

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

Dear Colleagues,

It was a pleasure to see so many of you at the Consortium of Multiple Sclerosis Centers (CMSC) annual meeting May 30–June 2. This was a joint meeting with the Americas Committee for Treatment and Research in Multiple Sclerosis (ACTRIMS). Approximately 1,400 professionals attended this meeting. Days were full, with lectures and information available on a multitude of topics from 7 a.m. to 10:30 p.m.

Our colleagues from the Department of Veterans Affairs (VA) were very active this year, presenting numerous lectures and posters. The Centers of Excellence also provided CD-ROMs containing materials from previous conferences and these are available by contacting the COEs directly.

The Centers of Excellence for Multiple Sclerosis (MSCOE) and the VA-SIG met several times during the Consortium meeting, sharing information from the COEs on Tysabri and future projects. We will continue to collaborate with the MSCOE, and we plan to begin work on a directory of MS professionals this year.

I want to thank our sponsors, United Spinal Association and Paralyzed Veterans of America, for their tireless support of our endeavors; the MSCOE; and each of you who gave of your time to make this meeting so successful.

Sincerely,

Peggy A. Coffey, MD
peggy.coffey@va.gov
VA-SIG Chair

In this Issue:

Clinical Courses	2
Symposia	2
Workshops	2
Meet the Professor	3
Posters	3
Continuing Education	6

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 the VA-SIGnature editor, Deborah Downey, NP, at deborah.downey@va.gov.

VA-SIG STEERING COMMITTEE:

Peggy Coffey, MD
Chair
peggy.coffey@va.gov

Edward Daly, MD
Vice Chair
edward.daly@va.gov

Paul Gutierrez, MD
Membership
paul.gutierrez@va.gov

Sandra Williamson, NP
Clinical Care
sandra.williamson@va.gov

Deborah Downey NP
Editor
deborah.downey@va.gov

In this issue, we again publish the abstracts and symposia titles from the annual meeting. Addresses are provided below the abstracts if you would like to contact the authors.

CLINICAL COURSES

Visual Dysfunction in MS: Advances in Evaluation and Treatment

Optic Neuritis and Immunomodulation: To Treat or Not to Treat

Robert Shin, MD, chair
Baltimore VA

SYMPOSIA

Advanced MS

Jodie Haselkorn, MD, Chair
VA Puget Sound Health Care System

Advanced MS: Epidemiology

Mitchell Wallin, MD, MPH
Washington, DC VA

Respiratory Issues in Advanced MS

Toni Chiara, PhD
Gainesville VA

Evaluating Capacity in MS: Assessing and Assisting the Decision Making Process

Aaron Turner, PhD
VA Puget Sound Health Care System

Palliative Care in MS

David Gruenwald, MD
VA Puget Sound Health Care System

WORKSHOPS

It Takes a Village to Conquer MS: Interdisciplinary Case Discussion

Dennis Bourdette, MD, Chair
Portland VA

Donna Jo Blake, MD
Denver VA

Anne Bateman, CNP
Minneapolis VA

Artie Guerrero
United Spinal Association

Measures of Disease Progression

Christopher Bever, MD
Baltimore VA

Robert Shin, MD
Baltimore VA

MEET THE PROFESSOR

Neuroimaging in MS

Jack Simon, MD, PhD
Portland VA

POSTERS

(S36) Central Auditory Function in People with Multiple Sclerosis

Introduction: The variable nature of MS has resulted in modest correlations between MRI results and clinical assessments (EDSS), or with measures of cognitive function. This study seeks to extend these earlier reports by assessing the relationship between measures of MS disease activity (EDSS and MRI) and patient-reported quality of life (QOL).

Methods: Baseline data from 38 patients with complete data enrolled in the Veterans Health Administration's MS Center of Excellence–East's longitudinal study were analyzed. The data from the baseline evaluations analyzed were Kappos Neurostatus, EDSS, MRI (AAN/ NMSS protocol), Multiple Sclerosis Impact Scale (MSIS-29; MS-specific QOL), and the SF-36v (generic QOL).

Results: Significant correlations were found between the brainstem, pyramidal, cerebellar, and sensory measures from the Neurostatus and the EDSS with the physical component subscales of the MSIS-29 and the SF-36v. The number of new lesions and total number of lesions were positively correlated with the MSIS-29 physical subscale. A qualitative measure of overall brain atrophy (0–3) did not correlate with any QOL measure. No significant correlations found with the mental subscales of either the MSIS-29 or the SF-36v. Stepwise multiple linear regressions revealed that 64 percent of the variance in the MSIS-29 physical subscale was accounted for by MS subtype and EDSS ($p < .001$). Similar results were obtained for the SF-36v physical subscale. However, no significant results were observed for the MSIS-29 and SF-36v mental component subscale scores.

Summary: These preliminary analyses confirm previous findings showing that objective (MRI) and clinical (EDSS and MSFC) measures of disease activity are significantly related to the physical components of QOL. However, no such relationship was found between measures of disease activity and the mental components of QOL that may be due, in part, to the relatively small sample size and/or the insensitivity of these measures to the life impacts of MS.

Study supported by MS Center of Excellence–East

William Culpepper, MA^{1, 2}; Walter Royal^{1, 2}; Mitchell Wallin^{1, 3}; Douglas Bradham^{1, 2}
VALOMS Investigator Group

¹MS Center of Excellence USA

²University of Maryland (Baltimore, MD)

³Georgetown University

(S17) A Comparison of Lithotripsy Rates in Veterans with and without Multiple Sclerosis

Objective: Establish the proportion of lithotripsy or other active renal stone treatment in individuals with multiple sclerosis MS as compared to individuals without MS or spinal cord injury over a seven-year period in one health-care setting.

Design and Setting: A cross-sectional analysis of data collected prospectively and analyzed retrospectively from a tertiary veterans hospital.

Participants: All veterans without a diagnosis of spinal cord injury who were seen at one veterans hospital between 1999 and 2005.

Interventions: Not applicable

Main Outcome Measures: Proportion of individuals with MS compared to those without MS requiring active intervention for renal stones, including lithotripsy, cystourethroscopy, or percutaneous nephrostolithotomy.

Results: There were 148,710 veterans without MS and 551 veterans with MS seen over this time period. There was a 1.1 percent proportion of active intervention in the MS population from 1999–2005. This compares to a 0.15 percent proportion of intervention in the population without MS over the same time frame. The proportion of veterans with MS that were male (84%) was similar to the proportion of male veterans in the non-MS population (81.5%). Mean age at time of procedure was 58 years (median 56) for those with MS; mean age at time of procedure was 53 years (median 52) for those without MS.

Conclusion: Our results suggest that in a predominantly male population of individuals using a tertiary veterans hospital, there was an average annual proportion of lithotripsy or other active intervention of 1.1 percent in

those with multiple sclerosis, and 0.15 percent in those without MS. Both groups required a relatively low rate of intervention. The difference in rates is not statistically significant. If these results are confirmed by additional work, they may help with formulation of guidelines for diagnostic screening for renal stones in individuals with MS seeing nonurologic specialists.

Study Supported by VA Puget Sound Health Care System, MS Center of Excellence–West

Maureen Carney, MD, MBA; Amy J. Poel, MPH; Steven L. Leipertz, PhD; Jodie K. Haselkorn, MD, MPH
VA Puget Sound Health Care System
MS Center of Excellence–West
1660 South Columbian Way MS RCS-117
Seattle, WA 98108

(S77) Prevalence of and Associations with Chronic Pain Treatment in Veterans with MS

Objective: Estimate the prevalence of self-reported treatment for chronic pain in veterans with multiple sclerosis and explore the associations between demographics, utilization, and provider satisfaction and report of chronic pain treatment.

Design: Cross-sectional study

Results: Of veterans with MS who responded to a mail survey between 2002 and 2004, 44.7 percent (95% CI 41.7%–47.7%) reported being treated by a Veterans Health Administration (VHA) provider for chronic pain in the past 12 months.

Report of treatment for chronic pain was associated with being female (chi-square = 6.33, $p = 0.011$); increasing body mass index (Cochran-Armitage $Z = 2.76$, $p = 0.0058$); increasing number of days the veteran sought care at the VHA in the two months preceding the outpatient visit (Cochran-Armitage $Z = 7.96$, $p < 0.0001$); and with help or need for help at home (chi square = 21.23, $p < 0.0001$). Veterans reporting definite trust in their VHA healthcare provider were less likely to report treatment for chronic pain (RR=0.79, 95%CI 0.65-0.96) than those who did not trust their provider. Of those reporting treatment for chronic pain in the past year, 38.9 percent of veterans had two or more refills for medications commonly used to treat chronic pain in the twelve months preceding the outpatient visit. This compared to 13.8 percent of veterans who reported not being treated for chronic pain (RR = 1.91, 95% CI 1.76–2.07).

Conclusions: This work suggests that chronic pain is a prevalent problem for veterans with MS, with nearly half of those studied reporting treatment in the past 12 months. Self-report underestimates the proportion receiving treatment given the frequency of pain medication used by the survey nonresponders. This data also suggest that non-pharmaceutical treatments play a role in the management of chronic pain for a significant proportion of individuals.

Amy Poel, MPH; Maureen Carney, MD MBA;
Jodie Haselkorn, MD MPH; Steven Leipertz, PhD;
Aaron Turner, PhD
VA Puget Sound Health Care System
MS Center of Excellence–West
RCS-117 1660 S. Columbian Way
Seattle, WA 98108

(S78) Intrathecal Bupivacaine for Treatment of Neuropathic Pain in Patients with Intrathecal Baclofen Pump

Muscle spasticity may adversely affect outcomes of rehabilitation in spinal cord injury and multiple sclerosis patients. Spasticity is often seen in conjunction with neuropathic pain. These two problems frequently coincide with and exacerbate one another, and managing the two simultaneously becomes difficult. In this poster we will review the pathophysiology, evaluation, and management of spasticity and neuropathic pain. This would be aimed at formulating a new treatment approach for refractory cases of spasticity in conjunction with neuropathic pain.

The patients in this multicase study report have already failed oral therapy with Baclofen and various other spasticity medications (tizanidine, clonidine, valium, gabapentin, etc.) and were currently on intrathecal Baclofen therapy. Bupivacaine was added to the intrathecal therapy for management of neuropathic pain. With the addition of Bupivacaine, not only was the neuropathic pain relieved or lessened, but the spasticity was also relieved, to a degree, when the dose of intrathecal Baclofen was decreased. Any potential synergistic effects of the two medications are unclear; however, these patients clearly benefited in terms of the resolution or lessening in severity of symptoms of neuropathic pain and spasticity. The current combination intrathecal regimen not only relieves the symptoms, but also facilitates better outcomes in patient rehabilitation and daily function. At this time it is a deli-

cate balancing act in these patients to determine how much the dose of Baclofen can be reduced as the Bupivacaine dose is increased in order to optimally control their spasticity and neuropathic pain.

Carlos Ramirez, MSN, ARNP, MSCN
Veterans Affairs
10840 Peppersong Drive
Riverview, FL 33569

(S83) Social Support and Medication Adherence in Multiple Sclerosis

Background: Disease modifying therapies (DMT) can slow multiple sclerosis (MS) disease progression. However, adherence to DMT can be complicated by its administration route and side effects. Social support has been associated with better adherence to medications in both MS and non-MS populations.

Objective: To better understand this association, we investigated the prospective relationships between two different types of social support and DMT adherence in a sample of 53 MS patients.

Methods: The first type of social support was DMT-specific support, which assessed social support surrounding issues related to medication use. The second type of social support was caregiver support, measured with the Quality of Relationships Inventory – Short Form (QRI-SF), which assessed the general support qualities of the caregiver relationship. Demographic, medical, and social support variables were collected at baseline. Medication adherence was assessed by self-report at a three-month follow-up and was dichotomized into “adherence” and “non-adherence” at the 80 percent adherence cutoff point. Data were analyzed with logistic regression, adjusting for type of DMT, time on DMT, and disease severity.

Results: Poor caregiver support, but not DMT-specific support, predicted DMT non-adherence at three-month follow-up (OR = 0.57, 95% CI = 0.34 - 0.98, $p = .03$).

Conclusion: These findings suggest that general caregiver relationship qualities may be important to DMT adherence for reasons other than support specific to medication adherence.

Study Supported by Department of Veterans Affairs Rehabilitation Research and Development Service Career Award (B3319VA) to Aaron P. Turner

Scott Siegel; Aaron P. Turner, PhD; Jodie Haselkorn, MD
Puget Sound VA
105 19th Avenue E. #2
Seattle, WA 98112

(S98) A Retrospective Chart Review and Analysis of NAb in Patients Treated with Interferon-beta

The role of neutralizing antibodies (NAb) to interferon-beta remains unclear and controversial. A retrospective chart review was performed on a population of patients seen in the Medical University of South Carolina MS Center by a single MS specialist (WRT) during the past 12 years (1994–2006). Inclusion required that patients were diagnosed with definite MS and had been maintained on an interferon-beta preparation for at least one year. Data collected included age, gender, MS type, type of interferon-beta used, NAb testing, and titer. Reasons for NAb testing generally conformed to the guidelines for possible treatment failure published by the NMSS in 2004 (i.e., “unexpected” number of relapses, increasing disability, and increasing MRI activity).

Of the 132 patients identified on interferon-beta, 79 percent were female, and the median age was 48. Relapsing remitting patients constituted 71 percent, secondary progressive 24 percent, primary progressive 5 percent, and one patient had progressive relapsing MS. The initial interferon-beta product used was Betaseron in 57 (43%) patients, Avonex in 58 (44%) and 17 (13%) on Rebif. Twelve (9%) of all the interferon-beta-treated MS patients were tested. All but two tests for NAb were Athena (available since 1997); the other two were Specialty Laboratories. Eight of these treatment failures were on Avonex, four on Betaseron, and one on Rebif. One patient with secondary progressive MS on Betaseron was found to be NAb positive on repeat testing (> 640); the other positive patient with relapsing remitting MS (also on Betaseron) was found to be negative upon repeat testing three months after the first test.

Our findings suggest that increasing relapses, disability, and/or MRI abnormalities in MS patients treated with interferon-beta are generally not related to NAb. Treatment failures “probably have more to do with the failure of specific patients to respond to interferon-beta.”

Continued on page 6

William Tyor, MD; Mary Alice Hughes, undergraduate student; Robert Glenn, BS2, medical student
 Medical University of South Carolina
 Neurology Service, Ralph H. Johnson VAMC
 109 Bee Street
 Charleston, SC 29401

(S102) The VA Longitudinal MS Study: Objectives and Overviews of a Population-Based Study

Objectives: The primary objective of the VA Longitudinal MS (VALOMS) study is to determine predictors of long-term morbidity and effectiveness of treatment in veterans with MS. A secondary objective is to determine health-care utilization, health-care cost, and quality of life. Because of the unique features of the VA population, this study will focus on the experience of Caucasian American and African American men with MS.

Methods: The VALOMS study is based at the VA MS Center of Excellence–East in Baltimore and currently includes five collaborating VA medical centers. The study cohort currently includes 69 veterans with an overall recruitment goal of 200 veterans with MS. Subjects are randomly drawn at each participating VAMC from a list of all veterans having a diagnosis of MS. Study visits are conducted annually and include morbidity scales, quality of life surveys, brain MRI, a cognitive battery, and a blood collection for banking. Patients are evaluated and MS morbidity scales assessed during relapses. Subjects will be followed for a minimum of five years.

Results: The gender ratio (male:female) is 3.3:1 and 54 percent of the cohort is African-American with the remainder (46%) Caucasian-American. More males had primary progressive and progressive relapsing disease compared to females ($p = 0.06$). There was no gender difference in type of onset symptom, age at first symptom onset, or time from symptom onset to diagnosis. Time to initiation of disease modifying therapy and current or past use of disease modifying therapies were similar between males and females.

Conclusions: The VALOMS study is a unique data resource that will focus on the experience of Caucasian-American and African-American men with MS. New insights on risk factors for MS, disease course, treatment outcomes and health-care utilization will be major byproducts from this study.

Study Supported by: VA MS Center of Excellence–East
 Mitchell Wallin, MD, MPH; William Culpepper; Walter Royal; Robert Kane; Douglas Bradham; Heidi Maloni; Margaret Koehler; William Tyor; Micheline McCarthy; Jeffrey Harrow; Peggy Coffey; Jong-Chaur Shieh; Christopher Bever; VALOMS investigators
 VA MS Center of Excellence–East/Georgetown University
 Baltimore VA Medical Center
 100 N. Greene Street, Lower Level
 Baltimore, MD 21210

CONTINUING EDUCATION ACTIVITIES

The call-in number for all calls is 800-767-1750; access code 43157. Questions? Contact Angela Young at angela.young4@va.gov.

AUGUST 2007

Physicians CME – 1 hour

AUGUST 14 & 15

“Diagnosing MS: MS vs. non-MS”

Gary Goldish, MD

4–5 p.m. ET

Nurses CME – 0.75 hour

AUGUST 22 & 23

“Long-Term Care in MS”

Speaker TBD

Noon–1 p.m. ET

Patients

AUGUST 13

“MS Rehabilitation”

Speaker TBD

8–9 p.m. ET

SEPTEMBER 2007

Patients

SEPTEMBER 10

“Working with Your Local VSOs”

Speaker TBD

8–9 p.m. ET