Section V:

Strategies to Improve Pain Management

A. Clinical Practice Guidelines

1. Which Practice Guidelines Apply to Pain Management?

The Agency for Health Care Policy and Research (AHCPR)[a] introduced the first clinical practice guideline (CPG) for pain management in 1992.[1] Other groups, including the American Pain Society (APS), the American Society of Anesthesiologists (ASA), and the American Academy of Family Physicians (AAFP), have since produced an assortment of CPGs relevant to the management of acute and chronic pain (Table 43). In addition, numerous disciplines have developed CPGs relevant to specific types of pain or the management of conditions with a painful component (Table 44).

2. Are Clinicians Adopting and Using Clinical Practice Guidelines?

Pain management remains inadequate, despite the availability of CPGs. To clarify the basis of this problem, various studies have explored clinicians' adoption and use of CPGs or the effects of a specific CPG initiative on clinical practice. Table 45 summarizes some of these studies. Overall, these data suggest that, despite some improvements, inconsistent assessment and inappropriate treatment of pain (e.g., intramuscular injections) persist.[41,45] Furthermore, administrative mandates rather than education alone appear necessary to change practice patterns.[48]

[a] The Agency for Health Care Policy and Research is now the Agency for Healthcare Research and Quality.

B. Standards and Outcome Measures

1. JCAHO Standards

Various groups (e.g., the Joint Commission on Accreditation of Healthcare Organizations [JCAHO], APS, ASA) have proposed standards, outcome measures, and other initiatives in efforts to improve pain management (Table 46). Outcome measures complement CPGs because they help quantify the effects of a given therapy on the patient's health and well-being. Combined with other data (e.g., measures of guideline adherence), health care organizations

Table 43. Examples of Practice Guidelines for Management of Acute or Chronic Pain

Year[a]	Source	Title
1992	AHCPR[b]	Acute Pain Management: Operative or Medical Procedures and Trauma Clinical Practice Guideline No. 1 (Publication No. 92-0032)
1993	AHCPR[b]	Acute Pain Management In Adults: Operative Procedures Quick Reference Guide for Clinicians No. 1a (Publication No. 92-0019)
1995 (amended 2003)	ASA	Practice guidelines for acute pain management in the perioperative setting
1996 (revised 2002)	ASA	Practice guidelines for sedation and analgesia by non-anesthesiologists
1997	ASA	Practice guidelines for chronic pain management
1998 (revised 2002)	AGS	The management of persistent pain in older persons
1999	APS	Principles of analgesic use in the treatment of acute pain and cancer pain
1999	AMDA	Chronic pain management in the long-term care setting
2000	AAFP	Treatment of nonmalignant chronic pain
2000 (revised 2004)	ICSI	Assessment and management of acute pain

Sources: References 1-11.

[a]Practice guidelines are continually updated, so please check with the source listed for the most up-to-date version.

[b]The Agency for Health Care Policy and Research is now the Agency for Healthcare Research and Quality.

AAFP: American Academy of Family Physicians; AGS: American Geriatrics Society; AHCPR: Agency for Health Care Policy and Research; AMDA: American Medical Directors Association; APS: American Pain Society; ASA: American Society of Anesthesiologists; ICSI: Institute for Clinical Systems Improvement.

Table 44. Examples of Practice Guidelines for the Management of Specific Types of Pain or Conditions With Painful Components

Year[a] Released	Year Revised	Source	Title
1994		AHCPR[b]	Clinical Practice Guideline: Management of Cancer Pain (Publication No. 94-0592)
1994		AHCPR[b]	Acute Low Back Problems in Adults Guideline No. 14 (Publication No. 95-0642)
1995	2000	ACR	Guidelines for the medical management of osteoarthritis Part I. Osteoarthritis of the hip
1995	2000	ACR	Guidelines for the medical management of osteoarthritis Part II. Osteoarthritis of the knee
1996	2002	ACR	Guidelines for the management of rheumatoid arthritis
1996		ASA	Practice guidelines for cancer pain management
1997		NIH	Acupuncture. NIH Consensus Statement
1999	2002 & 2004	ICSI	Adult low back pain
1999		ASA	Practice guidelines for obstetrical anesthesia
1999		AAOS	Clinical guideline on hip pain
1999	2003	AAOS	Clinical guideline on knee pain
1999		AAOS	Clinical guideline on wrist pain
1999		APS	Guideline for the management of acute and chronic pain in sickle cell disease
1999, 2000		AAN	Evidence-based guidelines for migraine headache (series)
2000		AAFP	Guidelines on migraine (series)
2000		AAFP	Osteoarthritis: current concepts in diagnosis and management
2000		AAFP	Management of pain in sickle cell disease
2000		ICSI	Migraine headache
2000	2004	ICSI	Diagnosis and treatment of adult degenerative joint disease (DJD) of the knee
2002		APS	Guideline for management of pain in osteoarthritis, rheumatoid arthritis, and juvenile chronic arthritis
2003		SNM	Procedure guideline for palliative treatment of painful bone metastases
2003	2005	ASIPP	Management of chronic spinal pain
2004		ICSI	Diagnosis and treatment of headache
2004		AAN	Treatment of migraine headache in children and adolescents
2004		AAN	Treatment of postherpetic neuralgia
2004		USHGC	Inpatient treatment of headache
2005		APS	Management of fibromyalgia syndrome pain in adults and children
2005		AAP	Chronic abdominal pain in children
2005		USPSTF	Preventing low back pain in adults

Sources: References 12-39h.

[a]Practice guidelines are continually updated, so please check with the source listed for the most up-to-date version.

[b]The Agency for Health Care Policy and Research is now the Agency for Healthcare Research and Quality.

AAFP: American Academy of Family Physicians; AAN: American Academy of Neurology; AAOS: American Academy of Orthopaedic Surgeons; AAP: American Academy of Pediatrics; ACR: American College of Rheumatology; AHCPR: Agency for Health Care Policy and Research; ASA: American Society of Anesthesiologists; ASIPP: American Society of Interventional Pain Physicians; ICSI: Institute for Clinical Systems Improvement; NIH: National Institutes of Health; SNM: Society of Nuclear Medicine; USHGC: US Headache Guidelines Consortium; USPSTF: US Preventive Services Task Force.

can use outcome data to evaluate and optimize provider performance. Standards provide a clear definition of what appropriate care entails; thus, they also improve quality of care.

Of these strategies, the recently introduced JCAHO standards for pain management have attracted the most attention. The standards clearly outline appropriate pain management practices for ambulatory care facilities, behavioral health care facilities, health care networks, home care, hospitals, long-term care organizations, long-term care pharmacies, and managed behavioral health care organizations seeking accreditation.[49] These new standards are available on the World Wide Web (http://www.jcaho.org), and the second monograph in this series discusses these standards in greater detail. Briefly, the standards call upon organizations and facilities to:

- Recognize the right of patients to appropriate assessment and management of pain

Table 45. Examples of Studies of Guideline Adherence and Interventions

Source	Purpose	Methods	Findings and Conclusions
Pellegrini et al, 1999	Assess compliance with AHCPR guidelines in prescribing meperidine for obstetrical patients	Review of 300 charts of obstetric patients	Of 157 obstetrical patients receiving meperidine, 124 (79.8%) were not treated in accordance with AHCPR guidelines. The most frequent conflicts with the guidelines were suboptimal dosing and the treatment of chronic pain.
Carr et al, 1998	Assess compliance with AHCPR and ASA guidelines	National survey of pain in perioperative patients	Overall adherence was excellent except for continuing frequent intramuscular administration of opioids and infrequent use of nonpharmacologic pain management methods
Data Strategic Benchmarks, 1999	Assess compliance with AHCPR guidelines for management of postoperative pain	Review of records from multiple Wisconsin hospitals	Data from a multi-hospital study shows low compliance with pain management protocols for postoperative pain.
Cleeland et al, 1994	Assess compliance with WHO analgesic guidelines in managing cancer pain	Survey of 1308 outpatients with metastatic cancer treated at 54 sites affiliated with ECOG	42% of patients reported receiving insufficient analgesics; inadequate pain control was higher among some groups (e.g., racial minorities, women, elderly).
Cleeland et al, 1997	Assess compliance with guideline-recommended analgesic prescriptions for cancer in clinic setting	Survey of minority cancer patients	65% of minority cancer patients did not receive guideline-recommended analgesic prescriptions compared with 50% of non-minority patients.
Stratis Health, 1997	Assess compliance with AHCPR and American Pain Society guidelines for assessing cancer pain	Review of records for 271 cancer patients treated in Minnesota hospitals	Whereas 93% of the hospitals had documented some form of the patient's initial self-assessment of pain, only 26% used effective means of communicating pain intensity. Pain reassessment was also inconsistent.
Rischer and Childress, 1996	Assess whether the implementation of an AHCPR guideline-based action plan would improve pain and satisfaction among cancer patients	Chart audits at seven acute care hospitals in Utah before and after implementation	Process measures of care showed improved compliance with guidelines for managing cancer pain post-intervention; however, investigators concluded that "more needed to be done to prevent patient suffering."
Du Pen et al, 1999	Assess whether the implementation of an AHCPR guideline-based treatment algorithm for cancer pain would improve pain management in the community setting	Comparison of pain and symptom management in 81 cancer outpatients treated according to algorithm or standard-practice (control)	Cancer patients in the treatment algorithm group experienced a significant reduction in usual pain intensity compared with controls. The investigators concluded that comprehensive pain assessment and evidence-based analgesic decision-making processes enhance usual pain outcomes.
Harwood et al, 1997	Assess whether an AHCPR guideline-based educational program would improve the assessment of new low back pain by physicians	Compliance with the assessment protocol was measured by computer-based surveillance; the educational program included group and individual sessions, with extensive follow-up	An administrative mandate to change, but not the educational program alone, resulted in a significant increase in physician compliance in completing a standardized examination (assessment) for low back pain.

Sources: References 40-48.

AHCPR: Agency for Health Care Policy and Research (now the Agency for Health Care Research and Quality); ASA: American Society of Anesthesiologists; ECOG: Eastern Cooperative Oncology Group; WHO: World Health Organization.

- Screen for the presence and assess the nature and intensity of pain in all patients
- Record the results of the assessment in a way that facilitates regular reassessment and follow-up
- Determine and ensure staff competency in pain assessment and management (e.g., provide education), and address pain assessment and management in the orientation of all new clinical staff
- Establish policies and procedures that support the appropriate prescribing or ordering of pain medications
- Ensure that pain does not interfere with a patient's participation in rehabilitation
- Educate patients and their families about the importance of effective pain management
- Address patient needs for symptom management in the discharge planning process
- Incorporate pain management into performance review activities (i.e., establish a

Table 46. Examples of New Outcome Measures, Standards, and Initiatives Related to Pain Management

Organization	What Is Being Done	Purpose
ASA Committee on Pain Management	Recent development of pain outcome assessment questionnaire called the "ASA Nine"; this questionnaire considers nine items (domains) in assessing the efficacy of pain therapy	To measure outcomes in patients receiving pain therapy from anesthesiologists
APS	Pain as the 5th Vital Sign initiative (i.e., measure pain as a fifth vital sign with each evaluation of the standard four vital signs [i.e., temperature, pulse, respiration, and blood pressure])	Pain management improvement strategy directed at raising clinician awareness of need to assess pain regularly
APS	Alteration of WHO analgesic ladder	To make WHO ladder a more appropriate form of guidance, which recognizes that pain should be assessed for severity and treated with adequate analgesia in a timely manner
VHA National Pain Management Strategy	Initiative calling for a series of assessments to be performed by clinicians, including regular assessment of pain intensity with the NRS	To prevent pain and suffering in individuals receiving care in the VHA system
HCFA	Current evaluation of outcome measures to be used by hospice workers for assessing patient comfort during the dying process	To improve the quality of pain management at end of life for Medicare and Medicaid beneficiaries
HCFA	Recent identification of pain management at the end of life as a PRO program priority	Proposed project will implement an intervention to increase quality of care with respect to pain management and comfort in a population and setting where there is a demonstrated need[a]
JCAHO	Inclusion of new standards for pain assessment and management in JCAHO standards	To provide standards of care to be followed by ambulatory care facilities, behavioral health care facilities, health care networks, home care, hospitals, long-term care organizations, long-term care pharmacies, and managed behavioral health care organizations
NCQA	Involved in developing outcome measures related to pain management	Advance assessment of pain outcomes

[a]A population with a "demonstrated need" includes patients with cancer, congestive heart failure, chronic obstructive pulmonary disease, human immunodeficiency virus infection, aquired immunodeficiency syndrome, diabetes, end-stage renal disease, or another progressive illness.

APS: American Pain Society; ASA: American Society of Anesthesiologists; HCFA: Health Care Financing Administration; JCAHO: Joint Commission on Accreditation of Healthcare Organizations; NCQA: National Committee for Quality Assurance; NRS: Numeric Rating Scale; PRO: peer-reviewed organization; VHA: Veteran's Healthcare Administration; WHO: World Health Organization

means of collecting data to monitor the appropriateness and effectiveness of pain management).

2. Institutional Commitment to Pain Management

Whereas the new JCAHO standards tell organizations what needs to occur in the assessment and management of pain, they do not tell organizations how to do it. Because education alone does not change practice patterns, health care organizations and institutions need to support system changes to improve pain management and comply with the new JCAHO standards. That is, in addition to providing staff with practical clinical resources for pain management, health care organizations and institutions need to make pain "visible" and establish mechanisms to ensure accountability for pain control.[50] The book *Building an Institutional Commitment to Pain Management: Wisconsin Resource Manual* describes key steps to "institutionalizing" effective pain management, as summarized in Table 47.[50] In addition, the second monograph in this series reviews organizational performance measurement and improvement related to pain management to facilitate organizational initiatives.

Table 47. Building an Institutional Commitment to Pain Management

- Develop an interdisciplinary work group to promote practice change and collaborative practice. At a minimum, this work group should consist of representatives (clinicians, administrators) from medicine, nursing, and pharmacy, with those from other disciplines (e.g., OT, PT, RT, social work, pastoral care) when possible. Levels of experience should range from experts to novice.
- Analyze current pain management issues and practices in the health care setting, with the goal of continuous quality improvement. Plan a needs assessment to collect information about the quality of pain management and to identify causes of inadequate pain management. Sources of data include systematic observation of current practice, patient and staff surveys, medical record audits, and drug utilization reviews.
- Articulate and implement a standard for pain assessment and documentation to ensure the prompt recognition, documentation, and treatment of pain. This standard should define:
  1) how, when, and by whom pain should be assessed;
  2) where the results should be documented;
  3) methods of communicating this information among caregivers; and
  4) explicit conditions for interventions directed at relieving pain.
- Establish explicit policies and procedures to guide the use of specialized techniques for administering analgesics (e.g., intraspinal and intravenous analgesia and anesthesia, inhalational therapy, conscious or deep sedation).
- Establish accountability for quality pain management. This should include clearly defining caregiver responsibilities in pain management and embedding accountability for pain management in existing systems (e.g., practice standards, position descriptions, policies and procedures, competency statements, performance reviews).
- Provide readily available information about pharmacologic and nonpharmacologic interventions to clinicians to facilitate planning of care (e.g., order writing, interpretation and implementation of physician orders). This information can be presented in a variety of formats including clinical practice guidelines and pathways, decision or treatment algorithms, protocols, pocket reference guides, and computer help screens.
- Promise patients a prompt response to their reports of pain. According to the APS guidelines for quality improvement of pain management, all patients at risk for pain should be informed that: 1) effective pain relief is important to treatment, 2) their report of pain is essential, and 3) staff will promptly respond to patient requests for pain treatment.[51] Therefore, patients and their families should be provided appropriate educational materials that address important aspects of pain assessment and management (e.g., the importance of controlling pain, the use of pain rating scales to report pain intensity, how to establish realistic pain relief goals, pharmacologic and non-pharmacologic interventions for pain)
- Provide education about pain management to staff. This education may be provided in a variety of formats, including orientation and continuing education programs; rounds, lectures, and case conferences; self-directed learning packages, case studies, and interactive techniques (e.g., brainstorming, role playing, experiential techniques, games).
- Continually evaluate and work to improve the quality of pain management.

Source: References 50-51.

APS: American Pain Society; OT: occupational therapy; PT: physical therapy; RT: recreation.