Clinical Autonomic Quantitation Workshop

May 16 – 17, 2009
Kern Lecture Hall, Gonda Building
Mayo Clinic Campus
Rochester, MN

Course Highlights
- On-site demonstrations of non-invasive autonomic tests
- Demonstrations of QSART and TST
- Non-invasive evaluation of adrenergic and cardiovagal tests
- Equipment for autonomic tests
- Overview of most common autonomic disorders

This course is limited to 40 attendees. Early registration is encouraged.
Course Description
This course will focus primarily on the three autonomic function tests that have CPT codes. The program will integrate three specific aims beginning with a series of lectures on the underlying physiology, patient preparation, indications for autonomic testing and the factors that affect the results of these autonomic tests, and HCFA requirements. The heart of the workshop will be a demonstration of specific autonomic function tests. The tests to be demonstrated will be the quantitative sudomotor axon reflex test (QSART), tests of cardiovagal function (heart rate response to deep breathing and to the Valsalva maneuver), and tests of adrenergic function. A departure this year will be a switch to the use of commercially available equipment. Another innovation this year, in recognition of the increased number of autonomic laboratories, will be a series of sessions on the interpretation of common and uncommon examples of tests. We will additionally provide lectures on a number of dysautonomias (POTS, syncope, autoimmune neuropathy; and pain) on which new information is available, or disorders where the autonomic laboratory has a responsibility to evaluate. The remaining time will be devoted to handling questions and demonstrating typical examples of abnormal findings seen in tests of autonomic function.

Learning Objectives
At the conclusion of this course, participants should be able to:

- Recognize the underlying basis for the evaluation of autonomic function
- Utilize autonomic testing in the detection of autonomic failure
- Develop a plan for autonomic testing of patients with autonomic disorders
- Select new autonomic function tests using underlying autonomic principles

Attendance at this Mayo course does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course.

Target Audience
This conference is designed for individuals interested in the performance of non-invasive clinical autonomic tests.

Credit
College of Medicine, Mayo Clinic is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

College of Medicine, Mayo Clinic designates this educational activity for a maximum of 11.75 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Location
The Clinical Autonomic Workshop will be held May 16-17, 2009. Course headquarters will be located in Kern Hall on the eighth floor of the Gonda Building, Mayo Clinic, Third Avenue SW, adjacent to the Mayo Clinic Building, Rochester, Minnesota. Meeting facilities are easily accessible by skyway and pedestrian subway, which connect Mayo Clinic to shops, restaurants, and hotels.

Travel
Rochester, Minnesota, is a friendly city that greets thousands of visitors from around the world each year. The city is serviced by a modern international airport with multiple flights daily from Chicago, Detroit, Dallas-Fort Worth, and Minneapolis via American or Northwest Airlines. Access to and from the airport is provided by taxi, shuttle service, and rental car. The airport is located approximately 10 miles from the Mayo Clinic campus.

Travel arrangements are the sole responsibility of the individual registrant.
Lodging

Accommodations

Guest rooms have been reserved for attendees and their guests with special course rates at each of the following downtown Rochester hotels. In order to receive the special rate, reservations must be made before the room block is filled or before the expiration date of April 15 for Kahler and Marriott, and April 24 for Radisson and Hilton Garden Inn. Reservations will be taken following this date based on space and rate availability. Please identify yourself as a participant of the Clinical Autonomic Quantitation Workshop when making your reservation.

Hilton Garden Inn
225 South Broadway
800-445-8667 or 507-285-1234
$104 single/double

Kahler Grand Hotel
20 Second Avenue SW
800-533-1655 or 507-282-2581
$92 single/double

Radisson
150 South Broadway
800-333-3333 or 507-281-8000
$115 single/double

Rochester Marriott Hotel
101 First Avenue SW
877-623-7775 or 507-280-6000
$139 single/double

The hotels listed above are connected by skyway and pedestrian subway to conference facilities, downtown shops, and restaurants. You may also wish to visit the Rochester Convention and Visitors Bureau website (www.rochestercvb.org) for additional accommodation options. Lodging arrangements are the sole responsibility of the individual registrant.

Parking

Parking is available in municipal, hotel, city, and Mayo patient/visitor ramps. The cost for parking is not included in the registration fee. For more information on ramp locations and fees, visit http://www.rochestercvb.org/planning/gettingaround.asp?subcat=Parking

Registration

To register online, visit http://www.mayo.edu/cme/may2009.html or complete the attached registration form and return by mail or fax. The registration fee includes tuition, course syllabus, breakfast, and break refreshments. A letter of confirmation will be sent upon receipt of payment and completed registration form. Please present the confirmation letter when checking in at the meeting registration desk.

This course is limited to 40 attendees. Early registration is encouraged.

Cancellation Policy

If you cancel your participation in this course, your registration fee, less a $75 administrative fee, will be refunded when written notification is received by Mayo School of CME before May 2, 2009. (fax#: 507-284-0532). No refunds will be made after May 2, 2009.

Mayo School of CME reserves the right to cancel or postpone any course due to unforeseen circumstances. In the unlikely event Mayo School of CME must cancel or postpone this course, Mayo School of CME will refund the registration fee, but is not responsible for any related costs, charges, or expenses to participants, including fees assessed by airline/travel/lodging agencies.

Faculty

Course Directors
Paola Sandroni, M.D.
Phillip A. Low, M.D.

Mayo Faculty
Phillip A. Low, M.D.
Robert D. Fealey, M.D.
Paola Sandroni, M.D.
Wolfgang Singer, M.D.

Faculty Disclosure

As a provider accredited by ACCME, College of Medicine, Mayo Clinic (Mayo School of CME) must ensure balance, independence, objectivity and scientific rigor in its educational activities. Course director(s), planning committee, faculty, and all others who are in a position to control the content of this educational activity are required to disclose all relevant financial relationships with any commercial interest related to the subject matter of the educational activity. Safeguards against commercial bias have been put in place. Faculty also will disclose any off-label and/or investigational use of pharmaceuticals or instruments discussed in their presentation. Disclosure of this information will be published in course materials so those participants in the activity may formulate their own judgments regarding the presentation.
Program Schedule

Saturday
May 16, 2009

7:00 a.m. Registration/Breakfast

8:00 a.m. Introduction & Welcome
Paola Sandroni, M.D., Ph.D., Course Director

8:05 a.m. Overview, Patient Preparation, Equipment, Indications for Autonomic Testing, Pitfalls
Phillip A. Low, M.D.

8:30 a.m. Evaluation of Cardiovagal Function
Paola Sandroni, M.D.

9:00 a.m. Evaluation of Adrenergic Function
Wolfgang Singer, M.D.

9:30 a.m. Evaluation of Sudomotor Function: QSART, QSWEAT and TST
Robert D. Fealey, M.D.

10:00 a.m. Break

10:15 a.m. Orthostatic Hypotension, Orthostatic Intolerance and Syncope
Phillip A. Low, M.D.

11:00 a.m. Autonomic Neuropathies
Wolfgang Singer, M.D.

11:45 a.m. Small Fiber Neuropathies and Pain
Paola Sandroni, M.D.

12:30 p.m. Lunch

1:30 p.m. Central Autonomic Disorders
Robert Fealey, M.D.

2:15 p.m. Questions and Answers
Faculty

2:30 p.m. TST Demonstration:
(2 groups in parallel)

5:00 p.m. Adjourn

Sunday
May 17, 2009

7:30 a.m. Breakfast

8:00 a.m. Laboratories
Conference Faculty

10:00 a.m. Break

10:15 a.m. Laboratories
Conference Faculty

Laboratories

Technicians:
After the 10:00 break, technicians would go directly to the laboratories to spend as much time as possible learning the tests and practicing.

Physicians:
On Sunday, physicians will be divided in 4 groups and rotate through the 2 lab sessions. In between the sessions, they will be shown cases by the faculty and will have a chance to interact with the faculty as well.

Demonstrations:
1. Demonstration of QSART recording, Resting Sweat Output, Salivation
2. Demonstration of Adrenergic and Cardiovagal Recordings
3. Thermoregulatory Sweat Test and Percent Anhidrosis (on Saturday only)
4. Review of Autonomic Recordings, case discussion, examples, Q&A with faculty.
**Clinical Autonomic Quantitation Workshop**

**May 16-17, 2009**  
**Kern Lecture Hall, Gonda Building**  
**Mayo Clinic, Rochester, MN**

**Mail form and payment to:**  
Mayo School of Continuing Medical Education  
Plummer 2-60  
200 First Street SW  
Rochester, MN 55905  
Phone 800-323-2688 or 507-284-2509  
FAX 507-284-0532  
E-mail cme@mayo.edu  
Web site www.mayo.edu/cme

*Registration on-line at www.mayo.edu/cme/may2009.html*

### Contact Information

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<th>Degree – select all that apply</th>
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**FAX Location – select one**  
[Work/Business]  
[Home]

**If you have special assistance needs or dietary restrictions, describe here:**

### Registration Fee

| MD, PhD – Limited to the first 20 registrants! | $ 425 USD | $__________ |
| Technicians – Limited to the first 20 registrants! | $ 375 USD | $__________ |

### Payment Information

- □ Check is enclosed in the amount shown at right - make checks payable to Mayo Clinic  
- Payment Total  
- □ Discover □ MasterCard □ Visa  
- Account Number  
- Exp Date – mm/yy  
- Name of Cardholder – as it appears on the card  
- Signature of Cardholder – required
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