



Competency Based Education For Pain Relief



Scott M. Fishman, MD

Professor

Chief, Division of Pain Medicine

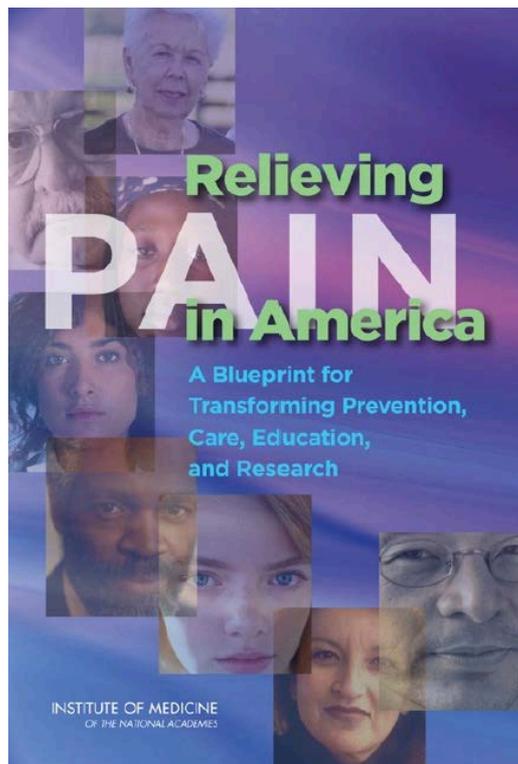
Executive Vice Chair, Dept. of Anesthesiology

Director, Center for Advancing Pain Relief

**University of California, Davis School of
Medicine**

The Problem of Pain in America

- **Disturbing discrepancy**



- Pain is widespread
- Huge toll in suffering, disability, \$'s
- Treatment often delayed, disorganized, inaccessible, or ineffective
- ***The diffusion of knowledge about pain is inadequate***

Institute of Medicine (U.S.). Committee on Advancing Pain Research Care and Education. (2011). *Relieving pain in America : a blueprint for transforming prevention, care, education, and research*. Washington, D.C.: National Academies Press.



RESEARCH
EDUCATION
TREATMENT
ADVOCACY



The Journal of Pain, Vol 12, No 12 (December), 2011: pp 1199-1208
Available online at www.sciencedirect.com

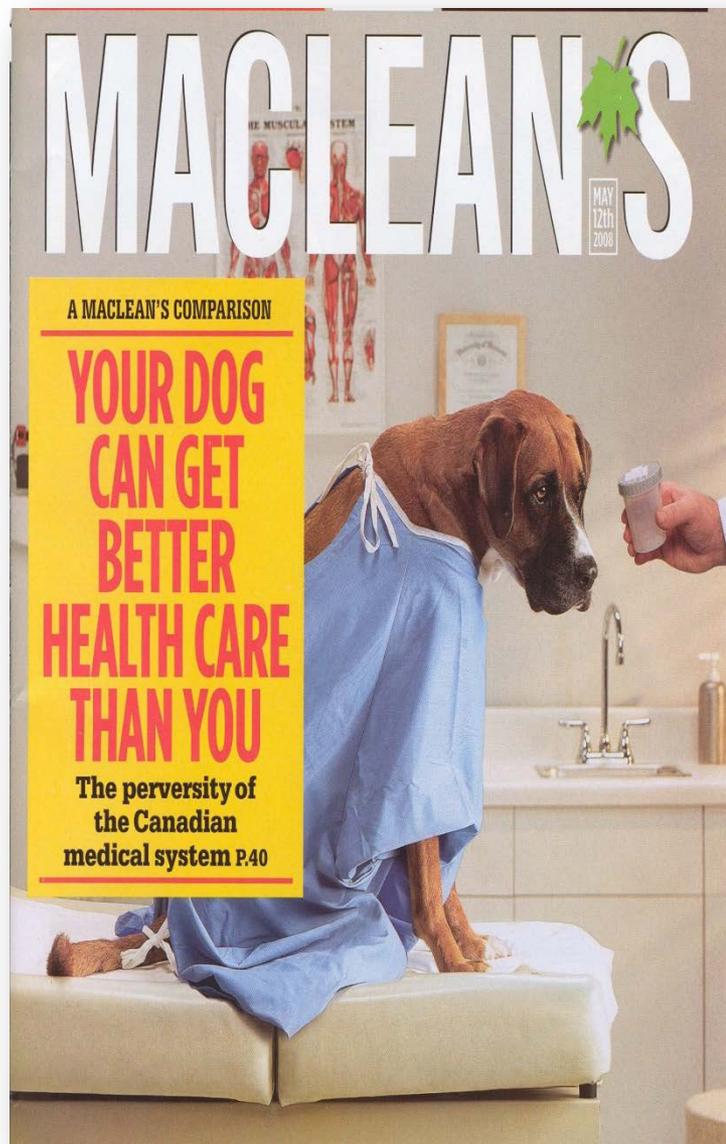
Focus Article

Pain Education in North American Medical Schools

Lina Mezei, Beth B. Murinson, and the Johns Hopkins Pain Curriculum Development Team
Department of Neurology, Johns Hopkins School of Medicine, Baltimore, Maryland.

*“Given that the twin dangers of pain undertreatment and the **abuse of pain-active medications** are among our society’s deepest public health concerns, pain medicine does not receive the attention that it deserves in medical education.”*

Pain Education in Canada



Only 1 /3 Faculties could identify designated pain content hours in health sciences.

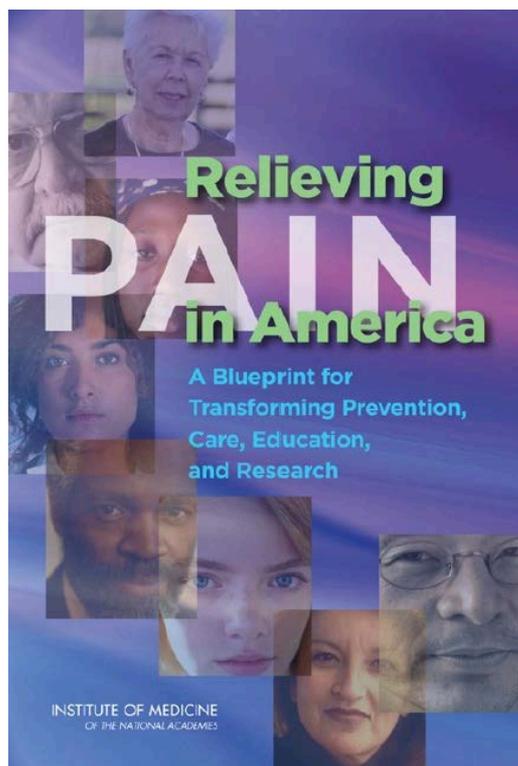
Focus of pain content least for pain assessment, misbeliefs and monitoring.

Veterinary Medicine had 3X more designated pain content hours on average, & 5x medicine

Watt-Watson, McGillion et al., *Pain Res Manage* 2009 14(6), 439-444

Slide Courtesy of Dr. Judy Watt-Watson

The Problem of Pain in America



“There are strong indications that pain receives insufficient attention in virtually all phases of medical education”

Institute of Medicine (U.S.). Committee on Advancing Pain Research Care and Education. (2011). *Relieving pain in America : a blueprint for transforming prevention, care, education, and research*. Washington, D.C.: National Academies Press.



Pain Management Core Competencies for Prelicensure Clinical Education



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Heather M. Young, PhD, RN, FAAN

Associate Vice Chancellor for Nursing, UC Davis
Dean and Professor, Betty Irene Moore School of Nursing at
UC Davis

Consensus Building Interprofessional Summit

- 2-day summit in August 2012
- 30 professionals from different major clinical professions
 - Dentistry, medicine, nursing, pharmacy, physical therapy, psychology, social work, alternative and complementary medicine, & veterinary medicine
 - IP Expertise in pain management, education science, curriculum development, consensus building, and knowledge uptake

Executive Committee

- Project Directors:
 - Scott Fishman, MD
 - Heather Young, PhD, RN, FAAN
- Ellyn Arwood, EdD; University of Portland
- Dan Carr, MD, Tufts University
- Roger Chou, MD; Oregon Health & Science Univ.
- Debra Gordon, DNP, University of Washington
- Keela Herr, PhD, RN, AGSF, FAAN; Univ. of Iowa
- Beth Murinson, MD, PhD; Johns Hopkins Univ.
- Judy Watt-Watson, RN, MsC, PhD; Univ of Toronto

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Naileshni Singh, MD; UC Davis School of Medicine

Kathleen Sluka, PT, PhD; Univ. of Iowa

Barbara St. Marie, PhD, RN, ANP, GNP; University of Minnesota Medical Center

Core Values and Principles

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

Pain Management Core Competencies



Domains

- *Linked with the IASP Curricula [Updated May 2012]*
- *“During the past 3 years, a dedicated group of IASP members have spent time revising all of the uniprofessional curricula. This effort, led by Dr. Judy Watt-Watson, resulted in revised curricula for Dentistry, Medical Schools, Nursing, Occupational Therapy, Physical Therapy, Pharmacy, and Psychology.”*
- **Common Template**

Domains

Adopted from IASP Curricula

DOMAIN 1

- *Multidimensional Nature of Pain: What is pain?*

DOMAIN 2

- *Pain Assessment and Measurement: How is pain recognized?*

DOMAIN 3

- *Management of Pain: How is pain relieved?*

DOMAIN 4

- *Clinical Conditions: How does context influence pain management?*

Domain 1

Multidimensional Nature of Pain: What is pain?

1. Explain the complex, multidimensional and individual-specific nature of pain
2. Present theories and science for understanding pain
3. Define terminology for describing pain and associated conditions
4. Describe the impact of pain on society
5. Explain how cultural, institutional, societal and regulatory influences affect assessment and management of pain

Domain 2

Pain Assessment and Measurement: How is pain recognized?

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. Describe patient, provider, and system factors that can facilitate or interfere with effective pain assessment and management
3. Assess patient preferences and values to determine pain-related goals and priorities
4. Demonstrate empathic and compassionate communication during pain assessment

Domain 3

Management of Pain: How is pain relieved?

1. Demonstrate the inclusion of patient and others, as appropriate, in the education and shared decision-making process for pain care
2. Identify pain treatment options that can be accessed in a comprehensive pain management plan
3. Explain how health promotion and self-management strategies are important to the management of pain
4. Develop a pain treatment plan based on benefits and risks of available treatments ***[# 5-7 next slide]***

Domain 3

Management of Pain: How is pain relieved?

5. Monitor effects of pain management approaches to adjust the plan of care as needed
6. Differentiate physical dependence, substance use disorder, misuse, tolerance, addiction, and non-adherence
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 4

Clinical Conditions:

How does context influence pain management?

1. Describe the unique pain assessment and management needs of special populations
1. Explain how to assess and manage pain across settings and transitions of care
1. Describe the role, scope of practice and contribution of the different professions within a pain management care team ***[# 4-5 next slide]***

Domain 4

Clinical Conditions:

How does context influence pain management?

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. Describe the role of the clinician as an advocate in assisting patients to meet treatment goals

Dissemination

- **Promote awareness and change**
 - Open access website
 - Publish in Journals
 - Anchoring report
 - Publications in journals within each professions journals and literature
 - Present at professional conferences
 - Endorsement from professional and education organizations
 - Implementation
- **Revise and Improve**

PUBLICATIONS

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

Koebner IJ, Herr K. Adopting pain management competencies. *Pain Med.* Jul 2013; 14(7):964-965.

Watt-Watson J, Siddall PJ. Improving pain practices through core competencies. *Pain Med.* Jul 2013; 14(7):966-967.

Kizer KW. Advancing pain care--core competencies for pain management. *Pain Med.* Jul 2013; 14(7):962-963.

Courtenay M, Bair A, Bakerjian D, et al. Interprofessional education: an overview of six initiatives across the schools of health at a single university. *J Interprof Care.* Nov 6 2013.

Hoeger Bement MK, St Marie BJ, Nordstrom TM, et al. An Interprofessional Consensus of Core Competencies for Prelicensure Education in Pain Management: Curriculum Application for Physical Therapy. *Phys Ther.* Dec 5 2013.

Arwood E, Rowe JM, Singh NS, et al. Implementing a paradigm shift: incorporating pain management competencies into pre-licensure curricula. *Pain Med.* 2015 Feb; 16(2):291-300.

Hoeger Bement MK and Sluka KA. The current state of physical therapy pain curricula in the United States: a faculty survey. *J Pain.* 2015 Feb; 16(2):144-52

ENDORSEMENTS



American Academy of Pain Medicine, American Pain Society, Commission on Collegiate Nursing Education, Council on Social Work Education, International Association for the Study of Pain, National Association of Social Workers, American Council of Academic Physical Therapy

SUPPORT

American Association of Medical Colleges, American Psychological Association, American Nursing Association, others

Dissemination

- **Promote awareness and change**
 - Implementation
 - Accreditation and Clinician Certification

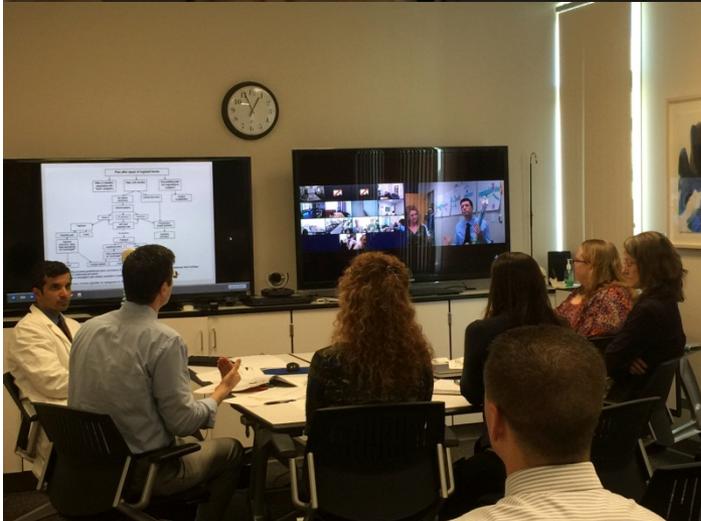
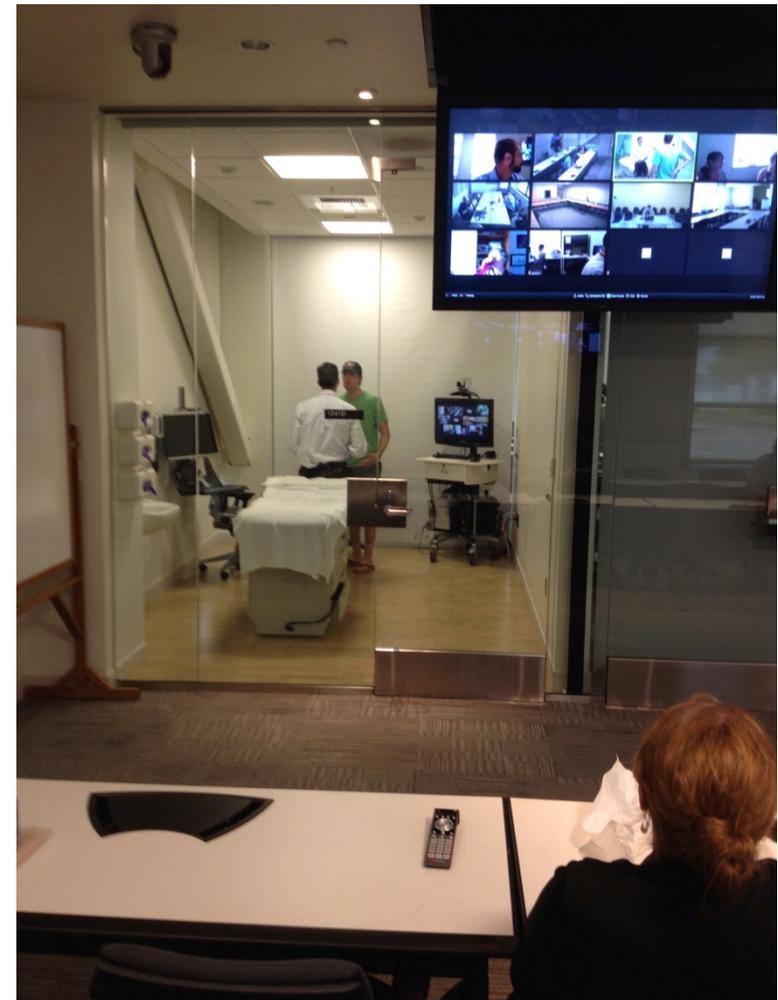
UC Davis ECHO[®] Pain Management

- Peer-to-peer Tele-Mentoring program
- Core-competencies in pain management as foundation for CME
- Fosters primary care centers of excellence in pain management
- Ongoing partnership with Medicaid health plans
 - Recruitment of clinical sites
 - Design sustainability plan

UC Davis ECHO® Pain Management

- Multidisciplinary team representing >7 health professions
- Approximately 18 primary care sites
- Videoconference sessions held weekly
 - 75 minutes
 - Didactic presentations and case discussions
- Funded through a two-year grant from the California HealthCare Foundation

UC Davis ECHO[®] Pain Management



UC Davis ECHO® Pain Management

- February 4, 2014 – December 30, 2014,
 - 200 unique attendees from 22 clinics took part in the learning sessions
 - 445 completed post-session evaluation surveys (31.92%)
 - 96.6% of participants reported increased competence as a result of participation
 - 98.2% reported that the experience helped them care for their patients with pain

UC Davis ECHO[®] Pain Management

Attitudes to Providing Care to Individuals with Chronic Pain N = 21

1=Strongly Disagree, 6 = Strongly Agree	Baseline	6-month follow-up	Difference
Working with patients with chronic pain is satisfying	2.92	3.67	0.74
There is little I can do to help patients with chronic pain	2.48	1.90	-0.58
Patients with chronic pain irritate me	3.15	2.70	-0.45
Patients with chronic pain are particularly difficult for me to work with	3.28	3.43	0.15
I can usually find something that helps patients like this feel better	3.42	4.10	0.67
I prefer not to work with patients with chronic pain	3.19	2.57	-0.62

Perceived Competence in Providing Chronic Pain Care N = 21

1 = no competence, 100 = very competent	Baseline	6-month follow-up	Difference
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.	57.35	71.79	14.44
Differentiate physical dependence, substance use disorder, misuse, tolerance, addiction, and non-adherence.	51.30	64.79	13.49
Describe the unique pain assessment and management needs of special populations.	48.23	61.11	12.88
Present theories and science for understanding pain.	45.86	58.61	12.75
Explain how health promotion and self-management strategies are important to the management of pain.	62.70	75.26	12.57
Use valid and reliable tools for measuring pain and associated symptoms.	55.33	66.26	10.93
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.	57.35	71.79	14.44

UC Davis ECHO[®] Pain Management

- **Full evaluation underway**
 - Access to Care
 - Changes in knowledge, attitudes and behaviors
 - Resource utilization
 - Quality and safety

Pain Competency Based Interprofessional Simulated Learning Modules

- Develop and test a Pain Competency Based Simulated interprofessional training experience for students of prelicensure health professional schools
- Funded through a 2-year grant from the Josiah Macy, Jr. Foundation



Pain Competency Based Interprofessional Simulated Learning Modules

- Pain competencies selected through a consensus summit
- Learning strategies and clinical scenarios developed through a 2nd consensus summit

Pain Competency Based Interprofessional Simulated Learning Modules

- Summits attended by diverse IP experts
 - Education science, pain medicine, primary care, pharmacy, social work, psychology, as well as resident physicians, and nursing and medical students.
- Simulated educational modules are under development
 - Incorporate 6 pain competencies and 6 interprofessional practice competencies

AAMC Competencies for General Medicine



- Across the 58 competences, “pain” is not mentioned once
- AAMC competencies are broad
 - 16 of the 21 pain competencies are, at least to some extent, covered by one or more of the AAMC competencies
 - Pain-related concepts could be readily incorporated into two key AAMC competencies

Essentials of Baccalaureate Education for Professional Nursing Practice (2008)



- Nine “Essentials”
 - Delineate the outcomes expected of graduates of baccalaureate nursing programs.
 - **Pain is not mentioned once**
 - (although mentioned briefly as possible “sample content” pg. 32)

Essentials of Baccalaureate Education for Professional Nursing Practice

- ALL 21 Pain Competencies are, at least to some extent, covered by one or more of the 9 BEPNP Essentials
- Pain-related concepts could be readily incorporated into many of the BEPNP essentials

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UNITED STATES MEDICAL LICENSING EXAMINATION®

The Interprofessional Pain Management Competency Program (IPMCP) sent reviewers to NBME headquarters for a secure review of USMLE content related to pain and pain management

- Passing this examination is required for licensure of every US allopathic physician



- November 2014
- A blue ribbon panel of 12 internationally recognized experts in pain a review of the USMLE exam for inclusion of pain competencies
- Secure Review in Philadelphia

USMLE Pain Review

- **Dan Carr, MD** (AAPM President-elect Member, Professor-Tufts)
- **Martin Cheate, PhD** (Pain Psychologist, Penn)
- **Scott Fishman, MD** (AAPM Past President, Professor- UC Davis)
- **Rollin Gallagher, MD** (AAPM Past President, National Director for Pain Management VAHS, Professor-Penn)
- **Joanna Katzman, MD** (Director of Pain Medicine and Pain ECHO, Professor, University of New Mexico)
- **Beth Murinson, MD, PhD** (AAPM BOD – Professor-John Hopkins)
- **Sean Mackey, MD, PhD** (AAPM President & Chief of Pain Medicine, Professor- Stanford)
- **Rosemary Palomano, PhD, RN** (University of Pennsylvania School of Nursing)
- **Adrian Popescu, MD** (Deputy Director for the National Pain Management VA Health System)
- **Jim Rathmell, MD** (ASA BOD and Pain Committee, Chief of Pain Medicine, Professor-Harvard/MGH)
- **Rick Rosenquist, MD** (ASA Pain Committee Chair, Past President of ASRA, Professor, Cleveland Clinic)
- **David Tauben, MD** (Chief, Pain Medicine, Professor, Univ. of Washington)



- Prior to the evaluation, we found that there had been previous USMLE evaluations but none with reproduced or reproducible methods
- The panel developed a data collection protocol to collect up to ten data points on each question
 - including incorporation of questions related to the pain management core competencies
- 6 teams of two reviewers assessed subsets of questions from each of the three exam steps
 - Steps 1, 2, and 3



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UNITED STATES MEDICAL LICENSING EXAMINATION®

Question Number	Includes Pain (1 = yes or 0 = no)	How Closely Related to Pain 1 = Fully related to pain or its management 2 = Partially related to pain or its management 3 = Not related to pain but includes pain-related terms or content	Quality 1 = Acceptable Quality; 2 = Question and/or answer no longer relevant (outdated evidence, standard of practice); 3 = The question and/or answer not worded clearly and could be interpreted in multiple ways; 4 = The answer is incorrect	Domain Number	Competency (numbers)	Major Topics in Pain	Other Major Topics (e.g. craniofacial pain, headache, transitions acute to chronic)	Key Public Health Issues	Testing Strategy 1 = Requires direct knowledge or factual information of the basic and clinical sciences related to pain terminology assessment or management 2 = Requires application of knowledge 3 = Requires decision-making regarding therapeutic choices based on assimilation of clinical information	Notes
<i>example</i> 1.1	1				1.4. (i.e., domain 1, comp 4), 2.2 (i.e., domain 2, comp 2)					



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Competency (numbers)	Major Topics in Pain	Other Major Topics (e.g. craniofacial pain, headache, transitions acute to chronic)	Key Public Health Issues	<p>Testing Strategy</p> <p>1 = Requires direct knowledge or factual information of the basic and clinical sciences related to pain terminology assessment or management</p> <p>2 = Requires application of knowledge</p> <p>3 = Requires decision-making regarding therapeutic choices based on assimilation of clinical information</p>	Notes
1.4. (i.e., domain 1, comp 4), 2.2 (i.e., domain 2, comp 2)					

Major Topics in Pain

1. Human and social costs of pain	A. Pain incidence and causes
	B. Worldwide problem of pain
	C. Pain, disability and pain economics
	D. Gender and age-related pain effects
2. Basic science of pain	A. Transduction of nociceptive stimuli
	B. Transmission: 1□ and 2□ nociceptor
	C. Perception: Cortical and subcortical pain representation
	D. Modulation: Inhibition and facilitation
3. Clinical assessment of pain	A. Pain/Symptom focused interview (QRST approach)
	B. Examination of painful limbs/joints
	C. Examination of spine
	D. Diagnostic testing and clinical decision making
4. Pharmacological pain management	A. NSAIDS/COX inhibitors
	B. Opioids
	C. <u>Neuromodulation</u> agents
	D. Analgesia and placebo
5. <u>Nonpharmacological</u> pain management	A. Counseling/shared decision making
	B. Conservative pain treatment and evidence-based CAM
	C. Clinical psychology of pain
	D. Rehabilitation and pain
6. Acute pain	A. <u>Peri-operative</u> pain care
	B. Pain in the setting of trauma and fracture
	C. Headache
	D. Pain emergencies

7. Chronic pain, including types and forms of pain	A. Nociceptive pain
	B. Inflammatory pain
	C. Neuropathic pain
	D. Other pain syndromes: FM, HIV, DM
8. Pediatric pain	A. Pain in pediatric patients (infants, toddlers, adolescence)
	B. <u>Peri-procedure</u> pain assessment, prevention, and management
9. Geriatric pain	A. Pain processing in older adults
	B. Major causes of pain in aging
	C. Adjustments to pain treatments with age
	D. Pain assessment in nonverbal and demented patients
10. Cancer pain/palliative care	A. Pain assessment in cancer
	B. Pain management in palliative care
	C. Communication about pain in cancer
	D. Impact of cancer pain on quality of life
11. Pain ontology (meaning, culture, ethnicity)	A. Interpretation of pain (the meaning of pain)
	B. Pain definitions and taxonomy
	C. Perspectives on the physician's duty to relieve pain
	D. Communicating about culturally defined treatment alternatives
12. Interventional approaches to pain care	A. Injections
	B. Neurosurgery for pain
	C. Orthopedic interventions
	D. Stimulator techniques
13. <u>Medicolegal</u>	A. Substance abuse
	B. Pain contracts, risk assessment and documentation standards
	C. Process of medico-legal complaints
	D. Case law in pain management
14. Visceral, pelvic and abdominal pain	
15. Gynecological and obstetric pain problems	



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UNITED STATES MEDICAL LICENSING EXAMINATION®

Key Public Health Issues

Pain and:

1. Disparities
2. Infants
3. Adolescents
4. Childbirth
5. Older adults
6. End of life
7. Prescription safety, abuse, addiction and misuse
8. Mental illness
9. Chronic Disease Comorbid with Chronic Pain
10. Military-Related Pain
11. Disability
12. Cancer treatment and cancer survival
13. Chronic pain after surgery
14. Patient-reported outcomes
15. Other:



Across all steps

- 432/1506 questions mentioned pain (28%)
- 232/1506 questions were at least partially related to pain
 - 15% of all questions
 - 54% of all questions that mentioned pain



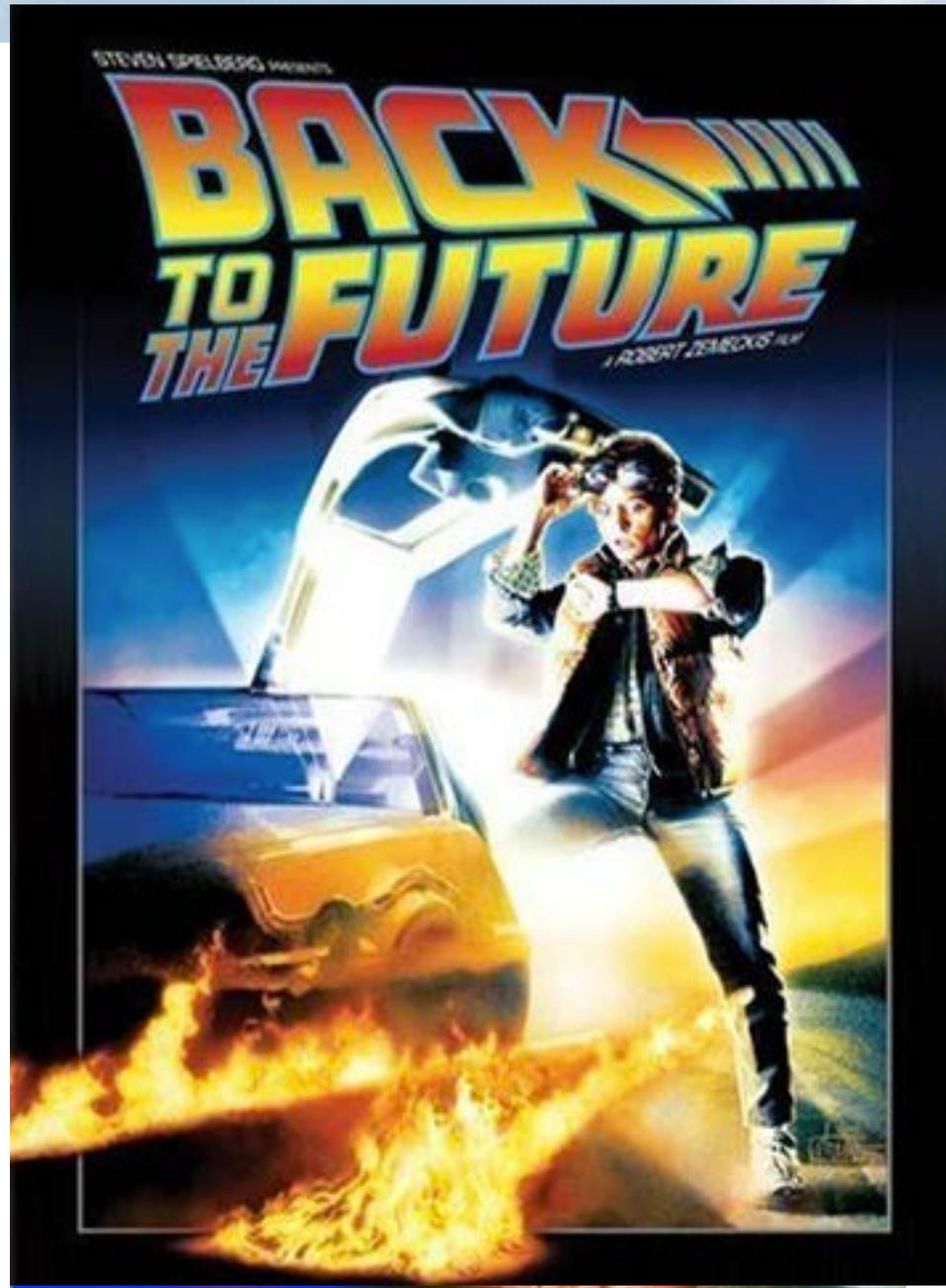
Across all steps

- 94/1506 questions were fully related to pain
 - 6% of all questions
 - 22% of all questions that mentioned pain
- 138/1506 questions were partially related to pain
 - 9% of all questions
 - 32% of all questions that mentioned pain
- 200/1506 questions mentioned pain but were not related to pain
 - 12% of all questions
 - 46% of all questions that mentioned pain)



Across all steps

- In 284/1506 questions, pain was limited to a presenting sx within the question (18%).





National Pain Strategy

A Comprehensive Population Health-Level Strategy for Pain

Professional Education and Training

Objective: *[Overarching Objective]*

- Develop, review, promulgate, and regularly update **core competencies** for pain care education and licensure and certification at the undergraduate and graduate levels

Conclusions

- CBE is here
- Pain Education is not...
 - Inadequate
 - Imperative for changing the state of pain care
- Change
 - Requires a foundation of Expected Competencies
 - Educators appear to be resistant to change unless required to change by their Accrediting and Licensing Organizations

*"I am all for progress.
It's change I object to."*

-Mark Twain

THANK YOU

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