



***3rd Annual
Image Guided
Interventional Spine
Procedures Course***

Saturday, May 25, 2024

Syllabus

ESTEEMED FACULTY

Glen David, M.D.
Course Co-Chair

Interventional Pain Management
Director Interventional Spine
Swedish Neuroscience Institute
Seattle, Washington

Douglas P. Beall, M.D.
Course Co-Chair

Interventional Radiology
Chief of Radiology Services
Clinical Radiology of Oklahoma
Oklahoma City, Oklahoma

Jens R. Chapman, M.D.

Complex Spine Surgeon
Swedish Neuroscience Institute
Seattle, Washington

Jacob Fleming, M.D.

Spine/MSK Interventional Radiology Fellow
Clinical Radiology of Oklahoma
Oklahoma City, Oklahoma

Jennifer Lee, M.D.

Board Certified in Pain Medicine &
Anesthesiology
Evergreen Health Pain Care
Kirkland, Washington

Dan Nelson, M.D.

Interventional Pain Management Physician
Proliance Surgeons
Kirkland, Washington

Gavin Nixon, D.O.

Interventional Spine and Physiatry
Electrodiagnostic Medical Associates
of Puget Sound
Tacoma, Washington

Tyler Philips, M.D.

Interventional Spine & Pain Management
Radiology Family Medicine
Oklahoma City, Oklahoma

Neal H. Shonnard, M.D.

Orthopaedic Surgeon
Rainier Orthopedic Institute
Puyallup, Washington

Agenda

6:30 a.m. **Registration & Breakfast**

7 a.m. **Welcome & Course Overview**

Douglas P. Beall, M.D

SECTION 1: POSTERIOR ELEMENTS

7:05 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 1**

Radiofrequency Ablation

Tyler Phillips, M.D.

Objectives:

- Demonstrate radiofrequency ablation
- Provide pearls for radiofrequency ablation
- Outline the limitations of radiofrequency ablation

7:35 a.m. **Q & A**

7:40 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 2**

Interspinous Decompression Spacers

Jacob Fleming, M.D.

Objectives:

- Demonstrate interspinous decompression spacers
- Provide pearls for interspinous decompression spacers
- Outline the limitations of interspinous decompression spacers

8:10 a.m. **Q & A**

8:15 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 3**

Intradiscal Approach to Regenerative Therapies

Douglas P. Beall, M.D.

Objectives:

- Describe the background of regenerative technology for intradiscal procedure
- Outline the advantages and disadvantages of regenerative therapy for intradiscal procedures

8:45 a.m. **Advances in Peripheral Stimulation**

Daniel Nelson, M.D.

Objectives:

- Describe the latest research and applications
- Outline new technological innovations

9:00 a.m. **Q & A**

9:05 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 4**
Advances in Spinal Cord Stimulation

Jennifer Lee, M.D.

Objectives:

- Demonstrate advantages of different spinal cord stimulation technologies
- Outline the limitations and pearls of spinal cord stimulation

9:35 a.m. **Q & A**

9:40 a.m. **Break and Exhibits** (*not for CME credit*)

SECTION 2: INTRASPINAL ELEMENTS

9:50 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 5**
SI Joint Fusion – Posterior, Posteriolateral & Lateral Approaches

Douglas Beall, M.D.

Objectives:

- Demonstrate SI-joint fusion
- Provide pearls for SI-joint fusion
- Outline the limitations of SI-joint fusion

SECTION 3: ANTERIOR ELEMENTS

10:20 a.m. **Accuracy of Augmented Reality Surgical Navigation for Percutaneous Vertebral Kyphoplasty in the Lumbar Spine**

Gavin Nixon, D.O.

Objectives:

- Assess the precision and efficacy of augmented reality
- Explore the clinical implications and potential advantages of utilizing AR technology in percutaneous vertebral kyphoplasty surgeries

10:50 a.m. **Q & A**

10:55 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 6**
Basivertebral Nerve Ablation (BVN): Anterior Column Procedure

Glen David, M.D.

Objectives:

- Describe how BVN enables a physician to effectively target and ablate the basivertebral nerve to provide relief of vertebrogenic chronic lower back pain
- Explain how a physician uses BVN to create a path to the basivertebral nerve and uses radiofrequency ablation technology to ablate the basivertebral nerve

11:25 a.m. **Q & A**

11:30 a.m. **Intrathecal Drug Delivery: The Need For More Options**

Douglas Beall, M.D.

Objectives:

- Determine the optimal dosing strategy for low-dosing intrathecal drug delivery
- Define the cost effectiveness of intrathecal drug delivery

11:50 a.m. **Q & A**

11:55 a.m. **Break & Exhibits** (*not for CME credit*)

SECTION 4: OPTIMIZING SURGICAL TECHNIQUE & MAKING EXISTING SPINE SURGERIES LESS INVASIVE

12:10 a.m. **Live Demonstration Broadcast from BioSkills Lab No. 7**
Latest Techniques in Vertebral Augmentation

Douglas P. Beall, M.D.

Objectives:

- Demonstrate the latest techniques in vertebral augmentation
- Provide pearls for vertebral augmentation
- Outline the limitations of vertebral augmentation

12:35 p.m. **Q & A**

12:40 p.m. **Lunch Break & Exhibits** (*not for CME credit*)

12:50 p.m. **Minifying Existing Surgical Techniques: Barriers to Credentialing, Coding, and Reimbursement**

Douglas P. Beall, M.D.

Objectives:

- Explain the necessary qualifications for the purpose of obtaining procedural credentials at one's local facility
- Evaluate essential elements of a procedure for the purpose of ensuring proper code assignment
- Outline the differences between an open surgical technique and a minimally invasive or percutaneous technique as they apply to coding and reimbursement

1:10 p.m. **Q & A**

1:15 p.m. **Collaboration and Spine Care Principles**

Neal Shonnard, M.D. & Jens R. Chapman, M.D.

Objectives:

- Describe the essentials of successful collaboration
- Provide examples of successful collaboration

1:35 p.m. **Q & A**

1:40 p.m. **Live Demonstration Broadcast from BioSkills Lab No. 8**
Peripheral Nerve Stimulation

Douglas P. Beall, M.D.

Objectives:

- Describe the principles of peripheral nerve stimulation
- Illustrate skills in stimulation protocols and techniques
- Interpret stimulation data

2:05 p.m. **Q & A**

2:10 p.m. **Break, Exhibits & Change into Scrubs** (*not for CME credit*)

SECTION 5: HANDS-ON BIOSKILLS LAB

2:20 p.m. **Hands-On BioSkills Lab** (*30 minute rotations*)

All Faculty

- 1.** SI Joint (posterior approach)
- 2.** SI Joint (lateral oblique approach)
- 3.** Augmented Reality
- 4.** Radiofrequency Ablation
- 5.** Vertebral Augmentation & Kyphoplasty
- 6.** Minimally Invasive Lumbar Decompression
- 7.** Interspinous Decompression Spacers
- 8.** Peripheral Nerve Stimulation

Objectives:

1. Practice the following techniques: SI-joint fusion (posterior & lateral); augmented reality, radiofrequency ablation; vertebral augmentation & kyphoplasty; minimally invasive lumbar decompression; Interspinous decompression spacers and peripheral nerve stimulation.

6:20 p.m. **Adjourn**

Acknowledgments

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

Educational Grant

Avanos
Cornerloc
Boston Scientific
Genesys
Medtronic
Nevro
Saluda
Stratus Medical
Spinal Simplicity
Vertos
Vivex

Exhibit Support

Cornerloc
Curonix LLC
Boston Scientific
Genesys
Medtronic
SI-Bone
Vertos
Vivex

In-Kind Support

Avanos
Cornerloc
Curonix LLC
Boston Scientific
Genesys
Globus
IZI Medical
Medtronic
Saluda
Stratus Medical
Spinal Simplicity
Vertos
Vivex

Planning Committee

Glen David, M.D.

Swedish Neuroscience Institute
Seattle, Washington

Douglas P. Beall, M.D.

Clinical Radiology of Oklahoma
Oklahoma City, Oklahoma

Julius Gerstmeyer, M.D.

Swedish Neuroscience Institute
Seattle, Washington

Daniel Nelson, M.D.

Proliance Surgeons
Kirkland, Washington

Cory Kepler

Seattle Science Foundation
Seattle, Washington

Clifford Pierre, M.D.

Swedish Neuroscience Institute
Seattle, Washington

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/IGIS2024>

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 10.5 *AMA PRA Category 1 Credits™* for in-person attendance and 6.5 *AMA PRA Category 1 Credits™* for virtual attendance.

Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Identifying and Mitigating Conflicts of Interest

Purpose: The information provided 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** 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 whose 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 **ineligible companies** as those whose primary business is producing marketing, selling, reselling, or distributing healthcare products used by or on patients. Among the exemptions to this definition are government organizations non healthcare-related companies and nonprofit organizations that do not advocate for an ineligible company(ies). Circumstances create a **"conflict of interest"** when an individual has an opportunity to affect the CME content about products or services of an ineligible company with which they have 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 balance; (2) Change in focus of course so the activity does not include information related to products or services about which the Planning Committee has a conflict; (3) Severing relationship(s) between the member and any related ineligible company; (4) Others to be determined by the SSF CME committee.

CME Activity Planners: 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 ensure 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 relationships with an 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, evidenced-based presentation based on published research. No conclusions or recommendations without external validation may be made by a speaker with a conflict of interest.

Disclosure Summary

May 25, 2024

The following planners and/or presenters, in the past 24 months, have/had a financial relationship(s) with ineligible company(ies) whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients: (*S* = *Speaker*; *P* = *Planner*)

Douglas Beall, M.D. (*S, P*): **Consulting Fee:** Medtronic, Spineology, Merit Medical, Johnson & Johnson, IZI, Techlamed, Peterson Enterprises, Medical Metrics, Avanos, Boston Scientific, Simplify Medical, Stryker, Lenoss Medical, Spine BioPharma, Piramal, ReGelTec, Nanofuse, Spinal Simplicity, Pain Theory, Spark Biomedical, Bronx Medical, Smart Soft, Tissue Tech, RayShield, Stayble, Thermaquil, Vivex, Stratus Medical, Genesys, Abbott, Elliquence, SetBone Medical, Amber Implants, Cerapedics, Neurovasis, Varian Medical Systems, Companion Spine, DiscGenics, Discure, SpinaFX, PainTEQ, SI Bone, Orthoson, Choice Spine, Saluda Medical, Aurora Spine, Arts Surgical, AIS Healthcare, Wenzel Spine; **Grant or research support:** Medtronic, Medical Metrics, Avanos, Relevant, Boston Scientific, Stryker, Sollis Pharmaceuticals, Simplify Medical, Lenoss Medical, Spine BioPharma, Eliem Therapeutics, Smart Soft, Tissue Tech, Vivex, Stratus Medical, Restorative Therapies, Kolon TissueGene, Companion Spine, DiscGenics, Smart Soft, Tissue Tech, Kahtnu Surgical, RayShield, Stayble, Thermaquil, Vivex, Stratus Medical, SI Bone, Choice Spine; **Membership on Advisory Committees or Review Panels, Board Membership:** Medtronic, ReGelTec, Nanofuse, Talosix, Spinal Simplicity, Pain Theory, Spark Biomedical, Smart Soft, Tissue Tech, Bronx Medical, Thermaquil, Vivex, Genesys, SetBone Medical, Amber Implants, Cerapedics, SpinaFX, SI Bone, AIS Healthcare, Aclarion, Vivex, Orthoson, Choice Spine; **Stocks or stock options, excluding diversified mutual funds:** Artio, Sophiris, Eleven Biotherapeutics, Flow Forward, Lenoss Medical, ReGelTech, Spark Biomedical, Orthoson, Wenzel Spine; **Editorial Board:** Orthoson, Wenzel Spine; **Speakers Bureau:** Stryker, Medtronic, Boston Scientific, Merit, Avanos, Piramal, Genesys, Eliquence, AIS Healthcare; **Royalties or Patent Beneficiary:** IZI, Vivex, Choice Spine, Aurora Spine, Arts Surgical, Wenzel Spine

Jens R. Chapman, M.D. (*S*): Advisor: Globus Medical, Inc.; Grant or research support: Globus Medical; Consulting Fee: Xtant Medical

Glen David, M.D. (*S, P*): Consulting Fee: Medtronic

Jacob Fleming, M.D. (*S*): Other: Shareholder: Back Table LLC

Jennifer Lee, M.D. (*S*): Consulting Fee: Boston Scientific

Tyler Phillips, M.D. (*S*): Consulting Fee: Medtronic, Neurovasis, Companion Spine; Speakers Bureau: Mainstay Medical

All the relevant financial relationships listed for these individuals have been mitigated.

The following planners and/or presenters, in the past 24 months, have/had no financial relationship with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients: (*S* = *Speaker*; *P* = *Planner*)

Julius Gerstmeyer, M.D. (*P*); **Daniel Nelson, M.D.** (*S, P*); **Gavin Nixon, D. O.** (*S*); **Clifford Pierre, M.D.** (*P*); **Neal Shonnard, M.D.** (*S*); **Cory Kepler** (*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.