

CHAPTER 20

Pain Medicine

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Pain medicine is the subspecialty of anesthesiology that focuses on the diagnosis and management of patients with acute, chronic and cancer-related pain. The specialty grew from the application of regional anesthetic techniques to help control pain. This subspecialty differs dramatically from the practice of anesthesiology in the operating room; much of what the pain specialist does is carried out in the outpatient clinic and involves the long-term care of patients with chronic illness. For those who enjoy the technical aspects of anesthesiology, particularly regional anesthesia, but long for a bit more of the patient-physician relationship that comes with long-term care and the challenges of diagnostic evaluation, this is just the subspecialty for you.



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How Did the Subspecialty of Pain Medicine Evolve From Anesthesiology?

Much has been written about the origins of pain medicine as a distinct discipline,¹ and anesthesiologists have played a primary role since the start. It began with the introduction of effective general anesthetics in the mid-19th century, when surgical pain could be separated from operation. Almost 100 years later, the late John Bonica, an anesthesiologist at the University of Washington and recognized father of the specialty we now call pain medicine, developed his career promoting multidisciplinary pain care and formal training of specialists. Dr. Bonica recognized the usefulness of regional anesthesia and other types of neural

blockade in treating pain, but he also recognized the complexity of chronic pain. From his life's work we now have extensive ongoing efforts to recognize and treat pain effectively, to train subspecialists, and to conduct basic and clinical research to further our understanding of pain and its treatment.

At the time of this writing, subspecialty certification in pain medicine requires completion of a core residency program in anesthesiology (one year of general medicine and three years of anesthesiology) followed by a one year "fellowship" in pain medicine. The first pain medicine programs recognized by the ACGME were accredited in 1992. The American Board of Anesthesiology, working in parallel with the ACGME, developed a subspecialty certification examination in pain medicine now titled, "Subspecialty Certification in Pain Medicine." The first exam was given in 1993. The number of candidates sitting for the examination has steadily grown since that time. To see a detailed list of the training that takes place during pain fellowship, see the ACGME's program requirements.²

Pain and its consequences draw on resources from all medical disciplines. Dr. Bonica's experiences during World War II suggested that each medical specialist had unique expertise to bring to patients suffering in pain; hence, his consistent and effective promotion of a multidisciplinary process for pain care. Also, thanks largely to Dr. Bonica, anesthesiology has led the development of formal training programs. Indeed, all currently accredited programs reside within academic anesthesiology departments and the majority of program directors are anesthesiologists. Specialists from other disciplines have also focused their clinical and research efforts on pain. The most obvious example is neurology where the majority of clinical treatment and research about headache has arisen. Physical medicine and rehabilitation (PM&R) has also long had a focus and expertise in functional restoration, and many chronic pain rehabilitation programs are led by physiatrists. And, of course, psychiatrists have been closely involved where pain, depression, and substance abuse overlap. During the last decade, specialists from these other disciplines have been seeking subspecialty training in pain medicine with increasing regularity.

What Does a Pain Medicine Specialist Do?

The range of practitioners declaring themselves as pain medicine specialists is extraordinary – from clinics that provide largely or solely cognitive-behavioral approaches to chronic pain (psychiatrists and psychologists) through functional restoration programs (physiatrists) all the way to the type of clinic that offers nothing more than injections of various sorts. The common thread is that all pain physicians care for patients with acute, chronic or cancer-related pain. Due to preference, expertise or the particular patient mix at their own institution, some practitioners have chosen to spend most or all of their time caring for one of these very different types of patient.

Acute pain specialists are often anesthesiologists who have expertise and ability in performing regional anesthesia and have chosen to extend these techniques into the postoperative settings. Anesthesiologists who staff acute pain services often spend part of their day in the operating room providing intraoperative anesthesia care and another part of the day visiting patients on the postoperative ward to manage their pain in the hours and days following surgery. The most common techniques they employ include continuous epidural analgesia and single-shot and continuous nerve block techniques. While some pain specialists care for both acute pain and chronic pain, the focus during fellowship training has turned toward teaching how to care for those with chronic and cancer-related pain. The skills and knowledge needed to establish and run an acute pain service are well covered in the core residency training program.

The majority of pain medicine fellowships spend most of the training year teaching the skills and knowledge needed to care for patients with chronic and cancer-related pain. Most training programs are centered in an outpatient clinic where patients are seen for evaluation and treatment on an elective basis. Comprehensive diagnostic evaluation, medication management, and applying neural blockade to the patient with pain are among the skills needed of the pain specialist. Many pain specialists have also gained the minor surgical skills needed to independently perform implantation of devices used to control chronic pain, including spinal cord stimulators and spinal drug delivery systems.

“Interventional Pain Medicine” is a term that has been coined for those techniques that involve minimally invasive treatments and minor surgery as part of their application, including neural blockade and implantable analgesic devices. There is no single practice pattern that any pain specialist can point towards as the correct way to treat patients with chronic pain. The best pain medicine practitioners strike a reasonable balance between interventional and non-interventional management. This practice pattern is sustainable and those adopting a balanced style of practice will be able to adapt to evolving scientific evidence that appears in support of pain treatment, regardless of the type of treatment. A balance between treatment modalities also allows practitioners to switch from one mode to another or incorporate multiple treatment approaches simultaneously.

Can I Practice Both Pain Medicine and Anesthesiology?

The answer is yes, but the specialized training and skills required for work as an anesthesiologist in the operating room are very different from those required of the pain physician in the outpatient clinic. In recent years many practitioners have found keeping both skill sets up-to-date too difficult and have chosen to practice pain medicine full time.³ In an insightful editorial in the *ASA Newsletter*, Mark Lema wrote knowingly of the everyday tensions that often arise between pain medicine practitioners and their anesthesiology

colleagues practicing exclusively in the operating room setting.⁴ With specialization comes a conscious effort to focus practice so as to become intricately familiar with a more limited realm. The obvious result is a loss of the skills and knowledge needed to practice in the broader parent specialty. My belief is that the specialized knowledge and skills needed to practice pain medicine will make it difficult to practice both anesthesiology in the operating room and pain medicine within the span of my own career. For now the road from anesthesiology to pain medicine provides a focus on neural blockade and core training in pharmacology and physiology that is a solid grounding for treating patients with pain. I would not have chosen any other route.

References:

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