

CURRICULUM VITAE

Matthew Robert Eng

Current Title: Associate Professor of Anesthesiology, Director of Acute Pain and Regional Anesthesia

Business Address: LSUHSC School of Medicine
1542 Tulane Ave, Ste. 659
New Orleans, LA 70112

Business Telephone and Fax: (504) 568-2314 / (504) 568-2317

Business email Address: meng@lsuhsc.edu

Birthdate and Birthplace: March 20, 1980; Dallas, Texas

Spouse and Children: Lauren Eng (wife); Miles Eng (son), Micah Eng (son)

Citizenship: USA

Education:

Undergraduate:

The University of Texas at Austin
Austin, Texas
Bachelor of Science Electrical Engineering with Honors
Degree Conferred: May 2002

Graduate/Medical:

University of Texas Southwestern Medical Center
Dallas, Texas
Doctor of Medicine with Distinction in Research
Degree Conferred: May 2009

Internship:

Cedars-Sinai Medical Center
Los Angeles, California
Internship in Surgery and Medicine
Degree Conferred: June 2010

Residency:

Cedars-Sinai Medical Center
Los Angeles, California
Residency in Anesthesiology
Degree Conferred: June 2013

Clinical Fellowships:

Cedars-Sinai Medical Center
Los Angeles, California
Fellowship in Regional Anesthesia and Acute Pain
Degree Conferred: June 2014

Certification: American Board of Anesthesiology, Diplomate, 2015-Present

Licensure:

California Medical Board, Licensure #A116756; Issued 4/29/2011

Texas Medical Board, Licensure #Q0434; Issued 6/9/2014

Louisiana Medical Board, Licensure #304695; Issued 1/24/2017

Academic, Professional, and Research Appointments:

Instructor of Anesthesiology
Cedars-Sinai Medical Center
Los Angeles, California
July 2013 – June 2014

Assistant Professor of Anesthesiology
Cedars-Sinai Medical Center
Los Angeles, California
July 2014 - January 2016

Anesthesiologist
US Anesthesia Partners
Dallas, Texas
February 2016 - July 2017

Associate Professor of Anesthesiology
Director of Acute Pain and Regional Anesthesia
LSU Health Science Center
New Orleans, Louisiana
August 2017 - Present

Chairman, Surgery Department
Ochsner Medical Center Kenner
Kenner, Louisiana
January 2021-Present

Membership in Professional Organizations:

American Society of Anesthesiologists, Member

American Society of Regional Anesthesiologists, Member

Louisiana Society of Anesthesiologists, Member

Awards and Honors:

University of Texas Southwestern
T-35 Medical Research Grant Recipient
Department of Anesthesiology
July 2010

TEACHING EXPERIENCE AND RESPONSIBILITIES

Course/Clerkship/Residency or Fellowship/CME Directorships

LSUHSC Anesthesiology Director of Regional Anesthesiology
University Medical Center New Orleans
Ochsner Medical Center Kenner

As the director of regional anesthesia and acute pain division, I oversee the resident and medical student rotations in regional anesthesia as well as faculty development. I direct and implement curriculum for resident and medical school education, provide a large emphasis on teaching. Emphasis is placed on adhering to the educational curriculum, goals and objectives, didactics and clinical experience and the resident evaluation process. I am responsible for continuous review and revision of the regional anesthesia curriculum as appropriate and in response to input from faculty and the residency program director. I also perform routine review and evaluation of regional anesthesia faculty to meet ACGME requirements and clinical excellence. Under my direction, the program has received additional funding from Ochsner to expand resident funded FTE's from two to five residents in Q1 2019.

I conduct dedicated weekly didactic teaching resident/medical student sessions which are protected from any perioperative responsibilities. Also, my didactic responsibilities extend to include Departmental Grand Rounds, Journal Clubs, Quality Assessment and Patient Safety Discussions, as well as the previously mentioned smaller settings with handouts during each rotation. Attendings, fellows, residents, CRNAs, and medical students are all part of these weekly conferences

Additionally, I coordinate and sponsor a hands-on ultrasound workshops and a separate cadaver workshop with live models, simulated environments and a variety of needles and catheters with which to practice. Residents and attendings both attend these interactive events with a focused educational experience in regional anesthesia.

Informally each day in the clinical arena, I discuss relevant literature to the bedside for discussion with the assigned case. I supplement the residents' self directed learning efforts with my own, fostering a culture of evidence based practice woven into daily bedside care.

Curriculum Development/Implementation

LSUHSC Anesthesiology Regional Anesthesia Resident Rotation
Ochsner Medical Center Kenner

A required part of residency training in anesthesiology includes rotations in a regional anesthesia and acute pain. This rotation is designed to teach residents how to evaluate, diagnose, treat, and follow up with patients in consideration of regional

anesthesia techniques. In January 2018, I designed and implemented the resident rotation in regional anesthesia at Ochsner Medical Center Kenner, and it was approved and funded by Ochsner in May 2018. Goals and objectives of the rotation in regional anesthesia are based on best practice guidelines and include teaching the resident to develop a thorough understanding of regional anesthesia and evaluate patient comorbidities that might influence anesthetic management. In addition, the resident learns how to review laboratory data, establish an anesthetic plan, interact with consultants, perform regional anesthesia procedures, review potential complications, and educate patients of the risks and benefits of different anesthetic techniques. The importance of evidence-based guidelines and improving patient satisfaction, safety, efficiency and effectiveness of healthcare is stressed during the rotation. My daily interaction with the residents in the clinic setting involves teaching of the goals and objections of the rotation as outlined above.

Creation of Enduring Teaching Materials

Formal Course Responsibilities

LSUHSC Senior Surgery Elective

I am an annual lecturer in the senior surgery course elective offered to medical students at LSUHSC. In addition to delivering three lectures, I proctor a cadaver course in ultrasound anatomy and regional anesthesia.

Regional Anesthesia and Acute Pain Curriculum for resident and medical school education. Clinical and didactic teaching. Grand rounds, journal club, and lecture responsibilities.

As a faculty member of the LSUHSC Department of Anesthesiology, I present lectures and problem-based learning activities to residents and medical students annually as a part of the departmental resident lecture series. Typically, an afternoon of the lecture series involves a collaboration between an anesthesiology resident and myself to present pre-selected topics in lecture format followed by a problem-based learning session and a post-test to evaluate the efficacy of the teaching sessions and resident learning.

In addition to the formal resident lecture series, I am responsible for the teaching and training of anesthesiology residents in the pre-anesthesia evaluation, care of the surgical patient, critical care and obstetric patient management, pain management, ultrasound-guided central and peripheral venous access and difficult airway management (i.e. intubation using advanced airway techniques.) Teaching and training of residents occurs in all areas of the hospital and encompasses a wide variety of patients and levels of acuity. Areas of service conducive to resident teaching and training include the pre-anesthesia evaluation clinic, outpatient and inpatient surgery, labor and delivery, the intensive care unit and cardiac care unit, the post anesthesia care unit, interventional cardiology lab, the emergency room and the extended care/skilled care unit. In addition to

resident teaching, I instruct student registered nurse anesthetists in anesthetic care of the surgical patient. My teaching responsibilities include instructing the anesthetist in preparing an anesthetic plan for the surgical patient, intraoperative airway management and intubation techniques, intraoperative anesthetic management and the immediate postoperative management of the surgical patient (i.e. pain management and special concerns during patient recovery from anesthesia.) My teaching responsibilities also involve teaching clinical skills such as airway management and ultrasound guided venous access to residents and fellows of other specialties, such as family medicine and pulmonary/critical care, in the intensive care unit.

A sample list of lecture topics and learning sessions with dates is provided below:

Pre-eclampsia and the high risk obstetric patient. LSUHSC Anesthesiology Residents

Intraoperative hemorrhage. LSUHSC Anesthesiology Residents

Fluid management and transfusion. LSUHSC Anesthesiology Residents

Morbidity and Mortality Conference: High risk cardiac patients for non-cardiac surgery. LSUHSC Anesthesiology Faculty and Certified Registered Nurse Anesthetists

Regional anesthesia local anesthetic medications. LSUHSC Anesthesiology Residents

Spinal anesthesia for cesarean section. LSUHSC Anesthesiology Residents

HELLP syndrome and the parturient. LSUHSC Anesthesiology Residents

Airway emergencies in the post-anesthesia care unit. LSUHSC Anesthesiology

Anesthesia for elective and emergent cesarean section. LSUHSC Anesthesiology Residents

Buprenorphine and implications in the perioperative environment. LSUHSC Anesthesiology Residents

Sugammadex and implications in the perioperative environment. LSUHSC Anesthesiology Residents

Liposomal bupivacaine and implications in the perioperative environment. LSUHSC Anesthesiology Residents

Fascia iliaca regional anesthetic nerve block. LSUHSC Anesthesiology Residents

Quadratus lumborum regional anesthetic nerve block. LSUHSC Anesthesiology Residents

Interscalene regional anesthetic nerve block. LSUHSC Anesthesiology Residents

Supraclavicular regional anesthetic nerve block. LSUHSC Anesthesiology Residents

Axillary regional anesthetic nerve block. LSUHSC Anesthesiology Residents

Lower extremity regional anesthetic nerve blocks. LSUHSC Anesthesiology Residents

Upper extremity regional anesthetic nerve blocks. LSUHSC Anesthesiology Residents

Lumbar plexus regional anesthetic nerve blocks. LSUHSC Anesthesiology Residents

Outpatient knee replacements and the perioperative approach. LSUHSC Anesthesiology Residents

Fascia iliaca nerve block and management of the high risk hip fracture patient. LSUHSC Anesthesiology Residents

Departmental/Interdisciplinary Teaching Conferences

Regional Anesthesia and Acute Pain Grand Rounds, Journal Club teaching conference

Teaching Awards:

Regional Faculty of the Year
Department of Anesthesiology
Cedars-Sinai Medical Center
June 2014-July 2015

Teaching Faculty of the Year
Department of Anesthesiology
LSU Health Science Center
June 2017-July 2018

Teaching Faculty of the Year
Department of Anesthesiology
LSU Health Science Center / Ochsner Kenner Medical Center
June 2018-July 2019

Teaching Faculty of the Year
Department of Anesthesiology
LSU Health Science Center / Ochsner Kenner Medical Center
June 2019-July 2020

Teaching Faculty of the Year
Department of Anesthesiology
LSU Health Science Center / Ochsner Kenner Medical Center
June 2020-July 2021

Undergraduate, Medical, or Graduate Students Trained:

LSU Health Science Center
Resident Mentor
August 2017 - Present
New Orleans, Louisiana

Cedars-Sinai Medical Center
Resident/Fellow Mentor
August 2014 - January 2016
New Orleans, Louisiana

RESEARCH AND SCHOLARSHIP

Journal Publications:

Refereed (published)

Eng MR, White PF. Postoperative Nausea and Vomiting: An Update on its Prevention and Treatment. Pharmacology & Physiology in Anesthetic Practice. 2007 Feb; 4(1): 3-17.

White PF, Sacan O, Tufanogullari B, **Eng MR**, Nuangchamnong N, Ogunnaike B. Effect of short-term postoperative celecoxib administration on patient outcome after outpatient laparoscopic surgery. Canadian Journal of Anesthesia. 2007 May; 54(5): 342-348.

White PF, **Eng MR**. Fast-track anesthetic techniques for ambulatory surgery. Current Opinion in Anaesthesiology. 2007 Dec; 20(6): 545-557.

White PF, Sacan O, Nuangchamnong N, Sun T, **Eng MR**. The relationship between patient risk factors and early versus late postoperative emetic symptoms. Anesthesia Analgesia. 2008 Aug; 107(2): 459-463.

Eng MR, Wu TT, Brock-Utne JG. An adjuvant of the cuff leak test. Anaesthesia. 2009 Apr;64(4):452.

- Eng MR.** Book Review: Pocket Anesthesia. *Anesthesia Analgesia*. 2011 June; 112:1515-6.
- Eng MR,** White PF. Advances in the use of Intravenous Techniques in Ambulatory Anaesthesia. *Ambulatory Anesthesia*. 2015 July; Volume 2015:2 Pages 59-66.
- Sutton E, Bullock WM, Khan T, **Eng M,** Gadsden J. Hand Sanitizer as an Alternative to Ultrasound Transmission Gel. *Reg Anesth Pain Med*. 2016 Sep-Oct;41(5):655-6.
- Emelife PI, **Eng MR,** Menard BL, Myers AS, Cornett EM, Urman RD, Kaye AD. Adjunct medications for peripheral and neuraxial anesthesia. *Best Pract Res Clin Anaesthesiol*. 2018 Jun;32(2):83-99. doi: 10.1016/j.bpa.2018.06.011. Epub 2018 Jul 3. Review.
- Kaye AD, Manchikanti L, Novitch MB, Mungrue IN, Anwar M, Jones MR, Helander EM, Cornett EM, **Eng MR,** Grider JS, Harned ME, Benyamin RM, Swicegood JR, Simopoulos TT, Abdi S, Urman RD, Deer TR, Bakhit C, Sanapati M, Atluri S, Pasupuleti R, Soin A, Diwan S, Vallejo R, Candido KD, Knezevic NN, Beall D, Albers SL, Latchaw RE, Prabhakar H, Hirsch JA. Responsible, Safe, and Effective Use of Antithrombotics and Anticoagulants in Patients Undergoing Interventional Techniques: American Society of Interventional Pain Physicians (ASIPP) Guidelines. *Pain Physician*. 2019 Jan;22(1S):S1-S74.
- Zaghiyan KN, Mendelson BJ, **Eng MR,** Ovsepyan G, Mirocha JM, Fleshner P. Randomized Clinical Trial Comparing Laparoscopic Versus Ultrasound-Guided Transversus Abdominis Plane Block in Minimally Invasive Colorectal Surgery. *Dis Colon Rectum*. 2019 Feb.
- Iqbal U, Green JB, Patel S, Tong Y, Zebrower M, Kaye AD, Urman RD, **Eng MR,** Cornett EM, Liu H. Preoperative patient preparation in enhanced recovery pathways. *J Anaesthesiol Clin Pharmacol*. 2019 Apr.
- Jones MR, Prabhakar A, Viswanath O, Urits I, Green JB, Kendrick JB, Brunk AJ, **Eng MR,** Orhurhu V, Cornett EM, Kaye AD. Thoracic Outlet Syndrome: A Comprehensive Review of Pathophysiology, Diagnosis, and Treatment. *Pain Ther*. 2019 Jun
- Helander EM, Kaye AJ, **Eng MR,** Emelife PI, Motejunas MW, Bonneval LA, Terracciano JA, Cornett EM, Kaye AD. Regional Nerve Blocks-Best Practice Strategies for Reduction in Complications and Comprehensive Review. *Curr Pain Headache Rep*. 2019 May 23
- Urits I, Ostling PS, Novitch MB, Burns JC, Charipova K, Gress KL, Kaye RJ, **Eng MR,** Cornett EM, Kaye AD. Truncal regional nerve blocks in clinical anesthesia practice. *Best Pract Res Clin Anaesthesiol*. 2019 Dec

Jones MR, Novitch MB, Hall OM, Bourgeois AP, Jeha GM, Kaye RJ, Orhurhu V, Orhurhu MS, **Eng M**, Cornett EM, Kaye AD. Fascia iliaca block, history, technique, and efficacy in clinical practice. *Best Pract Res Clin Anaesthesiol*. 2019 Dec

Kaye AD, Okeagu CN, Tortorich G, Pham AD, Ly EI, Brondeel KC, **Eng MR**, Luedi MM, Urman RD, Cornett EM. COVID-19 impact on the renal system: Pathophysiology and clinical outcomes, *Best Practice & Research Clinical Anaesthesiol*. 2021 October

Spence AL, Mayerle M, Sardana N, Clay MC, **Eng MR**, Urman RD, Cornett EM, Kaye AD. COVID-19 impact on the cardiovascular system: Pathophysiology and clinical outcomes, *Best Practice & Research Clinical Anaesthesiol*. 2021 October

Book Chapters (published):

White, PF, **Eng, MR**. Intravenous Anesthetics. In PG Barash (Editor), *Clinical Anesthesia*, 6th ed. (2009). Philadelphia, PA. Lippincott Williams & Wilkins.

White, PF, **Eng, MR**. Ambulatory Anesthesia. In RD Miller (Editor), *Miller's Anesthesia*, 7th ed. (2009). Philadelphia, PA. Elsevier, Churchill Livingstone. Philadelphia, PA. Lippincott Williams & Wilkins.

Eng, MR, Kaplan MB. Anesthesia for ENT Trauma. In DJ Doyle (Editor), *Anesthesia for Otolaryngologic Surgery*, 1st ed. (2012). New York, NY. Cambridge University Press.

White, PF, **Eng, MR**. Intravenous Anesthetics. In PG Barash (Editor), *Clinical Anesthesia*, 7th ed. (2013)

Eng LK, Okada LK, **Eng MR**. Regional Considerations for Chronic Noncancer Pain. In Kaye AD (Editor), *Essentials of Regional Anesthesia*, 2nd ed (2018)

Eng MR, Khan T, Farooq R. In CJ Fox (Editor), *Quality of Care in Perioperative Medicine. Catastrophic Perioperative Complications and Management – A Comprehensive Textbook*, 1st ed. (2021)

Scientific Presentations:

Eng MR. Effect of short-term postoperative celecoxib administration on patient outcome after outpatient laparoscopic surgery. Oral Presentation presented at the 45th Annual University of Texas Southwestern Medical Student Research Forum; Dallas, Texas, January 2007.

Eng MR, Effect of Fentanyl on the Incidence of Coughing and Recovery after Propofol-Desflurane Anesthesia with an LMA for Airway Management. Oral Presentation presented at the Western Anesthesia Resident Conference; Albuquerque, New Mexico, May 2013.

Eng MR, Prospective Study of Popliteal Nerve Blocks with and without Dexamethasone on the Duration of Analgesia for Foot & Ankle Surgery. Presented at the American Society of Regional Anesthesia; Chicago, Illinois, April 2014.

SERVICE ACTIVITIES

University/Institutional Service:

Departmental committees

LSUHSC Department of Anesthesiology
Regional Anesthesia Committee, Director
August 2017-present

Hospital committees

Ochsner Medical Center Kenner
Pharmacy and Therapeutics Committee
Kenner, Louisiana
October 2017-Present

Ochsner Medical Center Kenner
Surgery Service Committee (Chair)
Kenner, Louisiana
January 2021-Present

Ochsner Medical Center Kenner
Medical Executive Committee
Kenner, Louisiana
January 2021-Present

Ochsner Medical Center Kenner
Physician Excellence Committee
Kenner, Louisiana
October 2018-Present

Opioid Mitigation Initiative Committee
LSU Health Science Center New Orleans
New Orleans, Louisiana
March 2021-Present

Clinical Service:

In-patient service activities

University Medical Center New Orleans
General Anesthesiology Service
Regional Anesthesia and Acute Pain Service
New Orleans, Louisiana

Ochsner Medical Center Kenner
General Anesthesiology Service
Regional Anesthesia and Acute Pain Service
Kenner, Louisiana

My in-patient service activities include medical direction and supervision of certified registered nurse anesthetists and residents providing anesthesia in all surgical and procedural areas including, but not limited to surgical suites, endoscopy rooms, obstetric unit, interventional cardiology and radiology suites, and the emergency department. I respond to "code blue" alerts throughout the hospital to provide definitive airway management (intubation) and assist with resuscitation efforts of patients who have suffered cardiac arrest. Other in-patient service activities include insertion of and supervision of residents performing labor epidurals, spinal anesthesia, central venous catheters and arterial catheters, regional nerve blocks and acute pain management.

Clinic coverage

University Medical Center New Orleans
Preoperative Anesthesia Testing Clinic
New Orleans, Louisiana

Ochsner Medical Center Kenner
Preoperative Anesthesia Testing Clinic
Kenner, Louisiana

Supervision of the preoperative testing clinic daily Monday through Friday

Community Service Activities:

Cupcakes for a Cause, Co-Chairman
June 2011-Present
Dallas, Texas

Annual fundraiser of over \$20,000/year for international pediatric surgical care. Chair annual event with over 20 bakeries and 50 volunteers to raise money to send pediatric surgery teams on international mission trips.

Louisiana Society of Anesthesiologists' Annual Meeting, Planning Committee
August 2017 - April 2018
New Orleans, Louisiana

Served on Louisiana Society of Anesthesiologists' Annual Meeting planning committee held in New Orleans on April 13-14, 2018.