

# Strengthening Pain Content in Medical School Curricula



*Mapping the AAMC core competencies with  
pain management core competencies for  
integration within curricula*

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On behalf of the expert panel, I am pleased to present this report: **Strengthening Pain Content in Medical School Curricula**. Pain is the most common reason people seek health care, and yet education and training about pain management is lacking and fragmented within medical school curricula<sup>1,2</sup>. The absence of this content from clinical curricula is striking in light of the magnitude of the issues surrounding pain and pain management, including unintended consequences such as inappropriate use of opioids. For example, the 2011 Institute of Medicine (IOM) report on Relieving Pain in America estimated that over 100 million Americans have chronic pain at a cost exceeding \$600 billion annually<sup>3</sup>. At the same time, the Centers for Disease Control & Prevention released in 2016 new guidance about the prescription of opioid analgesics in response to widespread concerns about high levels of abuse and addiction related to these agents<sup>4</sup>.

Recognizing the magnitude of these challenges, the Mayday Fund in 2011 supported the development of pain management core competencies for prelicensure learning<sup>2</sup> by a group of 29 North American experts from multiple clinical specialties. These competencies now serve as the foundation for revising and improving prelicensure clinical programs and curricula across all fields of medicine and related health professions. These competencies have been widely endorsed by professional organizations and used to assess pain content within national licensing exams.

This document provides clinical educators with a reference guide for integrating pain management content into curricula while meeting the Association of American Medical Colleges (AAMC) Physician Competency Reference Set (PCRS)<sup>†</sup>. Pain management is an ideal subject to integrate with the AAMC competencies because it is highly relevant, appropriately complex, and well-suited for implementation with an interprofessional team of clinicians. It is the panel's hope that this reference guide will strengthen physician education about pain management by integrating pain competencies into physician education at all levels.

Sincerely,

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<sup>†</sup> Association of American Medical Colleges (AAMC) Physician Competency Reference Set (PCRS) (<https://www.aamc.org/initiatives/cir/about/348808/aboutpcrs.html>).

## Expert Panel

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## Background

Alleviating pain, whether acute or chronic, is among the most urgent tasks facing any physician. Pain is both extraordinarily common *and* challenging to treat. Treatment options abound (pharmacological, device-based, and non-pharmacological) but their use can be highly complex, depending on a host of variables including the nature of the pain, patient risk factors for side effects or addiction, patient comorbidities, and patient psychosocial issues. In the past decade, the widespread use of opioid analgesics, particularly for chronic pain, has been questioned as rates of abuse, diversion, addiction, and overdose deaths have risen significantly. New and revised clinical guidelines seek to stem these problems while simultaneously allowing for rapid and effective relief of patients in pain.

*This document provides a roadmap for integrating established pain management core competencies into physician training programs, which can help address the urgent unmet need for such education across the country.*

Health care professionals are on the front lines of these issues and, thus, must be thoroughly up to date on current recommended practices for pain management. This document provides a roadmap for integrating established pain management core competencies into physician training programs, which can help address the urgent unmet need for such education across the country.

## PAIN MANAGEMENT CORE COMPETENCIES

The core competencies and supporting core values and principles were developed by an interprofessional expert group comprised of leaders from multiple health professions, including: dentistry, medicine, nursing, pharmacy, physical therapy, psychology, social work, acupuncture and veterinary medicine. The domains are aligned with the outline categories of the **International Association for the Study of Pain** curricula.

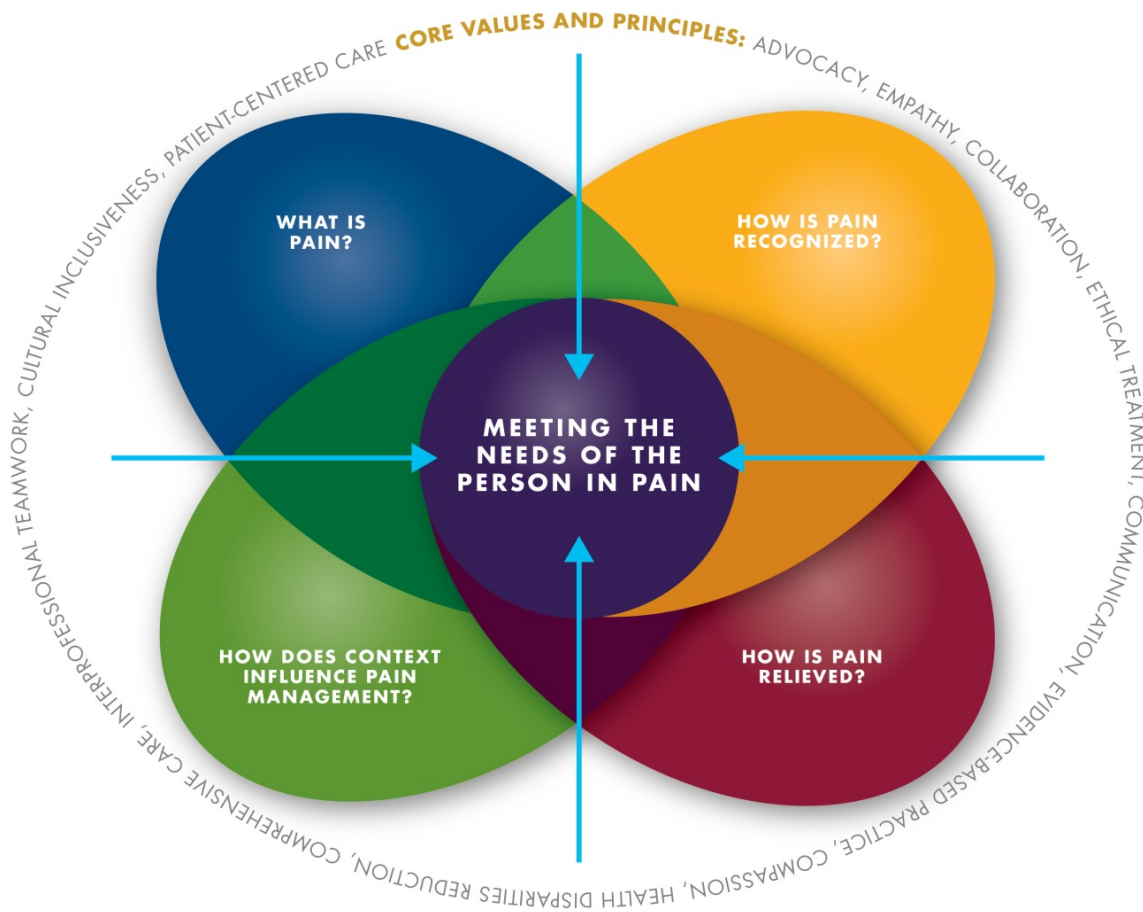
## CORE VALUES/PRINCIPLES

The following core values and principles are integral to and embedded within all domains and competencies. To deliver the highest quality of care, health professionals must be able to determine and address the needs of patients from a variety of cultures and socio-economic backgrounds; advocate for patients on individual, system and policy levels; and communicate effectively with patients, families and professionals. These principles transcend any single domain and reflect the need for evidence-based comprehensive pain care that is patient centered and is delivered in a collaborative, team-based environment.

- Advocacy
- Collaboration
- Communication
- Compassion
- Comprehensive Care
- Cultural Inclusiveness
- Empathy
- Ethical Treatment
- Evidence-Based Practice
- Health Disparities Reduction
- Interprofessional Teamwork
- Patient-Centered Care

## DOMAINS

The pain management core competencies are categorized within four domains: multidimensional nature of pain, pain assessment and measurement; management of pain, and context of pain management. The competencies address the fundamental concepts and complexity of pain; how pain is appraised; collaborative approaches to treatment options; and application of competencies in the context of various settings, populations and care teams.



### Domain One

#### **Multidimensional Nature of Pain: What is Pain?**

This domain focuses on the fundamental concepts of pain including the science, nomenclature, experience of pain, and pain's impact on the individual and society.

- 1.1. Explain the complex, multidimensional and individual-specific nature of pain.
- 1.2. Present theories and science for understanding pain.
- 1.3. Define terminology for describing pain and associated conditions.
- 1.4. Describe the impact of pain on society.
- 1.5. Explain how cultural, institutional, societal and regulatory influences affect assessment and management of pain.

## ***Domain Two***

### ***Pain Assessment and Measurement: How is Pain Recognized?***

This domain relates to how pain is assessed, quantified, and communicated, in addition to how the individual, the health system, and society affect these activities.

- 2.1. Use valid and reliable tools for measuring pain and associated symptoms to assess and reassess related outcomes as appropriate for the clinical context and population.
- 2.2. Describe patient, provider and system factors that can facilitate or interfere with effective pain assessment and management.
- 2.3. Assess patient preferences and values to determine pain-related goals and priorities.
- 2.4. Demonstrate empathic and compassionate communication during pain assessment.

## ***Domain Three***

### ***Management of Pain: How is Pain Relieved?***

This domain focuses on collaborative approaches to decision making, diversity of treatment options, the importance of patient agency, risk management, flexibility in care, and treatment based on appropriate understanding of the clinical condition.

- 3.1. Demonstrate the inclusion of patient and others, as appropriate, in the education and shared decision-making process for pain care.
- 3.2. Identify pain treatment options that can be accessed in a comprehensive pain management plan.
- 3.3. Explain how health promotion and self-management strategies are important to the management of pain.
- 3.4. Develop a pain treatment plan based on benefits and risks of available treatments.
- 3.5. Monitor effects of pain management approaches to adjust the plan of care as needed.
- 3.6. Differentiate physical dependence, substance use disorder, misuse, tolerance, addiction, and non-adherence.
- 3.7. Develop a treatment plan that takes into account the differences between acute pain, acute-on-chronic pain, chronic/persistent pain, and pain at the end of life.

## ***Domain Four***

### ***Clinical Conditions: How Does Context Influence Pain Management?***

This domain focuses on the role of the clinician in the application of the competencies developed in Domains 1-3 and in the context of varied patient populations, settings, and care teams.

- 4.1. Describe the unique pain assessment and management needs of special populations.
- 4.2. Explain how to assess and manage pain across settings and transitions of care.
- 4.3. Describe the role, scope of practice and contribution of the different professions within a pain management care team.
- 4.4. Implement an individualized pain management plan that integrates the perspectives of patients, their social support systems and health care providers in the context of available resources.
- 4.5. Describe the role of the clinician as an advocate in assisting patients to meet treatment goals.

## Domain 1: Multidimensional Nature of Pain:

### *What is Pain?*

#### Establishing Learning Goals

Domain 1 focuses on the fundamental concepts of pain, including the science, nomenclature, experience of pain, and the impact of pain on society. Related training goals may potentially link increased knowledge and comprehension of foundational concepts with the clinical precepts of multidimensional pain management.

#### Potential Teaching Methods

Case-based learning, didactic, problem-based learning, simulation-based learning, video webinar platforms including tele-mentoring, or other (e.g., discuss context of pain as observed in art, literature, music, movies; place pain in context of identified provider and patient biases and expectations; identify ideas through media that affect our perceptions and intervention selections)

#### Suggested strategies and content:

- Include content in anatomy and physiology, neurology, behavioral health, and health policy courses (e.g., the depth of pathophysiology would include central and peripheral sensitization, alterations in nociceptive processes leading to chronic pain, confounding psychosocial factors leading to chronic pain)
- Ask students to share their experiences with pain
- Facilitate an interactive discussion on pain in the media; this may include images of people in pain as well as the use of opioids and addiction. Discuss literature that includes pain (e.g., [The Body in Pain](#)<sup>5</sup> by Elaine Scarry; [The Problem of Pain](#)<sup>6</sup> by C.S. Lewis; [A Whole New Life](#)<sup>7</sup> by Reynolds Price)
- Process their experience of how patients are assessed and treated; including the role of bias, stigma, and marginalization
- In health policy classes review issues related to the prescription and administration of opioids in their state as well as the impact of pain on providers, patients and the community (e.g., opioid prescribing, prescription monitoring programs, access to pain management, disparities)
- In health policy classes and when observed during clinical activities identify and discuss possible means to overcome barriers to interprofessional pain care access (e.g. physical and behavioral therapies, addiction services)

Domain 1: Multidimensional Nature of Pain: <i>What is Pain?</i>	
Pain Management Core Competency	Related AAMC Competencies
1.1 Explain the complex, multidimensional and individual-specific nature of pain.	8.8 Recognize that ambiguity is part of clinical health care and respond by utilizing appropriate resources in dealing with uncertainty
1.2 Present theories and science for understanding pain	2.2 Apply established and emerging bio-physical scientific principles fundamental to health care for patients and populations
1.3 Define terminology for describing pain and associated conditions.	2.3 Apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision-making, clinical problem-solving, and other aspects of evidence-based health care
1.4 Describe the impact of pain on society.	2.4 Apply principles of epidemiological sciences to the identification of health problems, risk factors, treatment strategies, resources, and disease prevention/health promotion efforts for patients and populations
1.5 Explain how cultural, institutional, societal and regulatory influences affect assessment and management of pain.	2.5 Apply principles of social-behavioral sciences to provision of patient care, including assessment of the impact of psychosocial and cultural influences on health, disease, care seeking, care compliance, and barriers to and attitudes toward care.



## Domain 2: Pain Assessment and Measurement

### *How is pain recognized?*

#### Establishing Learning Goals

Domain 2 relates to how pain is assessed, quantified, and communicated, in addition to how the individual, the health system, and society affect those activities.

#### Potential Teaching Methods

Case-based learning, didactic, simulation-based learning, video webinar platforms including tele-mentoring, clinical experiences

#### Suggested strategies and content:

- Use multidimensional pain assessment tools during clinical experiences; discuss the benefits and limitations of each tool for specific populations (e.g. pediatric, adult, older adult; acute, chronic, cancer, and end-of-life care; and different care settings, e.g. out-patient, hospitalized, institutional)
- Present cases that allow the discussion of barriers and facilitators of pain assessment and management. Include non-verbal pain assessment tools, age-specific tools, and illustrations of assessment challenges
- Simulate pain assessment in a variety of clinical scenarios and contexts; encourage learners to provide feedback on the communication skills for each member of the learning group (e.g., identify stigmatizing terms and find language that will not stigmatize; identify body language that portrays indifference or not believing patient)
- Observe pain assessment during clinical experiences; offer constructive feedback
- Develop a plan of care to manage pain in the clinical setting using assessment findings while integrating patient preferences and goals, incorporating family and other caregivers when relevant
- Utilize arts and literature to explore provider patient relationships and to examine communication about pain through the lens of culture. (e.g., Stephen King trauma narrative)
- Use quality improvement including patient safety learning activities as a lens to examine pain assessment and treatment options with an emphasis on roles and contribution of interprofessional teams

Domain 2: Pain Assessment and Measurement

*How is pain recognized?*

Pain Management Core Competency	Related AAMC Competencies
<p>2.1 Use valid and reliable tools for measuring pain and associated symptoms to assess and reassess related outcomes as appropriate for the clinical context and population.</p>	<p>1.2 Gather essential and accurate information about patients and their conditions through history-taking, physical examination, and the use of laboratory data, imaging, and other tests.                      1.4 Interpret laboratory data, imaging studies, and other tests required for the area of practice.                      2.1 Demonstrate an investigatory and analytic approach to clinical situations.                      2.3 Apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision making, clinical problem solving, and other aspects of evidence-based health care.</p>
<p>2.2 Describe patient, provider, and system factors that can facilitate or interfere with effective pain assessment and management.</p>	<p>2.5 Apply principles of social-behavioral sciences to provision of patient care, including assessment of the impact of psychosocial-cultural influences on health, disease, care-seeking, care-compliance, and barriers to and attitudes toward care.                      8.1 Develop the ability to use self-awareness of knowledge, skills, and emotional limitations to engage in appropriate help-seeking behaviors.</p>
<p>2.3 Assess patient preferences and values to determine pain-related goals and priorities.</p>	<p>1.5 Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.                      1.7 Counsel and educate patients and their families to empower them to participate in their care and enable shared decision making.                      5.1 Demonstrate compassion, integrity, and respect for others .                      5.2 Demonstrate responsiveness to patient needs that supersedes self-interest.                      5.3 Demonstrate respect for patient privacy and autonomy.</p>
<p>2.4 Demonstrate empathic and compassionate communication during pain assessment.</p>	<p>4.1 Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.                      4.6 Demonstrate sensitivity, honesty, and compassion in difficult conversations, including those about death, end of life, adverse events, bad news, disclosure of errors, and other sensitive topics.                      4.7 Demonstrate insight and understanding about emotions and human responses to emotions that allow one to develop and manage interpersonal interactions.                      5.1 Demonstrate compassion, integrity, and respect for others.                      5.2 Demonstrate responsiveness to patient needs that supersedes self-interest.</p>

## Domain 3: Management of Pain

### *How is pain relieved?*

#### Establishing Learning Goals

Domain 3 relates to collaborative approaches to decision making, diversity of treatment options, the importance of patient agency, risk management, flexibility in care, and treatment based on appropriate understanding of the clinical condition.

#### Potential Teaching Methods

Case-based learning, didactic, problem-based learning, simulation-based learning, team-based learning, clinical experiences, video webinar platforms including tele-mentoring

#### Suggested Strategies and Content:

- Include pain related content in pharmacology courses, specifically discussions surrounding non-opioid, opioid and adjuvant analgesics (e.g., define multimodal analgesia and how it is different than polypharmacy; incorporate patient safety with medications)
- Include pain related content in neurology and psychiatry courses (e.g. neuropathic pain, central pain states, the association of pain and its treatments with co-occurring psychiatric disorders including anxiety, depression, PTSD, and substance use disorders)
- Incorporate issues related to substance use disorder in courses addressing mental health issues. Include differentiating seeking pain relief versus prescription opioid misuse or abuse
- In team-based learning, groups investigate specific acute, chronic, cancer, acute-on-chronic or end of life painful syndromes
- Discuss various self-management strategies and incorporate these into a patient pain management plan
- Observe collaborative pain care and diversity of treatment options during clinical experiences by participating in an interdisciplinary pain management program
- During clinical experiences, identify potential pain treatment options, articulate the risks and benefits of each, and develop a safe and effective treatment plan
- Use quality improvement and patient safety learning activities as a lens to examine pain treatment options with an emphasis on risk assessment
- Using standardized patients, and when possible with interprofessional teams, differentiate physical dependence, substance use disorder, misuse, tolerance, addiction, and non-adherence through history taking, physical exam and review of laboratory results

Domain 3: Management of Pain

*How is pain relieved?*

Pain Management Core Competency	Related AAMC Competencies
<p>3.1 Demonstrate the inclusion of patient and others, as appropriate, in the education and shared decision-making process for pain care.</p>	<p>1.7 Counsel and educate patients and their families to empower them to participate in their care and enable shared decision-making.</p> <p>3.8 Participate in the education of patients, families, students, trainees, peers, and other health professionals.</p> <p>4.1 Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.</p> <p>4.3 Work effectively with others as a member or leader of a health care team or other professional group.</p> <p>4.4 Act in a consultative role to other health professionals.</p>
<p>3.2 Identify pain treatment options that can be accessed in a comprehensive pain management plan.</p>	<p>1.5 Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.</p> <p>2.3 Apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision-making, clinical problem-solving, and other aspects of evidence-based health care.</p> <p>3.6 Locate, appraise, and assimilate evidence from scientific studies related to patients' health problems.</p> <p>4.4 Act in a consultative role to other health professionals.</p>
<p>3.3 Explain how health promotion and self-management strategies are important to the management of pain.</p>	<p>1.5 Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.</p> <p>1.6 Develop and carry out patient management plans.</p> <p>1.9 Provide health care services to patients, families, and communities aimed at preventing health problems or maintaining health.</p>

<p>3.4 Develop a pain treatment plan based on benefits and risks of available treatments.</p>	<p>1.6 Develop and carry out patient management plans.  2.4 Apply principles of epidemiological sciences to the identification of health problems, risk factors, treatment strategies, resources, and disease prevention/health promotion efforts for patients and populations.  2.5 Apply principles of social-behavioral sciences to provision of patient care, including assessment of the impact of psychosocial-cultural influences on health, disease, care-seeking, care-compliance, and barriers to and attitudes toward care.  6.3 Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care.  6.4 Advocate for quality patient care and optimal patient care systems.</p>
<p>3.5 Monitor effects of pain management approaches to adjust the plan of care as needed.</p>	<p>1.5 Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.  1.6 Develop and carry out patient management plans.</p>
<p>3.6 Differentiate physical dependence, substance use disorder, misuse, tolerance, addiction, and non-adherence and how these conditions impact pain and function.</p>	<p>1.2 Gather essential and accurate information about patients and their conditions through history-taking, physical examination, and the use of laboratory data, imaging, and other tests.  1.5 Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.  2.3 Apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision-making, clinical problem-solving, and other aspects of evidence-based health care.</p>
<p>3.7 Develop a treatment plan that takes into account the differences between acute pain, acute-on-chronic pain, chronic/persistent pain, and pain at end of life.</p>	<p>1.5 Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.  1.6 Develop and carry out patient management plans.  2.3 Apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision-making, clinical problem-solving, and other aspects of evidence-based health care.</p>

## Domain 4: Clinical Conditions

### *How does context influence pain management?*

#### Establishing Learning Goals

Domain 4 focuses on the role of the clinician in the application of the competencies developed in Domains 1-3 and in the context of varied patient populations, settings, and care teams.

#### Potential Teaching Methods

Case-based learning, problem-based learning, simulation-based learning, team-based learning, clinical experiences, video webinar platforms including tele-mentoring

#### Suggested Strategies and Content:

- Devote at least one clinical conference to pain issues; have students address pain assessment and management even when pain is not primary concern for a specific patient
- Discuss barriers and interventions to ensure seamless transitions in pain care; address role of various professionals in relieving pain
- Attend an interprofessional team rounding, care conference, or journal club, and have learners discuss how nursing, pharmacy, as well as physical, occupational, and behavioral health therapists contribute to the pain care team regardless of clinical setting (e.g. office, hospital, nursing home)
- Discuss differences in pain management across the life span
- Discuss access to care and social policy as it pertains to people in pain
- Discuss how acute pain not treated can lead to chronic pain, the brain in pain
- Simulate scenarios where the physician can serve as advocate for a patient with pain (e.g., responding to insurers and pharmacy plans when important treatments are denied; challenge colleagues, and others' biases that use of opioids for pain represents "addiction"; justifying the use of an elevated dose of an opioid or seeking to increase the dose when indicated and appropriate; advocate for a patient in pain even with a diagnosis of substance use disorder by continuing to provide safe and effective appropriate pain treatment)
- Consider home visits or visits to nursing care facilities
- Accompany patients through the care continuum as a support person/health navigator
- Have students attend support group meeting for people with chronic pain disorders (e.g., fibromyalgia, sickle cell disease, neuropathy)

Domain 4: Clinical Conditions <i>How does context influence pain management?</i>	
Pain Management Core Competency	Related AAMC Competencies
4.1 Describe the unique pain assessment and management needs of special populations.	<p>1.5 Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.</p> <p>4.6 Demonstrate sensitivity, honesty, and compassion in difficult conversations (e.g. about issues such as death, end-of-life issues, adverse events, bad news, disclosure of errors, and other sensitive topics).</p> <p>5.5 Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.</p>
4.2 Explain how to assess and manage pain across settings and transitions of care.	<p>1.6 Develop and carry out patient management plans.</p> <p>1.8 Provide appropriate referral of patients including ensuring continuity of care throughout transitions between providers or settings and following up on patient progress and outcomes.</p> <p>6.1 Work effectively in various health care delivery settings and systems relevant to one's clinical specialty.</p> <p>7.1 Work with other health professionals to establish and maintain a climate of mutual respect, dignity, diversity, ethical integrity, and trust.</p>
4.3 Describe the role, scope of practice and contribution of the different professions within a pain management care team.	<p>4.2 Communicate effectively with colleagues within one's profession or specialty, other health professionals, and health related agencies.</p> <p>4.3 Work effectively with others as a member or leader of a health care team or other professional group.</p> <p>4.4 Act in a consultative role to other health professionals.</p> <p>7.1 Work with other health professionals to establish and maintain a climate of mutual respect, dignity, diversity, ethical integrity, and trust.</p> <p>7.2 Use the knowledge of one's own role and the roles of other health professionals to appropriately assess and address the health care needs of the patients and populations served.</p> <p>7.3 Communicate with other health professionals in a responsive and responsible manner that supports the maintenance of health and the treatment of disease in individual patients and populations.</p> <p>7.4 Participate in different team roles to establish, develop, and continuously enhance interprofessional teams to provide patient- and population-centered care that is safe, timely, efficient, effective, and equitable.</p>

<p>4.4 Implement an individualized pain management plan that integrates the perspectives of patients, their social support systems and health care providers in the context of available resources.</p>	<p>2.5 Apply principles of social-behavioral sciences to provision of patient care, including assessment of the impact of psychosocial and cultural influences on health, disease, care seeking, care compliance, and barriers to and attitudes toward care.</p> <p>3.9 Obtain and utilize information about individual patients, populations of patients, or communities from which patients are drawn to improve care.</p> <p>5.5 Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.</p>
<p>4.5 Describe the role of the clinician as an advocate in assisting patients to meet treatment goals.</p>	<p>3.8 Participate in the education of patients, families, students, trainees, peers, and other health professionals.</p> <p>6.4 Advocate for quality patient care and optimal patient care systems.</p>



## RESOURCES

### Competencies

Pain Management Core Competencies: [http://www.ucdmc.ucdavis.edu/advancingpainrelief/Projects/Competency\\_Program.html](http://www.ucdmc.ucdavis.edu/advancingpainrelief/Projects/Competency_Program.html)  
AAMC Physician Competency Reference Set  
<https://www.aamc.org/initiatives/cir/about/348808/aboutpcrs.html>

### Curricula

Centers of Excellence in Pain Education (CoEPEs)

Case-based modules covering diverse pain topics available for download and use by educators

<http://painconsortium.nih.gov/coepes.html>

### Curricula

Pain and the Humanities: Exploring the Meaning of Pain in Medicine Through Drama, Literature, Fine Arts and Philosophy:

<https://www.mededportal.org/publication/8129>

International Association for the Study of Pain Curricula

IASP Interprofessional Pain Curriculum Outline 2012. Education Initiatives Working Group, IP Outline Subgroup: Eloise C. Carr, John H. Hughes, Robert N. Jamison, Hellen N. Kariuki, Jordi Miró, Leila Niemi-Murola, Germán Ochoa, Anibal Patricio Scharovsky, Philip J. Siddall (Co-Chair), Judy Watt-Watson (Co-Chair)

<https://www.iasp-pain.org/Education/CurriculumDetail.aspx?ItemNumber=2057>

IASP Curriculum Outline on Pain for Medicine, 2012

Task Force Members: Thomas Graven-Nielsen (Chair), Rolf-Detlef Treede, Adriana Cadavid, James Rathmell

<http://iasp-pain.org/Education/CurriculumDetail.aspx?ItemNumber=729>

### Other Resources

- American Academy of Pain Medicine, <http://www.painmed.org/>
- American Pain Society, [www.americanpainsociety.org](http://www.americanpainsociety.org)
- Committee on Advancing Pain Research, Care, and Education, Institute of Medicine. Relieving Pain in America: A Blueprint for Transforming Pain Prevention, Care, Education and Research. Washington, DC: Institute of Medicine of the National Academies, 2011
- Interprofessional Pain Management Competency Program, University of California-Davis, [www.ucdmc.ucdavis.edu/advancingpainrelief](http://www.ucdmc.ucdavis.edu/advancingpainrelief)
- The NIH Interagency Pain Research Coordinating Committee, National Pain Strategy (2016) [https://iprcc.nih.gov/National\\_Pain\\_Strategy/NPS\\_Main.htm](https://iprcc.nih.gov/National_Pain_Strategy/NPS_Main.htm)
- Schmidt RF, Gebhart GF. Encyclopedia of Pain. 2<sup>nd</sup> Ed. New York: NY: Springer, 2013
- Turk DC, Melzack R. Handbook of Pain Assessment. New York, NY: Guildford Press, 2011

## Endnotes

<sup>1</sup> Mezei L, Murinson BB. Pain education in North American medical schools. *J Pain*. 2011;12(12):1199-208. Epub 2011/09/29.

<sup>2</sup> Fishman SM, Young HM, Lucas Arwood E, et al. Core competencies for pain management: results of an interprofessional consensus summit. *Pain Med*. 2013, 14(7):971-981

<sup>3</sup> Institute of Medicine (U.S.). Committee on Advancing Pain Research Care and Education. Relieving pain in America: a blueprint for transforming prevention, care, education, and research. Washington, D.C.: National Academies Press; 2011. xvii, 364 p.

<sup>4</sup> Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. *MMWR Recomm Rep* 2016;65(No. RR-1):1-49. DOI: <http://dx.doi.org/10.15585/mmwr.rr6501e1>

<sup>5</sup> Scarry, E. (1985). *The body in pain: The making and unmaking of the world*. New York: Oxford University Press.

<sup>6</sup> Lewis, C. S. (1944). *The problem of pain*. New York: Macmillan.

<sup>7</sup> Price, R. (1994). *A whole new life*. Thorndike, Me: G.K. Hall.