Advances in Neuromodulative Therapies: 2010 and Beyond

Friday, August 27, 2010
Swedish Education and Conference Center
Swedish/Cherry Hill
500 17th Avenue
Seattle, Washington 98122
Course Description

Advances in Neuromodulative Therapies: 2010 and Beyond will explore the latest techniques and indications for interacting with the nervous system to help patients diagnosed with neurological disorders. It is a very exciting area with new indications emerging all the time, giving rise to both technical and ethical challenges about what can or should be done to enhance neurological function.

Today, neurologists sit at the juxtaposition between the brain and the outer world — which can be shaped by experience, and now by neuromodulation. Internationally renowned speaker, poet and author, David Whyte, will present the keynote presentation at this year’s symposium and set the stage as we consider the way we think and talk about the technical and ethical issues that surround neuromodulation with our colleagues, our patients and their caregivers.

National leaders in the field of neuroscience, Philip Starr, M.D.; Robert Fisher, M.D.; and Zachary Levine, M.D., will join colleagues from Swedish, University of Washington and Emory University to present the latest advances in the treatment of neurological disorders, including movement disorders, epilepsy, pain and spasticity, and psychiatry. Presentations will be punctuated by question-and-answer sessions, providing the opportunity to explore both these cutting-edge treatments and the technical and ethical challenges that accompany them.

Intended Audience

The intended audience includes neurologists, neurosurgeons, pain physicians, psychiatrists, nurse practitioners and physician assistants who specialize in the treatment of chronic neurological disease.

Needs Statement

Patients who live with chronic neurological disease face daily challenges of compromise in function which negatively impact their quality of life. In addition, physical pain or disability resulting from neurological disease often causes social and emotional impairment which affects the patient’s ability to cope with the impact of their illness. Neurological disease processes can be challenging to treat using conventional medical therapies. As advocates for their patients, clinicians have identified the need to know when it is appropriate to consider alternative neuromodulative therapies such as the use of botulinum toxin or deep brain stimulation for movement disorders or cortical stimulation for epilepsy. By educating physicians and other health-care professionals about the appropriate use of neuromodulative therapies, the care of this rapidly increasing patient population will promote optimal quality of life for each patient, their families and caregivers, ultimately improving the physical, emotional and social well-being of our communities.

AGENDA

7:15 a.m.  Registration and Continental Breakfast
7:45 a.m.  Welcome and Introductions

Keynote Address
8 a.m.  What to Remember When Waking: The Physiology of Presence
          David Whyte

Session I: Movement Disorders
9 a.m.  Deep Brain Stimulation in Movement Disorders: New Techniques and New Targets
          Philip Starr, M.D., Ph.D.
9:30 a.m.  Use of Botulinum Toxin for Movement Disorders
          Susie Ro, M.D.
10 a.m.  Break
10:15 a.m.  Neurostimulation Implant Safety Considerations
            Peter Nora, M.D.

Session II: Epilepsy
10:30 a.m.  Deep Brain Stimulation for Epilepsy
            Robert Fisher, M.D., Ph.D.
11 a.m.  Cortical Stimulation for Epilepsy
          Ryder Gwinn, M.D.
11:30 a.m.  Morning Speakers Panel

Noon  Lunch

Session III: Pain and Spasticity
12:45 p.m.  Pharmacological Infusion Therapies for Pain
            Gordon Irving, M.D.
1:15 p.m.  Neurostimulation for Pain: Head to Toe
            Zachary Levine, M.D.
1:45 p.m.  Intrathecal Baclofen for Spasticity
            Patrice Stevenson, M.D.
2:15 p.m.  Break

Session IV: Psychiatry
2:30 p.m.  Psychiatry’s Oldest Brain Stimulation Therapy: ECT’s Resurgence, Recent Advances and Mechanism of Action
            Ken Melman, M.D.
3 p.m.  Transcranial Magnetic Stimulation for Depression
          David Avery, M.D.
3:30 p.m.  Deep Brain Stimulation and Cortical Brain Stimulation for Neuropsychiatric Conditions
            Paul Holtzheimer, M.D.
4 p.m.  Afternoon Speakers Panel
4:30 p.m.  Adjourn

Location/Parking/Directions

The Swedish Education and Conference Center is located on the first floor of the James Tower on the Swedish Medical Center/Cherry Hill Campus.

From I-5 (northbound and southbound), take the James Street exit. James will become Cherry Street. Travel east on Cherry Street to the intersection of Cherry and 16th Avenue. Turn right (south) onto 16th Avenue. Turn right into the entrance of the parking garage. Parking is available in the Cherry Hill Garage on 16th Avenue.
Course Objectives

At the conclusion of this course, participants will provide better patient care through an increased ability to:

- Evaluate the ethical challenges presented when the latest techniques for interacting with the nervous system are introduced to treat patients diagnosed with neurological disorders; and share concerns regarding the technical and ethical challenges about what can or should be done to enhance neurological function with colleagues, patients and caregivers
- Discuss different technical approaches for placement of deep brain stimulators in movement disorders, and describe brain target options for deep brain stimulation in Parkinson’s Disease and dystonia
- Discuss pre-operative safety considerations for neurostimulation device implants and list therapeutic and imaging guidelines for implanting neurostimulation devices
- Identify indications for cortical stimulation in the treatment of epilepsy, specify how responsive neurostimulation is delivered by the RNS device and discuss the safety and efficacy of the RNS device in treating seizures
- Name past attempts to use electrical stimulation of the brain at various neuroanatomical sites for the treatment of epilepsy, explain the efficacy and adverse events results of the pivotal Stimulation of the Anterior Nucleus of the Thalamus for Epilepsy (SANTE) trial and compare the ongoing trials of brain stimulation for epilepsy
- Discuss the role of various medications used in intrathecal treatments for pain and describe the potential problems with intrathecal therapies for pain, and explain the Gate Control Theory of pain
- Discuss the use of electrophysiology, and outline indications for the use of neuromodulation for pain
- Appreciate the prevalence of and costs associated with treatment-resistant depression and obsessive-compulsive disorder; describe the rationale behind three invasive neuromodulation techniques: vagus nerve stimulation, direct cortical stimulation and deep brain stimulation; and analyze the preliminary but growing data on the safety and efficacy of vagus nerve stimulation, direct cortical stimulation and deep brain stimulation
- List the principles of transcranial magnetic stimulation and summarize the clinical studies of transcranial magnetic stimulation in treating depression

Accreditation with Commendation

Swedish Medical Center is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

AMA PRA Category 1 Credits™

Swedish Medical Center designates this educational activity for a maximum of 7.0 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Acknowledgments

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Registration Information:
Preregistration is required as space is limited. Participants who register by the “Advance Registration” deadline will receive a confirmation postcard after Monday, Aug. 16, 2010. Registrations will only be processed when accompanied by full payment.

Cancellation:
To receive a refund, notice of cancellation must be received no later than Friday, Aug. 20, 2010.

If using the registration form, please mail or fax it to:
Continuing Medical Education
Swedish Medical Center
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Fax: 206-386-3180

Please note: No registrations are accepted by phone or e-mail.
If you have special needs, please contact the CME office at 206-386-2755.