




Elliot J. Krane

Professor of Anesthesiology, Perioperative and Pain Medicine (Pediatric Anesthesia) at the Stanford University Medical Center and of Pediatrics at the Lucile Salter Packard Children's Hospital

 NIH Biosketch available Online

 Curriculum Vitae available Online

CLINICAL OFFICES

• Pediatric Pain Management

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Menlo Park, CA 94025

Tel (650) 725-5344

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ACADEMIC CONTACT INFORMATION

• Administrative Contact

Annah Hoang - Pediatric Anesthesia Administrative Associate

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Bio

BIO

Elliot Krane was born in Philadelphia, PA but grew up in Tucson, Arizona, the son of a watchmaker and a bookkeeper. He attended Reed College in Portland, Oregon where he had the Dana Scholarship for Excellence in Humanities and graduated Phi Beta Kappa, then returned to Tucson to attend medical school at the University of Arizona. He took a 13 month leave of absence during medical school to work in the Physiological Laboratory at Cambridge University under the mentorship of Peter Nathanielsz, MD, PhD, introducing the laboratory to computerized data recovery and Fourier analysis of EEG for fetal EEG measurement. After being inducted into Alpha Omega Alpha and graduation from the UA, he trained in pediatrics at the Massachusetts General Hospital, then in anesthesiology, also at the MGH, followed by a fellowship year in pediatric anesthesiology and critical care at Boston Children's Hospital.

After this medical training he moved to Seattle, WA to start an academic career at the University of Washington and the Seattle Children's Hospital (then called Children's Orthopedic Hospital). There he and his colleague Donald C. Tyler, MD started the first (or maybe it was the second) pain clinic for children in the U.S.

In 1994 he left the Northwest to continue his career as the Chief of Pediatric Anesthesiology and Professor at Stanford University. He remained the Anesthesiology Chief for the Packard Children's Hospital until 2003, at which time he stepped down to continue as the Chief of Pain Management, the position he holds today. He holds board certification in Pediatrics, Anesthesiology, Pediatric Anesthesiology, Critical Care Medicine, and Pain Management, and is a Fellow of the American Academy of Pediatrics.

Elliot Krane has received the Physician's Recognition Award in both Anesthesiology and Pediatric Critical from the American Medical Association, the Poster Award from the Vienna International Congress on Anesthesiology and Perioperative Care, the Jeffrey Lawson Award for Advocacy in Children's Pain Relief from the American Pain Society, and the Ellis N. Cohen Achievement Award from the Stanford University Department of Anesthesiology, Perioperative and Pain Medicine. He has also been the recipient of grants from the Mayday Fund, the NIH, the American Medical Association, the Washington State Society of Anesthesiologists, the Diabetes Research and Education Foundation, and the American Society of Anesthesiologists as well as many pharmaceutical companies to assist them in new drug development for the treatment of pediatric pain.

Elliot now lives in Menlo Park with his wife Maria Amundson, a recent Stanford Distinguished Careers Fellow, her daughter, and two Australian terriers. His adult sons live in the Bay Area, and his adult step-son studies at, and played varsity baseball for UCSD.

CLINICAL FOCUS

- Anesthesia
- Pediatric Pain Management
- Anesthesia, Pediatric
- Regional Anesthesia
- Complex Regional Pain Syndromes

ACADEMIC APPOINTMENTS

- Professor - Med Center Line, Anesthesiology, Perioperative and Pain Medicine
- Professor - Med Center Line, Pediatrics - Operations
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)

ADMINISTRATIVE APPOINTMENTS

- Adjunct Assistant Professor, Pediatrics, University of Washington, (1983-1989)
- Assistant Professor, Anesthesiology, University of Washington, (1983-1989)
- Adjunct Associate Professor, Pediatrics, University of Washington, (1989-1994)
- Associate Professor, Anesthesiology, University of Washington, (1989-1994)
- Chief of Anesthesia, LPCH, (1994-2003)
- Chief of Pain Management Service, LPCH, (1994- present)
- Professor, Pediatrics, Stanford University School of Medicine, (1994- present)
- Professor, Anesthesia, Stanford University School of Medicine, (1994- present)

HONORS AND AWARDS

- Dana Scholarship for Excellence in Humanities, Reed College (1970)
- Phi Beta Kappa, Reed College (1974)
- Alpha Omega Alpha, University of Arizona (1977)
- Cerebral blood flow in an infant animal model, American Society of Anesthesiologists (1984)
- Comparison of caudal morphine bupivacaine, and IV morphine for pain relief in children, NIH Biomedical Research Grant (1986)
- Prevention of brain swelling during diabetes ketoacidosis, Diabetes Research and Education Foundation Grant (1987)
- Epidural Sufentanil in Children, NIH Biomedical Research Grant (1991)
- Physician's Recognition Award,, American Medical Association (1997)
- Physician's Recognition Award, Pediatric Critical Care Medicine, American Medical Association (1997)
- Poster Award, Vienna International Congress 1998 on Anesthesiology and Perioperative Care, European Society of Anesthesia (1998)
- A Placebo- Controlled of Effectiveness and Safety of ALGRX 3268 In Pediatrics, Corgentech Corporation (2005)
- A Study of Safety and Efficacy of Epidural MS Extended-Release Liposome Injection in Pediatrics, Skye Pharma, Inc. (2006)
- Pfizer Visiting Professor in Pain Medicine, University of Hawaii (2006)
- A Phase III Study of the Safety and Efficacy of IV APAP in Pediatric Inpatients, Cadence Pharmaceuticals, Inc. (2007)
- Initiation of a Juvenile CRPS National Consensus Group, Mayday Fund (2007)

- Diagnosis and Treatment of Complex Regional Pain Syndromes in Childhood, Mayday Fund (2008)
- Safety and Tolerability of Extended-Release Oxymorphone in Pediatric Subjects, Endo Pharmaceuticals, Inc. (2008)
- Safety, PK, and Effectiveness of Oxymorphone for Acute Surgical Pain in Pediatrics, Endo Pharmaceuticals, Inc. (2008)
- Mayday Pain & Society Fellowship, Mayday Fund (2010)
- Lawson Award for advocacy in pediatric pain, American Pain Society (2012)
- Ellis M. Cohen Achievement Award, Stanford University School of Medicine Department of Anesthesia (2015)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Founding member, President-Elect, Pediatric Research Network for Pain (PRN-Pain) (2005 - present)
- Member, California Society of Anesthesiologists (1994 - present)
- Member, American Pain Society (1985 - 2019)
- Founding Member, Society for Pediatric Anesthesiology (1989 - present)
- Elected member, Association of University Anesthesiologists (1990 - present)
- Fellow, American Academy of Pediatrics (1985 - present)
- Member, International Anesthesia Research Society (1982 - present)
- Member, American Society of Anesthesiologists (1980 - present)
- Member, International Association for the Study of Pain (1984 - present)
- Appointed, International Association for the Study of Pain Presidential Commission on Cannabis Use (2018 - present)

PROFESSIONAL EDUCATION

- Medical Education: University of Arizona College of Medicine Office of the Registrar (1977) AZ
- Board Certification: Pediatric Anesthesia, American Board of Anesthesiology (2013)
- Board Certification: Pain Management, American Board of Pain Medicine (2012)
- Board Certification: Pediatrics, American Board of Pediatrics (1985)
- Board Certification: Anesthesia, American Board of Anesthesiology (1985)
- Residency: Massachusetts General Hospital (1982) MA
- Internship: Massachusetts General Hospital (1979) MA
- Residency: Massachusetts General Hospital (1980) MA
- Fellowship: Children's Hospital Boston (1983) MA
- Recertification, American Board of Anesthesiology , Anesthesia (2014)
- Recertification, American Board of Anesthesiology , Anesthesia (2009)
- MD, University of Arizona , Medicine (1977)
- No degree, Cambridge University , Endocrinology (1976)
- BA, Reed College , Chemistry (1974)

COMMUNITY AND INTERNATIONAL WORK

- Surgery in Nicaragua, Esteli, Nicaragua
- Taiwan National Children's Hospital, Taipei
- Project Hope, Former states of the Soviet Union

PATENTS

- Elliot Krane. "United States Patent 13/041,387 Indwelling Nerve Block Catheters", SRI, Stanford University, Sep 8, 2011

LINKS

- Professional Web Site: <http://pedsanesthesia.stanford.edu/faculty/bio/krane.html>
- CAP: <http://tinyurl.com/munhsgu>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

The management of pain in children using intraspinal opioids, regional anesthetics, and novel analgesic agents; cerebral and osmolar complications of diabetic ketoacidosis in children.

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Anesthesia (Fellowship Program)

Publications

PUBLICATIONS

- **Cannabinoids, cannabis, and cannabis-based medicines for pain management: an overview of systematic reviews.** *Pain*
Moore, R. A., Fisher, E., Finn, D. P., Finnerup, N. B., Gilron, I., Haroutounian, S., Krane, E., Rice, A. S., Rowbotham, M., Wallace, M., Eccleston, C.
2020
- **Cannabinoids, cannabis, and cannabis-based medicine for pain management: a systematic review of randomised controlled trials.** *Pain*
Fisher, E., Moore, R. A., Fogarty, A. E., Finn, D. P., Finnerup, N. B., Gilron, I., Haroutounian, S., Krane, E., Rice, A. S., Rowbotham, M., Wallace, M., Eccleston, C.
2020
- **Team Approach: Complex Regional Pain Syndrome in Children and Adolescents.** *JBJS reviews*
Tileston, K. R., Griffin, A., Wagner, J. F., O'Day, M. N., Krane, E. J.
2020; 8 (4): e0174
- **Variation Between and Within Hospitals in Single Injection Caudal Local Anesthetic Dose: A Report From the Pediatric Regional Anesthesia Network.** *Anesthesia and analgesia*
Taenzer, A. H., Hoyt, M., Krane, E. J., Walker, B. J., Flack, S., Bosenberg, A., Sethna, N. F., Franklin, A. D., Polaner, D. M., PRAN investigators
2019
- **The Opioid Debate-PRO Opioids Have an Important Role in Pain Management in Children** *CLINICAL JOURNAL OF PAIN*
Krane, E. J.
2019; 35 (6): 468–72
- **Design and Reporting Characteristics of Clinical Trials of Select Chronic and Recurrent Pediatric Pain Conditions: An Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks Systematic Review** *JOURNAL OF PAIN*
Connolly, M. R., Chaudari, J. Y., Yang, X., Ward, N., Kitt, R. A., Herrmann, R. S., Krane, E. J., LeBel, A. A., Smith, S. M., Walco, G. A., Weisman, S. J., Turk, D. C., Dworkin, et al
2019; 20 (4): 394–404
- **Pharmacological interventions for chronic pain in children: an overview of systematic reviews.** *Pain*
Eccleston, C., Fisher, E., Cooper, T. E., Grégoire, M. C., Heathcote, L. C., Krane, E., Lord, S. M., Sethna, N. F., Anderson, A. K., Anderson, B., Clinch, J., Gray, A. L., Gold, et al
2019; 160 (8): 1698–1707
- **Cannabinoids, cannabis, and cannabis-based medicine for pain management: a protocol for an overview of systematic reviews and a systematic review of randomised controlled trials.** *Pain reports*
Fisher, E., Eccleston, C., Degenhardt, L., Finn, D. P., Finnerup, N. B., Gilron, I., Haroutounian, S., Krane, E., Rice, A. S., Rowbotham, M., Wallace, M., Moore, R. A.

2019; 4 (3): e741

- **A Case Report of Combined Ultrasound and Fluoroscopic-Guided Percutaneous Radiofrequency Lesioning of the Obturator and Femoral Articular Branches in the Treatment of Persistent Hip Pain in a Pediatric Patient** *PAIN PRACTICE*
Khan, J. S., Krane, E. J., Higgs, M., Pritzlaff, S., Hoffinger, S., Ottestad, E.
2019; 19 (1): 52–56
- **Pharmacological interventions for chronic pain in children: an overview of systematic reviews.** *Pain*
Eccleston, C., Fisher, E., Cooper, T. E., Grégoire, M. C., Heathcote, L. C., Krane, E., Lord, S. M., Sethna, N. F., Anderson, A. K., Anderson, B., Clinch, J., Gray, A. L., Gold, et al
2019
- **Complications in Pediatric Regional Anesthesia An Analysis of More than 100,000 Blocks from the Pediatric Regional Anesthesia Network** *ANESTHESIOLOGY*
Walker, B. J., Long, J. B., Sathyamoorthy, M., Birstler, J., Wolf, C., Bosenberg, A. T., Flack, S. H., Krane, E. J., Sethna, N. F., Suresh, S., Taenzer, A. H., Polaner, D. M., Pediat Regional Anesthesia Network
2018; 129 (4): 721–32
- **Design and Reporting Characteristics of Clinical Trials of Select Chronic and Recurrent Pediatric Pain Conditions: An Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks Systematic Review.** *The journal of pain : official journal of the American Pain Society*
Connolly, M. R., Chaudari, J. Y., Yang, X., Ward, N., Kitt, R. A., Herrmann, R. S., Krane, E. J., LeBel, A. A., Smith, S. M., Walco, G. A., Weisman, S. J., Turk, D. C., Dworkin, et al
2018
- **The National Opioid Epidemic and the Risk of Outpatient Opioids in Children** *PEDIATRICS*
Krane, E. J., Weisman, S. J., Walco, G. A.
2018; 142 (2)
- **Complications in Pediatric Regional Anesthesia: An Analysis of More than 100,000 Blocks from the Pediatric Regional Anesthesia Network.** *Anesthesiology*
Walker, B. J., Long, J. B., Sathyamoorthy, M., Birstler, J., Wolf, C., Bosenberg, A. T., Flack, S. H., Krane, E. J., Sethna, N. F., Suresh, S., Taenzer, A. H., Polaner, D. M., Martin, et al
2018
- **The National Opioid Epidemic and the Risk of Outpatient Opioids in Children.** *Pediatrics*
Krane, E. J., Weisman, S. J., Walco, G. A.
2018
- **A case report of combined ultrasound and fluoroscopic-guided percutaneous radiofrequency lesioning of the obturator and femoral articular branches in the treatment of persistent hip pain in a pediatric patient.** *Pain practice : the official journal of World Institute of Pain*
Khan, J. S., Krane, E. J., Higgs, M., Pritzlaff, S., Hoffinger, S., Ottestad, E.
2018
- **Clinical trial designs and models for analgesic medications for acute pain in neonates, infants, toddlers, children, and adolescents: ACTION recommendations** *PAIN*
Walco, G. A., Kopecky, E. A., Weisman, S. J., Stinson, J., Stevens, B., Desjardins, P. J., Berde, C. B., Krane, E. J., Anand, K. S., Yaster, M., Dampier, C. D., Dworkin, R. H., Gilron, et al
2018; 159 (2): 193–205
- **Management of a Ventral Cerebrospinal Fluid Leak With a Lumbar Transforaminal Epidural Blood Patch in a Child With Persistent Postdural Puncture Headache: A Case Report.** *Regional anesthesia and pain medicine*
D'souza, G., Seidel, F. G., Krane, E. J.
2017; 42 (2): 263–266
- **Pediatric-Collaborative Health Outcomes Information Registry (Peds-CHOIR): a learning health system to guide pediatric pain research and treatment.** *Pain*
Bhandari, R. P., Feinstein, A. B., Huestis, S. E., Krane, E. J., Dunn, A. L., Cohen, L. L., Kao, M. C., Darnall, B. D., Mackey, S. C.
2016; 157 (9): 2033–2044
- **Applying a Lifespan Developmental Perspective to Chronic Pain: Pediatrics to Geriatrics.** *journal of pain*
Walco, G. A., Krane, E. J., Schmader, K. E., Weiner, D. K.

2016; 17 (9): T108-17

- **The European Society of Regional Anaesthesia and Pain Therapy and the American Society of Regional Anesthesia and Pain Medicine Joint Committee Practice Advisory on Controversial Topics in Pediatric Regional Anesthesia.** *Regional anesthesia and pain medicine*
Ivani, G., Suresh, S., Ecoffey, C., Bosenberg, A., Lonnqvist, P., Krane, E., Veyckemans, F., Polaner, D. M., Van de Velde, M., Neal, J. M.
2015; 40 (5): 526-532
- **Paraplegia after epidural-general anesthesia in a Morquio patient with moderate thoracic spinal stenosis** *CANADIAN JOURNAL OF ANESTHESIA-JOURNAL CANADIEN D ANESTHESIE*
Drummond, J. C., Krane, E. J., Tomatsu, S., Theroux, M. C., Lee, R. R.
2015; 62 (1): 45-49
- **Interscalene Brachial Plexus Blocks Under General Anesthesia in Children: Is This Safe Practice? A Report From the Pediatric Regional Anesthesia Network (PRAN)** *REGIONAL ANESTHESIA AND PAIN MEDICINE*
Taenzer, A., Walker, B. J., Bosenberg, A. T., Krane, E. J., Martin, L. D., Polaner, D. M., Wolf, C., Suresh, S.
2014; 39 (6): 502-505
- **Asleep versus awake: does it matter?: Pediatric regional block complications by patient state: a report from the Pediatric Regional Anesthesia Network.** *Regional anesthesia and pain medicine*
Taenzer, A. H., Walker, B. J., Bosenberg, A. T., Martin, L., Suresh, S., Polaner, D. M., Wolf, C., Krane, E. J.
2014; 39 (4): 279-283
- **The ACTION-American Pain Society Pain Taxonomy (AAPT): An Evidence-Based and Multidimensional Approach to Classifying Chronic Pain Conditions** *JOURNAL OF PAIN*
Fillingim, R. B., Bruehl, S., Dworkin, R. H., Dworkin, S. F., Loeser, J. D., Turk, D. C., Widerstrom-Noga, E., Arnold, L., Bennett, R., Edwards, R. R., Freeman, R., Gewandter, J., Hertz, et al
2014; 15 (3): 241-249
- **Chest CT in children: anesthesia and atelectasis.** *Pediatric radiology*
Newman, B., Krane, E. J., Gawande, R., Holmes, T. H., Robinson, T. E.
2014; 44 (2): 164-172
- **Pediatric Regional Anesthesia Network (PRAN): A Multi-Institutional Study of the Use and Incidence of Complications of Pediatric Regional Anesthesia** *ANESTHESIA AND ANALGESIA*
Polaner, D. M., Taenzer, A. H., Walker, B. J., Bosenberg, A., Krane, E. J., Suresh, S., Wolf, C., Martin, L. D.
2012; 115 (6): 1353-1364
- **Neurological Complications Associated with Epidural Analgesia in Children: A Report of 4 Cases of Ambiguous Etiologies** *ANESTHESIA AND ANALGESIA*
Meyer, M. J., Krane, E. J., Goldschneider, K. R., Klein, N. J.
2012; 115 (6): 1365-1370
- **Pediatric Analgesic Clinical Trial Designs, Measures, and Extrapolation: Report of an FDA Scientific Workshop** *PEDIATRICS*
Berde, C. B., Walco, G. A., Krane, E. J., Anand, K. J., Aranda, J. V., Craig, K. D., Dampier, C. D., Finkel, J. C., Grabis, M., Johnston, C., Lantos, J., Lebel, A., Maxwell, et al
2012; 129 (2): 354-364
- **Neuropathic Pain in Children: Special Considerations** *MAYO CLINIC PROCEEDINGS*
Walco, G. A., Dworkin, R. H., Krane, E. J., LeBel, A. A., Treede, R.
2010; 85 (3): S33-S41
- **Recommendations for the Pharmacological Management of Neuropathic Pain: An Overview and Literature Update** *MAYO CLINIC PROCEEDINGS*
Dworkin, R. H., O'Connor, A. B., Audette, J., Baron, R., Gourlay, G. K., Haanpaa, M. L., Kent, J. L., Krane, E. J., LeBel, A. A., Levy, R. M., Mackey, S. C., Mayer, J., Miaskowski, et al
2010; 85 (3): S3-S14
- **Patient-controlled analgesia: Proxy-controlled analgesia?** *ANESTHESIA AND ANALGESIA*
Krane, E. J.
2008; 107 (1): 15-17
- **A comparison of the clinical utility of pain assessment tools for children with cognitive impairment** *ANESTHESIA AND ANALGESIA*
Voepel-Lewis, T., Malviya, S., Tait, A. R., Merkel, S., Foster, R., Krane, E. J.

2008; 106 (1): 72-78

- **A randomized multicenter study of remifentanyl compared with halothane in neonates and infants undergoing pyloromyotomy. I. Emergence and recovery profiles** *Annual Meeting of the American-College-of-Clinical-Pharmacy*
Davis, P. J., Galinkin, J., McGowan, F. X., Lynn, A. M., Yaster, M., Rabb, M. F., Krane, E. J., Kurth, C. D., Blum, R. H., Maxwell, L., Orr, R., Szmuk, P., Hechtman, et al
LIPPINCOTT WILLIAMS & WILKINS.2001: 1380–86
- **A randomized multicenter study of remifentanyl compared with halothane in neonates and infants undergoing pyloromyotomy. II. Perioperative breathing patterns in neonates and infants with pyloric stenosis** *Annual Meeting of the American-College-of-Clinical-Pharmacy*
Galinkin, J. L., Davis, P. J., McGowan, F. X., Lynn, A. M., Rabb, M. F., Yaster, M., Henson, L. G., Blum, R., Hechtman, D., Maxwell, L., Szmuk, P., Orr, R., Krane, et al
LIPPINCOTT WILLIAMS & WILKINS.2001: 1387–92
- **Outcomes after single injection caudal epidural versus continuous infusion epidural via caudal approach for postoperative analgesia in infants and children undergoing patent ductus arteriosus ligation** *PAEDIATRIC ANAESTHESIA*
Lin, Y. C., Sentivany-Collins, S. K., Peterson, K. L., Boltz, M. G., Krane, E. J.
1999; 9 (2): 139-143
- **The safety of epidurals placed under general anesthesia (editorial).** *Regional Anesthesia and Pain Medicine*
Krane, E.J., Dalens, B.J., Murat, I, Murrell, D.
1998
- **SUBCLINICAL BRAIN-SWELLING IN CHILDREN DURING TREATMENT OF DIABETIC-KETOACIDOSIS** *NEW ENGLAND JOURNAL OF MEDICINE*
Krane, E. J., Rockoff, M. A., WALLMAN, J. K., Wolfsdorf, J. I.
1985; 312 (18): 1147-1151
- **With Apologies to Lennon and McCartney, All We Need is Data Opioid Concerns in Pediatrics** *CLINICAL JOURNAL OF PAIN*
Krane, E. J., Walco, G. A.
2019; 35 (6): 461–62
- **With Apologies to Lennon and McCartney, All We Need is Data: Opioid Concerns in Pediatrics.** *The Clinical journal of pain*
Krane, E. J., Walco, G. A.
2019
- **The Opioid Debate-PRO: Opioids Have an Important Role in Pain Management in Children.** *The Clinical journal of pain*
Krane, E. J.
2019
- **Antiepileptic drugs for chronic non-cancer pain in children and adolescents** *COCHRANE DATABASE OF SYSTEMATIC REVIEWS*
Cooper, T. E., Wiffen, P. J., Heathcote, L. C., Clinch, J., Howard, R., Krane, E., Lord, S. M., Sethna, N., Schechter, N., Wood, C.
2017: CD012536
- **Opioids for chronic non-cancer pain in children and adolescents** *COCHRANE DATABASE OF SYSTEMATIC REVIEWS*
Cooper, T. E., Fisher, E., Gray, A. L., Krane, E., Sethna, N., van Tilburg, M. L., Zernikow, B., Wiffen, P. J.
2017: CD012538
- **Prevention and Treatment of Pain in Children: Toward a Paradigm Shift** *OTOLARYNGOLOGY-HEAD AND NECK SURGERY*
Friedrichsdorf, S. J., Sidman, J., Krane, E. J.
2016; 154 (5): 804–5
- **Two Virtual Reality Pilot Studies for the Treatment of Pediatric CRPS** *PAIN MEDICINE*
Won, A., Tataru, C. A., Cojocaru, C. M., Krane, E. J., Bailenson, J. N., Niswonger, S., Golianu, B.
2015; 16 (8): 1644–47
- **Editorial Comment: Thoracic Paravertebral Blockade for the Management of Pain Associated with Cystic Fibrosis** *A & A CASE REPORTS*
Krane, E. J.
2015; 4 (3): 33
- **Interscalene brachial plexus blocks under general anesthesia in children: is this safe practice?: A report from the Pediatric Regional Anesthesia Network (PRAN).** *Regional anesthesia and pain medicine*

- Taenzer, A., Walker, B. J., Bosenberg, A. T., Krane, E. J., Martin, L. D., Polaner, D. M., Wolf, C., Suresh, S.
2014; 39 (6): 502-505
- **QUANTITATIVE CENTRAL AIRWAY MEASUREMENTS DO NOT DEMONSTRATE PROGRESSION IN BRONCHIECTISIS IN OLDER CHILDREN WITH MILD CF LUNG DISEASE**
Robinson, T., Ziyeh, T., Tu, C., Yilma, M., Krane, E., Newman, B.
WILEY-BLACKWELL.2014: 367
 - **Asleep Versus Awake: Does It Matter? Pediatric Regional Block Complications by Patient State: A Report From the Pediatric Regional Anesthesia Network** *REGIONAL ANESTHESIA AND PAIN MEDICINE*
Taenzer, A. H., Walker, B. J., Bosenberg, A. T., Martin, L., Suresh, S., Polaner, D. M., Wolf, C., Krane, E. J.
2014; 39 (4): 279-283
 - **The safety and effectiveness of continuous peripheral nerve blockade in children.** *Anesthesia and analgesia*
Krane, E. J., Polaner, D.
2014; 118 (3): 499-500
 - **INCREASED BRONCHIAL WALL THICKNESS (BWT) AND BRONCHIECTASIS (B) SCORES ARE STRONGLY ASSOCIATED WITH INCREASED QUANTITATIVE REGIONAL AIR TRAPPING IN YOUNG CHILDREN WITH EARLY CF LUNG DISEASE**
Robinson, T., Tu, C., Yilma, M., Prais, D., Goris, M., Krane, E., Holmes, T., Newman, B.
WILEY-BLACKWELL.2013: 354
 - **Brain uptake of Tc99m-HMPAO correlates with clinical response to the novel redox modulating agent EPI-743 in patients with mitochondrial disease** *MOLECULAR GENETICS AND METABOLISM*
Blankenberg, F. G., Kinsman, S. L., Cohen, B. H., Goris, M. L., Spicer, K. M., Perlman, S. L., Krane, E. J., Kheifets, V., Thoolen, M., Miller, G., Enns, G. M.
2012; 107 (4): 690-699
 - **SAFETY AND FEASIBILITY OF CONTROLLED VENTILATION INFANT CT SCANNING USING RECRUITMENT AND SCAN ACQUISITION TECHNIQUES**
Robinson, T., Newman, B., Krane, E., Goris, M.
WILEY-BLACKWELL.2011: 351
 - **Non-pharmacological techniques for pain management in neonates** *SEMINARS IN PERINATOLOGY*
Golianu, B., Krane, E., Seybold, J., Almgren, C., Anand, K. J.
2007; 31 (5): 318-322
 - **Tolerability of needlefree powder lidocaine delivery system in pediatric patients undergoing venipuncture or peripheral venous cannulation: The COMFORT-003 and-004 trials** *Scientific Assembly of the American-College-of-Emergency-Physicians (ACEP)*
Krane, E., Zempsky, W. T., Leong, M.
MOSBY-ELSEVIER.2007: S37-S38
 - **Efficacy of needlefree powder lidocaine delivery system in pediatric patients undergoing venipuncture or peripheral venous cannulation: The COMFORT-003 and-004 trials** *Scientific Assembly of the American-College-of-Emergency-Physicians (ACEP)*
Krane, E., Zempsky, W. T., Leong, M.
MOSBY-ELSEVIER.2007: S37-S37
 - **Single lung ventilation in children using a new paediatric bronchial blocker** *PAEDIATRIC ANAESTHESIA*
Hammer, G. B., Harrison, T. K., Vricella, L. A., Black, M. D., Krane, E. J.
2002; 12 (1): 69-72
 - **Tunneled epidural catheters for prolonged analgesia in pediatric patients** *ANESTHESIA AND ANALGESIA*
Aram, L., Krane, E. J., Kozloski, L. J., Yaster, M.
2001; 92 (6): 1432-1438
 - **Anaesthesia for liver transplantation in children** *PAEDIATRIC ANAESTHESIA*
Hammer, G. B., Krane, E. J.
2001; 11 (1): 3-18
 - **Pediatric acute pain management** *PEDIATRIC CLINICS OF NORTH AMERICA*
Golianu, B., Krane, E. J., Galloway, K. S., Yaster, M.
2000; 47 (3): 559-?

- **Defining the anatomy of Freudian psychiatry** *ANESTHESIA AND ANALGESIA*
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- Public - private partnerships: Structuring PRN-Pain to Fulfill Multiple Functions - 9th International Symposium on Pediatric Pain (June 19, 2013)
- Pediatric Regional Anesthesia, the Good, the Bad, and the Ugly - Pittsburgh Children's Hospital (May 15, 2013)
- Models for Analgesic Trials in Children - ACTION (January 24, 2013)
- The Opioid Epidemic, a View from the Inside - APhA (American Pharmacists Association) Annual Meeting & Exposition (3/4/2017)
- Pain, Opioids, Addiction - Navy SEALs Foundation (November 6, 2017)