Looking Back on 25 Years—
Looking Forward to 25 More

This year, our Annual Meeting was a very special one: the 25th Anniversary of the official formation of the Consortium of Multiple Sclerosis Centers—our CMSC.

My wife Deena was a participant at the early CMSC meetings, and she has been involved in MS care and research since the 1970s when we were at the University of Pennsylvania. Likewise, our center at Wayne State University has been a member of the CMSC for many years. About 15 years ago, Deena encouraged me to become active in the CMSC and attend annual meetings. I have particularly been involved in overseeing the research programs, which have contributed to the growing MS literature. But there have been many other areas in which we have seen tremendous growth as well, including breakthroughs in our understanding of MS epidemiology, pathology, immunology, glial biology, and new uses for technologies such as magnetic resonance imaging (MRI). We have expanded our therapeutic options to include disease-modifying therapies (DMTs) and now the advent of oral therapies, while at the same time improving the quality of life for patients with better rehabilitation therapies and improvements in ambulation technologies. It has been a fast-paced quarter century that brings us here.

Over the next several years, I think we are going to see the CMSC continue to expand its role in encouraging the workforce of the future by providing and further expanding resident fellowships and scholarships to medical students, and by funding the type of research not supported by the National Institutes of Health (NIH), the National MS Society (NMSS), or pharmaceutical companies. We will also be expanding our educational reach to provide MS training to professionals who are learning to care for people with MS. And now that the CMSC is a continuing education provider, we will see even more creative approaches to educational opportunities for both physicians and nonphysicians.

I also think we are going to see the Consortium playing an increasingly important role in coordinating with other groups that are fighting MS, including the NMSS, the Department of Veterans Affairs (VA), the MS Association, the MS Foundation, the International Organization of MS Nurses (IOMSN), the American Academy of Neurology (AAN), and the Americas Committee for Treatment and Research in Multiple Sclerosis (ACTRIMS).

If we look at the powerful track record of the last 25 years, we can only expect big things from the CMSC over the next 25 years. I am very proud to lend my continued support to this effort, and I hope you will find your own personal way to help us continue building the future of MS care.

Robert P. Lisak, MD, CMSC Secretary, Research Committee Chair
Vitamin D—Old School Versus Very New School Thinking

Vitamin D has been a topic of interest for the last few years at gatherings of the Consortium of Multiple Sclerosis Centers (CMSC). This year at the 2011 Annual Meeting, Allen C. Bowling, MD, PhD, Director of the MS Service and Complementary and Alternative Medicine Service at Colorado Neurological Institute (CNI), attempted to clarify the new notions and how they affect clinical practice in his presentation, “Vitamin D—What’s an MS Clinician to Do?”

Dr. Bowling opened with the idea of old school versus new school thinking about vitamin D and its relationship to multiple sclerosis (MS). Often when vitamin D is talked about in the context of MS, it becomes a very “MS-centric” view of the topic, including only the most recent studies within the MS world, he said, and yet hundreds of other studies are published monthly about vitamin D in many different disease states. The point of his presentation to the CMSC was to give the clinician a generalist view of vitamin D to help with decision-making for someone with MS. He explained, “With vitamin D, it’s become very important to expand discussion and have a knowledge base beyond the realm of MS.”

Dr. Bowling presented three main “new school” ideas that challenge old perceptions of vitamin D, specifically regarding its best sources, how it is metabolized, and where it acts in the body.

Sources: In the past, the two most commonly accepted sources of vitamin D were from ultraviolet (UV) exposure and food, while vitamin supplementation was considered to provide only minimal enhancement. Newer thinking is that supplements may need to be the main source of vitamin D because UV light and food sources are inadequate. While studies are not yet definitive, it seems possible, Dr. Bowling suggested,
that supplements will become increasingly important.

**Metabolism:** The second new school idea relates to vitamin D metabolism. Where previously it was believed that vitamin D was synthesized via a single pathway through the liver into the kidney, there are now at least 10 other tissues recognized to do the enzymatic job of the kidney.

**Receptor Sites:** Finally, there are new notions of where vitamin D has effects. For a long time, it was seen as strictly having effects on blood calcium levels and bone health; the new idea is that vitamin D receptors exist in more than 30 cell types, clearly suggesting a much broader impact within the entire body.

All of this new thinking naturally challenges the standard guidelines for adequate intake. These have been set, Dr. Bowling noted, based on optimizing bone health, where we have data from clinical intervention studies to guide practice (see box). “But for all the other conditions, the intervention studies are limited or nonexistent,” he said, adding that “There is suggestive—but not definitive—evidence that having low vitamin D blood levels might not be good for the symptoms as well as the disease course of MS.”

These newer studies are leaving clinicians confused. The Institute of Medicine recently reviewed many of the studies available and produced a negative report of the nonskeletal effects of vitamin D. “I think it was surprising for clinicians to see such a big panel cast such a negative view on all that newer information,” Dr. Bowling explained, “but it most likely comes from the fact that this panel had to make population-based recommendations, which must be based on high-quality interventional studies. That’s quite different from what we do one-on-one with patients in clinical practice. In that setting we’re using evidence-based or sometimes ‘best guess’ approaches for each individual patient.”

One of the main concerns to increasing supplementation is that of toxicity. According to Dr. Bowling, some epidemiologic studies suggest increased risk of certain cancers, heart disease, and fractures and falls associated with very high intakes or levels (intakes above 4,000 international units/day or levels above 50 ng/mL) of vitamin D, although these studies have not shown uniform results. “The big message is the possibility of a reverse J curve showing that up to a certain point, vitamin D decreases risks of some conditions, but then beyond that point it may actually increase risks. The current thinking is that, until more information is available, it may be best to avoid going over a blood level of 50 ng/mL or an intake greater than 4,000 units per day,” he says.

### What to Do?

“If a clinician is going to address vitamin D in practice, the strategy I would recommend is to monitor blood levels and if they are low, give supplements to reach a level of 30 ng/mL to 50 ng/mL; if they are in the normal range, then continue to monitor without supplementation,” Dr. Bowling stated. He added a final thought about vitamin D, which is that “this is an evolving area. I think it’s a very important area for clinicians and patients to stay attuned to in the near future.”

**RDAs for Vitamin D**

<table>
<thead>
<tr>
<th></th>
<th>Old RDAs</th>
<th>New RDAs</th>
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<tbody>
<tr>
<td><strong>Adults</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 19-50 yo:</td>
<td>200 IU QD</td>
<td>600 IU QD</td>
</tr>
<tr>
<td>• 51-70 yo:</td>
<td>400 IU QD</td>
<td>600 IU QD</td>
</tr>
<tr>
<td>• &gt;70 yo:</td>
<td>600 IU QD</td>
<td>800 IU QD</td>
</tr>
<tr>
<td><strong>Children</strong></td>
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<tr>
<td>• 0-12 months:</td>
<td>200 IU QD</td>
<td>400 IU QD</td>
</tr>
<tr>
<td>• 1 yo-18 yo:</td>
<td>200 IU QD</td>
<td>600 IU QD</td>
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**Tolerable Upper Intake (UL) Level**

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<tr>
<td><strong>Adults</strong></td>
<td>2,000 IU QD</td>
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<tr>
<td></td>
<td>4,000 IU QD</td>
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IU=international units; QD=every day; RDAs=recommended dietary allowances; YO=years old.

Source: Office of Dietary Supplements, National Institutes of Health

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Allen Bowling, MD, PhD, has published several articles detailing his research and outlining evidence-based approaches to vitamin D supplementation for patients with MS. This information can be found on his website, www.neurologycare.net. The professional article “Vitamin D and MS: Implications for Clinical Practice” and the lay article “Vitamin D: Dandy? Dastardly? Or Debatable?” are available for download at www.nationalmssociety.org. He is also the author of the books Complementary and Alternative Medicine and Multiple Sclerosis and Dietary Supplements and Multiple Sclerosis: A Health Professional’s Guide.
On Thursday, June 1st, 2011 at the 25th Annual Meeting in Montreal, Canada, Robert P. Lisak, MD, was presented with the Lifetime Achievement Award by the Consortium of Multiple Sclerosis Centers (CMSC) for his many contributions to the fields of MS research and immunology, as well as to the growth of the Consortium itself. “Dr. Lisak has been Chair of our Research Committee, and in fact, he founded our research program, where we are funding small studies looking at cures for MS and better management strategies,” said Executive Director June Halper. “We are so grateful for his thoughtfulness and leadership,” she added.

Dr. Lisak took the stage beside his wife, Deena Lisak, RN, BS, MA, MSCN, a nurse educator and coordinator at Wayne State University and a long-standing member of the CMSC and the International Organization of MS Nurses (IOMSN). “It was a surprise and a big honor,” Dr. Lisak reported. “I’ve been doing MS-related research since 1966 at the National Institutes of Health, at the University of Pennsylvania, and for the last 24 years at Wayne State University. I’ve been lucky to work with excellent collaborators, and to have a lot of support from my family, who’ve put up with some of my rather strange hours.”

Dr. Lisak noted that it seems the stars were aligned in his favor this year, as it also marks his 25th year as Chairman of the Department of Neurology at Wayne State University. Dr. Lisak has recently become even more involved with the CMSC, having assumed his newly elected role as Board Secretary.
What We’ve Learned in 25 Years

Over the past 25 years, our knowledge about multiple sclerosis (MS) has significantly increased. The Consortium of Multiple Sclerosis Centers (CMSC) recognized early on that the best care for MS requires a multidisciplinary team approach and that nurses are an important part of the team. As integral members of the healthcare team, it is important for nurses to be aware of advances in care that affect our patients’ quality of life. For instance:

• The use of magnetic resonance imaging (MRI) has changed from its original limited diagnostic role to one where we can now use it as a tool for treatment and as a surrogate marker for predicting relapses.
• The field of pathology has evolved to where we now see MS as both an inflammatory process and one that is demonstrated by markers of neuroaxonal loss evident on MRI. This knowledge, along with improved MRI technology, has led to individually targeted therapies.
• When the CMSC was first organized there were few therapies for MS, and no disease-modifying therapies (DMTs). The earliest treatments were aimed at managing acute attacks and controlling symptoms. It wasn’t until 1993 that we began using medications that could alter the course of the disease, and most recently, we have seen the introduction of the first of several promising oral therapies, which offer new hope for patients.
• Rehabilitation therapies have grown from merely providing modest improvement to an innovative role utilizing a large set of rehabilitation tools and assistive technologies that extend and enhance patient mobility and independence. This significant development was reflected in the establishment of the International Organization of Multiple Sclerosis Rehabilitation Therapists (IOMSRT) as an outgrowth of our own International Organization of Multiple Sclerosis Nurses (IOMSN) in 2009.

Much has changed in the way we work with patients with MS, and we now have many tools to help them. In this issue, we review educational tools for clinicians and patients, as well as new approaches and programs. I also hope you will visit the revamped IOMSN website, which is a portal for you to keep abreast of many educational opportunities and new developments. We’re looking forward to seeing so many more significant improvements in MS care in the next 25 years!

Marie Namey, RN, MSN, IOMSN President
Annual Awards Presented at IOMSN Dinner

Each year at the International Organization of Multiple Sclerosis Nurses’ (IOMSN) Dinner at the Consortium of Multiple Sclerosis Centers’ Annual Meeting, special awards are presented to nurses who have made extraordinary contributions to the field of MS nursing, either in clinical or research settings.

IOMSN June Halper Award for Excellence in MS Nursing

Named in honor of the dynamic June Halper, the Founding Director of the IOMSN and Executive Director of the CMSC, this award is presented to clinical nurses who demonstrate leadership and creativity in the care of people with MS and their families. The 2011 award was presented to Brenda Breij RN, MSCN, of the Schapiro Center for MS at the Minneapolis Clinic of Neurology.

IOMSN Thumbs Up Award

The Thumbs Up Award is presented to a person(s) who has been instrumental in advocating and promoting MS nursing. This year, it was presented to IOMSN Website/Administrative Director Leny O. Almeda for her tremendous efforts in redesigning and updating the IOMSN website.

IOMSN Linda Morgante Hope Award

The IOMSN Linda Morgante Hope Award is presented each year for the poster that best represents a spirit of optimism and possibility related to clinical care or education for patients with MS and their families. The 2011 awardee was Kimberly McGuire, PhD, of the Kessler Institute for Rehabilitation, Department of Psychology and Neuropsychology, in West Orange, NJ, for the poster, “Effectiveness of a Psychoeducational Wellness Group for Individuals with Multiple Sclerosis” (S17).

IOMSN Research Award

The IOMSN Research Award recognizes the work done by a nursing professional who specializes in multiple sclerosis that adds to the body of knowledge about MS nursing. Being given for the third year, this award was presented in 2011 to two deserving candidates:

- The Clinical Practice Research Award recipient was Lori Mayer, RN, MSCN, CCRP, Director of Medical Research Services of Central Texas Neurology Consultants and the MS Clinic of Central Texas in Round Rock, TX.
- The Academic Research Award winner was Linda Moore, EdD, APRN, BC (ANP/GNP), MSCN, of the MS Center of the Carolinas Healthcare System in Charlotte, NC.

IOMSN’s Mary Filipi Receives the Robert Herndon Award

Throughout a distinguished career, Mary Filipi, PhD, RN, BSN, MSN, ARNP, has garnered many accolades and awards. In addition to advanced degrees as a family practice nurse practitioner and nursing administrator, Dr. Filipi has a PhD in neuroscience and is certified as a nurse practitioner in MS care. She is also Assistant Professor in the Department of Health and Illness at the University of Nebraska Medical University (UNMC) College of Nursing.

At the 2011 Consortium of Multiple Sclerosis Centers’ Annual Meeting, Dr. Filipi was presented with the International Journal of MS Care’s (IJMSC) Robert Herndon Award for the 2010 outstanding article “Impact of Resistance Training on Balance and Gait in Multiple Sclerosis.”

According to Lael Stone, MD, Editor of the IJMSC, “Dr. Filipi’s article reported on a prospective study of the impact of an exercise program emphasizing resistance training on balance and gait in people with MS. The results showed that participation in the program improved patients’ ability to walk and to generate muscular forces during locomotion.”

Dr. Filipi explained to IOMSN Update that “This was a multidisciplinary study. Basically, we brought people in who were not exercising and did full evaluations including...”

(Continued on page 7)
Filipi Award (Continued from page 6)

the MS Functional Composite and Fatigue Impact scales, Timed-Up-and-Go tests—all the parameters—and then we put them through a full physical therapy evaluation.” Thirty-five patients participated.

Patients with MS are often discouraged from undertaking exercise programs out of concern that it may cause exacerbations and increase fatigue associated with the disease. Dr. Filipi pointed to several studies in recent years that have contradicted these findings by demonstrating a clear improvement in muscle strength, gait, and fatigue after only short study periods of 8 to 12 weeks. For instance, she and her colleagues had conducted a previous 6-month trial measuring the effects of twice-weekly resistance training on 67 patients with MS and noted some surprising findings across the board. “Despite their level of disability, these folks showed parallel muscle improvement on 12 parameters. It was really quite amazing,” she said.

Based on the findings of these studies, the UNMC researchers designed a specific resistance training program aimed at improving muscle function and balance. The purpose was to study whether improving these parameters through exercise would also improve gait. Again, the investigators were surprised by a universal improvement in muscle strength, levels of fatigue, and quality of life, as well as a 30% improvement in cognition. “We also noted that these people didn’t have as many relapses as the non-exercising population did,” she said.

The researchers utilized a 3-step program that involved resistance training and balance exercises, in a circuit-training format. The first arm utilized stationary machines, the second used free weights, and the third involved balance exercises in a squat cage with balance boards and Swiss balls.

After assessment at 6 months, the study was closed. “We were able to follow about half of our patients 6 months out to see how long they kept at it. Some continued exercising, while others just quit.” The researchers have started to compile this data to determine how long the exercise benefit lasts. She noted that the big question is “What happens to those who stop exercising?”

The benefits of exercise in this study appear to include a social influence. “This turned out to be probably the most positive support group I’ve ever experienced,” Dr. Filipi reported, adding that the study was not designed for that purpose. The particular gym used in the study is owned by someone who has MS, and currently 76 people with MS exercise there regularly. “These people are not welcomed in gyms used by vanity exercisers, but here they have a peer group who encourages them. We’ve also found that even if they’re sick and can’t exercise, they’ll come in just to socialize,” she said.

The success of this program has identified a need for community-based exercise training for patients with MS. According to Dr. Filipi, she and her colleagues are looking to present this protocol to underserved and/or rural areas, but first they need investigators for the research piece. “We know there is something happening that we didn’t plan on,” she explained. “We believe that it has to do with brain remapping.”

Currently, Dr. Filipi is principal investigator on two studies and co-investigator on a third, and she has a number of proposals in submission. “I’m looking at developing a rehab program specific to each individual. We need to tailor treatment individually,” she said.

The International Organization of MS Nurses (IOMSN) conducted several Town Hall Meetings this year. All were well-attended, with an average of 30 to 40 participants calling in on the 3rd Tuesday evening of each month for an hour-long teleconference led by an IOMSN member.

During the call, the participants log in to view the lecture slides as the speaker gives a 15-minute presentation, after which the phone lines are opened for discussion. “It’s an easy, interactive format that everyone seems to enjoy,” explains Colleen Harris, MN, NP, MSCN, Chair of the Education and Mentorship Committee, “and these speakers are of a caliber many nurses working with patients with MS would rarely get to hear otherwise.”

Several topics will be covered in the upcoming months (see the schedule below). To participate, simply dial the toll-free number 877-407-8037 at least 10 minutes before the scheduled starting time (8 PM ET; 7 PM CT; 6 PM MT; 5 PM PT).

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>SPEAKER</th>
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<tbody>
<tr>
<td>September 20, 2011</td>
<td>Fatigue in Multiple Sclerosis</td>
<td>Carrie Lyn Sammarco, DrNP, FNP-C, MSCN</td>
</tr>
<tr>
<td>October 18, 2011</td>
<td>Depression in Multiple Sclerosis</td>
<td>Cynthia Irish, RN, MSCN</td>
</tr>
<tr>
<td>November 15, 2011</td>
<td>Advocacy in Multiple Sclerosis</td>
<td>Willie Whatley, RN, MSCN</td>
</tr>
<tr>
<td>December 20, 2011</td>
<td>Avoiding Burnout in MS Nurses</td>
<td>Constance Easterling, MSN, ARNP, CRRN, MSCN</td>
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</tbody>
</table>

Candidates who passed the exam given in English:
- Shelley L. Amodeo
- Nancy L. Amdt
- Donna Bobrick
- Raquel Brillante
- Lise J. Casady
- Deidre Davidson
- Darlene F. Fardan
- Diane M. Flatley
- Julie A. Gosnell
- Georgina M. Harrigan
- Nancy L. Heckler
- Linda F. Johnson
- Anna Kazimirchik
- Virginia L. Kreiser
- Jeanne E. Lewis
- Diana W. Logan
- Lauren Matewe
- Crystal A. Mctaggart

Candidates who passed the exam given in French:
- Philippe Calay
- Michelle Milot

Candidates who passed the examination for certification as an MS Nurse (MSCN) in June 2011!
- Jacqueline E. Meador
- Barbara E. Mofield
- Marcy L. Moore
- Janet Morrison
- Susan E. Price
- Lesa J. Rastede
- Tiffany J. Robbe
- Aprile N. Royal
- Rose D. Soto
- Lisa Springer

Lynn Stazzone
Sharon Tanks
Heather L. Tarry
Christine M. Terry
Sharla Thompson

Multiple Sclerosis Nursing International Certification Board (MSNICB) Examination Schedule for 2011

<table>
<thead>
<tr>
<th>Examination Date</th>
<th>Application Deadline</th>
<th>Location</th>
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<tr>
<td>November*, 2011</td>
<td>September 30, 2011</td>
<td>England Only (*exact date to be determined)</td>
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<tr>
<td>November 12, 2011</td>
<td>September 30, 2011</td>
<td>Nationwide</td>
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The successful series of IOMSN Regional Nursing Updates continues to offer high-quality education to MS nurses at no cost. Three topics are being presented this year. Programs begin at 8:30 AM and conclude at approximately 4:30 PM. Check the IOMSN website for full outlines of topics and to pre-register, as there is no on-site registration for these programs.

Program 1: Caring for the Patient with MS
Sponsored by an educational grant from Bayer HealthCare Pharmaceuticals
6.5 Contact Hours of CE Nursing Credit (4 hours in pharmacology)

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<tr>
<th>LOCATION</th>
<th>DATE</th>
<th>PROGRAM LEADER</th>
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<tbody>
<tr>
<td>South Portland, ME</td>
<td>September 24</td>
<td>Pat Kennedy, RN, CNP, MSCN</td>
</tr>
<tr>
<td>Salt Lake City, UT</td>
<td>October 1</td>
<td>Julia Klein, RN, BSN, MS, FNPC, MSCN</td>
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<tr>
<td>Memphis, TN</td>
<td>November 5</td>
<td>Heli Hunter, MSN, ACNP, MSCN</td>
</tr>
<tr>
<td>Indianopolis, IN</td>
<td>November 12</td>
<td>Mary Kay Fink, MSN, BSN, RN, CNS, MSCN</td>
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<tr>
<td>Jackson, MS</td>
<td>December 10</td>
<td>Beverly Layton, BSN, CCRC, MSCN</td>
</tr>
<tr>
<td>Houston, TX</td>
<td>December 10</td>
<td>Toni Saldana-King, BSN, RN, MSCN</td>
</tr>
</tbody>
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Program 2: Complex Issues in MS: Creative Nursing Solutions
Supported by an educational grant from Acorda Therapeutics
6.5 Contact Hours of CE Nursing Credit (4 hours in pharmacology)

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<tr>
<th>LOCATION</th>
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<tr>
<td>La Vista, NE</td>
<td>September 17</td>
<td>Mary Filipi, PhD, RN, FNP-C</td>
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<tr>
<td>Hasbrouck Hts, NJ</td>
<td>October 1</td>
<td>June Halper, MSN, APN-C, MSCN, FAAN</td>
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<tr>
<td>Beachwood, OH</td>
<td>October 15</td>
<td>Marie Namey, RN, MSN, MSCN</td>
</tr>
<tr>
<td>Denver, CO</td>
<td>October 22</td>
<td>Pat Kennedy, RN, CNP, MSCN</td>
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Program 3: Skills Development in MS Nursing
Supported by an educational grant from Teva Neuroscience
5 Contact Hours of CE Nursing Credit (3 hours in pharmacology)*

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<tr>
<td>Austin, TX</td>
<td>September 24</td>
<td>Lori Mayer, RN, MSCN, CCRP</td>
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<tr>
<td>Atlanta, GA</td>
<td>October 15</td>
<td>Dorothea Cassidy Pfohl, RN, BS, MSCN</td>
</tr>
<tr>
<td>Mt. Laurel, NJ</td>
<td>November 19</td>
<td>Dorothea Cassidy Pfohl, RN, BS, MSCN</td>
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<tr>
<td>Oakland, CA</td>
<td>December 10</td>
<td>Colleen Harris, MN, NP, MSCN</td>
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*Program concludes at 4 PM

Teva Neuroscience is dedicated to the MS nurse community and has supported scholarships for nurses, educational programs such as monographs, CE programs, IOMSN dinners, the MS Exchange, and MS Nurse Counseling Points™. Teva Neuroscience is also proud to say that all of its Shared Solutions Nurses are certified in MS Nursing.
The Consortium of MS Centers’ (CMSC) Annual Meeting entitled “25 Years of Hope and Achievement” was a huge success, and contributions by rehabilitation professionals were significant. We kicked off the meeting with our sixth annual International Organization of Multiple Sclerosis Rehabilitation Therapists’ (IOMSRT) dinner, anchored by three excellent research presentations. Two of our dinner presenters had their work honored with awards during the meeting: Brittany Thorne was presented with the CMSC Foundation’s Labe Scheinberg Award, and Joanne Wagner was awarded for her work with the 4-square step test. The evening was a great time to socialize, network, and share ideas in a relaxed venue.

Rehab programming filled two entire days, and we were fortunate to have a panel of distinguished experts discuss a variety of topics. The information shed new light and gave us a broader perspective from which to expand our knowledge in the area of MS rehabilitation care. The programming was diverse and ranged from “Managing MS Symptoms from a Rehab Perspective” and “MS Rehab Philosophy” to “Barrier Free Housing” and “Driving and MS.” In addition, a thorough review of “Balance and Vestibular Rehab in MS” not only gave the foundation of information on that topic, but also presented practical applications that could be utilized immediately in our practices.

Keeping us current in evidence-based practice was a lecture on “Outcome Measures in a Wellness Program.” We also were presented with innovative topics such as “Yoga and MS” and “Functional Capacity Evaluation.”

The information from these lectures can be accessed on the CMSC website www.mscare.org through the annual meeting link.

From the information presented during this meeting and ongoing work, we are shaping the way rehab care is being delivered today and in the future. I offer my sincere thanks to everyone who contributed their time, energy, and expertise to make this meeting such a success.

Patty Bobryk, MHS, PT, MSCS, ATP, IOMSRT Chair

Visit the International Organization of Multiple Sclerosis Rehabilitation Therapists’ (IOMSRT) webpage at http://iomsrt.mscare.org/ to join. Our new members directory feature can help you locate colleagues. You can also contact us directly for more information at iomsrt@mscare.org.

Patty Bobryk, Chair, and Lacey Bromley, Vice Chair
In its continuing mission to promote the comprehensive care approach to multiple sclerosis (MS) management, the Consortium of Multiple Sclerosis Centers (CMSC) included a number of presentations at the recent Annual Meeting that crossed multidisciplinary lines. For instance, Claire Hara-Cleaver, RN, MSN, Certified Nurse Practitioner at the Mellen Center for MS Treatment and Research at the Cleveland Clinic, gave an interesting talk on magnetic resonance imaging (MRI) for novices.

“The idea was to give a workshop to enable advanced practice clinicians such as nurse practitioners (NPs) and physician assistants (PAs) to understand the basics of MRI and how they relate to MS,” she explained to MS Exchange. While many advanced practice nurses are already using MRI results in their discussions with patients, just as many may not be. “The use of MRI in the treatment of MS is imperative,” she stressed. “With proper training, NPs and PAs are quite capable of interpreting MRIs and relaying this important information to patients.” She added that most patients are very grateful to have someone take the time to share the information gained from MRIs, as it quantifies things for them. “If the lesion load looks stable or unchanged, it’s reassuring. If the disease looks active, it helps them to make treatment decisions.”

**MRI Terminology**

MRI uses magnetic fields and radio waves to provide detailed images of plaques that signal MS. MRI scans highlight areas where there are changes in water content. The MS plaques are visible because there is a disruption in the brain’s blood vessels, which allows inflammatory cells and excess fluid into the brain and spinal cord tissue.

It is important to understand the basic language of radiology when dealing with MRIs, Ms. Hara-Cleaver explained. “You have to understand what you are looking at: what plane, and the orientation of that plane. Is it sagittal? Axial? Coronal? Next, you need to understand the many different sequences and what they look like.”

The course focused on the FLAIR sequence and the T1 sequence with and without the use of the paramagnetic metal ion gadolinium for contrast. The FLAIR sequence is helpful to quantify existing MS lesions, she said, adding that it is useful to compare the FLAIR sequence at various intervals to assess for disease progression. The T1 sequence with gadolinium is helpful to identify current, active, inflammatory lesions; these are known as “gadolinium-enhanced lesions.”

“I think the more images you view, the easier it gets to distinguish between them,” Ms. Hara-Cleaver noted. “The problem is most of us do not have time to look at 150 scans and recognize the differences between MRIs.”

**MS Space, Time, and Characteristics**

Next, Ms. Hara-Cleaver discussed variables to consider in MRI for patients with MS, such as space, time, and lesion characteristics.

- **Dissemination in space (DIS):** Where are lesions located?
- **Dissemination in time (DIT):** Did lesions appear early or late in the course of the disease? Are they enhancing lesions versus black holes (defined as T1 hypointense regions)? This variable also refers to the practice of following the lesion comparatively at intervals over time and looking to see if there are new lesions on the axial FLAIR from the last MRI to the current MRI.
- **Characteristics:** How does a lesion look followed through different sequences and intervals? Is the lesion well-defined or ill-defined? Does it look punctuate or is it fluffy? Does it enhance with gadolinium contrast?

“I purposely chose to show various images of both patients with MS and other diseases—such as vasculitis or acute disseminated encephalomyelitis (ADEM) compared to MS—to demonstrate the differences and similarities when reviewing MRIs,” Ms. Hara-Cleaver said of her presentation, adding that showing numerous slides of both MS images and non-MS images allowed attendees to better understand the nuances.

Ms. Hara-Cleaver devised this presentation for advanced practice clinicians because “interpreting MRIs is not an important focus in NP graduate school programs and yet it is a tool that can be used to better treat patients,” she said. “In a specialized field such as MS, it is important for the advanced practice clinician to utilize all of the tools available to better care for the patient.”

The slides to the presentation “MRI for Novices” are available by contacting Rachelle Ramirez at the CMSC at rramirez@mscare.org.
**Conferences Calendar**

**OCTOBER 19-22, 2011**
5th Joint Triennial Congress of the European and Americas Committees for Treatment and Research in Multiple Sclerosis (ECTRIMS and ACTRIMS)
Location: Amsterdam, The Netherlands
Contact: basel@congrex.com
Website: www.congrex.ch/ectrims2011

**NOVEMBER 2-5, 2011**
Association of Rehabilitation Nurses (ARN) 37th Annual Educational Conference
Location: Las Vegas, NV
Tel: 800-229-7530
Email: info@rehabnurse.org
Website: www.rehabnurse.org

**NOVEMBER 30, 2011**
University Classes in Multiple Sclerosis VIII, “Focus on Symptomatic Treatments”
Location: Marbella, Spain
Website: www.charcot-ms.eu

**DECEMBER 1-3, 2011**
European Charcot Foundation Symposium “Towards Personalized Treatment in Multiple Sclerosis”
Location: Marbella, Spain
Website: www.charcot-ms.eu

**Tell us what you think**
We want to hear from you. We welcome your comments and suggestions, as well any information on meetings and studies. Please write to the editors of *MS Exchange* at:

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