ISSG NASS Course on Adult Spinal Deformity: Using Research to Transform Your Practice and Improve Outcomes

Friday, March 22 – Saturday, March 23, 2019
Specialty Education & Research Center (SERC)
Burr Ridge, IL (Chicago suburb)

Co-Chairs: Christopher P. Ames, MD and Shay Bess, MD

This course is a combined International Spine Study Group (ISSG) and NASS deep-dive in a relaxed setting, sharing the current knowledge base and ongoing research efforts to improve outcomes for adult spinal deformity (ASD) patients. A combination of didactic and hands on cadaver-based components will be used to improve ASD practical knowledge for physicians, physician assistants and nurse practitioners.

Upon completion of this course, participants should gain strategies to:

- Identify and measure radiographic, demographic and frailty associated parameters most associated with disability and poor health related quality of life in adult spinal deformity;
- Use patient reported outcome measures (PROMs) and predictive analytic methods to evaluate and counsel ASD patients;
- Optimize ASD patients physically and mentally when preparing for surgery;
- Use surgical techniques procedures to improve alignment and avoid complications in ASD.

Credits
The North American Spine Society designates this live activity for a maximum of 13.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Day 1: Friday, March 22, 2019

7:00 a.m. Registration
Continental Breakfast
Registration Area
Break Room

8:00 a.m. Introduction
Shay Bess, MD, Christopher P. Ames, MD
Auditorium

8:05 a.m. The Health Impact of Symptomatic Adult Spinal Deformity: Comparison of Deformity Types to United States Population Norms and Chronic Diseases
Shay Bess, MD

8:20 a.m.  Combined Assessment of Pelvic Tilt, Pelvic Incidence/ Lumbar Lordosis Mismatch and Sagittal Vertical Axis Predicts Disability in Adult Spinal Deformity: A Prospective Analysis
Gregory M. Mundis Jr., MD

8:35 a.m.  Defining Age-Adjusted Alignment Thresholds: Should Operative Goals in ASD Surgery Account for Age
Douglas C. Burton, MD

8:50 a.m.  Concave Coronal Malalignment is Associated With Worse Health-Related Quality of Life: An Analysis of Painful Scoliosis in Adult Patients With No History of Spine Surgery
Robert K. Eastlack, MD

9:05 a.m.  Stiffness After Pan-Lumbar Arthrodesis for Adult Spinal Deformity Does Not Significantly Impact Patient Functional Status or Satisfaction Irrespective of Proximal Endpoint
Robert A. Hart, MD, MA, MHCDS

9:20 a.m.  Questions

9:35 a.m.  Prospective Multicenter Assessment of Complication Rates Associated with Adult Spinal Deformity (ASD) Surgery In 291 Patients with Minimum 2-Year Follow-Up
Justin S. Smith, MD, PhD

9:50 a.m.  Reducing Rod Breakage and Nonunion in Pedicle Subtraction Osteotomy: The Importance of Rod Number and Configuration In 264 Patients With 2-Year Follow-Up
Christopher P. Ames, MD

10:05 a.m.  Inter- and Intra-rater Reliability of the Hart-ISSG Proximal Junctional Failure Severity Scale
Robert A. Hart, MD, MA, MHCDS

10:20 a.m.  Age-Adjusted Alignment Goals Have the Potential To Reduce PJK
Douglas C. Burton, MD

10:35 a.m.  Effective Prevention of Proximal Junctional Failure (PJF) In Adult Spinal Deformity (ASD) Surgery Requires a Combination Of Surgical Implant Prophylaxis and Avoidance of Overcorrection of Age-Adjusted Sagittal Parameters
Shay Bess, MD
10:50 a.m. Questions, Break and transition to lab

11:30 a.m. - 1:30 p.m. **Hands-on Skills Lab**

**Lab Instructors:**
Christopher P. Ames, MD  
Shay Bess, MD  
Douglas C. Burton, MD  
Robert K. Eastlack, MD  
Richard G. Fessler, MD  
Jeffrey L. Gum, MD  
Robert A. Hart, MD, MA, MHCDS  
Gregory M. Mundis Jr., MD  
Pierce D. Nunley, MD  
Justin S. Smith, MD, PhD  

Pedicle Screw Fixation  
Iliac Fixation  
Thoracolumbar Osteotomy Techniques and Closing the Osteotomy  
Rod Constructs to Prevent Rod Fracture  
Tethers  
Robotics

1:30-2:40 p.m. Lunch & Learn  
Auditorium

1:50 p.m.  
Is Achieving Optimal Spinopelvic Parameters Necessary To Obtain Substantial Clinical Benefit: Analysis of Patients Who Underwent Circumferential MIS or Hybrid Surgery With Open Posterior Instrumentation  
**Gregory M. Mundis Jr., MD**

2:00 p.m.  
Impact of Lower Thoracic versus Upper Lumbar UIV In MIS Correction of Adult Spinal Deformity  
**Robert K. Eastlack, MD**

2:10 p.m.  
Does Concave versus Convex Approach Matter When Using Lateral Lumbar Interbody Fusion for Adult Degenerative Scoliosis?  
**Pierce D. Nunley, MD**

2:20 p.m.  
Are Complications in Adult Spinal Deformity (ASD) Surgery Related to Approach or Patient Characteristics? A Prospective Propensity Matched Cohort Analysis of Minimally Invasive (MIS), Hybrid (HYB), and Open (OPEN) Approaches  
**Richard G. Fessler, MD**
2:30 p.m. Does Minimally Invasive Percutaneous Posterior Instrumentation Reduce Risk of Proximal Junctional Kyphosis in Adult Spinal Deformity Surgery? A Propensity-Matched Cohort Analysis  
Gregory M. Mundis Jr., MD

2:40 p.m. Questions, Break and transition to the lab

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<tr>
<th>Time</th>
<th>Activity</th>
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<td>3:00 – 5:00 p.m.</td>
<td><strong>Hands-on Skills Lab</strong></td>
<td>Bio-skills Lab</td>
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Percutaneous Thoracolumbar and Iliac Screws  
Percutaneous Osteotomies  
Lateral Fusion and ACR, DLIF, OLIF  
Robotics

5:00 p.m. Day Wrap up  
Auditorium

5:05 – 6:00 p.m. Reception for all attendees (includes hors d'oeuvres and beer/wine)  
Main Foyer, 1st Level

6:00 – 8:00 p.m. Wine & Spine  
Case Presentations and Clinical Application Of Presented Research  
All Faculty  
Auditorium

**Day 2: Saturday, March 23, 2019**

8:30 a.m. Breakfast  
Break Room

9:00 a.m. Introduction  
Christopher P. Ames, MD, Shay Bess, MD  
Auditorium

9:05 a.m. The Impact of Standing Regional Cervical Sagittal
Alignment on Outcomes in Posterior Cervical Fusion Surgery  
*Christopher P. Ames, MD*

9:15 a.m.  
Reliability Assessment of a Novel Cervical Deformity Classification  
*Justin S. Smith, MD, PhD*

9:25 a.m.  
Prospective Multicenter Assessment of Early Complication Rates Associated with Adult Cervical Deformity Surgery in 78 Patients  
*Justin S. Smith, MD, PhD*

9:35 a.m.  
Can We Define Clinically Relevant DJK in Cervical Deformity Surgery?  
*Robert K. Eastlack, MD*

9:45 a.m.  
Questions

9:55 a.m.  
Preoperative Prediction of Cost and Catastrophic Cost (CC) in Adult Spine Deformity (ASD) Surgery: Feasibility Analysis Of Predictive Analytics to Establish 90 Day Bundled Payments  
*Christopher P. Ames, MD*

10:15 a.m.  
An Event-Based Cost Analysis of Hospital Readmissions Following Adult Spinal Deformity Surgery: Impact of Readmissions In Episodic Care of Adult Spinal Deformity  
*Jeffrey L. Gum, MD*

10:25 a.m.  
Risk Factors for Exceeding Medicare Allowable Payment Thresholds Following ASD Surgery: A Comparison of Hospital Costs to what the Government will Actually Pay  
*Jeffrey L. Gum, MD*

10:35 a.m.  
Questions, Break and transition to the lab

11:00 a.m. – 1:00 p.m.  
**Hands-on Skills Lab**  
Bio-skills Lab
Lab Instructors:
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Posterior Cervical Fixation
Avoiding Screw Pull Out
Achieving Lordosis
Cervical Osteotomies
Hyperlordotic Cages
Uncovertebral Resection
Robotics

1:00 p.m. Course Adjourns