Obstetric anesthesiology is the body of anesthesiology knowledge and practice that relates to the anesthetic care of women during pregnancy. Obstetric anesthesiologists are specialized anesthesiologists who have expertise in maternal and neonatal physiology, as well as in regional anesthesia. These anesthesiologists are involved in the care of parturients during the entire duration of their pregnancy. Obstetric anesthesiologists are involved with in vitro fertilization, anesthesia for cerclage placements, non-obstetric surgery for the pregnant patient, fetal surgery, postpartum procedures, and of course, anesthesia for labor and cesarean deliveries.

Obstetric anesthesia is one of the newer subspecialties of anesthesiology. Anesthesia for deliveries has only recently become a well-accepted practice of medicine. In the mid-1800s, it was commonly believed among Western practitioners that uterine pain was inseparable from contractions; therefore, any medication that removed pain would interfere with contractions and the progress of labor. James Simpson, the inventor of the Simpson forceps, challenged this concept when he used ether for childbirth on a woman with a pelvic deformity. This sparked a huge controversy in the medical field, and for years physicians debated the use of anesthesia for delivery. It was ultimately public demand for labor analgesia, and the development of safe techniques, that led to acceptance of pain relief for labor. Obstetric anesthesia primarily relied on inhalation agents and narcotics until the 1950s when regional anesthesia began being used in obstetric settings. Over the last 70 years, anesthesiologists have engaged in research that not only refined the techniques of regional anesthesia, but have also made the delivery of anesthetics safer for both the mother and her baby. The increasing use of anesthesia for obstetric purposes, combined with advances in the understanding of the physiologic and pharmacologic differences between pregnant and non-pregnant patients, led to the development of the subspecialty of obstetric anesthesia. Anesthetic maternal mortality has been decreasing due to advances in the practice of obstetric anesthesia.

Training to become an obstetric anesthesiologist generally involves a 1- to 2-year fellowship after completion of an anesthesia residency program. Obstetric anesthesiology fellows learn the skills and techniques necessary to manage high-risk as well as low-risk pregnancies preoperatively, intraoperatively, and postoperatively.
as well as the skills necessary to teach and conduct research in the field of obstetric anesthesiology. Fellowships are available through Accreditation Council for Graduate Medical Education (ACGME)-accredited and non-accredited programs. A list of the current fellowship programs in North America is available at the Society for Obstetric Anesthesia and Perinatology website (https://soap.org/fellowship-directory.php).

There are many exciting developments on the horizon for obstetric anesthesia. New techniques such as ultrasound for epidural placement and the use of transthoracic echocardiography in parturients, as well as new medications, and a better understanding of the relationship between our anesthetics and the effect on the parturient, hold promise for greater research opportunities and ultimately advancements in the quality of care for our patients.

References:

CHAPTER 20
Pain Medicine

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Pain medicine is a 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.