

Welcome to Our Latest Edition

Our goal is to provide a medium for VA MS professionals to share expertise and improve care for MS patients. We welcome your thoughts, comments, and participation.

Please pass this issue along. If you know someone who wishes to be included on the electronic distribution list, forward the email address to the editor.

A Letter from the VA-SIG Chair

Hello Everyone,

Today as I write this letter, I think about the ongoing war that people with MS fight on a daily basis. They continuously fight against their symptoms while carrying on their activities of daily living and this makes me smile and feel hopeful. I add them to my list of heroes in my mind.

As you know the CSMC conference in San Diego is fast approaching. The invited keynote speaker, Under Secretary for Health Dr. Robert H. Roswell, has designated Dr. Mindy Aisen, Deputy Chief Research and Development Officer, to speak in his place due to a last-minute change in his schedule. In addition, Dr. John F. Kurtzke, MD, FACP, will receive a Life Achievement Award. Dr. John Booss, National Director of the VA Neurology Service, will also be in attendance.

I am continuing to do public speaking for our local chapter of the MS society. It is very rewarding for me to represent the Albany VA and provide education to those people with MS in our community. People are pleased to hear someone from our VA speaking at a community event. I have found that the community is not always aware of the rich resources that our VA system has to offer, especially for MS patients. This gives me a great forum to speak about the Centers of Excellence and the wonderful, dedicated group of healthcare workers in our VA system. I encourage you all to become involved in your community healthcare organizations and become VA goodwill ambassadors. We certainly have the knowledge and we need to share this with our communities.

In closing, I look forward to seeing all of you in beautiful San Diego at the CSMC.

Please stay safe.

Rachel Palmieri

NEW This Year at CMSC

VA MS Centers of Excellence Booth

The newly formed VA MS Centers of Excellence will be sponsoring a booth this year. Come by and introduce yourself. They would like to meet as many providers as possible. Information about the services of the two MS centers (located in Seattle/Portland and Baltimore) will be available. Please complete the national provider survey about your VA educational and clinical needs. They need your input! Prizes and unlimited gratitude will be provided.

VA-Special Interest Group's Conference Symposium

Our MS Centers of Excellence staff will provide a very informative VA-SIG Symposium program on Saturday.

VA attendees are required to attend each VA session. A sign-in sheet will be posted at the door of each event. As with last year's conference, VACO has requested that this be done to document attendance of those VA members who are being financially supported to attend this conference.

The required VA sessions are as follows:

- Thursday, May 29, 5:30–7:00 pm, VA-SIG Meeting
- Saturday, May 31, 9:00 am–12 noon, Keynote by Dr. Mindy Aisen, Presentation of Life Achievement Award to Dr. John F. Kurtzke, and VA-SIG

Symposium presented by the VA Centers of Excellence

- Saturday, May 31, 5:00–6:00 pm, VA-SIG Roundtable

VA-SIG Hospitality Room: This year the VA-SIG committee chairs are also pleased to announce that we will have a hospitality room located near the main conference room area. There will be a message board and "light refreshments" available. We will have a place to meet and greet, and talk privately if needed. This is being subsidized by the CSMC.

Your VA-SIG chair and committee chairs look forward to seeing everyone in San Diego!

East Coast MS Center of Excellence: Automated Neurocognitive Screening Tool

By Dr. Robert Kane

MS impacts patients' lives in various ways. The physical manifestations of the disease and their subsequent limitations are apparent. Less obvious are changes in cognition and mood. While not as easily observed, changes in cognition and mood effect patients' lives and complicate adjustment at work and at home.

Neuropsychological examinations that assess various aspects of cognitive function and emotional status have long been part of the standard of care for patients with diseases affecting the central nervous system. These examinations involve a systematic assessment of neurocognitive domains including attention, concentration, learning, memory,

language, spatial perception, motor, and executive functions. They also involve integrating test findings with background information specific to each patient and with an evaluation of the patient's emotional status. Such examinations are comprehensive and may take 3-5 hours to complete. They also require a trained neuropsychologist. Because of the time and level of expertise involved, neuropsychological examinations are expensive.

One objective of the East Coast MS Center of Excellence (MS CoE) is to assist collaborating centers with neurocognitive screening to identify patients most likely to benefit from a more extensive examination. The goal is to identify patients in need of this service while making the best use of available resources. To this end, the Washington, DC, and Baltimore VA Medical Centers have been working toward the objective of time- and cost-efficient screening.

For the past three years, these centers, in collaboration with several other institutions in the Baltimore-Washington area, have been engaged in a study to validate a brief automated assessment battery to identify cognitive changes in MS patients. Biogen sponsors this study. The computerized tests were developed by the Department of Defense to assess and monitor mood and cognition. Increasingly, they have been used in clinical settings and in pharmaceutical studies. Since the tests are administered on a computer, it is possible to measure both the accuracy and efficiency of an individual's performance. Patients respond using a two-button mouse; no keyboard familiarity is required.

A new innovation offered by the MSCoE is to make these measures available through the Internet using a technique called Internet Enabled Delivery (IED). This innovation was developed at the Navy SPAWAR installation in Pensacola, FL, with funding from Army Military Operational Medicine, Ft. Detrick, MD. We will use IED to transfer tests to participating VA hospitals and clinics on a per-examination basis, while sending the encrypted test results back to the supporting center. Initially, the supporting center will be the Baltimore VA. Individuals of different disciplines can log the patient on and assist them with instructions with only a small amount of training.

In addition to screening, the brief automated battery is ideal for patient monitoring. Lengthy batteries were not designed to assess patients at regular intervals in a way that facilitates monitoring the effects of treatment or more rapid changes in disease course. Hence, IED assessment will:

- Facilitate identifying patients in need of lengthier, more comprehensive examinations
- Facilitate patient monitoring
- Lend itself to research applications across multiple medical centers and clinics

Dr. Kane, a board certified neuropsychologist, directs neuropsychology at the Baltimore VA. He has extensive background in computerized testing and serves as a consultant to the US Army and NASA. He can be reached at robert.kane@med.va.gov.

Spasticity: An Overview

by Nahid Veit, NP.

Spasticity is a phenomenon that affects people with neurological disease with upper motor neuron dysfunction. The definition of spasticity is “a disorder characterized by a velocity dependent increase in tonic stretch reflex (muscle tone) with exaggerated tendon jerks, resulting from hyper-excitability of the stretch reflex. The stretch reflex originates in the muscle spindle.” Spasm, different from spasticity, is the reflex originating from receptors in any area of the body, such as the skin (pressure ulcer).

Spasticity may affect many parts of the body system:

- **Skin integrity:** Spasticity may cause trauma and friction to the skin resulting in skin breakdown.
- **Respiratory System:** Severe spasticity may cause tightness of intercostal muscles and result in respiratory restriction.
- **Bowel Function:** Spasticity may prevent relaxation of the anal sphincter and interfere with bowel elimination.
- **Bladder Function:** Spasticity may prevent relaxation of the bladder sphincter and interfere with elimination of urine, and may cause reflux.
- **Gastrointestinal System:** Severe spasticity may cause gastric reflux, nausea and vomiting.
- **Mobility:** Spasticity may interfere with ambulation, wheelchair use, and transfer to bed and chair.
- **Range of Motion:** Severe spasticity causes difficulty in muscle stretching and ROM of the joints.

- **Body positioning, posture and seating:** These may be affected by severe spasticity. The effect is more significant in individuals using wheel chairs.
- **Activities of daily living:** Spasticity may interfere with feeding, grooming, hygiene, and other self care activities.
- **Comfort and Sleep:** Increased spasticity may interfere with sleep.
- **Safety:** Severe spasticity may cause falls and injuries.
- **Pain:** Severe spasticity is often associated with pain.
- **Burden of Care:** Severe spasticity may make it difficult for the caregiver to provide adequate care.
- **Quality of Life:** All complications resulting from spasticity may affect quality of life.

Benefits of Spasticity:

- Maintains muscle tone
- Improves circulation
- Assists with functional activities
- May assist with maintaining bone density

Interdisciplinary Team

Assessment:

- Comprehensive history and physical
- Psychosocial
- Functional
- Degree of spasticity on Ashworth Scale (1-4)
- How is spasticity affecting the person?

Treatment of Spasticity:

- Prolonged untreated severe spasticity can cause shortening of the muscles and contractures.
- Contractures can contribute to deformity, disability and loss of independence.

Conservative management:

- Daily range of motion and stretching
- Pool therapy (hydrotherapy)
- Hot packs, Ultrasound and massage may be useful

Medications:

If conservative treatment alone does not control spasticity, use of antispasmodic medication may be necessary. There are several antispasmodic medications that decrease spasticity in different ways, such as: baclofen, dantrolene, valium, tizanidine, clonidine, and Gabapentin.

Some people do not respond to oral medications or they experience adverse effects of medication that are intolerable. An intrathecal baclofen pump is indicated for those who have severe spasticity and are not responding to conservative treatment.

Nahid Veit, NP, is a clinical nurse specialist at the MS program at the Tampa VA, working with Drs. Coffey and Harrow. She coordinates a intrathecal baclofen test dose procedure with the Anesthesia service, works in the OR preparing the pump for implant, and does pump refill follow-ups. Contact her at: nahid.veit@med.va.gov

Minneapolis VAMC MS Evaluation Clinic

A few years ago, PVA reported on the pattern of use of disease modifying drugs (ABC drugs) in veterans with MS. Their findings indicated that the VA tended to have lower percentages of MS patients on ABC drugs than the private sector. VISN 13 had one of the lowest percentages. This seemed somewhat ironic, given the fact that northern climates such as VISN 13 tend to have higher incidences of MS and one might expect greater familiarity with a condition to promote use of newer treatments.

Following this report, a clinical task force was formed at the Minneapolis VAMC to develop a strategy for assessing VISN 13's pattern of use of disease modifying drugs in MS and to develop an action plan for rectifying any erroneous treatment patterns that might be found. An ambitious plan was set into motion to review records of all enrolled MS patients within VISN 13 and survey all neurologists or principal providers caring for them. The intent was to identify any veterans with MS that might benefit from one of the disease modifying drugs. Educational materials were developed to help clinicians identify appropriate patients.

One interesting result of this survey was the finding that a higher than expected percentage of our patients were diagnosed as primary or secondary progressive MS. As these subtypes, at that time, were not considered candidates for ABC drugs, this might be one explanation for a lower than expected use. When the subtype of MS remained in ques-

tion, the patient was brought in to see the neurologist to confirm the diagnosis and review treatment options. However, in many cases, despite a thorough review, neurologic exam and MRIs, it remained difficult to determine if the MS was indeed progressive.

In many cases, the patients seem to have had progressive deterioration in both function and neurologic examination, but it was difficult to sort out whether the deterioration was due to exacerbations with incomplete resolution or due to a slow progression between exacerbations. In several other cases, it seemed that the patient described a progressive slow course of deterioration in function despite a stable neurologic examination. Our theory for this discrepancy was that either:

- (a) the neurologic examination was too insensitive to pick up subtle neurologic changes;
- (b) the patient was actually neurologically stable but had progressive loss of function due to age related changes or co-morbidities;
- (c) the patient was experiencing deconditioning; or
- (d) the clinician's definition of progressive deterioration in neurologic function may not be the same as the patient's.

We needed to have a more sensitive and specific means of measuring the degree, rate and the quality of progression in these more challenging patients. Our task force decided to establish a rehabilitation MS evaluation clinic, where MS patients receive serial monitoring across several domains of function.

Testing is performed at baseline and then every six months for at least one year or until progression of disability is clearly documented. If no progression is seen, the neurologist is informed and changes in disease modifying therapy initiated if indicated. If a progression is seen, the neurologist is informed, and typically a neurologic exam and MRI are performed to see if any new plaques can explain the changes seen on functional testing.

The clinical team consists of a psychiatrist, rehab nurse, physical therapist, occupational therapist, speech pathologist, neuropsychologist, and social worker. Each team member uses a battery of tests they designed that meet the following criteria:

- (a) measures function;
- (b) is quantifiable and reproducible; and
- (c) can be completed within 20 to 30 minutes.

A detailed list of evaluation tools used by each domain can be obtained from jeanette.beatty@med.va.gov. The clinic meets one Tuesday morning per month, with 3-4 patients per clinic. The clinicians rotate between exam rooms, completing their evaluations within a 3-hour time period, which most patients find within the tolerable limits of their fatigue.

Discussion: Our neurology colleagues feel the data are helpful. In part due to the MS evaluation clinic, the Minneapolis VA has seen a definite increase in the number of appropriately selected patients receiving disease modifying therapy. The rehabilitation team takes great pride in the fact that we are contributing to decisions regarding treatment to pre-

vent progression of MS rather than waiting to help the patients after the disease has already resulted in loss of function.

In addition, the MS evaluation clinic has evolved into more than its original intent. Patients, caregivers, and clinicians have all found these regular scheduled contacts helpful in solving problems that have arisen since the last evaluation. The team can also anticipate problems before they surface by limiting the effects of co-morbidity or preventing complications. The original perceived decline in function can often be resolved with rehab team focused interventions, for example, modification in bladder and bowel programs or by providing caregiver education and respite.

Our perception has been that many patients and caregivers referred to the clinic report their day-to-day variation in function as exacerbations or progressive deterioration. Often, by means of exposure to the functional tests in our clinic, the patients and caregivers gain a better insight into what the clinicians mean when we talk about progressive loss of neurologic function. By increasing the patients' awareness, we hope for improved communication between patient and staff and improved patient response to true exacerbations.

For the patient who is not progressing, there seems to be a sense of relief and even a sense of accomplishment when comparing the results between sessions. For the patient who has documented progression, there is also a sense of relief that comes with knowledge.

Conclusion: Our MS evaluation clinic provides objective long-term

follow-up on the functional status of MS patients. Other MS assessments, such as the neurologic history and physical, or the Kurtzke Scale, are often too subjective or too insensitive to determine the nature of the progressive disability. An added benefit of these regular scheduled visits is our ability to expedite interventions directed toward any new functional deficits that have surfaced since the last visit.

For more information, contact the Minneapolis MS Evaluation Team, c/o Jeanette Beatty, LPN, at jeanette.beatty@med.va.gov

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Research Corner

The VA-SIG Research Committee Chair, Robert Baumhefner, MD, (neurologist, VA Greater Los Angeles Healthcare System) met recently with Dr. John Booss (Director of Neurology, VHA) and Dr. Robert Herndon (neurologist, Jackson VAMC) at the AAN meeting and discussed the possibility of a VA combined trial with Avonex and Copaxone.

Dr. Baumhefner will be interested in discussing VA research topics with those interested at the CMSC meeting in San Diego. New committee members are welcome. The current list of VA-SIG Research Committee members includes: Nancy Adams, John Bachman, Donna Jo Blake, Ed Daly, Irene Estores, Alan Forte, Robert Herndon, Richard Kazel, Joseph Nicolas, Salome Perez, Sunil Sabharwal, and Rita Shapiro. Contact the chair at robert.baumhefner@med.va.gov

For this Newsletter:

What would you like to see here?

Please SUBMIT:

- Forum topics
- Clinical questions
- Research topics
- Ongoing MS projects
- QI issues
- Outcome measurements
- Team initiatives
- Announcements

Please contact
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Thank You!