Comprehensive Intraoperative Neuromonitoring
Data Interpretation and Report Writing
A Physician and Advanced Practitioner Interactive Symposium

Symposium Directors
Jeffrey Balzer, Ph.D., ABNM, F.ASNM
Sergio M. Gonzalez-Arias, M.D., Ph.D, FACS

Saturday and Sunday
December 5 and 6, 2009
Eden Roc Resort
Miami Beach, Florida

Presented by
American Society of Neurophysiological Monitoring

Jointly sponsored by
Baptist Hospital
Neuroscience Center
Comprehensive Intraoperative Neuromonitoring Data Interpretation and Report Writing—A Physician and Advanced Practitioner Interactive Symposium

**Target Audience**
Neurosurgeons, Neurologists, Physiatrists, Orthopedists, ENT Surgeons, Anesthesiologists, Nurses, Neurophysiologists (doctorate and masters level), Neuropsychologists, Audiologists and medical practitioners credentialed in D.ABNM or CNIM and involved in interventional intraoperative neuromonitoring of evoked potentials, EMG and EEG during surgical procedures.

**Course Description**
This symposium provides an important update for neurological physicians and advanced practitioners who collaborate on the neuromonitoring team, as well as surgeons and anesthesiologists who require intraoperative neuromonitoring (IONM) during procedures. Experts in IONM education will examine common and important methods, including:

- Somatosensory and transcranial motor evoked potentials and EMG for complex spine surgery.
- Auditory evoked potentials and cranial nerve monitoring for craniotomy and skull-based monitoring.
- EEG and MSEP for carotid endarterectomy and aneurysm monitoring.

Didactic sessions and interactive panel debates will focus on pre-existing conditions, data analysis, anesthetic considerations, complications and troubleshooting, reporting changes to the surgical team and report writing. A session on essential CPT coding and billing guidelines for IONM will examine recent changes in coding LCD and implications of Stark and Stark 3.

**Conference Objectives**
Upon completion of this conference, participants should be better able to:

- Interpret anatomic correlates of intraoperative neuromonitoring (IONM) data to facilitate surgical intervention.
- Effectively analyze data and report change.
- Formulate appropriate plan of action when presented with challenging data results.
- Write effective IONM reports.
- Review essential CPT coding and billing guidelines for intraoperative neuromonitoring based on modality, and examine recent changes in coding LCD and implications of Stark and Stark 3.
### Accreditation and Credits

This activity has been planned and implemented in accordance with the essential areas and policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of Baptist Health South Florida and the American Society of Neurophysiological Monitoring. Baptist Health South Florida is accredited by the ACCME to provide continuing medical education for physicians.

Baptist Health South Florida designates this educational activity for a maximum of 9 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

The American Society of Electroneurodiagnostic Technologists has granted ASET Continuing Education [ACE] credits for this program. Such crediting, however, should not be construed by program participants as an endorsement of any type of instruments or supplies mentioned or involved in these presentations.

The following credits have been approved on a session-by-session basis; full attendance is required at each session in order to receive CE credits and certificates.

This activity has been approved for 9 contact hours by Florida State Board of Nursing provider #50-182, Baptist Health South Florida. (Session I: 3.0; Session II: 3.0; Session III: 3.0)

Baptist Hospital of Miami is approved as a provider of Continuing Psychological Education by the Florida Board of Psychological Examiners, provider #PCE-7. This continuing education activity has been approved for 9 hours of Continuing Psychological Education credits (Session I: 3.0; Session II: 3.25; Session III: 2.75)

### Disclosures and Conflict of Interest Resolutions

Baptist Health requires disclosure and resolution of all conflicts of interest to ensure balance, independence, objectivity and scientific rigor in all CME programming. Conflicts of interest of all individuals who control CME content will be identified and resolved prior to this educational activity. Full disclosure will be made in the syllabus. Presenters will also disclose discussion of off-label uses.

### Symposium Directors

**Jeffrey Balzer, Ph.D., D.ABNM, F.ASNM**  
Past President, American Society of Neurophysiological Monitoring  
Associate Professor and Staff Clinical Neurophysiologist  
Center for Clinical Neurophysiology, Department of Neurological Surgery  
University of Pittsburgh School of Medicine  
Pittsburgh, Pennsylvania

**Sergio M. González-Arias, M.D., Ph.D., F.ACS**  
Medical Director, Baptist Neuroscience Center  
Chief, Neurological Surgery  
Baptist Hospital of Miami  
Miami, Florida

### Faculty

**John G. Atwater, M.D.**  
Orthopedic Surgeon  
Downstate Illinois Spine Center  
Bloomington, Illinois

**Joseph Bush, M.S., R. EEG T., CNIM, D.ABNM**  
ASNM Program Co-chair  
Neurophysiology Supervisor  
Baptist Neuroscience Center  
Miami, Florida

**Rebecca J. Clark-Bash, R. EEG/EP T., CNIM, CLTM, F.ASNM**  
ASNM Program Co-chair  
President, Knowledge Plus, Inc.  
Lincolnshire, Illinois

**Sergio M. González-Arias, M.D., Ph.D., F.ACS**  
Medical Director, Baptist Neuroscience Center  
Chief, Neurological Surgery  
Baptist Hospital of Miami  
Miami, Florida

**Rebecca J. Clark-Bash, R. EEG/EP T., CNIM, CLTM, F.ASNM**  
ASNM Program Co-chair  
President, Knowledge Plus, Inc.  
Lincolnshire, Illinois

**Tracy E. Mishler, Au.D., CCC-A**  
President, O.R. Monitoring Consultants, Inc.  
Adjunct Faculty Member  
Washington University School of Medicine  
Saint Louis, Missouri

### ASHA

Certificates of Attendance will be given for application to the Continuing Education Board of the American Speech-LanguageHearing Association (ASHA) for CEUs.
Symposium Schedule

Saturday, December 5

Session I
8:00 a.m.  Registration, Continental Breakfast and Exhibits
8:45 a.m.  Welcome, Introductions and Announcements
           Jeffrey Balzer, Ph.D., D.ABNM, F.ASNM
           Joseph Bush, M.S., R. EEG T., CNIM, D.ABNM
9:00 a.m.  CPT Coding and Billing in Intraoperative Neuromonitoring
           Jeffrey Balzer, Ph.D., D.ABNM, F.ASNM
10:00 a.m. Break and Exhibits
10:15 a.m. Complex Spine Surgery: Somatosensory Evoked Potentials
           (Method, Pre-existing Conditions, Data Analysis, Anesthetic Considerations, Complications and Troubleshooting, Reporting Changes to the Surgical Team and Report Writing)
           John G. Atwater, M.D.
11:30 a.m. Complex Spine Surgery: EMG in Upper and Lower Limbs
           (Method, Pre-existing Conditions, Data Analysis, Anesthetic Considerations, Complications and Troubleshooting, Reporting Changes to the Surgical Team and Report Writing)
           John G. Atwater, M.D.
12:15 p.m. Lunch (on your own)

Session II
1:30 p.m. Interactive SSEP Data Interpretation in Complex Spine Surgery
           (Method, Pre-existing Conditions, Data Analysis, Anesthetic Considerations, Complications and Troubleshooting, Reporting Changes to the Surgical Team and Report Writing)
           Rebecca J. Clark-Bash, R. EEG/EP T., CNIM, CLTM, F.ASNM
3:00 p.m. Break

3:15 p.m. Complex Spine Surgery: Transcranial Motor Evoked Potentials
           (Method, Pre-existing Conditions, Data Analysis, Anesthetic Considerations, Complications and Troubleshooting, Reporting Changes to the Surgical Team and Report Writing)
           Jeffrey Balzer, Ph.D., D.ABNM, F.ASNM
4:30 p.m. Utility of TceMEP and Alarm Criteria Panel Debate
           All Faculty Panel
5:30 p.m. Welcome and Networking Reception

Sunday, December 6

Session III
8:30 a.m. Registration, Continental Breakfast and Exhibits
8:55 a.m. Welcome
9:00 a.m. Craniotomy and Skull-based Monitoring: Auditory Evoked Potentials
           (Method, Pre-existing Conditions, Data Analysis, Anesthetic Considerations, Complications and Troubleshooting, Reporting Changes to the Surgical Team and Report Writing)
           Tracy E. Mishler, Au.D., CCC-A
10:00 a.m. Break
10:15 a.m. Craniotomy and Skull-based Monitoring: Cranial Nerve Monitoring
           (Method, Pre-existing Conditions, Data Analysis, Anesthetic Considerations, Complications and Troubleshooting, Reporting Changes to the Surgical Team and Report Writing)
           Tracy E. Mishler, Au.D., CCC-A
11:00 a.m. Carotid Endarterectomy and Aneurysm Monitoring:
           EEG and MSEP
           (Method, Pre-existing Conditions, Data Analysis, Anesthetic Considerations, Complications and Troubleshooting, Reporting Changes to the Surgical Team and Report Writing)
           Jeffrey Balzer, Ph.D., D.ABNM, F.ASNM
12:00 noon Adjourn
Symposium Registration Form

Comprehensive Intraoperative Neuromonitoring Data Interpretation and Report Writing – A Physician and Advanced Practitioner Interactive Symposium
Saturday & Sunday, December 5 & 6, 2009 • Register by November 5, 2009, at the discount rate.

PLEASE PRINT CLEARLY!

First Name Last Name

Degree: (Check all that apply) □ M.D. □ D.O. □ Ph.D. □ R.N. □ MS/MA □ B.A. □ B.S. □ D.C. □ AuD □ Other _______________________________

Credential: (Check all that apply) □ DABNM □ FASNM □ CNIM □ CCC-A □ R. EEG T. □ R. EP T. □ AANEM □ Other _______________________________

Institution Affiliation

Work Address Work City/State/Zip

Home Address Home City/State/Zip

Daytime Telephone Evening Phone

Work E-mail Alternate E-mail

☐ ASNM Member Other organizational affiliations: (optional) □ AMA □ ACNS □ ASHA □ AAA □ ASET □ AAEM □ Other _______

Registration Fees: ASNM Members Non-members

On or before November 5 $425 $525

After November 5 $525 $625

Syllabus Options: The registration fee includes an electronic version of the course material (e.g.: USB flash drive or disk). A printed syllabus is available for an additional charge and must be ordered in advance. Please select one of the following options:

☐ Electronic version only • No charge  ☐ Electronic version and a printed syllabus • $75 (ONLY available if paid for prior to the meeting)

☐ Printed syllabus only (not attending the symposium — no registration fee) • $150

Method of Payment:

☐ Check enclosed (payable to ASNM) ☐ MasterCard ☐ Visa

Cardholder Name (Please print) _________________________________________________________________________________________________________________ _____________________________

Card Number  _________________________________________________________________________________________________________________ Expiration Date ______________________________

Authorized Signature _______________________________________________________________________ Authorized Amount $ ____________________ Security Code on the back of card _______________

NOTE: Please submit this form two weeks prior to the symposium.

Registration options: ☐ Online: www.signmeup.com/66432 ☐ Mail to: ASNM Registration, 827 East Briar Lane, Green Bay, WI 54301

☐ Scan this form and e-mail to: ASNMregister@gmail.com

In consideration of the Americans with Disabilities Act, please check here if you require special services, and we will contact you to determine your specific requirements. Please submit this form two weeks prior to the symposium.

How did you hear about this conference? ☐ Mail ☐ E-mail ☐ Internet ☐ Other _______________________________
**Location and Accommodations**

For 50 years, the Eden Roc, a Renaissance Beach Resort & Spa, has graced Miami Beach’s pristine Golden Mile at 45th Street and Collins Avenue. This legendary landmark was completely renovated in 2008 and is a South Florida premier resort property. For more information about Eden Roc, go to boldnewedenroc.com.

A block of rooms has been reserved at the special conference rate of $179, plus applicable taxes and will be honored through November 15, 2009, based on availability. Make your hotel reservations now by calling **305-604-1601** or go to http://cwp.marriott.com/miasr/asnm/. Group code is ASNM.
**Registration**
The registration fee includes tuition, electronic version of course syllabus, daily continental breakfast, Welcome Networking Reception on Friday and break refreshments on Saturday. To expedite your registration, please register online at [www.ASNM.org](http://www.ASNM.org), or see registration panel for other options. Confirmations will be sent for registrations received by **November 17**. Registrations cannot be processed or confirmed without full payment.

**Cancellation Policy**
Cancellations must be sent in writing and postmarked by **November 17** to receive a refund of the registration fee, less a $50 administrative fee. Cancellations postmarked after November 17 will forfeit the registration fee.

**For Additional Information**
Please call Monica Clark at 920-632-4330 or e-mail [ASNMregister@gmail.com](mailto:ASNMregister@gmail.com).

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This symposium is a collaborative continuing education project between the American Society of Neurophysiological Monitoring and the Baptist Neuroscience Center.

The **American Society of Neurophysiological Monitoring (ASNM)** serves as the leading organization in the field of interventional neurophysiological assessment and monitoring. As part of its mission, the ASNM fosters the growth and stature of neurophysiological monitoring as a profession and provides education and dissemination of knowledge in this field.

The **Baptist Hospital Neuroscience Center**, a part of Baptist Health South Florida, provides the most comprehensive and innovative techniques to diagnose and treat the brain, spine and nervous system. The Center’s staff includes neurologists, neurosurgeons and neuroradiologists widely acclaimed for clinical, research and educational leadership, as well as specialty-trained nurses and clinical professionals.

**Symposium Planning Committee:**

Jeffrey Balzer, Ph.D., D.ABNM, F.ASNM  
Joseph Bush, M.S., R. EEG T., CNIM, D.ABNM  
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Bernie Cohen, Ph.D., D.ABNM, F.ASNM  
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Leah Hanson, R.EEG/EP T., CNIM  
Allan Herskowitz, M.D.  
Shawn Regan, B.S., CNIM  
Jay Shils, Ph.D.  
Cathleen Zippay, R. EEG/EP T., R. EDT, CNIM
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