

NOOR GAJRAJ, MD, MB BS, FRCA

CURRICULUM VITAE

Medical Education and Degrees:

1983 MD, University of London, King's College
London, England

Board Certifications:

October 1996 Diplomate, American Board of Anesthesiology

April 1998 Diplomate, American Board of Pain Medicine

May 1999 American Board of Hospice and Palliative Care Medicine

November 2002 American Society of Addiction Medicine

April 2003 American Academy of Pain Management

Current Position:

Pain Management
4100 West 15th Street, Suite 200
Plano, Texas 75056

Anesthesiology
Solo Private Practice

Previous Positions:

- 7/05-11/07 Sherman Pain Care
Community Specialty Hospital
1111 Gallagher Dr
Sherman, Texas 75090
- 07/04 – 01/07 Anesthesiology and Pain Management
Baylor Medical Center at Frisco
5575 Warren Parkway # 220
Frisco, Texas 75034
- 07/96 – 07/04 Associate Professor/Assistant Professor
Dept Anesthesiology and Pain Management
UT Southwestern Medical Center at Dallas
5323 Harry Hines Blvd
Dallas, Texas 75235-9068
- Medical Director
Parkland Pain Clinic
- Associate Director
Eugene McDermott Center for Pain Management
- 01/04 – 07/04 Associate Professor
Department of Anesthesiology and Pain Management
UT Southwestern Medical Center at Dallas
- 07/96 – 01/04 Assistant Professor
Department of Anesthesiology and Pain Management
UT Southwestern Medical Center at Dallas
- 01/92 – 12/93 Visiting Assistant Professor
Department of Anesthesiology and Pain Management
UT Southwestern Medical Center at Dallas

Postgraduate Training:

Internship

- 08/83 – 02/84 House Surgeon
The Royal Hospital, Wolverhampton, U.K.
- 02/84 – 08/84 House Physician
King's College, London, U.K.

Residency

01/85 – 02/87 Senior House Officer in General Medicine
Torbay Hospital, Torquay, U.K.

02/87 – 10/87 Senior House Officer in General Medicine
Brook General Hospital, London, U.K.

10/87 – 04/89 Senior House Officer in Anaesthetics
St Thomas' Hospital, London, U.K. 04/89 – 01/92

04/89-01/92 Anaesthetic Registrar
Nottingham Training Scheme, U.K.
 Lincoln County Hospital, 04/89 – 04/90
 City Hospital, Nottingham, 04/90 – 10/90
 Queens Medical Centre, Nottingham, 10/90 – 01/92

Fellowship

01/94 – 05/96 Senior Registrar in Anaesthetics
Nottingham Training Scheme, U.K.

Fellowship in Pain Management, Specialist Training

Awards:

Who's Who in America 2005
Americas Top Anesthesiologist 2006
America's Top Anesthesiologist 2006
Who's Who in Medicine and Healthcare 2006-2007
Who's Who in the World 2007

Committees:

Parkland Pain Committee
McDermott Pain Center Strategic Planning
Greater North Texas Pain Society New Treatments Committee
Parkland Pharmacy & Therapeutics Committee (P&T)
Resident Clinical Competence Committee
Continuing Education Advisory Council
Medical School Admissions Interviews
Dallas County Medical Society Editorial Committee

Ph.D Dissertation Committee:

- 2000-2001 Prospective outcome study of a heterogenous chronic pain sample administered an interdisciplinary treatment program with one-year follow-up. Heather Robbins.
- 2001-2002 Screening for opioid abuse in chronic pain patients. Laura Adams.
- 2002-2003 Individual differences in narcotic analgesic misuse in a heterogenous chronic pain population. Jennifer Unterberg.

Professional Memberships/Activities

International Association for the Study of Pain
American Society of Pain Educators
International Spinal Injection Society
American Society of Addiction Medicine
Royal College of Anaesthetists
American Pain Society
Texas Pain Society
American Society of Anesthesiologists
Texas Medical Association
Dallas County Medical Society
Dallas County Anesthesia Society, 1999 Treasurer, 2000 President

Invited Reviewer

Journal of Clinical Anesthesia
Anesthesia and Analgesia
Southern Medical Journal
Dallas Medical Journal
Lancet
Journal of Pain
Therapy

Invited Lectures

06/98	A Review of Chronic Pain Management	Pain Symposium, UT Southwestern
06/98	New Drugs for Chronic Pain Management	Pain Symposium, UT Southwestern
07/98	Pain Management	Grand Rounds, Department of Otolaryngology UT Southwestern
08/98	Pain Management	Grand Rounds, St. Joseph's Hospital, Paris, Texas
11/98	Clinical Aspects of Acupuncture	STARS Mini-Symposium, UT Southwestern
11/98	Pain Management	Grand Rounds, Department of Dermatology UT Southwestern
03/99	Review of Pain Management Principles	Grand Rounds, Department of Physical Medicine and Rehabilitation, U.T Southwestern
03/99	Interventional Pain Management	Grand Rounds, Department of Physical Medicine and Rehabilitation, U.T Southwestern
06/99	Neuropathic Pain	Family Practice Residency Program Charlton Methodist Hospital, Dallas
06/99	Pain Management	Family Practice Review Course, UT Southwestern
06/99	A Review of Chronic Pain Management	Pain Symposium, U.T Southwestern
07/99	Pain Management	Zale Health Education Center
11/99	Pain Management	Philippine Medical Society, Dallas
02/00	Pain Management	Grand Rounds, Department of Obstetrics and Gynecology, U.T Southwestern
03/00	Interventional Pain Management	Grand Rounds, Anesthesiology Department Iowa University
03/00	A Review of Pain Management	Medical Students, Society for Pain and Anesthesia

		Medicine, UT Southwestern
04/00	A Review of Chronic Pain Management	Pain Symposium, UT Southwestern
04/00	New Drugs	Pain Symposium, Dallas VA Medical Center
05/00	Pain Management	Neurology Department, Odessa Medical Center
06/00	Strategies for Pain Management	Grand Rounds, Baylor University Hospital, Houston
08/00	Management of Osteoarthritis	Grand Rounds, Department of Family Practice UT Southwestern
11/00	A Review of Pain Management	Family Practice Department, John Peter Smith Hospital Fort Worth
01/01	Pain Management	Grand Rounds, Department of Neurology UT Southwestern, Dallas
01/01	Advances in Analgesics	Second Annual Advances in Analgesic Therapy Baylor College, Houston
02/01	Reflex Sympathetic Dystrophy	Grand Rounds, Department of Geriatrics UT Southwestern Medical Center, Dallas
02/01	Pain Assessment	Pain Awareness Week Symposium UT Southwestern Medical Center
02/01	An Overview of Pharmacological Approaches to Pain Management	Pain Awareness Week Symposium UT Southwestern Medical Center
02/01	A Review of Pain Management	Department of Neurology University of Kansas Medical Center
03/01	Pain Physiology	Department of Pediatrics Childrens Medical Center, Dallas

04/01	Pharmacological Management of Pain	Pain Symposium UT Southwestern Medical Center
05/01	Pain Management	2 nd International Symposium on Clinical Medicine, Sao Paulo, Brazil
05/01	Pain Management	Spinal Cord Injury Unit Dallas VA Hospital
06/01	Review of Pain Management Principles	Grand Rounds, Department of Physical Medicine and Rehabilitation, U.T Southwestern
06/01	Managing Those Pain Patients	Texas Association of Family Practitioners Port Aransas, Texas
06/01	A Review of Pain Management	Grand Rounds, Terrell State Hospital, Texas
06/01	A Review of Pain Management	Texas Association of Family Practitioners Houston, Texas
08/01	New COX-2 Inhibitors	North Texas Pain Society Dallas, Texas
09/01	JACHO 2001: New Standards for Pain Management	Nebraska Association of Nurse Anesthetists Lincoln, Nebraska
09/01	New COX-2 Analgesics	Nebraska Association of Nurse Anesthetists Lincoln, Nebraska
09/01	Pre-operative Assessment of the Cardiac Patient	Nebraska Association of Nurse Anesthetists Lincoln, Nebraska
10/01	Non-narcotic Pain Management	Grand Rounds, Veterans Hospital Columbia, MO
10/01	Use of COX-2 Inhibitors in Pain Management	Texas Pharmacy Association
12/01	COX-2 Technology	Baylor Pain Awareness Week Dallas, Texas
01/02	Pain Management Strategies	VA Hospital Shreveport, Louisiana
02/02	Pain Management	Department of Family Practice

		UT Southwestern Medical Center
03/02	Pharmacological Approaches to Pain Management	5 th Annual Update in Pain Management UT Southwestern Medical Center
03/02	COX-2 Inhibition and Pain Management	Texas Society of Psychiatric Physicians Wichita Falls
04/02	Office and Postoperative Pain Management by Orthopaedists	Texas Orthopedic Association 2002 Annual Meeting, Dallas, Texas
04/02	Acute Pain Management and JACHO Standards	New Mexico Society of Anesthesiologists Santa Fe
5/02	Pain Management	Grand Rounds, Department of Rheumatology UT Southwestern Medical Center, Dallas
06/02	The Ethics and Medico-Legal Implications of Pain Management	Texas Association of Family Practitioners San Antonio, Texas
09/02	A Review of Chronic Pain	14 th Annual Texas Nurse Practitioners Conference Fort Worth, Texas
10/02	The Ethics of Pain Management	Grand Rounds, Department of Anesthesiology UT Southwestern Medical Center, Dallas
12/02	Pain Management and Ethics	Suphur Springs Medical Society Sulphur Springs, Texas
12/02	Pain Management and Ethics	Texarcana Medical Society Texarcana, Texas
01/03	Pain Management	The Society for Pain and Anesthesia Medicine UT Southwestern Medical Center
01/03	Chronic Pain-Basic Principles, Assessments and Treatments	Department of Psychiatry St. Paul University Hospital, Dallas
01/03	Pain: Clinical Syndromes	Medical Neurosciences Course UT Southwestern Medical Center, Dallas

4/03	Multi-modal Analgesia	Gadsden Medical Society Gadsden, Alabama
4/03	Multi-modal Analgesia	Department of Anesthesiology University of Miami, Florida
4/03	The Ethics of Pain Management	Department of Anesthesiology University of Miami, Florida
4/03	Concepts in Pain Pathophysiology	Department of Anesthesiology University of Miami, Florida
4/03	Acupuncture	Complementary & Alternative Medicine Course UT Southwestern Medical Center, Dallas
6/03	CRPS	Mid-level Practitioners Conference UT Southwestern Medical Center
6/03	Pain Management in the Cancer Patient	2003 Hematology/Oncology Update Fort Worth, Texas
7/03	Multi-modal Analgesia	Dallas County Anesthesia Society Dallas, Texas
7/03	Cancer Pain Management	American Cancer Support Group Texas Cancer Center, Denton, Texas
9/03	Opiate Use in Pain Management	Pain Conference 2003 Redding, California
10/3	New Insights in Pain Mechanisms	Ogallala Community Hospital Ogallala, NE
12/03	Controversies in Pharmacological Therapy for Pain Management	6 th Annual Update in Pain Management UT Southwestern Medical Center
12/03	Pain Management	Department of Anesthesiology University of Omaha, Nebraska
12/03	Pain Management in the Emergency Room	Rio Grande Trauma Conference V Texas Tech University, El Paso

12/3	Acute Pain	Department of Obstetrics and Gynecology Vanderbilt University Medical Center
12/03	Acute Pain Clinical Case Presentations	Department of Obstetrics and Gynecology Vanderbilt University Medical Center
01/04	Problems during Fiberoptic Intubation	4 th Annual Update in Obstetric Anesthesia Pain and Pain Management, UT Southwestern Medical Center
01/04	Pain Management in the Elderly	2 nd Annual Symposium: Caring for the Elderly Texarcana, Texas
02/04	Pain: Clinical Syndromes	Medical Neurosciences Course UT Southwestern Medical Center, Dallas
3/04	Cancer Pain Management	American Cancer Support Group Flowermound, Texas
3/04	Airway Management	SLAM Express Advanced Airway Workshop Dallas, Texas
4/03	Pharmacological Approaches to Pain Management	Pain Management Center, The Cleveland Clinic Cleveland, Ohio
4/04	Acupuncture	Complementary & Alternative Medicine Course UT Southwestern Medical Center, Dallas
07/04	Acute Pain	Creighton Medical Center, Surgical Grand Rounds Omaha, Nebraska
07/04	Multimodal Analgesia	University of Nebraska Medical Center Omaha, Nebraska
10/04	Problem Based Learning Discussion	American Society of Anesthesiology Meeting Las Vegas, NE
10/04	Sympathetic Blocks	American Society of Anesthesiology Meeting Las Vegas, NE

05/05	Osteoarthritis and Comorbidities	Mississippi Osteopathic Medical Association Destin, Florida
06/05	Painful Diabetic Neuropathy	American Academy of Nurse Practitioners Fort Lauderdale, Florida
06/05	Osteoarthritis and Comorbidities	American Academy of Nurse Practitioners Fort Lauderdale, Florida
06/05	Painful Peripheral Neuropathy	American Academy of Nurse Practitioners Fort Lauderdale, Florida
07/05	Case Based Pain Management	Texas Academy of Family Physicians San Antonio, Texas
8/05	Multimodal Analgesia	Quad States Anesthesiology Society Perdido Beach, Alabama
9/05	Evidenced-based Pharmacotherapy for Neuropathic Pain	American Academy of Pain Management San Diego, CA
10/05	Genetics of Neuropathic Pain	Tennessee Academy of Neurology Nashville, Tennessee
10/05	Problem Based Learning Discussion	American Society of Anesthesiology Meeting New Orleans, LA
10/05	Head and Neck Blocks	American Society of Anesthesiology Meeting New Orleans, LA
10/05	Evidence-based Approach to Pain Management	University of Texas Health Center at Tyler Tyler, Texas
11/05	Trigger Point Injections	North Texas Nurse Practitioners Meeting Dallas, Texas
11/05	New Treatments for Neuropathic Pain	Austin Neurological Society Austin, Texas
12/05	Neuropathic Pain	Kaufman Medical Society Meeting Dallas, Texas
3/06	Neuropathic Pain	Dallas Academy of Family Physicians

		Dallas, Texas
4/06	Cancer Pain Management	University Hospitals of Cleveland Cleveland, Ohio
4/06	Pharmacological Therapy for Neuropathic Pain	University Hospitals of Cleveland Cleveland, Ohio
4/09	Neuropathic Pain	Louisiana Soc of Interventional Pain Physicains Baton Rouge, LA
8/06	Knee Injections	Texas Center for Joint Replacement Plano, Texas
9/06	Pregabalin	North Texas Orthopedic Nurses Meeting Dallas, Texas
9/06	Perioperative Analgesia for Orthopedic Surgery	Baylor College of Medicine Houston, Texas
10/06	Head and Neck Blocks	American Society of Anesthesiology Meeting New Orleans, LA
11/06	Botulinum toxin injections for Low Back Pain	Least Invasive Spine Intervention Congress New Delhi, India
11/06	Injection therapy for facet joint pain and sacroiliac pain	Least Invasive Spine Intervention Congress New Delhi, India New Delhi, India
4/07	Low Back Pain	JC Penney Wellness Program Plano, Texas
8/07	Botulinum Toxin Injections	Injection Simulator Workshop Dallas, Texas
9/07	Trigger point and knee Injections	19 th Annual Texas Nurse Practitioner Conference Dallas, Texas

Meetings Organized

- 06/98 Update in Pain Management
UT Southwestern Medical Center
- 06/99 2nd Annual Update in Pain Management
UT Southwestern Medical Center
- 04/00 3rd Annual Update in Pain Management
UT Southwestern Medical Center
- 02/01 Pain Awareness Week Symposium
UT Southwestern Medical Center
- 04/01 4th Annual Update in Pain Management
UT Southwestern Medical Center
- 03/02 5th Annual Update in Pain Management
UT Southwestern Medical Center
- 10/03 Prescribing opiates in Texas
UT Southwestern Medical Center
- 12/03 6th Annual Update in Pain Management
UT Southwestern Medical Center

Investigative Reports

1. Parkes JD, Thompson C, Brennan L, **Gajraj N**, Howcroft B, Ruiz J. Rolipram in Parkinson's Disease. *Advances in Neurology* 40;563-565:1984.
2. **Gajraj NM**, Victory RA, Pace NA, Van Elstraete AC, Wallace DH. Comparison of an ephedrine infusion with crystalloid administration for prevention of hypotension during spinal anesthesia. *Anesthesia and Analgesia* 76;1023-6:1993.
3. Pennant JH, Pace NA, **Gajraj NM**. Role of the laryngeal mask airway in the immobile cervical spine. *Journal of Clinical Anesthesia* 5;226-230:1993.
4. Van Elstraete AC, Pennant JH, **Gajraj NM**, Victory RA. Tracheal tube cuff inflation as an aid to blind nasotracheal intubation. *British Journal of Anaesthesia* 70;691-693:1993.
5. **Gajraj NM**, Wallace DH, Pace NA. Supraventricular tachycardia in a parturient under spinal anesthesia. *Regional Anesthesia* 18;261-263:1993.
6. Sharma SK, Gambling DR, **Gajraj NM**, Troung C. Anesthetic Management of a Parturient with Mixed Mitral Valve Disease and Uncontrolled Atrial Fibrillation. *International Journal of Obstetric Anaesthesia* 3;157-62:1994.
7. **Gajraj NM**, Chason DP, Shearer VE. Cervical Spine Movement During Orotracheal Intubation: Comparison of the Belscope and Macintosh Blades. *Anaesthesia* 49;772-4:1994.
8. Pace NA, **Gajraj NM**, Pennant JH, Victory RA, Johnson ER, White PF. Use of the laryngeal mask airway following oesophageal intubation. *British Journal of Anaesthesia* 73;688-689:1994.
9. Nathanson MH, **Gajraj NM**, Newson CD. Tracheal intubation in a mannequin: comparison of the supine and left lateral positions. *British Journal of Anaesthesia* 73;690-1:1994.
10. Sharma SK, **Gajraj NM**, Willis C, Wallace DH, Sidawi E. Epidural Anesthesia for a Patient with Moyamoya disease presenting for Cesarean Section. *Anesthesia and Analgesia* 79;183-5:1994.

11. **Gajraj NM**, Pennant JH, Watcha MF. Emla Cream: A Review. *Anesthesia and Analgesia* 78;574-83:1994.
12. Victory RA, **Gajraj NM**, Pace NA, Ostman LP, White PF. Nebulized bupivacaine attenuates the heart rate response following tracheal intubation. *Journal of Clinical Anesthesia* 7(1);9-13:1995.
13. Victory RA, **Gajraj NM**, Van Elstraete A, Pace NA, Johnson ER, White PF. Effect of pre-incision versus post-incision infiltration with bupivacaine on postoperative pain. *Journal of Clinical Anesthesia* 7(3);192-6:1995.
14. **Gajraj NM**, Sharma S, Souter AJ, Pole J, Sidawi E. A survey of obstetric patients who refuse regional anaesthesia. *Anaesthesia* 50;740-1:1995.
15. Nathanson MH, **Gajraj NM**, Russel JA. Prevention of pain on injection of propofol: a comparison of lidocaine with alfentanil. *Anesthesia and Analgesia* 82;469-71:1996.
16. Sharma SK, **Gajraj NM**, Sidawi JE, Lowe K. EMLA effectively relieves the pain of spinal needle insertion. *Regional Anesthesia* 21;561-564:1996.
17. **Gajraj NM**, Nathanson MH. Preventing pain during injection of propofol; the optimal dose of lidocaine. *Journal of Clinical Anesthesia* 8;575-7:1997.
18. Sharma SK, **Gajraj NM**, Sidawi JE. Prevention of hypotension during spinal anesthesia: comparison of intravascular administration of hetastarch versus lactated Ringer's solution. *Anesthesia and Analgesia* 84;111-4:1997.
19. Chen J, **Gajraj NM**, Clavo A, Joshi GP. Posterior subcapsular cataract formation associated with multiple lumbar epidural steroid injections. *Anesthesia and Analgesia* 86; 1054-5; 1998.
10. Nathanson MH, **Gajraj NM**. Perioperative management of atrial fibrillation. *Anaesthesia* 53;665-676:1998.
20. Ahmed HE, Craig WF, White PF, Ghoname EA, Hamza MA, **Gajraj NM**, Taylor SM. Percutaneous nerve stimulation: an alternative to antiviral drugs for acute herpes zoster. *Anesthesia and Analgesia* 1998;87:911-4.
21. Ghoname EL, Craig WF, White PF, Ahmed HE, Hamza HA, **Gajraj NM**, Vakharia AS, Noe CE. The effect of stimulus frequency on the analgesic response to electrical stimulation in patients with chronic low back pain. *Anesthesia and Analgesia* 88;841-6:1999.
22. Ghoname EL, Craig WF, White PF, Ahmed HE Hamza MA, Henderson BN, **Gajraj**

- NM**, Huber PJ, Gatchel RJ. Percutaneous electrical nerve stimulation for low back pain. *JAMA* 281(9);818-823:1999.
23. Joshi GP, Duffy L, Chehade J, Wesevich J, **Gajraj N**, Johnson ER. Effects of prophylactic nalmefene on the incidence of morphine-related side effects in patients receiving intravenous patient-controlled analgesia. *Anesthesiology* 90;1007-11:1999
 24. Hamza MA, Ghoname EL, White PF, Craig WF, Ahmed HE, **Gajraj NM**, Vakharia AS, Noe CE. Effect of the duration of electrical stimulation on the analgesic response in patients with low back pain. *Anesthesiology* 91;1622-7:1999.
 25. Hamza MA, White PF, Craig WF, Ghoname EL, Ahmed HE, Proctor TJ, Noe CE, Vakharia AS, **Gajraj N**. Percutaneous electrical nerve stimulation. A novel therapy for diabetic neuropathic pain. *Diabetes Care* 23;365-370:2000.
 26. Ahmed HE, White PF, Craig WF, Hamza MA, Ghoname EL, **Gajraj NM**. Use of percutaneous electrical nerve stimulation (PENS) in the short-term management of headache. *Headache* 40;311-315, 2000.
 27. Gatchel RJ, Noe CE, **Gajraj NM**, Vakharia AS, Polatin PB, Deschner M, Pulliam C. Treatment carve-out practices: their effect on managing pain at an interdisciplinary pain center. *The Journal of Workers Compensation* 10(2);50-63:2001.
 28. Robinson RC, Gatchel RJ, Polatin P, Deschner M, Noe C, **Gajraj N**. Screening for problematic prescription opioid use. *Clinical Journal of Pain* 2001;17:220-8.
 29. Ahmed AB, Nathanson MH, **Gajraj NM**. Tracheal intubation through the laryngeal mask airway using a gum elastic bougie; the effect of head position. *Journal of Clinical Anesthesia* 13;427-9:2001.
 30. Gatchel RJ, Noe CE, Pulliam C, Robbins H, Deschner M, **Gajraj NM**, Vakharia AS. A preliminary study of MPI profile differences in predicting treatment outcome in a heterogenous chronic pain patient cohort. *Clinical Journal of Pain* 2002;18;139-43.
 31. Robbins H, Gatchel RJ, Noe C, **Gajraj N**, Polatin P, Deschner M. A prospective one-year outcome study of interdisciplinary chronic pain management: compromising its efficacy by managed care policies. *Anesthesia and Analgesia* 2003; 97(1):156-62.
 32. Adams LL, Gatchel RJ, Robinson RC, Polatin P, **Gajraj N**, Deschner M, Noe C. Development of a self-report screening instrument for assessing potential opioid medication misuse in chronic pain patients. *J Pain Symptom Management* 2004; 27(5):440-459.
 33. **Gajraj NM**. The effect of cyclooxygenase (COX)-2 inhibitors on bone healing. *Regional Anesthesia and Pain Medicine* 2003;28(5):456-65.

34. **Gajraj NM.** COX-2 inhibitors. *Anesthesia and Analgesia* 2003; 96(6):1720-38.
35. **Gajraj NM.** Selective Nerve Root blocks for low back pain and radiculopathy. *Regional Anesthesia and Pain Medicine* 2004;29(3):243-56.
36. **Gajraj NM.** Role of NSAIDs and COX-2 inhibitors in postoperative pain management. *Anesthesiology Clinics of North America Anesthesiol* 2005;23(1):49-72.
37. **Gajraj NM.** Botulinum toxin A injection of the obturator internus muscle for chronic perineal pain. *Journal of Pain* 2005;6(5)333-337.
38. **Gajraj NM.** Pregabalin for pain management. *Pain Practice* 2005;5(2):95-102.
39. **Gajraj NM.** COX-2 Inhibitors Celecoxib and Parecoxib: Valuable Options for Postoperative Pain Management. *Current Topics in Medicinal Chemistry* 2007;7(3):235-49.
40. **Gajraj NM.** Pregabalin for Pain management. *Anesth Analg.* 2007 Dec;105(6):1805-15.

Chapters in Books/Invited Articles

1. **Gajraj NM, Giesecke AH, Pennant JH.** Cervical Spine Trauma and Airway Management. *Current Opinion in Anaesthesiology* 6;369-374:1993.
2. **Gajraj NM.** Anaesthetics. *Medical Review* 1(1);4-5:1994.
3. **Gajraj NM.** FRCA: Multiple-choice questions in anesthesia. *British Journal of Hospital Medicine* 52;275-7:1994.
4. **Gajraj N, White PF.** Clinical Pharmacology and Practical Applications of Ketamine. In: Bowdle TA, Horita A, Kharasch ED, eds. *The Pharmacological Basis of Anesthesiology: Basic Science and Clinical Applications*. New York: Churchill Livingstone, 1994:375-92.
5. **Gajraj NM.** Anaesthetics. *Medical Review* 1(2);4-5:1995.
6. **Gajraj NM.** Anaesthetics. *Medical Review* 1(3);4-5:1995.
7. **Gajraj NM.** Anaesthetics. *Medical Review* 1(4);4-5:1995.
8. **Gajraj NM.** FRCA: Multiple-choice questions in anaesthesia. *British Journal of Hospital Medicine* 54(5);212-3:1995.

10. Nathanson MH, **Gajraj NM**, Anaesthesia for cerebral aneurysm surgery. *British Journal of Hospital Medicine* 54(8);405-8:1995.
11. **Gajraj NM**. Anaesthetics. *Medical Review* 2(1);4-5:1995.
12. **Gajraj NM**. Anaesthetics. *Medical Review* 2(2);4-5:1996.
13. **Gajraj NM**, Nathanson MH. Anaesthetics. *Medical Review* 2(3);4-5:1996.
14. Hardman JG, **Gajraj NM**. Epidural blood patch. *British Journal of Hospital Medicine* 56;268-9:1996.
15. **Gajraj NM**, Nathanson MH. Anaesthetics. *Medical Review* 2(4);4-5:1996.
16. **Gajraj NM**. Local Anesthesia. In: Toghill ed. *Practical Procedures*. London: Arnold, 1996.
17. **Gajraj NM**. Local Anesthetics. In: White PF, ed. *Anesthesia Drug Manual*. WB Saunders, 1996.
18. **Gajraj NM**, Giesecke AH. Resuscitation and trauma: Outcomes. *Current Opinion in Anaesthesiology* 10;119-23:1997.
19. **Gajraj NM**, Whitten CW. Morbid obesity. In: Atlee J ed. *Complications in Anesthesia*. Philadelphia: W.B. Saunders, 1998.
20. Brown RS, **Gajraj NM**. Complications of adrenal surgery. In: Atlee J ed. *Complications in Anesthesia*. Philadelphia: W.B. Saunders, 1998.
21. **Gajraj NM**, Giesecke AH. Pain management in the operating room. In: *Perioperative Pain Management and Regional Anesthesia for the Trauma Patient*. Philadelphia: W.B. Saunders, 2000.
22. Noe CE, **Gajraj NM**, Vakharia A. Injection procedures. In: Mayer TG, Gatchel RJ, Polatin PB, eds. *Occupational musculoskeletal medicine: function, outcomes, and evidence*. Philadelphia: Lippincott-Raven, 2000.
23. Polatin PB, **Gajraj NM**. Integration of pharmacotherapy with psychological treatment (pages 276-298). In: Gatchel RJ, Turk DC, eds. *Psychological Approaches to Pain Management*. Guilford Press, 2002

Abstracts

1. Pennant JH, Pace NA, **Gajraj NM**. Use of the Laryngeal Mask Airway in the Immobilized Cervical Spine (abstract). *Anesthesiology* 77:3A;A1063:1992.
2. **Gajraj NM**. Diabetes and the anesthesiologist. Abstracts of the Ophthalmic Anesthesia Society. 6th Scientific Meeting, November 1992.
3. **Gajraj NM**, Pace NA, Pennant JH, Victory RA, Johnson ER, White PF. Use of the laryngeal mask airway following unintentional esophageal intubation (abstract). *Anesthesia and Analgesia* 76;S112:1993.
4. **Gajraj NM**, Victory RA, Pace NA, Van Elstraete AC, Wallace DH. Prevention of hypotension during spinal anesthesia: Comparison of an ephedrine infusion with volume preloading (abstract). *Anesthesia and Analgesia* 76;S113:1993.
5. Newson C, Pace N, Over D, **Gajraj N**, White PF. Airway management following esophageal intubation (abstract). *Anesthesia and Analgesia* 76;S276:1993.
6. Van Elstraete AC, Pennant JH, **Gajraj NM**, Victory RA. Endotracheal tube cuff inflation as an aid to blind nasotracheal intubation (abstract). *Anesthesia and Analgesia* 76;S443:1993.
7. **Gajraj NM**, Chason DP, Shearer VE. Cervical spine movement during orotracheal intubation: comparison of the Belscope and Macintosh blades. Abstracts of the 7th Annual Trauma Anesthesia and Critical Care Symposium 1993.
8. Victory RA, Newson C, **Gajraj NM**, Ostman P, White PF. Nebulized Bupivacaine Obtunds the Hemodynamic Response to Tracheal Intubation (abstract). *Anesthesiology* 79:3A;A133:1993.
9. Victory R, **Gajraj N**, Van Elstraete A, Pace N, Newson C. Pre-emptive Analgesia Fails to Decrease Pain Following Hysterectomy (abstract). *Anesthesiology* 79:3A;A902:1993.
10. Wallace D, Armstrong A, Darras A, **Gajraj N**, Gambling D. The Effect of Desflurane on Uterine Tone at Cesarean Delivery, Placental Transfer and Recovery (abstract). *Anesthesiology* 79:3A;A1019:1993.
11. Pennant J, **Gajraj N**, Miller J. Resistance of the Laryngeal Mask Airway to the CO₂ Laser (abstract). *Anesthesiology* 79:3A;A1055:1993.
12. **Gajraj NM**, Bala S, Newson CD, Joshi GP. Outpatients View of Their Anesthesia in the USA (abstract). *Anesthesia and Analgesia* 78;S125:1994.
13. **Gajraj NM**, Sharma S, Souter AJ, Pole J, Sidawi E. A Survey of Patients Who Refuse

- Regional Anesthesia (abstract). *Anesthesia and Analgesia* 78;S126:1994
14. Joshi GP, Beck PM, **Gajraj NM**, Newson CD. Anesthesiologists Attitudes to HIV Testing (abstract). *Anesthesia and Analgesia* 78;S182:1994.
 15. Joshi GP, Morrison SG, **Gajraj NM**, Okonkwo N, White PF. Hemodynamic Changes During Emergence from Anesthesia: Use of the laryngeal Mask Airway vs Endotracheal Tube (abstract). *Anesthesia and Analgesia* 78;S185:1994.
 16. Nathanson MH, Newson C, **Gajraj NM**, Mendel PR. Intubation in the Left Lateral Position: A Forgotten Art? (abstract). *Anesthesia and Analgesia* 78;S311:1994.
 17. Sharma S, Gambling D, **Gajraj N**, Wallace D, Sidawi E, Herrera E, Sack D, Lowe K. EMLA cream effectively relieves the pain of spinal needle insertion (abstract). *Anesthesiology* 81;A1003:1994.
 18. Joshi GP, Morison SG, Okonkwo N, **Gajraj NM**, Pennant JH, White PF. Continuous pH monitoring: use of the laryngeal mask airway versus tracheal tube (abstract). *Anesthesiology* 81;A1281:1994.
 19. Sharma S, Sidawi E, Gambling D, **Gajraj N**. Hetastarch versus lactated Ringer's preload: prevention of hypotension following spinal anesthesia (abstract). *Anesthesia and Analgesia* 80;S431:1995.
 20. **Gajraj NM**, Nathanson MN. Preventing pain during injection of propofol; the optimal dose of lidocaine (abstract). *Anesthesiology* 83;A835:1995.
 21. Joshi G, Chehade J, Weisevich J, Duffy L, **Gajraj N**, Johnson ER. Effects of prophylactic nalmeferene on morphine-related side effects in patients receiving IV-PCA (abstract). *Anesthesiology* 87;A723:1997.
 22. Ghoname EA, Craig WF, White PF, Ahmed HE, Hamza MA, Henderson BN, **Gajraj NM**, Huber PJ, Gatchel RJ. Percutaneous electrical nerve stimulation (PENS): An alternative to TENS and exercise for the management of chronic low back pain (abstract). *Anesthesiology* 89;A1100:1998.
 23. Ahmed HE, Craig WF, White PF, Ghoname EL, Hamza, MA, **Gajraj NM**, Taylor S. Comparison of percutaneous electrical nerve stimulation (PENS) and antiviral drugs for treatment of herpes zoster pain (abstract). *Anesthesiology* 89;A1099:1998.
 24. Pulliam C, Gajraj N, Classsen C, Jenkins J, Staton M, Bogard J, Wall A, Brown P. Effects of interdisciplinary pain management on a county hospital low back pain population. 10th World Congress on Pain. Abstract 1375;2002.

Letters

1. Pennant JH, **Gajraj NM**, Pace NA. Laryngeal mask airway in cervical spine injuries (letter). *Anesthesia and Analgesia* 75;1074:1992
2. **Gajraj NM**, Sidawi E. How Painful is Insertion of a Spinal Needle? (letter). *Anesthesia and Analgesia* 76;1370,1993.
3. **Gajraj NM**, Pennant JH, Joshi GP. Laryngeal Mask Airway and Pulmonary Edema (letter). *Anesthesiology* 79;184:1993
4. **Gajraj NM**, Pennant JH, Van Elstraete AC, Victory RA. Tracheal Tube Cuff Inflation as an Aid to Blind Nasotracheal Intubation in a Patient with Cervical Spine Injury (letter). *British Journal of Anaesthesia* 71;772-3:1993.
5. **Gajraj NM**, Nathanson MH, Pennant JH. Intraoperative Aspiration and the Laryngeal Mask Airway (letter). *Anesthesia and Analgesia* 78;613:1994.
6. Pennant JH, **Gajraj NM**, Yamanouchi K. The LMA and Laryngeal Polyposis (letter). *Anesthesia and Analgesia* 78;1206-7:1994.
7. **Gajraj NM**, Pennant JH, Van Elstraete AC, Victory RA. Inflation of the Tracheal Tube Cuff as an Aid to Blind Nasotracheal Intubation (letter). *British Journal of Anaesthesia* 72;139-140:1994.
8. **Gajraj NM**, Chason DP, Shearer VE. The Belscope Laryngoscope (letter). *British Journal of Anaesthesia* 72;726-7:1994.
9. **Gajraj NM**, Pace NA, Pennant JH. The Oesophageal Vent-Laryngeal Mask (letter). *British Journal of Anaesthesia* 72;726-7:1994.
10. Pennant JH, **Gajraj NM**, Griffiths C. The LMA and Cuff Puncture (letter). *Anaesthesia* 49;448:1994.
11. Pennant JH, **Gajraj NM**. Lasers and the Laryngeal Mask Airway (letter). *Anaesthesia* 49;448-449:1994.
12. **Gajraj NM**, Bala SA. Patients' Knowledge of Anaesthetists (letter). *Anaesthesia* 49;559:1994.
13. **Gajraj NM**, Pennant JH. Cervical spine stabilization (letter). *Anesthesiology* 81;1081:1994.

14. Pennant JH, **Gajraj NM**, Yamanouchi Y. The laryngeal mask airway and laryngeal polyposis (letter, reply). *Anesthesia and Analgesia* 80:211-2:1995.
15. **Gajraj NM**, Nathanson MH. Pain during injection of propofol (letter). *Anaesthesia* 50;186-7:1995
16. **Gajraj NM**, Nathanson MH, Pennant JH. Authorship in anaesthesia journals (letter). *Canadian Journal of Anaesthesia* 42;749-50:1995.
17. **Gajraj NM**, Wallace DH. Treatment of supraventricular tachycardia under spinal anesthesia (letter). *Regional Anesthesia* 20(4);359:1995.
18. Nathanson MH, **Gajraj NM**. Reducing the pain on injection of propofol (letter). *Anesthesia and Analgesia* 82;1307-8:1996.
19. **Gajraj NM**, Hutter CD. The role of serotonin in pre-eclampsia (letter). *British Journal of Anesthesia* 76;748-9:1996.
20. **Gajraj NM**. Tracheal intubation through the laryngeal mask using a gum elastic bougie (letter). *Anaesthesia* 51;796:1996.
21. **Gajraj NM**. Use of the laryngeal mask airway during oesophago-gastro-duodenoscopy (letter). *Anaesthesia* 51;991:1996.
22. Nathanson MH, **Gajraj NM**. Propofol on injection of propofol. *Anaesthesia* 53;608:1998.
23. **Gajraj NM**, Hervias-Sanz M. Opiate use or undertreatment? (letter) *Clinical Journal of Pain* 14(1); 90-1: 1998.
24. Greilich NB, Meng J, **Gajraj NM**. Subcutaneous lidocaine misidentified as cerebrospinal fluid (letter). *Journal of Clinical Anesthesia* 11;140:1999.
25. **Gajraj NM**. Opioid therapy for chronic pain. *NEJM* 350(8);840-2: 2004.
26. **Gajraj NM**. Effect of COX-2 inhibitors on bone healing. *JBJS*. January 15, 2004.
27. **Gajraj NM**. Opioids for non-cancer pain. *British Journal of Anesthesia* 2004;93(1):149
28. **Gajraj NM**. Selective nerve root block-Is the position of the needle transforaminal or paraforaminal? Call for a need to reevaluate the terminology. *Regional Anesthesia and Pain Medicine* 2004; 29(6): 616-7.

Book Reviews

1. Gajraj NM. Radiographic imaging for regional anesthesia and pain management. *Anesthesia and Analgesia* 2003;96:1847-1850.
2. Gajraj NM. Image-guided spine intervention. *Anesthesia and Analgesia* 2003;96:917
3. Gajraj NM. Regional anesthesia: an illustrated procedural guide. *Lancet* 2003; 361:2165.
4. Gajraj NM. Interventional pain management. *Anesthesiology clinics of North America. Anesthesia and Analgesia* 2004; 98:1506.

Media Publications

Lack of faith in HIV test accuracy cited as why many doctors do not get test after needle stick injury. *Anesthesiology News*, June 1994

Study finds optimal dose of lidocaine necessary to blunt propofol injection pain. *Anesthesiology News*, July 1995

No time for pain. *Wired News*, March 1999

The whimp factor; it's genetic. *Wired News*, July 1999

PENS relieves low back pain. *Whole Health MD*, February 2000

Team approach helps patients in pain. *Center Times*, December 2001

Botulinum toxin injections. *Dallas Morning News*, July 8th 2002

Insurance ruling thwarts ailing pianist. *Star Telegram* July, 14, 2002

Addiction. *Star Telegram* October 11, 2003

Addiction to painkillers. U.T.Southwestern News Release, November 2003

Hydrocodone deaths. Star Telegram January 20, 2004

Experts offer myriad ways to combat chronic pain. Chicago Tribune March 9, 2004

Preventing back injuries. U.T.Southwestern News Release, April 2004

Back injuries. Texas Jewish Post. April 15, 2004

Media Appearances

June 2002, Early Connect/Texas Cable News, Treatment of osteoarthritis

June 2002, Good Morning Texas/WFAA-TV (ABC), Arthritis management

January 2003, CBS News, Barriers to effective pain management

October 2003, Channel 8, Use of Alprazolam

March 2005, Channel 8, Steroid injections for carpal tunnel syndrome

May 2005, Channel 8, Botulinum Toxin for Pain Management

June 2005, Channel 8, Lidoderm for Pain Management

July 2005, Channel 8, Palladone

December 2005, Channel 8, Pregabalin for Pain Management

February 2007, Channel 8, New Fibromyalgia Research