grading System

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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
risks		

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

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

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Improved palliative care at the end of life, including appropriate management of pain, dyspnea, and depression

POTENTIAL HARMS

Constipation, nausea, and vomiting were the most common side effects of opioid use to treat dyspnea.

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.
- If an end-of-life intervention is not addressed in this guideline, it does not mean that no benefit is related to that particular intervention, but it indicates that the intervention has not been sufficiently studied to demonstrate efficacy.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Patient Resources
Resources
Slide Presentation
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

End of Life Care

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Qaseem A, Snow V, Shekelle P, Casey DE Jr, Cross JT Jr, Owens DK, Clinical Efficacy Assessment Subcommittee of the American College of Physicians, Dallas P, Dolan NC, Forciea MA, Halasyamani L, Hopkins RH Jr, Shekelle P. Evidence-based interventions to improve the palliative care of pain, dyspnea, and depression at the end of life: a clinical practice guideline from the American College of Physicians. Ann Intern Med 2008 Jan 15;148(2):141-6. PubMed

ADAPTATION

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

DATE RELEASED

2008 Jan

GUIDELINE DEVELOPER(S)

American College of Physicians - Medical Specialty Society

SOURCE(S) OF FUNDING

American College of Physicians

GUIDELINE COMMITTEE

Clinical Efficacy Subcommittee of the American College of Physicians

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Grants received: V. Snow (Agency for Healthcare Research and Quality, Centers for Disease Control and Prevention, Novo Nordisk, Pfizer, Merck & Co., Bristol-Myers Squibb, Atlantic Philanthropies, sanofi pasteur).

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the American College of Physicians (ACP) Web site.

Print copies: Available from the American College of Physicians (ACP), 190 N. Independence Mall West, Philadelphia PA 19106-1572.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Lorenz KA, Lynn J, Dy SM, Shugarman LR, Wilkinson A, Mularski RA, Morton SC, Hughes RG, Hilton LK, Maglione M, Rhodes SL, Rolon C, Sun VC, Shekelle PG. Evidence for improving palliative care at the end of life: a systematic review. Ann Intern Med. 2008;148:147-59. Electronic copies: Available from the Annals of Internal Medicine Web site.

Print copies: Available from the American College of Physicians (ACP), 190 N. Independence Mall West, Philadelphia PA 19106-1572.

The following are also available:

- Evidence for improving palliative care at the end of life: a systematic review. Audio summary. Electronic file: Available from the Annals of Internal Medicine Web site.
- Evidence-based interventions to improve the palliative care of pain, dyspnea, and depression at the end of life. Continuing medical education (CME) course. Available from the Annals of Internal Medicine Web site.

PATIENT RESOURCES

The following is available:

- Summaries for patients. Treatment of seriously ill patients who are near the end of life: recommendations from the American College of Physicians. Ann Intern Med 2008 Jan 15; 148:I-42

Electronic copies: Available from the Annals of Internal Medicine Web site.

Print copies: Available from the American College of Physicians (ACP), 190 N. Independence Mall West, Philadelphia PA 19106-1572.

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NGC STATUS

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Date Modified: 10/27/2008