Recommended curriculum guidelines for family medicine residents

Chronic pain management

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

INTRODUCTION

Each family medicine residency program is responsible for its own curriculum. The AAFP Commission on Education's Subcommittee on Graduate Curriculum has created this guide as an outline for curriculum development, and it should be tailored to the needs of the program.

Through a series of structured and/or longitudinal experiences, the curricula below will support the overall achievement of the core educational competencies defined by the Accreditation Council for Graduate Medical Education (ACGME) and provide guideposts to program requirements specific to family medicine. For updates and details, please refer to the ACGME website at www.acgme.org. Current AAFP curriculum guidelines may be found online at 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.

PREAMBLE

Chronic pain is a leading cause of occupational disability and one of the most common reasons patients visit a family physician. It has neurological, emotional and behavioral features that often impact a patient's quality of life, function and social roles. This curriculum guideline provides suggestions for appropriate curricula for chronic pain management.

Family physicians are challenged to implement evidence-based strategies in their approach to chronic pain and to find effective ways to communicate care goals that will engage patients in their care plans with a focus on functional improvement. This curriculum guideline explores critical foundational knowledge areas, communication best practices and multimodal therapies for the management of chronic pain. Residents should learn to develop treatment goals with patients through honest, empathetic conversations about realistic expectations and use validated functional assessments to guide plans and tailor care.

This curriculum guideline outlines the competencies, attitudes, knowledge and skills that should be among the objectives of family medicine training programs, thereby leading to the safe and appropriate management of chronic pain by family physicians.

PATIENT CARE

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

1. Recognize the subjective and individualized presentation and experience of pain
2. Conduct an assessment of pain, including:
    a. Historical information that impacts pain experience, potential cause and risk factors, including:
        i. Family, surgical and social history
        ii. Comorbidities, including chronic disease, mental health disorders, substance use disorder and adverse childhood events
        iii. Past evaluations and treatments
        iv. Function across domains
        v. Other psychosocial factors and social determinants of health (SDOH)
    b. Physical examination, including musculoskeletal, neurologic, visceral and psychologic/psychiatric
    c. Diagnostic evaluation, including imaging studies and laboratory tests, as indicated
3. Recommend nonpharmacologic treatment for appropriate pain syndromes
    a. Describe and coach patients on optimizing lifestyle changes to address pain through self-management strategies, including:
        i. Sleep hygiene
        ii. Healthful diet
        iii. Smoking cessation
        iv. Caffeine use
        v. Graded exercise program
        vi. Stress management
    b. Describe and recommend physical rehabilitation and function restoration strategies for appropriate pain syndromes, including:
        i. Physical and occupational therapy
        ii. Biofeedback training
        iii. Transcutaneous electrical nerve stimulation (TENS) unit

      iv. Spinal manipulation, including osteopathic manipulation
      v. Ice and heat application
      vi. Acupuncture
   c. Identify and recommend psychiatric and cognitive treatments for appropriate pain syndromes
      i. Address distressing negative cognitions and beliefs (catastrophizing)
      ii. Cognitive-behavioral therapy
      iii. Dialectical behavior therapy
      iv. Relaxation, mindfulness, stress management
      v. Pain neurophysiology education
   d. Understand other nonpharmacological treatments of pain and the evidence behind these modalities, including complementary and alternative medicine practices
   e. Identify the indications for specialty referral (e.g., orthopedics, physical medicine and rehabilitation, interventional pain management, etc.)
4. Recommend nonopioid pharmacologic treatment for appropriate pain syndromes
   a. Describe and explain to patients the first-line treatments for pain, including acetaminophen, nonsteroidal anti-inflammatories, topical analgesics, antidepressants and anticonvulsants
   b. Understand the pharmacology of nonopioid pain-relieving medications, including proper dosing, usage and indications
   c. Understand and describe the use of injection-based treatment for pain
   d. Demonstrate competency in performing large joint, soft tissue and trigger point injections for pain relief
   e. Understand and describe the evidence of naturopathic remedies for the treatment of pain
5. Appropriately utilize chronic opioid therapy for selected patients
   a. Assess for indications for chronic opioid therapy, including:
      i. Past treatments with nonpharmacological and pharmacological treatments
      ii. Safety of chronic opioid therapy for individual patients using structured risk assessment tools
      iii. Diagnostic indication and chronic pain syndrome being addressed
      iv. Evidence for or against opioid or other pharmacologic treatments for specific pain syndromes (e.g., fibromyalgia)
      v. Individualized assessment for long-term adverse risks of chronic opioid therapy, including dependence, substance use disorders, overdose, respiratory depression, falls and constipation
      vi. Follow state requirements for prescribing scheduled medications
   b. Identify an appropriate opioid medication
      i. Understand characteristics of and differences among opioids, including methadone, buprenorphine, hydrocodone, oxycodone and morphine
      ii. Calculate morphine milligram equivalents (MME)
      iii. Safely convert between opioids
      iv. Titrate and taper opioids appropriately

c. Formulate a treatment plan
   i. Use shared decision-making to set goals of care and expectations
   ii. Obtain and document informed consent and controlled substance agreements
   iii. Implement a therapeutic trial starting with short-acting medications at the lowest possible dose

d. Monitor the chronic and evolving nature of pain and provide ongoing management
   i. Consistently use a structured pain and functional assessment scale to track progress and adjust the treatment plan
   ii. Monitor and document the 4As when medication is prescribed:
      1. Analgesic effect
      2. Activity/function
      3. Adverse reactions
      4. Aberrant behaviors
   iii. Set realistic expectations, tailored to the patient's goals, including function
   iv. Identify and implement an appropriate follow-up schedule
   v. Maintain a therapeutic alliance, even in challenging situations
   vi. Titrate safely and within appropriate MME levels for primary care, typically <50-90 MME per day
   vii. Modify treatment plans based on treatment efficacy and achievement of functional goals
   viii. Anticipate, educate and manage side effects
   ix. Avoid risky disease states and drug interactions with concomitant central nervous system (CNS) acting medications and substances
   x. Appropriately manage acute pain with opioids or adjunct medications in the context of increased tolerance

e. Prevent and reduce aberrant behaviors and misuse
   i. Complete opioid risk assessment and screening for substance use disorders
   ii. Individualize follow-up time frames based on risk, organizational policy and state and federal laws
   iii. Complete controlled substance agreements and informed consent to set shared expectations, roles and responsibilities
   iv. Utilize prescription drug monitoring programs (PDMP) and urine drug screens to monitor for safety in use
   v. Individualize treatment for patients who have been unable to adhere to treatment plans
   vi. Develop a plan to treat acute pain in a patient with opioid use disorder

f. Understand indications to taper and discontinue chronic opioid treatment, including:
   i. Substance misuse and/or diversion
   ii. History of overdose
   iii. Substance use disorder
   iv. Lack of efficacy or no improvement in function

    v. Side effects, such as respiratory depression, hyperalgesia, mood disorder and seizure
6. Adjust treatment to address the needs of special populations, including children, pregnant persons, those with chronic disease(s) and the elderly
    a. Describe physiologic differences in children, pregnant persons and older adults that influence medication metabolism, distribution and elimination
    b. Select appropriate drug formulations and dosing regimens based on age, weight, renal/hepatic function and pregnancy status
    c. Identify contraindicated medications and high-risk interventions for each special population, explaining the rationale for avoidance
    d. Recognize atypical disease presentations that may occur in pediatric, obstetric and geriatric populations, resulting in chronic pain syndromes
    e. Modify nonpharmacologic treatment plans (e.g., physical therapy, nutrition, counseling) to accommodate developmental stage, mobility and comorbidities

MEDICAL KNOWLEDGE

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

1. Demonstrate knowledge of the fundamentals of pain
    a. Definitions
    b. Epidemiology
    c. Pathophysiology, including central sensitization
    d. Acute to chronic pain continuum
    e. Psychology of pain, including common cognitive distortions
    f. Role of disparities in assessment and treatment of pain
    g. Role of disparities in various contexts (i.e., medicolegal, workers' compensation)
2. Demonstrate understanding of the categories of chronic pain
    a. Nociceptive (tissue damage or inflammation)
        i. Somatic
            1) Musculoskeletal chronic pain syndromes
        ii. Visceral
    b. Neuropathic (damage or dysfunction of the peripheral nerves)
        i. Peripheral neuropathies
        ii. Complex regional pain syndromes
        iii. Post-herpetic neuralgia
    c. Nociplastic (where there is no identifiable tissue insult with central sensitization)
        i. Fibromyalgia
        ii. Primary headache
    d. Psychiatric
        i. Somatic symptom disorder

    e. Mixed pain
        i. Cancer pain
        ii. Neck and back pain with radicular components
        iii. Chronic pelvic pain
3. Properly interpret randomly performed urine toxicology screening tests, including identifying causes of negative results
4. Calculate morphine equivalent doses and use them to adjust medications when escalating, de-escalating or transitioning opioid therapies.

INTERPERSONAL COMMUNICATION

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

1. Maintain a therapeutic alliance with patients experiencing chronic pain, demonstrating empathy and compassion even in challenging situations
2. Recognize and reflect on personal biases that may impact the interaction and treatment of patients with chronic pain
3. Utilize shared decision-making to guide treatment and goals of care when creating individual care plans for chronic pain
4. Recognize the role of interprofessional team-based care in the management of chronic pain syndromes, including warm hand-offs, team and family meetings, and shared collaborative treatment plans
    a. Understand the role of interprofessional team members, including physical therapy, occupational therapy, clinical pharmacy, case management, surgical, behavioral health or other specialty referral
5. Recognize the need for referral or management of substance use disorder, abuse or misuse
6. Use motivational interviewing techniques to explore beliefs, goals and barriers in patients and collaboratively develop individualized, culturally sensitive treatment plans
7. Promote a safe environment where patients and others involved in their care can actively engage in their care decisions
8. Assist patients and others involved in their care in locating reputable medical information on the internet and other sources
9. Discuss internet safety and protection of health information

SYSTEMS-BASED PRACTICE

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

1. Utilize an interprofessional care team, as appropriate, including behavioral health, clinical pharmacy, physical therapy and pain management and coordinate recommendations to optimize patient care, resolving conflict when needed
2. Consider the role of SDOH in the treatment of chronic pain
3. Establish a consistent, guideline-based approach to the treatment of chronic pain with a shared goal of improving overall function and quality of life
4. Use a standardized controlled substance agreement (CSA) with regular intervals of urine drug screens when prescribing controlled substances for chronic pain
5. Understand regulatory and compliance requirements for controlled substance prescribing, such as opioid therapies, including:
    a. Scheduled drug classifications and monitoring systems
    b. State PDMP systems
    c. Local law enforcement and U.S. Drug Enforcement Administration (DEA) reporting guidelines
    d. State medical board guidelines for documentation
6. Understand health care disparities and inequities seen in chronic pain treatment for marginalized populations

PRACTICE-BASED LEARNING

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

1. Conduct a chart review to identify strategies for improved care: considering updated CSA and drug screening, goals of treatment, reasons for treatment and tracking of treatment effectiveness with validated pain scales
2. Locate and apply the best available evidence to manage chronic pain syndromes, including clinical practice guidelines
3. Demonstrate continuous learning and improvement by maintaining best practice standards for prescriptions, chart reviews and patient safety
4. Create an independent learning plan for maintenance of knowledge in the subject area of chronic pain, including continuous medical education as mandated by state and federal regulations

PROFESSIONALISM

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

1. Demonstrate professional behavior in stressful patient encounters regarding chronic pain, including early or inappropriate requests for refills of medication, unrealistic expectations, and substance use or abuse
2. Analyze complex situations that will arise during chronic pain management encounters using ethical principles

3. Recognize and use appropriate resources for managing and resolving dilemmas that may occur in chronic pain management, including dissatisfied, intoxicated and threatening patients
4. Document appropriately in the medical record in a timely and professional manner
5. Demonstrate awareness of implicit bias, particularly in relation to race and ethnicity

IMPLEMENTATION

The curriculum should be structured as a combination of didactic presentations, workshops, reading materials, web-based modules, case conferences, chart reviews and clinical experiences.

Since pain management occurs in various 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 practice.

RESOURCES

Chronic pain general resources

American Academy of Family Physicians. Chronic pain toolkit. www.aafp.org/family-physician/patient-care/care-resources/pain-management/aafp-chronic-pain-management-toolkit.html

Centers for Disease Control and Prevention. Prevalence of chronic pain and high-impact chronic pain among adults — United States, 2016. *MMWR*. 2018;67(36):1001-1006.

Chronic pain (primary and secondary) in over 16s: assessment of all chronic pain and management of chronic primary pain. London: National Institute for Health and Care Excellence (NICE); 2021.

Cohen SP, Vase L, Hooten WM. Chronic pain: an update on burden, best practices, and new advances. *Lancet*. 2021;397(10289):2082-2097.

Fillingim RB, Loeser JD, Baron R, et al. Assessment of chronic pain: domains, methods, and mechanisms. *J Pain*. 2016;17(9 Suppl):T10-20.

Mills SEE, Nicolson KP, Smith BH. Chronic pain: a review of its epidemiology and associated factors in population-based studies. *Br J Anaesth*. 2019;123(2):e273-e283.

Nicholas M, Vlaeyen JWS, Rief W, et al. The IASP classification of chronic pain for ICD-11: chronic primary pain. *Pain*. 2019;160(1):28-37.

Rieder TN. Is nonconsensual tapering of high-dose opioid therapy justifiable? *AMA J Ethics.* 2020;22(8):E651-657.

<u>Health care disparities</u>

Harrison JM, Lagisetty P, Sites BD. Trends in prescription pain medication use by race/ethnicity among US adults with noncancer pain, 2000-2015. *Am J Public Health*. 2018;108(6):788-790.

Meints SM, Cortes A, Morais CA, et al. Racial and ethnic differences in the experience and treatment of noncancer pain. *Pain Manag*. 2019;9(3):317-334.

Morales ME, Yong RJ. Racial and ethnic disparities in the treatment of chronic pain. *Pain Med*. 2021;22(1):75-90.

Nguyen LH, Dawson JE, Brooks M, et al. Disparities in pain management. *Anesthesiol Clin*. 2023;41(2):471-488.

<u>Nonpharmacologic management</u>

Bodes Pardo G, Lluch Girbés E, Roussel NA, et al. Pain neurophysiology education and therapeutic exercise for patients with chronic low back pain: a single-blind randomized controlled trial. *Arch Phys Med Rehab*. 2018;99(2):338-347.

Cherkin DC, Herman PM. Cognitive and mind-body therapies for chronic low back pain and neck pain: effectiveness and value. *JAMA Intern Med*. 2018;178(4):556–557.

Geneen LJ, Moore RA, Clarke C, et al. Physical activity and exercise for chronic pain in adults: an overview of Cochrane Reviews. *Cochrane Database Syst Rev*. 2017;4(4):CD011279

Nielsen A, Wieland LS. Cochrane reviews on acupuncture therapy for pain: a snapshot of the current evidence. *Explore* (*NY*). 2019;15(6):434-439.

Williams ACC, Fisher E, Hearn L, et al. Psychological therapies for the management of chronic pain (excluding headache) in adults. *Cochrane Database Syst Rev*. 202012;8(8):CD007407.

<u>Nonopioid pharmacologic management</u>

Birkinshaw H, Friedrich CM, Cole P, et al. Antidepressants for pain management in adults with chronic pain: a network meta-analysis. *Cochrane Database Syst Rev*. 202310;5(5):CD014682.

Derry S, Bell RF, Straube S, et al. Pregabalin for neuropathic pain in adults. *Cochrane Database Syst Rev*. 2019;1(1):CD007076.

Derry S, Conaghan P, Da Silva JAP, et al. Topical NSAIDs for chronic musculoskeletal pain in adults. *Cochrane Database of Syst Rev*. 2016;2016(4):CD007400.

Ennis ZN, Dideriksen D, Vaegter HB, et al. Acetaminophen for chronic pain: a systematic review on efficacy. *Basic Clin Pharmacol Toxicol*. 2016;118(3):184-9.

Enthoven WT, Roelofs PD, Deyo RA, et al. Non-steroidal anti-inflammatory drugs for chronic low back pain. *Cochrane Database Syst Rev*. 2016;2(2):CD012087.

Gibson W, Wand BM, O'Connell NE. Transcutaneous electrical nerve stimulation (TENS) for neuropathic pain in adults. *Cochrane Database Syst Rev*. 2017;9(9):CD011976.

Raymond TJ, Tobin KA, Rogers TS. Nonopioid pharmacologic treatments for chronic pain. *Am Fam Physician*. 2021;103(9):561-565.

Seehusen DA, Kehoe K. Cannabis for treatment of chronic pain. *Am Fam Physician*. 2022;106(2):202-204.

Wiffen PJ, Derry S, Bell RF, et al. Gabapentin for chronic neuropathic pain in adults. *Cochrane Database Syst Rev*. 2017;6(6):CD007938.

Chronic opioid therapy

Agarin T, Trescot AM, Agarin A, et al. Reducing opioid analgesic deaths in America: what health providers can do. *Pain Physician.* 2015;18(3):E307-322.

Centers for Disease Control and Prevention. U.S. opioid dispensing rate maps. www.cdc.gov/drugoverdose/maps/rxrate-maps.html.

Dowell D, Ragan KR, Jones CM, et al. CDC clinical practice guideline for prescribing opioids for pain - United States, 2022. *MMWR Recomm Rep*. 2022;71(3):1-95.

Els C, Jackson TD, Hagtvedt R, et al. High-dose opioids for chronic non-cancer pain: an overview of Cochrane Reviews. *Cochrane Database Syst Rev*. 2023;3(3):CD012299.

Hudson S, Wimsatt LA. How to monitor opioid use for your patients with chronic pain. *Fam Pract Manag*. 2014;21(6):6-11.

Noble M, Treadwell JR, Tregear SJ, et al. Long-term opioid management for chronic noncancer pain. *Cochrane Database Syst Rev*. 2010(1)1.

Radosh L. Managing long-term opioid therapy with less stress. *Fam Pract Manag*. 2022;29(6):14-18.

Reuben DB, Alvanzo AA, Ashikaga T, et al. National Institutes of Health Pathways to

Prevention Workshop: the role of opioids in the treatment of chronic pain. *Ann Intern Med*. 2015;162(4):295-300.

Salduker S, Allers E, Bechan S, et al. Practical approach to a patient with chronic pain of uncertain etiology in primary care. *J Pain Res*. 2019;12:2651-2662.

Sandbrink F, Murphy JL, Johansson M, et al. The use of opioids in the management of chronic pain: synopsis of the 2022 Updated U.S. Department of Veterans Affairs and U.S. Department of Defense Clinical Practice Guideline. *Ann Intern Med*. 2023;176(3):388-397.

Substance use, misuse and abuse

American Academy of Family Physicians. Chronic pain management and opioid misuse: a public health concern (position paper). www.aafp.org/about/policies/all/chronic-pain-management-opiod-misuse.html

McCarberg BH. Pain management in primary care: strategies to mitigate opioid misuse, abuse, and diversion. *Postgrad Med*. 2011;123(2):119-130.

National Institute on Drug Abuse. Opioid overdose crisis. www.drugabuse.gov/drug-topics/opioids/opioid-overdose-crisis

Specific pain syndromes

Achar S, Yamanaka J. Back pain in children and adolescents. *Am Fam Physician*. 2020;102(1):19-28.

Harden RN, McCabe CS, Goebel A, et al. Complex regional pain syndrome: practical diagnostic and treatment guidelines, 5th edition. *Pain Med*. 2022;23(suppl 1):S1-53.

Kolasinski SL, Neogi T, Hochberg MC, et al. 2019 American College of Rheumatology/Arthritis Foundation Guideline for the Management of Osteoarthritis of the Hand, Hip, and Knee. *Arthritis Care Res* (*Hoboken*). 2020;72(2):149-162.

Maharty DC, Hines SC, Brown RB. Chronic low back pain in adults: evaluation and management. *Am Fam Physician*. 2024;109(3):233-244.

Meisenheimer ES, Carnevale AM. Chronic pelvic pain in women: evaluation and treatment. *Am Fam Physician*. 2025;111(3):218-229.

Pangarkar SS, Kang DG, Sandbrink F, et al. VA/DoD Clinical Practice Guideline: diagnosis and treatment of low back pain. *J Gen Intern Med*. 2019;34(11):2620-2629.

Qaseem A, Wilt TJ, McLean RM, et al. Noninvasive treatments for acute, subacute, and chronic low back pain: a clinical practice guideline from the American College of Physicians. *Ann Intern Med*. 2017;166(7):514-530.

Swarm RA, Paice JA, Anghelescu DL, et al. Adult Cancer Pain, NCCN Clinical Practice Guidelines in Oncology. *J Natl Compr Canc Netw*. 2019;17(8):977-1007.

Webb CW, Aguirre K, Seidenberg PH. Lumbar spinal stenosis: diagnosis and management. *Am Fam Physician*. 2024;109(4):350-359.

Winslow BT, Vandal C, Dang L. Fibromyalgia: diagnosis and *management. Am Fam Physician*. 2023;107(2):137-144.

ONLINE AND ELECTRONIC RESOURCES

American Academy of Family Physicians (AAFP). The Everyone Project™. www.aafp.org/family-physician/patient-care/the-everyone-project/toolkit.html

American Academy of Pain Medicine (AAPM). https://painmed.org/

American Chronic Pain Association (ACPA). www.theacpa.org/

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

Choosing Wisely. www.aafp.org/family-physician/patient-care/clinical-recommendations/all-clinical-recommendations/cw-back-pain.html

International Association for the Study of Pain (IASP). www.iasp-pain.org/

REVISIONS

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