

**American Academy of Neurology
Pain Medicine Section
Resident Core Curriculum**

10/01/01

Chronic pain is the most prevalent and expensive (more than \$100 billion a year) neurological disorder. Pain medicine is a complex discipline that specializes in the management of patients suffering from acute and chronic disabling pain. It is anticipated that experience in managing patients with disabling pain will occur throughout the three years of residency training, in both inpatient and outpatient settings. Clinical and investigative efforts are vital to the progress of this fast-growing specialty.

Learning Objectives

The first year resident should be able to:

1. Understand the scope of the problem, definitions of pain, nociception, allodynia, hyperalgesia, neuropathic pain, nociceptive pain, and pain as ‘fifth vital sign.’
2. Describe the basic mechanisms of nociception, the role of peripheral nerves, spinal cord, and brain in pain processing.
3. Know how to assess pain intensity and pain relief, and understand the assessment of quality of life.
4. Understand opioid pharmacology, the principals of addiction medicine, definitions of tolerance and physical dependency, know how to conduct titration trials of opioids, prescribe and monitor intravenous patient controlled analgesia, and to manage opioid-related side-effects.
5. Describe the multiple mechanisms of pathological pain and the various pain states, e.g., headaches, facial-oral pain, neck and back pain, neuropathic pain syndromes, central pain.
6. Understand the relevance of a comprehensive diagnostic evaluation of the patient with chronic pain, how to assess for relevant co-morbidities and involve other specialists in the care of the patient, how to perform a pain-neurological examination with attention to the symptomatic region, specific diagnostic maneuvers and sensory testing.
7. Know how to perform a pain medicine differential diagnosis, i.e., determine anatomical location of the pain generator, mechanism of pain, etiology.
8. Know how to outline the pain diagnostic work-up and treatment plan.

The second year resident should be able to:

1. Understand the principles of palliative care medicine.
2. Understand sensitivities, specificities and indications for diagnostic interventions, e.g., sympatholytic blocks, nerve and root blocks, provocative discograms.

3. Discuss the pharmacology of pain, including opioid and non-opioid analgesics, and current therapeutic interventions, including therapeutic procedures and non-pharmacological treatments.
4. Know how to provide a longitudinal care, by assessing and reassessing the patient pain and quality of life throughout the various treatment trials, know how to involve a multidisciplinary team in the care of the patient with chronic pain.
5. Know how to manage complex pain states, i.e., neuropathic cancer pain, complex regional pain syndromes, central pain, painful neuropathies, chronic daily headaches, fibromyalgia, visceral and pelvic pain, brachial plexus avulsion pain.

The third year resident should be able to:

1. Discuss ethical issues, including the undertreatment of pain, euthanasia, the medical need for the use of controlled substances for pain control in patients with or without terminal diseases, legal requirements, prevention of diversion, how to diagnose addiction.
2. Discuss how to handle special problems, such as pain management in pediatrics and geriatrics, disability and medical-legal claims, patient expectations, prognosis and outcome assessments.
3. Critically review literature regarding molecular biology of nociception, pathogenesis of neuropathic pain, and therapeutic trials in pain medicine.

Teaching Resources

1. Web site links
 - a. <http://www.iasp-pain.org/>
 - b. <http://www.stoppain.org/index.html>
 - c. <http://www.painandhealth.org/>
 - d. <http://www.talaria.org/>
 - e. <http://www.wisc.edu/molpharm/wcpi/>
 - f. <http://www.painlaw.org/>