CONTINUING MEDICAL EDUCATION



10TH ANNUAL

MULTIMODAL TREATMENT OF SPINAL TUMORS

LIVE VIRTUAL COURSE



ESTEEMED FACULTY

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Ehud Mendel, M.D., M.B.A., FACS Course Co-Chair Professor of Neurosurgery, Oncology & Orthopaedics Director, Spine Program The Ohio State University Columbus, Ohio

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David W. Newell, M.D.

Neurosurgeon Seattle Neuroscience Institute Seattle, Washington

John W. Henson, M.D. Neuro-oncologist Ben & Catherine Ivy Center Seattle, Washington

Bernhard Meyer, M.D., Ph.D. The Jeffrey Alan Guyer Keynote Speaker Professor of Neurosurgery TUM School of Medicine Munich, Germany

Glen David, M.D.

Interventional Pain Specialist Swedish Neuroscience Institute Seattle, Washington

Swedish Neuroscience Institute Spine Fellows

Elias Elias, M.D. Richard Price, M.D., Ph.D. Pouriya Ghayoumi, M.D. James Ying, M.D. Ravi Nunna, M.D. Sven Frieler, M.D.

AGENDA

| 7:25 a.m. | Welcome and Course Introduction Jens R. Chapman, M.D., Rod J. Oskouian, Jr., M.D., and Ehud Mendel, M.D., M.B.A. |
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| 7:30 a.m. | The Jeffrey Alan Guyer Keynote Speaker Novel Implant Technologies for Spine Oncology & Reconstruction Surgery Bernhard Meyer M.D., Ph.D. Objectives: Outline the various implant technologies for spine oncology Summarize how the new technology applies to reconstruction surgery |
| 7:40 a.m. | Q&A |
| 7:45 a.m. | Live Demonstration Broadcast from BioSkills Lab No. 1 Basic Principals of Sacral Resection and Reconstruction Jens R. Chapman, M.D., Elias Elias, M.D., and Sven Frieler, M.D. Objectives: Describe surgical resection of sacrum Outline how to manage wound complications Outline how to reconstruct the sacral pelvic junction |
| 8:15 a.m. | Surgical Treatment of Sacral Tumors Ehud Mendel, M.D., M.B.A. Objectives: Recognize when and when not to perform a sacrectomy Identify potential complications of a sacrectomy |
| 8:25 a.m. | Q&A |
| 8:30 a.m. | What Type of Fusion Material to Use for Cancer Patients: What is the State of the Data? Jens R. Chapman, M.D. Objectives: Outline special circumstances and needs of spine oncology patients Identify the differences of biologic and xenograft options Describe the durability of constructs relative to host circumstances |
| 8:40 a.m. | Q&A |
| 8:45 a.m. | Live Demonstration Broadcast from BioSkills Lab No. 2 Posterior Lateral for Thoracic Corpectomy for Primary Spine Tumor Rod J. Oskouian, Jr., M.D., Pouriya Ghayoumi, M.D., and Ravi Nunna, M.D. Objectives: Outline complications associated with corpectomy Describe strategies for pleural management Summarize steps involved in corpectomy |
| 9:15 a.m. | A Systems Approach to Coordinated Care of Spinal Metastasis John W. Henson, M.D. Objectives: Define the role of the neuro-oncologist in specialty care coordination for patients with spinal metastasis Describe the approach to determination of primary cancer in spinal metastasis patients Outline the concepts of targeted medical therapy of spinal metastasis |
| 9:25 a.m. | Q&A |

| 9:30 a.m. | Live Demonstration Broadcast from BioSkills Lab No. 3 Kyphoplasty vs. Vertebroplasty Rod J. Oskouian, Jr., M.D., Ravi Nunna, M.D. and Sven Frieler, M.D. Objectives: Compare and contrast when one should perform a vertebroplasty or a kyphoplasty Outline the different types of cement to be used in both a kyphoplasty and vertebroplasty |
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| 9:45 a.m. | Surgery for Intradural Tumors: Diagnostic & Surgical Aspects David W. Newell, M.D. Objectives: Outline surgical techniques for removal of intradural tumors Explain the steps in diagnosing intradural tumors Summarize the surgical anatomy of the spinal cord |
| 9:55 a.m. | Q&A |
| 10 a.m. | Live Demonstration Broadcast from BioSkills Lab No. 4 Kyphoplasty Pearls of the Thoracic Spine Glen David, M.D., and James Ying, M.D. Objectives: Outline the thoracic kyphoplasty approach Explain the tumor ablation technique |
| 10:40 a.m. | Q&A |
| 10:45 a.m. | Multi-Rod Constructs (MRC) in Spinal Reconstruction Amir Abdul-Jabbar, M.D. Objectives: Outline the concepts of MRC Describe emerging techniques and their application to tumor surgery |
| 10:55 a.m. | Q&A |
| 11 a.m. | <u>Live Demonstration Broadcast from BioSkills Lab No. 5</u> <u>Spinal Reconstruction Using Novel Biomaterials</u> <i>Rod J. Oskouian, Jr., M.D., Jens R. Chapman, M.D., Elias Elias, M.D., and Pouriya Ghayoumi, M.D.</i> <i>Objectives:</i> Outline fusion techniques Summarize how to avoid pseudoarthrosis Compare and contrast metal vs. peek vs. cobalt |
| 11:30 a.m. | Spinal Tumor Instability Evaluation & Stabilization Ehud Mendel, M.D., M.B.A. Objectives: Outline the basics of spine instability Explain the spinal instability neoplastic score algorithm |
| 11:40 a.m. | Q&A |
| 11:45 a.m. | Break & Technology Update (not for CME credit) |
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| 12:15 p | M. Quality of Life in Patients with Spine Tumors and use of the SINS Score Noojan Kazemi, M.D. Objectives: Describe how to assess quality of life in patients with spine tumors Explain whether surgical treatment increases quality of life in spine tumor patients and what are the factors impacting quality of life Summarize the cost-effectiveness of oncologic spine surgery |
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| 12:25 p | m. Q&A |
| 12:30 p | m. <u>Live Demonstration Broadcast from BioSkills Lab No. 6</u> Percutaneous Spinal Fixation with Fenestrated Screws with Cement Amir Abdul-Jabbar, M.D., and Richard Price, M.D., Ph.D. Objectives: Summarize how to increase pull-out strength of screw with cement Outline potential complications of hardware failure Discuss increasing fixation options for tumor reconstruction |
| 1 p.m. | Panel Discussion: Setting Up a Multidisciplinary Oncology Program Moderator: Ehud Mendel, M.D., M.B.A. Panel: John W. Henson, M.D., Bernhard Meyer, M.D., Ph.D., Jens R. Chapman, M.D. & Rod J. Oskouian, Jr., M.D. Objectives: Outline the benefits of a multidisciplinary oncology program and its beneficial impact on patient care Describe how to operationalize a multidisciplinary oncology program Summarize the role of "evidence-based" vs. "eminence-based" oncologic care |
| 1:20 p.r | n. Q&A |
| 1:30 p.r | n. Adjourn |

Course Planning Committee

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Faculty Disclosure Summary

The following planners and presenters (or their spouses/domestic partners) have/had a financial relationship with a commercial interest: (S = Speaker; P = Planner)

Jens Chapman, M.D. (S): Consultant: Globus Medical; Stockholder: Renovis Surgical (wife) John Henson, M.D. (S): Fees for Non-CE services received directly from a commercial interest: Parexel Bernhard Meyer, M.D. (S): Consultant: Icotec

Rod J. Oskouian, Jr., M.D. (S): Consultant: DePuy Synthes, Globus Medical, NuVasive, Stryker; Royalties: Stryker

The following planners and/or presenters (or their spouses/domestic partners) have/had no financial relationship with a commercial interest (S = Speaker; P = Planner)

 $\begin{array}{l} \mbox{Amir Abdul-Jabbar, M.D. } (S, P); \mbox{ Glen David, M.D. } (S); \mbox{Elias Elias, M.D. } (S); \mbox{Sven Frieler, M.D. } (S); \mbox{Pouriya Ghayoumi, M.D. } (S); \mbox{Noojan Kazemi, M.D. } (S); \mbox{Ehud Mendel, M.D. } (S); \mbox{David Newell, M.D. } (S); \mbox{Ravi Nunna, M.D. } (S); \mbox{Richard Price, M.D., Ph.D. } (S); \mbox{James Ying, M.D. } (S); \mbox{Linda Sahlin } (P) \end{array}$

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.

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Educational Grant

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In-Kind Support

Globus Medical Icotec Medical Device Business Medtronic Stryker

Identifying and Resolving Conflicts of Interest

Purpose: The information provided addresses several requirements of the ACCME to help **ensure purpose** in CME activities. Everyone in a position to control the content of a CME activity must disclose all relevant financial relationships with commercial interests to the CME provider. This information must be disclosed to participants prior to the beginning of the activity. Also, CME providers must resolve 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 for promotional speakers' bureau, ownership interest (e.g., stocks, stock options or other ownership interest, excluding diversified mutual funds), or other financial benefit. Financial benefits are usually associated with roles such as employment, management position, independent contractor (including contracted research), consulting, speaking and teaching, membership on advisory committees or review panels, board membership, and other activities from which remuneration is received, or expected. ACCME considers relationships of the person involved in the CME activity to include financial relationships of a spouse or partner.

The ACCME defines a "**commercial interest**" 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 commercial interests.

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

ACCME focuses on financial relationships with commercial interests in the 12-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 12 months that create a conflict of interest.

CME Activity Planning Committee Members: I If a conflict of interest exists, the Planning Committee member must withdraw from the Planning Committee unless the conflict can be resolved. Resolution 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 commercial 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 commercial interest; (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 commercial interest; (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.