



10th Annual Advanced Lateral Approaches to the Spine

Saturday, April 6, 2024

Syllabus

DISTINGUISHED FACULTY

COURSE CHAIRMEN

Juan S. Uribe, M.D., FAANS
Professor of Neurosurgery
Chief Division of Spinal Disorders
Volker K. H. Sonntag Chair of Spine Research
Barrow Neurological Institute
Phoenix, Arizona

Rod J. Oskouian Jr., M.D.
Chief of Spine
Fellowship Director
Swedish Neuroscience Institute
Seattle, Washington

William Taylor, M.D.
Professor of Neurosurgery
University of California San Diego
San Diego, California

Nima Alan, M.D.
Assistant Professor
Department of Neurological Surgery
University of California San Francisco
San Francisco, California

Neel Anand, M.D.
Professor of Orthopaedic Surgery
Director of Spine Trauma
Cedars-Sinai Medical Center
Los Angeles, California

Jens R. Chapman, M.D.
Complex Spine Surgeon Surgery
Swedish Neuroscience Institute
Seattle, Washington

Roland Kent, M.D.
Neurosurgeon
Axis Spine Center
Coeur D'Alene, Idaho

Tony Kwon, M.D.
President & Spine Surgeon
OrthoCarolina
Charlotte, North Carolina

Elizabeth Lord, M.D.
Assistant Professor of Orthopaedic Surgery
and Neurosurgery
University of California Los Angeles.
Los Angeles, California

M. Craig McMains, M.D.
Orthopaedic Spine Surgeon
OrthoIndy
Indianapolis, Indiana

Venu Nemani, M.D., Ph.D.
Orthopedic Spine Surgeon
Virginia Mason Franciscan Health
Seattle, Washington

Luiz Pimenta, M.D., Ph.D.
Associate Professor, University of California San Diego
Medical Director
Instituto de Patologia da Coluna
Sao Paulo, Brazil

Corey Walker, M.D., Ph.D.
Neurosurgeon
Cedars Sinai Medical Center
Los Angeles, California

Surgical Demonstrations Supported by Swedish Neuroscience Institute Fellows
Bryan Anderson, D.O., Donald D. Davis, III, M.D., & Neel Patel, M.D.

AGENDA

- 7 a.m. **Registration & Breakfast**
- 7:30 a.m. **Welcome, Introductions & Course Overview**
Juan S. Uribe, M.D. & Rod J. Oskouian, Jr., M.D.
- 7:35 a.m. **Keynote:**
Prone (PPT) vs. LLIF Evolution
William Taylor, M.D.
Objectives:
- Identify complications related to prone lateral approach
 - Outline the indications for prone lateral surgery
 - Recognize the differences between lateral and prone position approaches
- 7:55 a.m. **Beyond MIS Lateral: MIS Posterior Derotation, Translation, and Reduction Techniques - A Critical component of CMIS correction for ASD Without an Osteotomy (working lunch)**
Neel Anand, M.D.
Objectives:
- Describe the true concepts of what makes for circumferential MIS in adult spinal deformity
 - Explain that percutaneous screws is not just putting some screws in percutaneously
 - Outline the concept of ligamentotaxis in adult spinal deformity correction
- 8:15 a.m. **When and How To Do Stand Alone Lateral**
Juan Uribe, M.D.
Objectives:
- Identify complications related to stand alone lateral
 - Outline the indications for stand alone lateral
- 8:35 a.m. **Adoption of Navigation & Its Use in Lateral Surgery**
Nima Alan, M.D.
Objectives:
- Describe the advantages and disadvantages of using image guidance in lateral access surgery
 - Outline the safety checks to confirm accuracy of image guidance intraoperatively
 - Evaluate the utility of image guidance to navigate non-bony anatomy in lateral access surgery
- 8:55 a.m. **Why Not Go All Posterior?**
Venu Nemani, M.D., Ph.D.
Objectives:
- Describe the posterior-based TL deformity correction surgery
 - Discuss updated techniques for improved outcomes
 - Outline a proposal for an integrated approach
- 9:15 a.m. **Difficult Lateral Cases**
Rod J. Oskouian, Jr., M.D.
Objectives:
- Describe how to deal with difficult lateral cases
 - Discuss updated techniques for improved outcomes
- 9:35 a.m. **Break & Exhibits (not for CME credit)**

- 9:45 a.m. **Lab Demonstration No. 1: Prone Lateral with Robot**
Roland Kent, M.D.
Objectives:
- Outline proper retractor placement
 - Identify lateral interbody fusion following posterior treatment of adult spinal deformity patients
 - Describe techniques and clinical outcomes for delayed second-stage lateral surgery following posterior adult deformity correction
- 10:25 a.m. **Pushing the Boundaries of Lateral Surgery**
M. Craig McMains, M.D.
Objectives:
- Identify common barriers to lateral surgery adoption
 - Outline current enabling technology in lateral surgery
 - Recognize opportunities for further development
- 10:45 a.m. **Multilevel Prone with MIS Deformity**
Elizabeth Lord, M.D.
Objectives:
- Describe the rationale for prone lateral in deformity
 - Describe tips and tricks for this approach
 - Outline the potential pitfalls of this approach for deformity
- 11:05 a.m. **Break & Exhibits** (*not for CME credit*)
- 11:15 a.m. **Lab Demonstration No. 2: Nuances of the Lateral Approach to the Lumbar Spine**
Tony Kwon, M.D.
Objectives:
- Describe the nuances of the lateral approach to the lumbar spine
 - Outline important anatomic considerations in this approach
 - Summarize potential complications
- 11:55 a.m. **Pick Up Lunch** (*not for CME credit*)
- 12:10 p.m. **MIS Lateral for Deformity Surgery** (*working lunch*)
Corey Walker, M.D.
Objectives:
- Describe how MIS can be applied to adult deformity cases and the advantages of these techniques over traditional open operations
 - Identify key features that may make performing MIS surgery more challenging or dangerous
 - Outline how different enabling technologies can allow you to perform MIS deformity surgery more efficiently and safely
- 12:25 p.m. **Lab Demonstration No. 3: Stand Alone Lateral**
Juan S. Uribe, M.D.
Objectives:
- Describe the principles and techniques for the standalone lateral approach
 - Outline important anatomic considerations in standalone lateral approach
 - Summarize potential complications
- 12:50 p.m. **The Importance of Sagittal Alignment and Expandables in Lateral Surgery**
Luiz Pimenta, M.D.
Objectives:
- Outline issues with spinal balance and alignment

- Describe how to achieve lordosis in the lumbar spine
- Describe how to avoid subsidence with expandable cages

1:10 p.m. **Break & Exhibits** (*not for CME credit*)

1:20 p.m. **Lab Demonstration No. 4: Subcostal, Subdiaphragmatic Lateral Approach with Corpectomy at L1-2 Without Rib Resection**

Elizabeth Lord, M.D.

Objectives:

- Explain the anatomy of the TL junction
- Present an MIS way of approaching L1-2
- Recognize the potential pitfalls of this approach

2 p.m. **Lateral Corpectomy**

Tony Kwon, M.D.

Objectives:

- Describe the anatomy and approach for lateral corpectomy for trauma
- Outline indications for lateral corpectomy for trauma

2:20 p.m. **Break, Exhibits & Change into Scrubs** (*not for CME credit*)

2:30 p.m. **Lab Demonstration No. 5: Prone Lateral Tips & Tricks**

Luiz Pimenta, M.D.

Objectives:

- Describe the principles and techniques for the lateral approach
- Outline important anatomic considerations in prone lateral surgery
- Summarize potential complications

3:20 p.m. **Intradiscal Osteotomy**

Jens R. Chapman, M.D.

Objectives:

- Identify complications related to intradiscal osteotomy
- Outline the indications for intradiscal osteotomy

3:40 p.m. **Break & Transition to BioSkills Lab** (*not for CME credit*)

3:45 p.m. **Hands-On BioSkills Lab Rotations** (*20 min. rotations*)

Station 1: Prone Lateral with Robot

Roland Kent, M.D.

Station 2: Nuances of the Lateral Approach to the Lumbar Spine

Tony Kwon, M.D. & Nima Alan, M.D.

Station 3: Subcostal, Subdiaphragmatic Lateral Approach with Corpectomy

Elizabeth Lord, M.D., & Corey Walker, M.D.

Station 4: Prone Lateral Tips and Tricks & Standalone Lateral

Luiz Pimenta, M.D., Ph.D. & M. Craig McMains, M.D.

Objectives:

- Demonstrate use of the lateral approach to various regions of the spine
- Explain how to avoid complications with the lateral technique
- Appraise patient selection and indications for the lateral approach

5 p.m. **Adjourn**

Acknowledgments

The Planning Committee gratefully acknowledges support for this conference from the following:

Educational Grant

ATEC Spine
DePuy Synthes
Globus Medical

Exhibit Support

DePuy Synthes
Globus Medical
Medtronic

In-Kind Support

ATEC Spine
DePuy Synthes
Globus Medical
Medtronic

Course Planning Committee

Juan S. Uribe, M.D., FAANS
Barrow Neurological Institute

Rod J. Oskouian, Jr., M.D.
Swedish Neuroscience Institute

William Taylor, M.D.
UC San Diego

Julius Gerstmeyer, M.D.
Swedish Neuroscience Institute

Gerrit Lewik, M.D.
Swedish Neuroscience Institute

Linda Sahlin, B.A.
Seattle Science Foundation

Course Evaluation

Please take a moment to complete our online evaluation, which will be emailed to you. Your feedback helps to ensure the effectiveness of this CME activity, as well as improve future educational activities. All responses are considered anonymous. <https://www.surveymonkey.com/r/Lateral24>. If you do not receive the survey via email, please call (206) 732-6500 or email cme@seattlesciencefoundation.org.

Accreditation

Seattle Science Foundation is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

AMA PRA Category 1 Credits™

Seattle Science Foundation designates this live activity for a maximum of 8.25 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Identifying and Resolving Conflicts of Interest

Purpose: The information you provide addresses several requirements of the Accreditation Council for Continuing Medical Education (ACCME) to help **ensure independence** in CME activities. Everyone in a position to control the content of a CME activity must disclose all relevant financial relationships with an ineligible company to the CME provider. This information must be disclosed to participants prior to the beginning of the activity. Also, CME providers must mitigate current conflicts of interest prior to the educational activity.

Definitions: “Financial relationships” are those relationships in which the individual benefits by receiving a salary, royalty, intellectual property rights, consulting fee, honoraria, ownership interest (e.g., stocks, stock options or other ownership interest, excluding diversified mutual funds), or other financial benefit.

The ACCME defines a **“ineligible company”** as any entity producing, marketing, re-selling or distributing health care goods or services consumed by, or used on, patients. Among the exemptions to this definition are government organizations, non-health care related companies and non-profit organizations that do not advocate for ineligible companies.

Circumstances create a **“conflict of interest”** when an individual has an opportunity to affect CME content about products or services of an ineligible company with which he/she has a financial relationship.

ACCME focuses on financial relationships with ineligible companies in the 24-month period preceding the time that the individual is being asked to assume a role controlling content of the CME activity. ACCME has not set a minimal dollar amount for relationships to be significant. Inherent in any amount is the incentive to maintain or increase the value of the relationship. The ACCME defines **“relevant financial relationships”** as financial relationships in any amount occurring within the past 24 months that create a conflict of interest.

CME Activity Planning Committee Members: If a conflict of interest exists, the Planning Committee member must withdraw from the Planning Committee unless the conflict can be mitigated. Mitigation may be made by one of the following methods: (1) Peer review of CME content will be conducted at another oversight level to assure no ineligible company bias exists; (2) Change in focus of course so the activity does not include information related to products or services about which the planning committee member has a conflict; (3) Severing relationship(s) between the member and any related ineligible company; (4) Others to be determined by SSF CME Committee.

CME Activity Presenter: When a conflict of interest exists, the Planning Committee must address the conflict by one of the following methods: (1) Review content to be presented by speaker in advance to assure content balance; (2) Change topic so the presentation is not related to products or services where a conflict exists; (3) Select a different presenter without any related ineligible company; (4) Include presentations by other faculty to provide an overall balance to the content of the course; (5) Limit or specify the sources for recommendations that the presenter can use. Each speaker is required to give a balanced, evidence-based presentation based on published research. No conclusions or recommendations without external validation may be made by a speaker with a conflict of interest.

Faculty Disclosure Summary

The following planners and presenters, in the past 24 months, have/had a financial relationship with a commercial interest: (*S = Speaker; P = Planner*)

Neel Anand, MD	Consulting Fee: Medtronic, Globus Medical; Stockholder: Globus Medical, Medtronic, Paradigm Spine, Bonovo, Spinal Balance; Royalties or Patent Beneficiary: Medtronic, Globus Medical, El Sevier
Jens R. Chapman, MD	Advisor: Globus Medical, Inc.; Grant or research support: DePuy Synthes, Medtronic, SeaSpine (Relationship has ended)
Roland Kent, MD	Research support: Globus Medical, Carlsmed, Premia Spine, SI Bone, Orthofix; Consulting Fee: Globus Medical, SI Bone; Surgeon Education: Globus, SI Bone
Tony Kwon, MD	Consulting Fee: NuVasive, Altec Spine; Royalties or Patent Beneficiary: NuVasive
Elizabeth Lord, MD	Grant or research support: SI Bone; Speakers Bureau: Implanet; Consulting Fee: Medtronic, Globus
M. Craig McMains, MD	Consulting Fee: Atec Spine, DePuy Synthes, Isto Biologics, SI Advantage; Grant or research support: Medtronic
Venu Nemani, MD, PhD	Consulting Fee: Medtronic, Atec Spine; Speakers Bureau: Medtronic, NuVasive, Atec Spine; Advisory Committee: National Spine Health Foundation
Rod J. Oskouian Jr, MD	Consulting Fee: Alphatec Spine, Globus Medical, SeaSpine, Stryker, Spineart, Medtronic, DePuy (Relationship has ended), Blue Ocean Spine (Relationship has ended); Royalties: Stryker, Globus Medical
Luiz Pimenta, MD, PhD	Consulting Fee: Atec Spine; Stocks or stock options: Atec Spine
William Taylor, MD	Consulting Fee: Adcure, Atec Spine, DePuy Synthes, Johnson & Johnson, NuVasive; Royalties or Patent Beneficiary: Atec Spine
Juan S. Uribe, MD	Consulting Fee: NuVasive, SI-Bone, Providence Medical Tech, Misonix, Viseon, Mainstay Medical
Corey Walker, MD	Consulting Fee: AlphaTec; Speakers Bureau: Globus Medical, Inc.

The following planners and/or presenters, in the past 24 months, have/had no financial relationship with a commercial interest:

Nima Alan, M.D. (S); Gerrit Lewik, M.D. (P); Julius Gerstmeyer, M.D. (P); Linda Sahlin (P)

All planners and presenters attested that their content suggestions and/or presentation(s) will provide a balanced view of therapeutic options and will be entirely free of promotional bias. All presentations have been reviewed by a planner with no conflicts of interest to ensure that the content is evidence-based and unbiased.