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Recommended Curriculum Guidelines for Family Medicine Residents

Chronic Pain Management

This document was endorsed by the American Academy of Family Physicians (AAFP).

Introduction

This Curriculum Guideline defines a recommended training strategy for family medicine residents. Attitudes, behaviors, knowledge, and skills that are critical to family medicine should be attained through longitudinal experience that promotes educational competencies defined by the Accreditation Council for Graduate Medical Education (ACGME), www.acgme.org. The family medicine curriculum must include structured experience in several specified areas. Much of the resident's knowledge will be gained by caring for ambulatory patients who visit the family medicine center, although additional experience gained in various other settings (e.g., an inpatient setting, a patient's home, a long-term care facility, the emergency department, the community) is critical for well-rounded residency training. The residents should be able to develop a skillset and apply their skills appropriately to all patient care settings.

Structured didactic lectures, conferences, journal clubs, and workshops must be included in the curriculum to supplement experiential learning, with an emphasis on outcomes-oriented, evidence-based studies that delineate common diseases affecting patients of all ages. Patient-centered care, and targeted techniques of health promotion and disease prevention are hallmarks of family medicine and should be integrated in all settings. Appropriate referral patterns, transitions of care, and the provision of cost-effective care should also be part of the curriculum.

Program requirements specific to family medicine residencies may be found on the ACGME website. Current AAFP Curriculum Guidelines may be found online at www.aafp.org/cg. These guidelines are periodically updated and endorsed by the AAFP and, in many instances, other specialty societies, as indicated on each guideline.

Each residency program is responsible for its own curriculum. **This guideline provides a useful strategy to help residency programs form their curricula for educating family physicians.**

Preamble

Chronic pain is a state in which pain persists beyond the expected time for healing of an acute disease or injury (typically greater than three months), resulting in continuous or recurrent pain lasting months or years. It has neurological, emotional, and behavioral features that often impact a patient's quality of life, function, and social roles. Chronic pain is a leading cause of occupational disability and is one of the most common reasons patients visit a family physician.

Patient suffering can evoke empathy and compassion in health care providers. However, in patients who have chronic pain, complex psychosocial factors and learned behavior influence how individuals experience pain and interact with the health care system. These factors can impair the physician-patient relationship. Family physicians are challenged to use new toolkits in their approach to chronic pain and to find new ways of communicating care goals that will engage and activate their patients.

Neuroscience has shown that pain is a neural output of the brain that responds to a threat message. The brain can turn down or turn up the volume of pain, even in the absence of physical injury or pathology. This evolving understanding of how the brain affects pain requires a multidisciplinary approach to chronic pain, re-education of patients, and creative treatment plans that restore function and improve quality of life. Multimodal therapies that include cognitive, physical, and behavioral therapy, and nonopioid medications should be the first-line treatments for chronic noncancer pain. Chronic opioid therapy (COT) should no longer be considered the mainstay of chronic pain management. Over the last 20 years, there has been a tenfold increase in opioid prescriptions in the United States so that Americans—who comprise 5% of the world's population—now consume 80% of the world's opioid supply. Despite the widespread use of COT, there is little evidence to support the long-term (greater than 12 weeks) efficacy of COT in improving pain or function, and there is ample evidence of its risk for harm. An alarming rise in deaths from prescription opioids and admissions to drug treatment programs for prescription opioid abuse have mirrored the steep rise in opioid prescriptions. Significant long-term side effects of COT include falls and fractures, hypogonadism, immunosuppression, hyperalgesia, and sleep-disordered breathing. It is of concern that an adverse selection has occurred so that COT is now prescribed more often, for the longest duration, and at the highest doses to the highest risk patients (i.e., those with preexisting substance abuse and mental health disorders).

It is essential for training programs to teach residents safe prescribing practices and skills that will protect their patients' communities, as well as their medical licenses and

practices. This can be achieved by determination of an accurate diagnosis, adherence to standardized guidelines, proper documentation, and systematic detection of and response to aberrant patient behaviors. Focus should be placed on preventing the inappropriate transition from acute to chronic opioid therapy and avoiding COT altogether when other alternatives for treating pain may be equally effective and less harmful. Finally, residents must be trained to safely taper patients off of COT when it is determined to no longer be appropriate.

This Curriculum Guideline provides an outline of the competencies, attitudes, knowledge, and skills that should be among the objectives of training programs in family medicine, thereby leading to the safe and appropriate management of chronic pain by family physicians in the future.

Competencies

At the completion of residency training, a family medicine resident should:

- Understand the pathophysiology and treatment of chronic pain (Medical Knowledge)
- Understand how the complex interplay of psychosocial factors, cultural factors, adverse childhood events, and gender affect chronic pain (Medical Knowledge)
- Demonstrate empathy and compassion for patients who have chronic pain (Interpersonal and Communication Skills, Professionalism)
- Apply the knowledge of pain, patient-centered treatment, and delivery systems to the care of patients who have chronic pain (Patient Care)
- Conduct a chronic pain chart review to identify strategies for improved care (Practice-Based Learning and Improvement)
- Appropriately utilize available community resources to optimally manage pain (Systems-based Practice)

Attitudes

The resident should demonstrate attitudes that encompass:

- Acknowledgment of the subjective and individual nature of pain
- Appreciation of the biopsychosocial effects of pain and the therapeutic value of empathy
- Recognition of the need for a multidisciplinary approach to pain management
- Understanding of the risk for adverse effects of long-term opioid use, opioid abuse, diversion, physical dependence, and addiction

Knowledge

In the appropriate setting, the resident should demonstrate the ability to apply knowledge of:

1. Fundamentals of pain
    a. Definitions
    b. Epidemiology
    c. Pathophysiology, including central sensitization
    d. The acute to chronic pain continuum
    e. The psychology of pain, including common cognitive distortions
2. Assessment of pain
    a. Diagnosis
        i. History, including past evaluations and treatments
        ii. Physical examination, including Waddell signs
        iii. Appropriate diagnostic evaluation, including imaging studies and laboratory tests
    b. Assessment of function across domains
    c. Screening for comorbidities
        i. Chronic disease
        ii. Mental health disorders
        iii. Substance abuse/dependence
        iv. Adverse childhood events
3. Categories of chronic pain
    a. Nociceptive (tissue damage or inflammation)
        i. Somatic
            1) Osteoarthritis
            2) Rheumatoid arthritis
        ii. Visceral
    b. Neuropathic (damage or dysfunction of the peripheral nerves)
        i. Peripheral neuropathies
        ii. Complex regional pain syndromes
        iii. Post-herpetic neuralgia
    c. Mixed pain
        i. Cancer pain
        ii. Neck and back pain with radicular components
    d. Chronic pain syndromes (centralized pain)
        i. Fibromyalgia
        ii. Headache
        iii. Low back pain
        iv. Irritable bowel

v. Pelvic pain

4. Monitoring of pain
    a. Pain and function scales
    b. The 4 A's of monitoring and documentation when medication is prescribed
        i. Analgesic effect
        ii. Activity/function
        iii. Adverse reactions
        iv. Aberrant behaviors
    c. Setting realistic goals, including function
    d. Regular follow-up

5. Nonpharmacologic treatment
    a. Self-management through lifestyle modification
        i. Sleep hygiene
        ii. Healthy diet
        iii. Smoking cessation
        iv. Graded exercise program
    b. Physical rehabilitation and restoration of function
        i. Physical/occupational therapy
        ii. Biofeedback training
        iii. Transcutaneous electrical nerve stimulation (TENS) unit
        iv. Ultrasound
        v. Osteopathic manipulation
        vi. Ice pack therapy
    c. Cognitive
        i. Address distressing negative cognitions and beliefs (catastrophizing)
        ii. Psychotherapy
        iii. Dialectical behavior therapy
        iv. Relaxation, mindfulness, stress management
    d. Spiritual
        i. Identify existential stress
        ii. Seek meaning and purpose in life
    e. Complementary/alternative medicine
    f. Indications for surgical referral

6. First-line medications (nonopioid medications)
    a. Pain relievers
        i. Acetaminophen
        ii. Nonsteroidal anti-inflammatories
        iii. Topical analgesics and anesthetics
    b. Adjuvants

i. Antidepressants
ii. Anticonvulsants
iii. Muscle relaxants

c. Corticosteroids

d. Joint and trigger point injections

e. Herbs and natural remedies

7. Chronic opioid therapy (COT)

a. Assessment for COT
i. Does the condition warrant treatment with COT?
1) Lack of evidence for fibromyalgia, headache, and low back pain
ii. Have all other treatments been exhausted?
iii. Is the patient an appropriate candidate for COT?

b. Opioid medication of choice
i. Characteristics of and differences among opioids, including methadone
ii. Calculate morphine equivalent dose (MED)
iii. Conversion between opioids
iv. Appropriate titration and tapering of opioids

c. Formulating a treatment plan
i. Material risk notice
ii. Informed consent

d. Implementing a therapeutic trial

e. Ongoing management
i. Titration guidelines and dosing limits
ii. Modifying treatment plans based on treatment efficacy and achievement of functional goals
iii. Anticipating and managing side effects
iv. Avoiding disease state and drug interactions, and concomitant central nervous system (CNS) acting medications and substances

f. Preventing and reducing aberrant behaviors and abuse
i. Tools to predict risk
ii. Structured management based on risk
iii. Prescription drug monitoring programs
iv. Random urine drug screening

g. When/how to taper/discontinue
i. Substance abuse, misuse, and/or diversion
ii. Lack of efficacy/no improvement in function
iii. Side effects

h. State and federal regulatory issues

2. Delivery system design

a. Family medicine practice

i. Establishing a consistent approach to treatment of chronic pain, including prescribing guidelines
ii. Education and the role of support staff
iii. Patient education toolkit
iv. Medication agreement
v. Documentation guidelines
vi. Managing difficult patient behaviors

b. Interdisciplinary collaboration
i. Referral to internal or external behavioral health resources
ii. Referral to clinical pharmacist
iii. Referral to case management
iv. Referral to pain management
v. Referral for surgical correction
vi. Referral for addiction and/or drug detoxification
vii. Local law enforcement and U.S. Drug Enforcement Administration (DEA) reporting guidelines
viii. State medical board guidelines for documentation

Skills

In the appropriate setting, the resident should demonstrate the independent ability to:

1. Accurately assess and monitor pain, level of function, and quality of life parameters

2. Develop an evidence-based, comprehensive, multimodal treatment plan for chronic pain

3. Communicate effectively with patients, including addressing common cognitive distortions and utilizing motivational interviewing techniques

4. Risk stratify patients by assessing mental health and substance abuse risk using validated screening tools

5. Effectively establish a chronic pain medication agreement

6. Properly interpret urine toxicology screening tests

7. Adjust treatment plans based on efficacy, function, adverse reactions, or aberrant behaviors

8. Develop a structured follow-up plan based on risk

9. Calculate morphine equivalent doses

10. Perform joint and trigger point injections

11. Treat special populations, including children, pregnant women, and the elderly

Implementation

The curriculum should be structured as a combination of didactic presentations, workshops, reading materials, web-based modules, case conferences, and chart reviews. Since pain management occurs in a variety of settings throughout training, the curriculum is well-suited to a longitudinal structure. In addition to the components listed above, faculty should model effective pain and systems management in the family medicine center. The residency website can be used to host didactic content, calendars, tests, patient-care resources and tools, and opportunities for advanced training.

Resources

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Website Resources

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American Chronic Pain Association. www.theacpa.org

American Pain Society. http://ampainsoc.org/

Boston University. Safe and Competent Opioid Prescribing Education (SCOPE) of Pain. www.scopeofpain.com/

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