

GERINOTES

SECTION ON GERIATRICS, AMERICAN PHYSICAL THERAPY ASSOCIATION

IN THIS ISSUE:

Editor's Message: Missing CSM

President's Perspective: Celebrating at CSM 2008

Abnormal Sleeping Patterns in the Elderly

Got Numbers? Value of Assessment Tools

Pharmacology Case Report: Obesity

Pharmacology Case Report: Vertigo

Pharmacology Case Report: Total Joint Replacement

Pharmacology Case Report: Fibromyalgia Syndrome

CSM 2008: Another Record Breaking Year as the SOG Celebrates 30 Years

Legislative & Reimbursement Update

APTA Continuum of Care for People with Lifelong Disabilities Task Force

Speakers Wanted: Opportunity for Members to Educate Individuals
About Osteoporosis

Your SOG Webconnection

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Mary Louise Munson

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TABLE OF CONTENTS

Editor's Message: Missing CSM4 <i>Carol Schunk</i>	CSM 2008: Another Record Breaking Year as the Section on Geriatrics Celebrates 30 Years31 <i>Jill Heitzman</i>
President's Perspective: Celebrating at CSM 2008.....5 <i>John O. Barr</i>	Outgoing Volunteers for CSM 200832
Abnormal Sleeping Patterns in the Elderly6 <i>Molly Swenson, Nora J. Francis</i>	Section on Geriatrics Celebrates Its 2008 Awardees35
Got Numbers? Value of Assessment Tools9 <i>Bill Walsh</i>	Legislative & Reimbursement Update40 <i>Kimberly M. Lee</i>
Pharmacology Case Report: Obesity13 <i>Jill Hovland</i>	APTA Continuum of Care for People with Lifelong Disabilities Task Force41 <i>Lucy Henck-Jones</i>
Pharmacology Case Report: Vertigo16 <i>Elizabeth Landretti</i>	Your Section on Geriatrics Webconnection42 <i>Lucy H. Jones</i>
Pharmacology Case Report: Total Joint Replacement.....19 <i>Don Schaning</i>	Speakers Wanted: Opportunity for Members to Educate Individuals About Osteoporosis.....43 <i>Anita Bemis-Dougherty</i>
Pharmacology Case Report: Fibromyalgia Syndrome23 <i>Sara Kylander-Johnson</i>	

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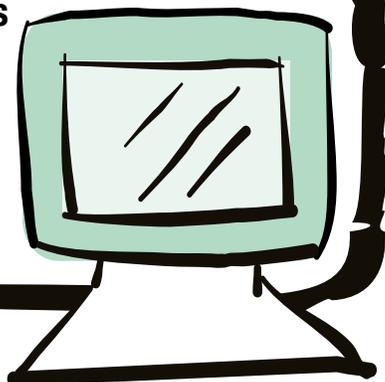
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EDITOR'S MESSAGE: MISSING CSM

Carol Schunk, PT, PsyD



This issue is our Combined Section Meeting issue. We made the decision to hold the press to include pictures and news of the dynamic meeting that occurred in Nashville on February 6-10. That explains why this issue is a bit late but it seemed the better alternative rather than reporting on CSM in the May issue. As of today, January 25, 2008 when I am writing this message, there are over 6,000 therapists registered making CSM 2008 the largest CSM in history. The bummer is that I am going to miss the meeting. I know it will be an interesting and dynamic meeting. I have written in the past about the fun of seeing therapist friends that unfortunately you only see a few times a year and the tremendous networking advantages that prevail at the meeting. I have the opportunity to go on a foreign adventure for the month of February, and although the choice was difficult, I will miss CSM, a rare occurrence for me. I always look forward to the meeting and especially when it is in Nashville, one of my favorite music cities. The issue will be set before I depart next week except for the CSM news. Jill Heitzman, a member of the Editorial Board, agreed to be my Assistant Editor for this issue to make sure CSM is covered and to do the final proof of the *GeriNotes* layout. Jill also serves as the Chair of the Committee that provides all the wonderful programming for CSM. Thank you Jill for helping with *GeriNotes* and for working so hard on CSM!

Another problem with leaving the country in February is missing the Academy Awards. For over 30 years, I have had an Academy Awards party. A ladies only event, we all get dressed up in our Hollywood gala gowns, drink

For those of you who attend CSM, I know you returned home excited about all the wonderful clinical sessions, the Section functions, and meeting old friends and making new friends. For those of you who did not attend, start thinking about 2009.

champagne, and make comments on all the stars' gowns and speeches. This year I might view the event in Panama, as in past years if I am gone, I find a bar in Mexico or wherever I am to watch the event. For those of us who work with older adults there is one nomination that is worth taking note. That is Julie Christie a best actress nominee for her role in *Away From Her*. This is a most amazing performance and movie about the issues of Alzheimer's disease. The role Julie plays is of a woman who has dementia and eventually must be relocated into a memory care facility. It hits so close to home with our patient population. Not only the placement issues and relationship with her spouse but a topic I had never seen covered; that of attachment to new people. As the spouse is suffering through loss of the recognition from his wife, she develops a relationship with a fellow resident in the unit. The film is definitely worth viewing.

This issue of *GeriNotes* features 4 pharmacology oriented case reports. Written as an assignment for a class taught by Jill Heitzman, the 4 articles are not only extremely informative for

medication review but on the various topics of obesity, total knee replacement, vertigo, and fibromyalgia syndrome. Additional excellent clinical articles are ones on Sleep Disorders and a follow up to a previous article on Functional Assessment Tools.

For those of you who attend CSM, I know you returned home excited about all the wonderful clinical sessions, the Section functions, and meeting old friends and making new friends. For those of you who did not attend, start thinking about 2009.

I want to thank two *GeriNotes* Editorial Board members who have resigned after serving for many years and being a great asset to the publication. Jennifer Bottomley and Anne Meyer, I so appreciate what you did and enjoyed having you on the Editorial Board. Nora Francis, who has contributed often in the past few years, is our new member. Welcome to the *GeriNotes* Editorial Board Nora.

PRESIDENT'S PERSPECTIVE: CELEBRATING AT CSM 2008

John O. Barr, PT, PhD



What a spectacular Combined Sections Meeting (CSM) was conducted in Nashville on February 5-9th...a true celebration of the profession of Physical Therapy...and of the 30th Anniversary (in June) of the Section on Geriatrics. Many events from CSM will be summarized in this issue of *GeriNotes* in order to document our activities and achievements, and to convey the sense of camaraderie that pervaded this meeting. Many volunteers deserve thanks for their contributions to our high quality and smoothly run programming. Program Chair Jill Heitzman, PT, DPT, GCS, CWS deserves commendation for overseeing many aspects of our presence at this meeting.

Many volunteers deserve thanks for their contributions to our high quality and smoothly run programming. Program Chair Jill Heitzman, PT, DPT, GCS, CWS deserves commendation for overseeing many aspects of our presence at this meeting.

Section members played a crucial role in the success of APTA's hotline on Balance and Falls conducted during the CSM. Twenty-eight volunteers from the Sections on Geriatrics and Neurology fielded a total of 60 calls

from around the country. The callers (with a median age of 78 years; ranging in age from 47-93) most commonly participated because they were experiencing multiple falls and wanted to improve their balance. Prior to the CSM, a number of national media outlets, including US News & World Report, the Washington Post, Forbes, and the Tampa Tribune, released features on this event.

As President, I had the pleasure of presenting 3 awards at our Members Meeting. President's Awards went to: Carleen Lindsey, PT, MScAH, GCS, for her work in producing "Kypholordosis Measurement Using a Flexible Curve," the Section's instructional video and support documents; and to Marilyn Moffat, PT, DPT, PhD, FAPTA, who provided visionary leadership as chair of the Task Force on Promoting Physical Therapists as Exercise Experts for the Aging Population, the accomplishments of which were documented in the January issue of *GeriNotes*. Cathy Ciolek, PT, DPT, GCS most deservedly garnered the 2008 Joan M. Mills Award for Outstanding Service to the Section. Details of these awards appear later in this issue.

During the Members Meeting I had the thrill of announcing the establishment of the Marilyn Moffat Fund for Geriatric Research through the Foundation for Physical Therapy. Between 2007 and 2011, Dr. Moffat will be donating at total of \$100,000 to this restricted fund to underwrite aging and geriatrics-related research. The restricted portion of the current Geriatric Fund will be transferred to this new fund, and the Geriatric Fund will continue to serve as our unrestricted research fund at the Foundation. Member donations made to either fund at the Foundation through the time of the Annual Conference will be matched by the Section for up to a total of \$50,000. Additionally, later this spring, the Foundation will

be issuing a request for proposals for an aging/geriatrics related project that will be funded directly by the Foundation itself.

Congratulations are also extended to Cathy Ciolek, in her capacity as Director of the recently credentialed Geriatric Physical Therapy Residency Program at the University of Delaware. Residents work with local hospitals, skilled nursing facilities, home health agencies, and in other settings for a well-rounded geriatrics experience. This program, our second geriatric residency, was formally recognized during the American Board of Physical Therapy Specialties (ABPTS) Ceremony for Recognition of Clinical Specialists. At this ceremony, we also welcomed 73 newly certified Geriatric Clinical Specialists (GCS). Our 845 GCS now represent 11% of the individuals board-certified by the ABPTS. It is my hope that all of these new GCS had the opportunity to experience the excitement generated by the Section at the CSM...and continue as or become members of the Section on Geriatrics!

Dr. Barr is a Professor in the Physical Therapy Department at St. Ambrose University, Davenport, IA. He also serves on the Editorial Board for the Journal of Geriatric Physical Therapy.

ABNORMAL SLEEPING PATTERNS IN THE ELDERLY

Molly Swenson, DPT; Nora J. Francis, PT, OTR, DHS

This article is the fourth publication from the Linking Evidence to Geriatric Practice in Physical Therapy Student Education series based on the Issues in Geriatrics course taught by Dr. Francis at Northwestern University in Chicago. One of the course objectives is that students will be able to analyze the professional literature on selected topics that are relevant to providing physical therapy care for older adults. This objective is addressed through the assignment of a Geriatric Physical Therapy Topics Paper, which is designed to provide students with an opportunity to examine and analyze current professional literature on topics that are especially applicable to providing care for older adults. Previously published GeriNotes articles based on student work in this course in 2006 and 2007 have addressed Physical, Mental, and Social Activity and Measurement of Cognition in the Elderly Population; Strategies for Managing a Patient with Alzheimer's Disease; and Exercise and Depression in Older Adults.

The following is a Geriatric Physical Therapy Topics paper submitted by a student who researched the clinical question, What are the implications of abnormal sleeping patterns in older adults?

INTRODUCTION

As the national life expectancy continues to rise due to advances in medications and medical procedures, the incidence of chronic illness among the elderly population has continued to grow. As of today, 80% of men and women over the age of 70 have at least 1 of the 7 leading chronic illnesses. These illnesses include hypertension, arthritis, respiratory diseases, cancer, stroke, heart disease, and diabetes mellitus. Research has shown that poor physical condition and presence of chronic disease often result in disordered sleeping patterns.¹ Additionally, a majority of the elderly population lacks appropriate physical activity levels which can also relate to decreased quality of sleep. Some other factors that affect older people's ability to obtain quality sleep are medication use and side effects, decreased bladder control, daytime napping, decreased exposure to sunlight, and stress due to lack of ability to fall asleep.² Inability to sleep through the night is just one form of sleep disturbance experienced by this population; frequent daytime sleepiness and napping affects 10% to 30% of elderly people and sleep apnea can also present in older age.³

This issue of disordered sleeping patterns in the elderly is one that we as physical therapists cannot ignore as it affects an estimated 40% to 50% of older adults.⁴ Inability to obtain quality sleep may affect these individual's moods, motivation, quality of life, memory,

mental status, energy, and endurance. The high prevalence of this issue along with its implications makes this an important topic to take into consideration when treating an elderly individual. This paper will discuss 3 literature based points regarding this topic including the different types of age-related sleep disorders and their prevalence, the relationship between sleep disorders and comorbidities, and risk factors that may contribute or relate to late life sleep disorders. Additionally, this paper will address how these issues may relate to physical therapy management with older clients and will discuss possible suggestions for future research.

AGE RELATED SLEEP DISORDERS

There are a number of different sleep disorders that can present in old age, but the most common occurrences are increased day-time sleeping, increased nocturnal awakenings, decreased variability in bed and wake time, earlier bedtimes, and earlier awake times.⁵ Research has shown that the incidence of nocturnal awakenings and daytime napping increases with increasing age, and decreased variability of bedtimes and wake-up times is greater in elderly people who reside with someone else. This phenomenon of decreased bedtime and wake-up time variability may be a coping strategy in order to maintain some control over one's decreased ability to sleep soundly due to increased

illness and chronic disease in the elderly population.⁵

In a research study by Reid et al,⁴ it was found that an astonishing 69% of patients age 62 to 100 reported at least one sleep complaint. The 2 most common complaints included difficulties with falling asleep and being able to sleep through the night. Surprisingly, when assessing these elderly patients' medical charts, only 19.2% of the charts contained any mention of reported disordered sleeping. This lack of attention is problematic due to the fact that sleeping problems in the elderly is heavily related to decreased quality of life, poor mental health, and poor physical health. These findings suggest that health care providers should ask about the quantity and quality of sleep with elderly patients and report any problems to the primary care provider for possible treatment options.⁴

DIORDERED SLEEP AND COMORBIDITIES

A second key point to the issue of disordered sleeping in the elderly is the relationship between disordered sleeping and comorbidities. In a phone interview conducted to 1506 elderly community members, it was found that 83% reported at least one chronic medical illness. Of these illnesses, bodily pain, heart disease, memory problems and depression were found to have the highest correlation with insomnia while obesity, arthritis, diabetes, osteoporosis, lung

disease, and stroke were highly related to sleep apnea, snoring, and increased frequency of napping.¹ Additionally, people who reported exercising one time or more each week reported less problematic sleeping than those who did not exercise. These findings suggest that sleep issues in elderly individuals may be secondary to increased chronic disease in this population rather than merely related to age. Furthermore, one good method of intervening with a patient with sleeping problems is to educate the patient on the benefits improved sleep pattern that is associated with exercise.¹

RISK FACTORS THAT CONTRIBUTE TO SLEEP DISORDERS

A final point upon which is important to focus when discussing elderly sleep patterns is the fact that there are certain risk factors that can contribute to late life sleep disorders. Excessive sleepiness in the elderly is multifactorial in that the number of risk factors present relates to the severity of excessive sleepiness. Among these risk factors, frequent and chronic pain had the greatest effect on quality of sleep, quantity of sleep, and sleepiness.³ This finding is problematic since decreased sleep often exacerbates chronic pain, yet pain is the reason these individuals are not able to sleep. Other risk factors include wheezing and chest whistling at night, sleep apnea, nasal problems, stroke, heart disease, use of medications with drowsiness side effects and nocturia. Remarkably, consumption of 7 or more alcoholic beverages per week related to better sleep quality and decreased sleepiness during awake time.³

As previously mentioned, physical activity and exercise have been linked to patterns of sleep. A study by Morgan⁶ showed that poor physical health, poor physical activity levels, and depressed moods all significantly relate to sleep issues in the elderly. Social activity and engagement had no correlation to sleep in either a positive or negative light. This study also suggests that gender and BMI may both be risk factors as well; as females are generally affected greater than males and overweight older individuals have an increased chance of having disordered sleeping.

RELEVANCE TO PHYSICAL THERAPY

The question now arises, how does this evidence affect how physical therapists practice with the elderly? The answer is clear when looking at how prevalent sleep issues are in this population. This is an epidemic that we cannot ignore and one that we may be able to address. A major factor that relates to sleep problems is chronic pain. This can be pain caused by arthritic changes and changes related to aging, or this could be pain resulting from chronic illness. Either way the chronic pain presents, we as physical therapists, have the ability to reduce and often eliminate the pain; both acutely and long term. By focusing on decreasing pain in the elderly by means of stabilization, strengthening, increasing range of motion, prescribing assistive devices, restoring alignment, use of thermal agents and modalities, and soft tissue massage, we can indirectly help reduce abnormal sleeping patterns.

Another above-mentioned aspect of these sleep disturbances with which physical therapy can assist is decreased physical activity in the elderly. There is a common misconception that as people age, they should relax and not be as active as they once were. This false notion may be one reason why the elderly are facing sleep disturbances in that there is a strong link between exercise and healthy sleeping patterns. As physical therapists, we can educate our elderly patients on the importance of daily physical activity and prescribe appropriate exercises for their lifestyles and abilities.

Lastly, it is clear from literature that sleep disorders in the elderly are going untreated due to lack of documented report in the medical charts. Primary care providers as well as other health care providers are not doing their part to address and intervene regarding this highly prevalent concern. This issue must be addressed in all primary evaluations with elderly individuals due to the fact that quality of life can be greatly diminished with decreased sleep. Additionally, physical therapists could have better outcomes when working with elderly patients if they ask the patient about their sleep quality and help address the issue when necessary. Elderly patients that get adequate sleep are likely to participate in therapy sessions better,

adhere to home exercises, have a more positive outlook on recovery, and have greater memory abilities to remember to attend appointments and perform prescribed exercises.

FUTURE RESEARCH

Limited research is present on elderly people and sleep disorders, therefore there is great potential for future research on the topic. Many of the published studies are qualitative, survey-conducted studies that lack quantifiable evidence. One suggestion for future research is to examine how much exercise and which types of exercise can help regulate sleep in elderly individuals with sleep disorders. Having a control group would be helpful in order to verify that a recommendation of exercise to people in this population is appropriate. Another suggestion would be to conduct more longitudinal research to see how these abnormal sleeping patterns change over time and what factors affect them most. This would be important because much of the research is short term, and a lot can change over the 20-30 years one is considered to be elderly. Finally, more definitive research needs to be performed in order to see which health care providers are asking questions about sleep in interviews with elderly individuals. We saw from research that primary care physicians are not always doing their part to examine this issue, but we do not know if it is being focused on elsewhere since elderly patients generally go to many different types of specialists. By reporting the statistics on how adequately or inadequately this issue is being addressed, all health care providers can reassess their interview questions in order to make sure that sleeping issues are being covered.

CONCLUSION

The prevalence of sleep disorders in the elderly is high. These disorders include insomnia, daytime napping, sleep apnea, nocturnal awakenings, and variable bed and wake times. Issues with sleep may be due to other comorbidities and decreased physical activity, and may result in depression, decreased memory, decreased quality of life, and decreased energy and endurance. Although this problem is prevalent, health care pro-

viders are not addressing and treating it as aggressively as they should. This is important for physical therapists in that lack of sleep can negatively affect the possible outcomes of patient care. When treating an older adult, physical therapists must make it a point to ask these individuals about sleep and intervene if necessary.

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2007. She enjoys spending time with her family, including her 3-year-old niece, Ella. She hopes to pursue a career in pediatric physical therapy upon graduation in December 2007.



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GOT NUMBERS? VALUE OF ASSESSMENT TOOLS

Bill Walsh, PT, MA, MBA, GCS, COS-C

OVERVIEW

The challenges that we as Physical Therapists face are many. We are faced with what some will call a numbers game. Ranging from the number of patients seen in a day, how many minutes of actual direct treatment time, amount of revenue generated, number of visits, and the list grows on. Adding to the numbers issues, Centers for Medicare and Medicaid Services (CMS) and many other payer sources are asking for objective clinical rationale (translated a number) for all the number of dollars/minutes generated. Last but not least, providers of medical services are ranked (by number/percentile!) by their outcomes in key indicator areas.

However, numbers that quantify a client's deficits and/or reason for their referral can be a therapist's best friend. Using an objective measure that has undergone clinical research and scrutiny provides credence and substance to our treatment interventions. It moves our practice to a new level of accountability. A client's progress and achievement of goal(s) can be stated in a number that is both reliable and valid. The components of the assessment tool allow the therapist to speak specifically and objectively to the functional improvement or lack thereof. Although no assessment tool is perfect and each tool has its limitations, the use of the tools far surpasses "clinical" statements such as "patient's gait is unsteady" or the often used phrase "the patient's balance is much better."

Implementing assessment tools in your professional practice has many advantages that warrant their use on a regular basis. Key advantages include: the assessment tools provide a common language shared by all physical therapists, their use decreases clinical variance due to the high inter/intrarater reliability and the abilities tested, proven level of validity, components of an assessment tool provide an objective baseline of functional status, and provide a framework for PT treatment interventions. Linda Crews, PT, MHS, GCS in

a past *GeriNotes* article succinctly stated, "*Functional outcome tests identify problem areas in a patient's functional performance and guide treatment planning to remedy those problems.*"¹ Assessment tools are an integral component of evidence based practice. The *Guide to Physical Therapist Practice* states... "the purpose of tests and measures is to ensure the gathering of information that will lead to evaluation, diagnosis, prognosis, and selection of appropriate interventions."²

MORE REASONS WHY

Another reason why assessment tools are useful is that they typically apply directly to functional ability. The numbers yielded by assessment tools do not tell the whole story but they do paint a picture that some of the other measures we use as PTs fall short. Two examples I find are goniometric measurements and manual muscle testing. In the geriatric population, these measures do not always match up to what the client can perform. I have tested many clients with 4/5 muscle strength in the large muscle groups (eg, quads, hip extensors, etc.) and yet many cannot perform safely a basic mobility task of sit to stand. There are others who present with weakness in key muscle groups and can safely perform the same task. In part, this is often due to their many co-morbidities that are part of the client's current health status. Range of motion (ROM) limitations are common but often are long standing and may not be the "fixable cause" of a particular functional deficit. As a result of these limitations, my experience has found that traditional goniometric measurements and manual muscle testing can fall short with the geriatric population. Simply stated, the "numbers" yielded by these tests do not provide the diagnostic information needed.

I am not suggesting that these testing methods (manual muscle testing & goniometric) are not valid but I am stating that their limitations are significant with the geriatric population. Assessment tools provide a structured means

of "flushing" to the surface the critical barrier to a client's ability and quality of life. I have also found that using the constructs of a test provides a basis of my interventions and they also reveal the nature of the balance/mobility deficits that may not be readily apparent or identified by the referring physician.

An example of this can be illustrated by a recent case I had. The client had balance and gait issues that were of concern to client and family. After performing a series of home care treatment interventions her gait and balance improved significantly. Her Tinetti score changed from 12/28 to 20/28. She appeared to be at a plateau with my current focus. As part of my discharge planning, I met with the facility's health care coordinator (the client lives in an independent senior living apartment) to provide a brief update and inquire if she had any concerns. I subsequently learned from that brief interaction that the facility was concerned about her balance as she ambulated in the facility during the day. I had assessed her ability to ambulate to key points in the facility, eg, dining room, activity area, etc. and I did not see the same concern. I decided to test for their concern by having the client perform sustained gait--much like the six minute walk. At the end of the time period (about 10 minutes), her balance "fell apart" and she required physical assist to recover. The distance covered was reasonable and routine for what she needed to be able to safely perform on a regular basis. Based on this finding, I then delved deeper and extended her program with the goal of increasing her tolerance to activity. That is, her balance/gait ability was directly tied to her ability to safely engage in day to day life activities. At a subsequent visit I performed the 6 minute walk test and her gait speed was approximately half of normal speed for her age and gender.³ Additionally, her gait quality declined significantly as the end of the time trial approached. This information provided feedback that warranted several more

visits with a focus on improving the patient's single limb stance and increasing her tolerance to activity.

There are many excellent standardized tests available that address multiple facets that impact a client's ability and lifestyle. I am advocating that PTs consider not only the obvious tests but to use a variety of tests as needed. Mobility is a complex issue that requires a comprehensive yet efficient assessment. Dr. Tinetti summarizes this concept in the following statements: "Mobility, ie, the ability to get around in one's environment, is a complicated function composed of multiple component maneuvers. The component maneuvers, in turn, depend on the integration of multiple physical, cognitive, and psychological characteristics."⁴

10 Minute Therapist!

Many of the functional tests I will refer to can be administered and the results recorded in *10 minutes or less!* The information gained from the assessment tool provides a concise picture of a client's current status in the domain tested. Documenting this concise picture in narrative form would take more than double the 10 minutes and not provide an objective measure that can be used to demonstrate improvement or lack thereof. The right assessment tool(s) can clarify with increased sensitivity the often times broad measures reflected in the CMS assessment tools--the most notable being the OASIS and the MDS. This clarification provides the clinician a means of identifying why the skilled intervention(s) of a physical therapist is required. Additionally, the results of the test provide an easy way to identify and communicate to the patient and/or caregivers the key deficits and their impact on the patient's function.

When the Elderly Fall Everything Changes!

I have chosen the problem of falls in the geriatric population as a way of illustrating the value of assessment tools. The impact of a fall, or a history of falling, creates many dynamic changes in geriatric client's life. Falls remain as one of the primary reasons why the elderly are institutionalized. A fall with injury has serious consequences that range from the worst--death to a paralyzing fear of

falling and everything in between. Gait changes, social isolation, depression, loss of freedom, etc. are just a few of the negative changes that occur as a result of a fall.

There are many issues that create or increase the risk for falls in the geriatric population. These issues include typical musculoskeletal impairments, neuro deficits, depression, pain, fear of falling, poly-pharmacy, cognitive deficits, environmental issues, etc. Identifying the appropriate tool depends on your initial findings gained from observation of movement patterns, interaction with the client, and the various intrinsic factors mentioned that impact the client's mobility. I think it is important that we become comfortable with a variety of tests that address performance and mental/emotional issues. For example, cognitive deficits, depression, and fear of falling can be glossed over to the detriment of the client.

I am advocating that we as a profession look at the whole person. That is, assess the dynamics that impact that patient's well being. Screening our patients' risk for falls by using the appropriate functional movement/balance tests, eg, Performance-Oriented Assessment (Tinetti Balance/Gait or POMA), Timed Up and Go (TUG), etc. needs to be a matter of course. However, it is well within our scope of practice to screen for the "softer" issues (ie, mental and emotional status) cognitive deficits by the use of such as tools as the Mini-Mental or Geriatric Depression Scale, or Dr. Mary Tinetti's Falls Efficacy Scale (assesses confidence in performing daily activities).

Cognitive deficits and depression have tremendous influence on our outcomes. The primary role of the physical therapist is to educate the client and/or caregivers on appropriate strategies to compensate for these issues and refer to the appropriate specialty (eg, physician, social worker, etc.). It may appear obvious to a professional outsider that a person has cognitive deficits or is depressed but never underestimate the power of denial. Denial on the part of the client, or on the part of the family/caregiver, is often a significant barrier to the patient receiving the appropriate care or intervention. Additionally, many individuals do not like to openly address their fear

of falling. However, a client's "fear" or "concern" of falling can impact gait quality that requires a different approach than one grounded with a true balance issue.

I have chosen several tests as examples to illustrate the value of using assessment tools. Choosing the right tool is a matter of clinical judgment and the willingness to look at the individual from a whole person approach. Articles such as "Making Geriatric Assessment Work: Selecting Useful Measures"⁵ or the APTA's *Standards for Tests and Measurement in Physical Therapy Practice*⁶ can help the clinician choose what is the right tool to use.

The results of a screen such as the **Tinetti POMA** provide copious amounts of "practical data" in only *5 minutes!* The information gleaned by the Tinetti provides:

- Predictive validity of the patient's risk for fall.
- Identification of key areas where the patient may be at greatest risk for fall.
 - It is important to be able to inform & document what activities that pose the greatest risk for a fall. This provides useful information to the client and caregivers and it demonstrates due diligence on the part of the therapist in the event of a negative outcome.
 - Initial stand--as from a chair, bed, toilet, shower chair, etc.
 - Balance when changing directions--obtaining items from the refrigerator, closet, negotiating "tight" spaces such as bathroom, hallway, etc.
 - Impact of lighting--especially if visual feedback is needed for balance.
 - Ability to recover balance with light perturbations--eg, if someone bumps into them, they bump into someone, etc.
 - Impact of environmental obstacles on gait, eg, carpets if they shuffle feet, changes in surface level, etc.
 - Provides data that substantiates scoring of OASIS Functional M0(s) or the MDS Section G items. Note: Medicare guideline of scoring with the question being asked, was the task done *safely!*?!?

Single Limb Stance Test—typically this test requires *less than 2 minutes* (this

includes the explanation, demonstration, and recording of the test results).

- Static stand balance—component of gait, foot ankle strategy, functional implications—eg, stepping into the shower, going up/down a curb or step, normal swing phase of gait cycle.
- Being able to stand for less than 10 seconds typically warrants implementing this activity into a client's home exercise program (HEP). Start with this activity with eyes open and if possible have the client progress to performing single limb stance with eyes closed. Try this yourself and you may find that your balance is not as good as you think! I know mine is not.

Timed Up and Go (TUG)—Typically this test requires *less than 10 minutes* (includes set up, explanation, demonstration, brief rests between trials, and recording of the test results).

- Provides information on gait speed, ability to change direction and position. Scores greater than 20 seconds but less than 30 seconds indicate a potential problem and greater than 30 seconds indicate concern that the client is probably not safe performing mobility related ADLs independently.
- Helps for accurately scoring on the OASIS functional M0 points 680 (Toileting) & 700 (Ambulation/Locomotion). Even though the client may live alone and walk to the bathroom without assistance of another person does not mean that it is performed **SAFELY!**

Timed Sit to Stand—Typically this test requires *less than 5 minutes* (includes set up, explanation, demonstration, and recording of the test results).

- Functional endurance—ie, activity tolerance. I feel this test is a much

better indicator for the need of increasing lower extremity strength than the results of manual muscle test.

- Incorporating this test activity into their HEP is simple and functional.

Confidence in Mobility Related

ADLs

- Subjective test to identify fear/concern of falling.
- Provides a great baseline and end point of the client's perception of "did skilled PT services make a difference?" This tool can also be used in follow up telephone assessments at various time points (eg, 30, 90 days, etc.) to identify the carryover in day to day life once PT services are discontinued.

SUMMARY

Assessment tools **ROCK!** Their value to our physical therapy practice is tremendous. The time it takes to administer the test(s) and the information that is yielded make these assessment tools a wise expenditure of medical dollars. The fact that the "numbers" yielded provide structure to our interventions and objective measures that are reliable and valid make the utilization of assessment tools a must. As you learn more about the various assessment tools, you will find that many can be completed in 10 minutes or less. The clear majority of the tests can be completed in less than 20 minutes. Assessment and reassessment are considered skilled services by Medicare and other payer sources.

Everyone loses if we ignore the use of assessment tools. Many times the PT is the first to discover the issues that threaten the geriatric client's freedom, safety, and quality of life. Used with professional discernment, assessment tools do not reduce our practice to a

numbers game. The opposite is true. Assessment tools elevate our practice into the realm of evidence-based practice.

Got numbers?

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ASSESSMENT TOOLS OVERVIEW

Assessment tools are:

- An objective measure to demonstrate improvement.
- A tool to teach/explain to the client the rationale for a particular treatment intervention(s).
- A functional indication of what impact the patient's impairments have on performance of tasks that involve mobility.
- This allows for focused interventions that will provide the biggest functional improvement. Many geriatric clients have a long list of impairments that may not need to be addressed to improve their function.
- Components of the patient's personalized HEP--utilizing the concept of train for the test.
- Bullet points that substantiate rationale for treatment interventions.
- Payer's are always looking at, "Was that intervention necessary?" Part of our "skilled intervention" is identifying activities that will improve the client's function and that the activity is carried out correctly.



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PHARMACOLOGY CASE REPORT: OBESITY

Jill Hovland, PT

BACKGROUND

Obesity is a worldwide growing epidemic that is a major contributing factor to chronic disease and disability. Worldwide there are over 1 billion overweight adults, 300 million of them clinically obese, which is three times the obesity rate since 1980 in some areas of North America.¹ Increased consumption of foods high in sugar and saturated fats, coupled with decreased physical activity has led to the increasing obesity epidemic. Body mass index (BMI), calculated as the weight in kilograms divided by the square of the height in meters, is commonly used to assess overweight and obesity.¹ An increase in BMI is associated with an increased risk of diseases including type 2 diabetes, cardiovascular disease, osteoarthritis, hypertension, and stroke, as well as certain types of cancer.¹⁻³ Approximately 325,000 annual deaths in the United States among nonsmokers are credited to obesity.⁴ The increasing incidence of childhood obesity is especially concerning. In children ages 6 through 19 years, 16% were found to be overweight.⁵

There are numerous causes of obesity including genetic, behavioral, environmental, physiological, social, and cultural factors.⁶ Also, a number of treatment options are available for obesity including nonpharmacologic strategies, pharmacotherapy, and surgery. Nonpharmacologic treatment of obesity includes decreased caloric intake, increased physical activity, and behavior therapy. Behavior therapy can include such things as self-monitoring, stress management, problem-solving, cognitive restructuring, and social support.⁷ Treatments involving dietary restrictions, exercise, and behavior therapy together have been effective in weight loss programs.⁷⁻⁹ Obesity is a chronic disease; in order to be successful with weight reduction and maintenance of a lower body weight, the patient must

understand that a lifelong effort is required.⁷

PHARMACOLOGY CONSIDERATIONS

For obese patients who have significantly increased medical risk and for whom nonpharmacologic strategies alone have been unsuccessful, weight loss medications may be helpful adjuncts to weight loss programs.^{8,9} Pharmacotherapy is recommended for patients with a BMI ≥ 30 kg/m² or with a BMI ≥ 27 kg/m² with two or more comorbidities related to obesity, who are not able to lose weight with more conservative approaches.⁸ Sibutramine and orlistat are two medications that have been approved by the Food and Drug Administration for the initiation and maintenance of weight loss.⁹

Sibutramine inhibits reuptake of norepinephrine, serotonin, and dopamine.^{10(p553)} Because of these effects, increased satiety, decreased hunger, and slightly increased energy expenditure have been documented.¹¹ Sibutramine has been found to be effective for initial weight loss programs^{8,11} and also in keeping the weight off long-term.¹² Sibutramine is not recommended for patients with severe renal or hepatic dysfunction, history of hypertension, coronary artery disease, heart failure, arrhythmias, or stroke.^{10(p553)} Unfortunately, as mentioned previously, obese individuals are at an increased risk for many of the conditions that sibutramine is contraindicated for use. Central nervous system depressants, including alcohol, have the potential to react with sibutramine, causing an enhancement of their effects, therefore such medications are discouraged to use together. When performing physical therapy with a patient taking sibutramine, blood pressure readings should be taken before starting therapy and at regular time frames during the treatment session.

Patients taking this medication should be advised to schedule regular follow-up visits with their physician. They should report a rash, hives, or other allergic reactions right away to their physician. The patient should monitor blood pressure and pulse on a regular basis. They should also be advised to the signs and symptoms of gallstones as sibutramine use can cause gallstones.^{10(p553)}

Orlistat is a lipase inhibitor that forms a bond with the active site of gastric and pancreatic lipases, thereby inactivating them.^{10(p1274)} These actions result in caloric deficit by way of decreased absorption of fat and the emission of unabsorbed cholesterol and triacylglycerols.¹³ A review of studies found that a greater proportion of obese patients treated with orlistat and a hypocaloric diet reached a clinically significant weight loss of 5% or 10%, when compared to control subjects. There was also an improvement in the serum lipid profile in the orlistat study group.¹³ Patients should be aware of common adverse reactions to the medication including headache, flatus with discharge, fecal urgency, oily stool, increased defecation, abdominal pain, and back and leg pain. Also, orlistat may decrease the absorption of vitamins, such as vitamins A and E and beta-carotene, therefore doses between these substances should be separated by 2 hours. Patients taking warfarin need to have their international normalized ratio (INR) monitored as orlistat can change coagulation values.^{10(p1275)} Orlistat should be used cautiously with individuals receiving cyclosporine therapy because of possible changes in cyclosporine absorption related to variations in dietary consumption. Patients should be advised to follow a well-balanced, reduced-calorie diet that obtains only 30% of its calories from fat. The dosage of orlistat can be skipped if a meal is occasionally missed or if the meal

contains no fat. Patients who have diabetes also need to be aware that as they lose weight, their insulin doses may need to be adjusted.^{10(p1275)}

Findings from studies with orlistat and sibutramine have found them both to be effective medications for initial weight loss and also maintaining such weight losses. Such findings suggest that weight loss medications should be used for long-term weight management, similar to medications that are used for diabetes or hypertension.⁸

SURGICAL INTERVENTIONS

Surgical interventions for obesity are the most intensive treatment and typically are only advised for those patients with a BMI ≥ 40 kg/m² or BMI ≥ 35 kg/m² in patients with comorbidities.⁸ Bariatric surgeries reduce caloric intake by changing the anatomy of the gastrointestinal tract. Such procedures are classified as either restrictive or malabsorptive. Restrictive surgeries, such as gastric stapling, limit intake by making a small gastric reservoir with a narrow outlet to slow down emptying. Malabsorptive operations bypass different parts of the small intestine where the absorption of nutrients occurs.¹⁴ Proximal Roux-en-Y gastric bypass, a very common procedure, is typically considered a combination restriction-malabsorption surgery. Bariatric surgeries have consistently led to improvements in the conditions frequently associated with obesity.¹⁴ Gastric bypass surgeries have been effective in substantial weight loss within 6 months and large weight losses have been maintained for years afterwards.⁶ Long-term success with any of the surgical procedures is dependent on extreme dietary changes to prevent complications correlated with bingeing, including vomiting, diarrhea, or rupture of the staple line.⁶ Guidelines have been established regarding the appropriate population for bariatric surgery. The patient should not have any medical or psychological contraindications, and they should first attempt to lose weight using conservative strategies. A multidisciplinary, experienced team is also rec-

ommended to care for surgical bariatric patients.¹⁴

PHYSICAL THERAPY INTERVENTIONS

A physical therapist would be an appropriate member of such a team. Initiating activity and exercises following bariatric surgery would be appropriate, as well as setting up the patient with a home exercise program and exercise log. Physical therapy services would be of benefit, not just to surgical patients, but also for other patients who are overweight or obese who are attempting to lose weight in other fashions. Physical therapy can play an active part of developing and promoting an exercise program for any overweight or obese patient. Not only does increased physical activity increase energy expenditure, but also it reduces the risk of heart disease.⁷ Proper initiation and progression of an exercise program is important for the patient to have success and avoid injury. The long-term goal for all adults regarding an exercise program should be a minimum of 30 minutes of a moderate-paced physical activity on most days, if not all days.⁷ Exercise alone typically does not produce considerable enough weight loss in overweight patients, but is a very important adjunct to a behavioral weight control program.⁶

Other disciplines may also be appropriate and helpful when caring for an obese patient. Dieticians can help with dietary recommendations, answer questions, and assist with monitoring weight, giving feedback and motivation to assist with the weight loss process. Consulting an occupational therapist may be indicated to work with adaptive equipment and strategies to improve independence if the patient's size is impairing their ability to carry out activities of daily living. Pharmacists can be helpful to answer questions and give recommendations to the patient, as typically multiple medications are involved in the care of the obese patient. Also, involvement of a psychologist may be indicated to work with behavioral strategies and help the patient identify reasons for following unhealthy behaviors. Setting goals, providing motivation,

and feedback could also be part of the psychologist's role.

Another factor for all health care providers to consider regarding medications when dealing with overweight and obese patients is how drugs are stored in the body. Adipose tissue is the primary site for drug storage in the body. In obese patients, drugs tend to stay in the adipose tissue for longer periods because of the low metabolic rate and reduced blood perfusion of these tissues.^{15(p26)}

Obesity is correlated with an increased risk of morbidity and mortality, therefore providing treatment and guidance to overweight patients to improve their overall health is an important responsibility of members of the medical community. A multidisciplinary approach is appropriate and is a needed step toward fighting the obesity epidemic.

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PHARMACOLOGY CASE REPORT: VERTIGO

Elizabeth Landretti, PT, MPT, NCS, ATP

PATIENT INFORMATION

A 77-year-old male was referred by his primary care doctor to our physical therapy department in early November 2007. The chief complaint upon presentation was vertigo. Patient had complained of dizziness when transitioning in and out of bed, bending over, sitting, and walking.

History was obtained from the patient, from his wife, and from the medical record. He had been seen in our clinic in April 2007 for benign paroxysmal positional vertigo and treated with the canalith repositioning maneuver. In April, he presented complaining of acute onset of dizziness when getting out of bed one morning. He had described this as a “spinning” sensation which could occur with movement of head both when lying down and when upright. He had reported being afraid to turn over in bed for fear of getting dizzy. It was accompanied by some nausea. His medical record did not indicate anemia at the time. He demonstrated distinctly positive right head hanging position during Dix-Hallpike maneuver, with reported onset of dizziness within 5 seconds of lying back and reported symptom resolution within 30 seconds. Visible nystagmus was appreciated after lying him back. He demonstrated unremarkable oculometer and standing balance testing. He underwent 3 repetitions of the canalith repositioning maneuver at his initial visit. He reported complete resolution of symptoms upon a follow up visit one week later.

He stated that now, the “same” sort of dizziness that had afflicted him in April had returned, but was occurring when sitting, standing, or changing position while upright. It did not occur when he turned over in bed, or changed position when supine. He described this dizziness as a “floating” sensation, which would last for up to a couple minutes, followed by nausea, “clamminess,” and difficulty concentrating. He denied changes in vision, including tunnel vision. No palpitations or shortness

of breath occurred with the episodes. Dizziness occurred not only whenever transitioning in and out of bed, but also occurred randomly when sitting in one spot, as in sitting and watching television or eating, or while standing, such as while standing in the grocery store line or shower. He reported consistent difficulty getting in and out of the car and turning while standing because of this dizziness. This patient reported that he had experienced these episodes of dizziness on and off for approximately 2 weeks. The symptoms were not changing in intensity, frequency, or duration per patient report.

He reported having had one fall during the last few weeks, while in the bathroom. He believed that he “must have tripped” on a floor mat, striking his left shoulder against the toilet. He did not recall feeling the dizziness or any other symptoms at the start of the fall, but he was not sure. He did not lose consciousness or have any focal neurologic symptoms associated with it. However, the patient was going to be seen in orthopedics for residual left shoulder pain and immobility acquired in the fall.

He also reported a recent diagnosis of anemia. The patient reported consistent “tiredness” for a month. This was accompanied by mild shortness of breath with exertion, rapidly fatiguing with exercise and by feeling cold all of the time. He had just been diagnosed as having a hemoglobin of 9 gm/dL, but the cause for his anemia had not yet been identified.

Past medical history was available for review, and included: mild thoracic aortic aneurysm, biapical pleural scarring, hypertension, resolved thrombocytopenia, elevated PSA, multimodular goiter/hypothyroidism, hyperlipidemia, deep vein thrombosis while hospitalized in the past, coronary artery disease (status post four vessel coronary bypass grafting in 2000), and benign positional vertigo.

Current medications for this gentleman included: acetomenophen, Amlo-

dipine-Benazepril (Lotrel), aspirin, Calcium, Ezetimibe-Impastation (Vytorin), Hydrochlorothiazide, Labetalol, Levothyroxine, Amitriptylene, omeprazole (Prilosec), and clopidogrel (Plavix).

PHYSICAL THERAPY ASSESSMENT

Complete physical therapy exam was performed. He demonstrated a mildly slouched posture with rounded shoulders and forward positioned head. His range of motion exam was notable for limited capital flexion. Cervical rotation was equal left and right sides. Shoulder range of motion was remarkable for left shoulder flexion, abduction, and external rotation equaling 30% that of right shoulder flexion, abduction, and external rotation. His lower extremity range of motion was remarkable for a hip extension measurement of -5° from neutral bilaterally. His ankle dorsiflexion was graded at -5° from neutral with knees extended. These hip and ankle range of motion measurements, although not considered “normal,” were not unexpected given his age and activity level.

Strength testing of upper and lower extremities was grossly unremarkable, with pain reported with attempted resisted left shoulder flexion, abduction, scaption, external rotation, and internal rotation; this was consistent with his complaint of left shoulder injury with his fall. No gross strength deficits or differences were appreciated in the lower extremities.

Coordination screening including fingertip-to-nose test, rapid alternating hand movements, and heel-to-shin test were unremarkable on either side.

Modified vertebral artery screen for vertebral basilar insufficiency in sitting was unremarkable. This was performed with mild forward trunk lean coupled with neck rotation left and right.

Cervical body-on-head neck rotation to rule out a cervicogenic cause was unremarkable left and right rotation.

Oculomotor testing including horizontal and vertical smooth pursuit, head

thrust, and doll's eye test was unremarkable for any dysfunction within the vestibular reflexes. Dix-Hallpike maneuver, testing for benign paroxysmal positional vertigo, was unremarkable. No nystagmus was identified with the Dix-Hallpike maneuver, although Frenzel lenses were not available for magnified observation of eye movements.

The Berg Balance Scale was used to assess his risk for falls in the home. Areas of identified difficulty on the Berg were attempting tandem stance, turning 360° in 4 steps or less, foot placement on 8 inch step, single leg stance, and weight shifting when looking over one shoulder. His Berg score was 45/56, demonstrating risk for falls.¹

Once the evaluation was completed, considerations in this case included first addressing the type of dizziness experienced by the patient. Potential causes for his dizziness included: orthostatic hypotension, (either due to a direct drop in his blood pressure or bradycardia), vascular incidents (stroke, transient ischemic attack, or vertebro basilar insufficiency) in his brain, sedation from medication, muscle weakness with loss of balance interpreted as dizziness, anxiety, and benign positional vertigo.

This patient may have had vertebrobasilar insufficiency in the posterior circulation, with episodically restricted posterior brain perfusion, causing transient dizziness without blatant signs of a stroke. Performance of a modified vertebral artery test did not suggest this as the etiology, however, imaging his brain and intracranial vessels (with a magnetic resonance angiogram or computed tomography angiogram) could help rule this out.

Muscle weakness due to statin-induced myopathy could cause loss of balance that then could be reported by the patient as "dizziness." If this was the case, adding Coenzyme Q10 consumption to his regime could decrease occurrence of statin-induced myalgias.² Manual muscle testing did not reveal proximal muscle weakness, however, making a myopathy unlikely. A creatinine kinase level was negative.

His tricyclic medication could be sedating, especially because he was elderly, and could contribute to unsteadiness.³

Ruling out anxiety as a contributing factor was essential. The patient

was holding onto his wife's arm when walking into the department. He expressed fear of falling "again" multiple times during his interview, and required reassurance to stand during the examination. While it did seem to be worsening his experience, he had no history of an anxiety disorder, or "anxious personality," and his fear of falling did not seem to be the primary cause of his complaint, but a symptom. While another cause of his dizziness could be benign positional vertigo, this was ruled out with his history and his unremarkable Dix-Hallpike testing.

PHARMACOLOGY CONSIDERATIONS

This patient was taking multiple medications that could contribute to dizziness due to orthostatic hypotension, including anti-hypertensive medications (Lotrel, hydrochlorothiazide, Labetalol), plus several which could cause orthostasis or dizziness as a side effect (nitroglycerin, omeprazole, amitriptylene, and clopidogrel).⁴ The combination of an anti-hypertensive, such as hydrochlorothiazide, and a medication that could cause arrhythmias, such as amitriptylene, could additively increase the anti-hypertensive effect, causing orthostatic hypotension.⁵ It was attempted to check for a correlation between when he consumed the blood pressure medications and the occurrence of dizziness, but there was not a clear correlation. The patient was taking nitroglycerin sublingual; it was necessary to confirm that the dizziness was not occurring only after nitroglycerine use. The Labetalol (a beta blocker) could overblock his heart, causing bradycardia, which could lower his blood pressure, besides simply dropping his blood pressure by peripheral vasodilation. This cause was not confirmed when he was checked for worsening dizziness a few hours after taking his beta blocker, as the orthostasis did not seem to occur one time per day versus another. The Lotrel and hydrochlorothiazide, while not causing bradycardia, could cause hypotension as well. The patient's pulse and blood pressure after transitioning supine to standing consistently dropped greater than 30 mmHg systolic and 15 mmHg diastolic, suggestive of potential orthostatic hypotension. His pulse did not increase, in keeping with the func-

tion of his beta blocker, preventing a compensatory increase in heart rate.

Another contributing factor to this patient's complaint of dizziness could be his anemia. The patient was taking both aspirin and clopidogrel (Plavix). This combination could increase bleeding risk.⁶ To rule out a gastrointestinal bleeding source, a screen for fecal blood would help, but an esophagogastroduodenoscopy, colonoscopy, and small bowel follow-through study were better, and all were negative. The patient denied other areas of bleeding. A urinalysis was performed to rule out occult bladder or urethral bleeding.

Other systemic causes of anemia that the patient had checked were iron levels (which did not show chronic depletion), kidney function (which was borderline normal), and liver function tests (which were normal). There was not evidence of a blood dyscrasia.

Another potential cause of the patient's anemia could be vitamin B12 deficiency. Causes for B12 deficiency include pernicious anemia (due to decreased ability to absorb the vitamin), veganism, alcoholism, and proton pump inhibitor consumption. Omeprazole therapy prevents cleavage of vitamin B12 from dietary proteins, and therefore decreases the absorption of B12 by the body.⁷ The patient was sent for a vitamin B12 level, folate level, and a methylmalonic acid study to evaluate for a vitamin B12 deficiency, but no abnormalities were found.

Discussion with the patient regarding the cause of his fall was essential in defining a treatment approach. The patient reported he simply "fell" in his bathroom. Potential causes for this fall that were suspected included generalized weakness due to his anemia, bradycardia and hypotension due to his beta blocker and other antihypertensives, and loss of balance triggered by sedating medication, such as amitriptylene.

Major pharmacologic considerations in this case that could be modified include whether to continue the blood pressure medication, amitriptylene, Plavix (clopidogril), aspirin, and Prilosec (omeprazole).

No Vitamin B12 deficiency was found. While the omeprazole has dizziness as a potential side effect, it was not discontinued because he had been

on it for several months prior to the onset of symptoms, and, because the concerns regarding risk of GI bleeding outweighed the potential benefits of discontinuing it.

He was on the amitriptylene to help him sleep, so alternatives could be considered, such as trazodone or Remeron, if he still needed a sleep aide. Given his significant cardiac history, and the tendency of tricyclic antidepressants to contribute to arrhythmias, amitriptylene was stopped. As he was not complaining of continuing sleep problems, no alternatives were instituted. He was not on the amitriptylene for anxiety or depression, but due to his fear of falling and worries about the etiology of his anemia, a selective serotonin reuptake inhibitor had been considered by the provider (documented in his notes). The patient was hesitant to begin a new medication, and as he had no premorbid history of anxiety disorder, he and his primary care provider decided to wait and see how his mood did with time.

Given the patient's current state of anemia, discontinuing Plavix or aspirin may be in order in the future, if a source of bleeding is uncovered, or if his hemoglobin continues to drop. Because of the negative work-up for a source of bleeding, and his history of coronary artery disease, and platelet agents were restarted after the gastrointestinal work-up was negative for bleeding. There is data showing increased efficacy of the Plavix and aspirin combination in preventing further coronary occlusive events, although there is data showing that it also increases the risk of bleeding complications.⁸

PHYSICAL THERAPY INTERVENTION

Following the initial evaluation, findings were communicated to the patient's primary provider. The reported findings included the drop in his blood pressure without increasing pulse, which supported data seen in the patient's clinic follow-up appointment with his physician. Because the patient had orthostatic hypotension, his dose of hydrochlorothiazide was held and his Labetalol dose was cut in half. With this modification, his blood pressure dropped less on repeated orthostatic testing at a follow-up appointment.

The patient also reported a decrease, although not a complete resolution, of his complaints of dizziness. He still expressed a fear of falling however, and was very hesitant with balance exercises.

Treatment to decrease risk for further falls included a discussion of his fall and his concerns for the future. The patient was taught standing postural sway activities (anteriorly/posteriorly, as well as laterally), to perform upon arising in the morning to help increase his ankle balance strategies and increase his confidence that he would not fall. He was given vertiginous positioning exercises, although BPV was not suspected to be the primary problem, to habituate him to postural changes. Therapy was somewhat limited by the left shoulder pain, he did not tolerate lying on the left shoulder for more than 5 seconds, and his medical condition limited options for pain control to overcome this painful limitation. Due to the patient's anemia, and being on 2 antiplatelet agents, nonsteroidal anti-inflammatory medications were avoided. Narcotics were also avoided by his provider, due to concern for increased fall risk. Thus acetaminophen was all he was taking for pain.

To combat orthostasis, the patient was instructed to perform repeated lower extremity movements, such as ankle pumps, heel slides, hip flexion, and/or terminal knee extension before standing up. He was also encouraged to slow down with changing position, to allow greater stability. He was encouraged to break up his transition from supine to stand, instead transitioning first supine to sit and then sit to stand. His physician was also queried about the utility of recommending daily application of medium support stockings. Unfortunately, the patient recalled wearing support stockings on a previous hospitalization and stated they were uncomfortable and difficult to put on, so he did not want to wear them. His wife was also willing to put them on him.

At the second physical therapy visit, although he reported feeling a bit less dizzy, he stated that he was still somewhat symptomatic. He reported compliance with performing his postural sway exercises at home, and felt they helped to "ground" him. He and his

wife denied any further falls, or even near falls. He reported that he felt more confident, and he asked to hold off on further therapies, until the work-up for the anemia could be completed.

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PHARMACOLOGY CASE REPORT: TOTAL JOINT REPLACEMENT

Don Schaning, PT

BACKGROUND AND PURPOSE

Osteoarthritis (OA) of the knee affects 70% to 80% of people older than age 55, and is listed as eighth as a worldwide cause of disability.¹ Total knee arthroplasty (TKA) is an elective procedure that can provide significant pain relief and improved function in patients with OA. Physical therapy is typically prescribed following TKA to assist in regaining function. Patients may present with co-morbidities such as obesity, diabetes, cardiovascular disease, and pharmacological issues that need to be considered while developing their plan of care. Unusual co-morbidities such as patients with a history of a heart transplantation present challenges in developing a physical therapy treatment plan.

Osteoarthritis is characterized by the development of fissures, cracks, and general thinning of the joint cartilage; bone damage; hypertrophy of the cartilage; and synovial inflammation.¹ The degenerative changes associated with osteoarthritis may result in pain and stiffness. Treatment of OA involves alleviating pain, attempting to rectify mechanical misalignment, and identifying and addressing manifestations of joint instability.

Pharmacological management of the pain associated with OA includes use of acetaminophen, nonsteroidal anti-inflammatory drugs, and cyclooxygenase-2 (COX-2) inhibitors.² Cox-2 inhibitors are not recommended for patients that have heart disease or are prone to developing it.³ Injections of hyaluronic acid into the knee joint have been approved by the Food and Drug Administration but several large studies have shown no efficacy.² The use of glucosamine and chondroitin has also been shown to provide modest pain relief.² Nonpharmacological treatments include strengthening exercises, aquatic exercise program, and low impact aerobic exercise.

Total knee arthroplasty is an elective surgical option that can provide significant pain relief and improved function in patients with OA.⁴ In excess of 267,000 TKAs are performed annually in the United States. Medical complications that can occur include deep vein thrombosis, superficial infections, peripheral nerve damage, pulmonary embolism, and deep infections.⁴ A key factor in postoperative recovery is the ability to rapidly regain joint range of motion, leg strength, and an adequate level of functional independence in activities of daily living. This is achieved by early involvement in physical therapy. Patient overall satisfaction following TKA is considered to be good to excellent but anywhere from 15% to 30% of patients receiving TKA report little or no improvement after surgery.⁴

The use of TKA in obese patients is of clinical concern for increased risk of prosthetic failure and increased postoperative complications.⁴ A recent study showed that 6 months after surgery, obese patient's quality of life scores improved more than patients with ideal body weight.⁵ In a different study, 88% of obese patients had successful outcomes compared to 99% in the non-obese group.⁶ The obese group also had a lower prosthetic survival rate of 87.7% compared to 98.7% in the non-obese group.

The safety of performing standard exercises used following TKA in a patient with a heart transplantation should be considered. After heart transplantation, the denervated heart has altered physiological responses to exercise that can impair exercise tolerance. Peak heart rate, cardiac output, and peak left ventricular ejection fraction during exercise have been reported to be impaired in patients who have undergone heart transplantation.⁷ The results of a study comparing heart

transplant patients who underwent strengthening, flexibility, and aerobic exercise, with a control group, found that the exercise group increased their peak work output by 45% and peak oxygen consumption by 18%. The exercise group also did not have an increased risk of adverse events compared to the control group.⁷ Use of standard strengthening and endurance exercises can be used safely in a patient following heart transplantation. The purpose of this case review is to look at how the co-morbidities and pharmacology impact the plan of care in a patient referred to physical therapy following a TKA.

CASE DESCRIPTION

A 50-year-old white male is being seen for his first outpatient visit 7 days following a TKA. He is complaining of being lightheaded, short of breath, and with a pain intensity of 9 out of 10. The incision is dry. Moderate swelling is present in his knee. Passive range of motion of his knee is 10° to 70°. Patient states he fell yesterday landing on his buttocks, along with hitting the back of his head. His history includes a heart transplant 2 years ago. His medications include Neoral 110mg b.i.d, Cellcept 1500mg b.i.d, Zocor 40 mg daily, calcium carbonate 500mg b.i.d, Atrixa 2.5 mg sub cu daily, and Percocet every 4 to 6 hours as needed for pain. The patient is being seen in an outpatient physical therapy department, which is part of a large multidisciplinary clinic.

This patient underwent a total knee arthroplasty for surgical treatment of end stage tricompartmental osteoarthritis (OA). He had failed a course of conservative management. He works as a designer for a plastics company. His work is sedentary. He is married and has 2 children ages 14 and 16 living at home. His wife had previously worked as a nurse. His past medical history includes cardiac transplantation 2 years ago for

dilated cardiomyopathy with sustained ventricular tachycardia, hyperthyroidism currently eutypoid, depression, and steroid-induced diabetes. He has a current diagnosis of hypertension and hypercholesterolemia. His mother has a history of a total knee replacement and cerebrovascular disease. His father had cardiomyopathy, stroke, and died of malnutrition. His weight prior to the TKA was 309 pounds. Following his heart transplant he attended a cardiac rehabilitation program but was not able to complete the program due to his knee pain. His wife is concerned that he is not walking at home. The patient's goal is to stand and walk without pain along with returning to work.

This patient's history presents several issues that will need to be addressed. The cause of his shortness of breath may indicate a serious medical problem. The history of falling, and complaints of feeling lightheaded is a concern for further injury. The safety of exercise after heart transplantation will need to be determined. The potential effect of the medications on his symptoms will also need to be assessed.

PHARMACOLOGY

Neoral (cyclosporine) and Cellcept (mycophenolate mofetil) are immunosuppressive agents used to prevent transplant rejection.³ The immune system is responsible for controlling the body's response to various types of injury and for defending the body from invading pathogens, including bacteria, viruses, and other parasites.³ Following organ transplants, the immune system treats the new organ as an invader. Neoral is one of the primary medications used to suppress immune function following organ transplantation.³ Neoral is a newer form of cyclosporine, which has been modified into microemulsion capsules that disperses more easily in the digestive tract, enabling the drug to be absorbed in a more predictable fashion.³ This form is not as toxic to the kidneys and other tissues as the regular formulation.

Cyclosporine inhibits a specific protein (calcineurin) in the lymphoid tissues. This inhibition suppresses the production of interleukin-2, a mediator that plays a critical role in promoting

growth of activated T lymphocytes and other immune cells.³ The most common adverse effect of this medication is nephrotoxicity. Symptoms include urinating less than usual or not at all. Other adverse effects include hypertension, drowsiness, confusion, mood changes, increased thirst, loss of appetite, nausea, weight gain, feeling short of breath, feeling lightheaded, seizure, muscle pain or weakness, fast heart rate, and easy bruising or bleeding.⁸

Neoral may be taken with or without food, but should be taken the same way each time. Eating grapefruit or drinking grapefruit juice should be avoided since it will increase blood levels of this medication.⁸ This medication is given in 2 separate doses taken at the same time each day. Use of other drugs that can damage the kidneys in combination with cyclosporine will increase the risk of nephrotoxicity. Pain medications that include aspirin, acetaminophen, ibuprofen, naproxen, and others can increase this risk. This patient is taking Percocet, a combination of oxycodone and acetaminophen, which may cause adverse effects.

Cellcept (Mycophenolate mofetil) is also used to prevent organ rejection.⁹ This drug is typically combined with other immunosuppressants to provide optimal immunosuppression in patients with organ transplantation. Cellcept inhibits a specific enzyme that is responsible for the synthesis of DNA precursors in T and B lymphocytes. The result is the lymphocytes cannot synthesize adequate amounts of DNA inhibiting their ability to replicate and proliferate, thus decreasing the immune response.³ The primary adverse effects of this medication are blood disorders (anemia, leukopenia, neutropenia) and gastrointestinal problems (abdominal pain, nausea, vomiting, heartburn, diarrhea, constipation). Dyspnea, muscle pain, chest pain, coughs, and cardiovascular problems (hypertension, arrhythmias) may also occur.³

Zocor (simvastatin) is a drug used in the treatment of hyperlipidemia, which is an abnormally high concentration of lipids in the bloodstream.¹⁰ Hyperlipidemia is one of the primary causes of cardiovascular disease. This drug is in a group commonly known as statins.

They inhibit an enzyme known as 3-hydroxy-3-methylglutaryl coenzyme A reductase.³ This enzyme catalyzes one of the first steps of cholesterol synthesis, especially in the liver cells.³ Low-density lipoprotein levels can be decreased by up to 50% with the use of this medication. Patients with one or more risk factors for cardiovascular disease (such as diabetes mellitus, hypertension, or family history) can benefit from statins. Patients taking Zocar should restrict their intake of grapefruit and grapefruit-containing products since this food slows the metabolism of this drug. Abdominal pain, diarrhea, indigestion, and general feeling of weakness are some of the common side effects.¹¹

Calcium carbonate is a common substance found in rock and minerals. Medically it is used as a calcium supplement or as an antacid.¹² Antacids attempt to neutralize stomach acids. Acid-rebound phenomenon is a potential problem. Acid production may increase because antacids increase the PH of the gastrointestinal fluids, which serves as the normal stimulus for acid secretion.³ This may then cause increased gastric distress.

Atrixa (fondaparinux) is an anticoagulant. These drugs are used primarily in the treatment of abnormal clot formation in the venous system. Venous clots typically form in the deep veins of the legs because of the relatively sluggish blood flow through those vessels. Clot formation involves the activation of various clotting factors in the bloodstream. Atrixa inhibits clotting factor Xa that prevents the conversion of prothrombin to thrombin.³ Atrixa is administered by subcutaneous injection, into the fatty tissues of the stomach, to prevent deep vein thrombosis following orthopedic procedures.¹³ Increased risk for bleeding is the primary adverse reaction. While on this medication the patient should not take aspirin or nonsteroidal anti-inflammatory drugs since these will increase the risk for bleeding.¹³

Percocet (oxycodone) is an opioid analgesic combined with acetaminophen. This drug is routinely used in the treatment of postoperative pain. Opioids exert analgesic effects by inhibiting afferent pain transmission in the ascending pain pathways, combined with their

ability to activate descending efferent pathways that reduces pain.³ These effects are primarily in the central nervous system where the opioids bind to specific opioid receptors on the presynaptic and postsynaptic membranes.³ The most frequently reported side effects are nausea, drowsiness, constipation, lightheadedness, dizziness, rash, and emotional disorders.¹² Patients on opioids may become euphoric or demonstrate mental slowing. Shortly after administering these drugs respiratory suppression or orthostatic hypotension may occur. Oxycodone also has the potential to produce addiction. Time to peak effect is about 60 minutes with the duration of action between 4 and 6 hours.³

PHARMACOLOGICAL ISSUES

During the initial patient interview the patient reported being short of breath. The onset of this symptom was within the first day of surgery. This was also observed as the patient transferred from wheelchair, ambulated with a walker 5 feet, to the treatment table. The patient's wife felt he was just hyperventilating. This patient is on several medications that can produce this adverse effect. Neoral, Cellcept, and Percocet all list shortness of breath as a potential side effect. Neoral combined with acetaminophen, a drug found in Percocet, increases the toxicity of this drug. Patients experiencing this type of symptom should contact their doctor if they experience this symptom.⁸

On the day prior to his first physical therapy appointment, the patient fell as the result of being dizzy and lightheaded. He reported that he "just got up too fast." He continues to report feeling lightheaded. Neoral and Percocet can both cause this type of symptom. Orthostatic hypotension may also occur shortly after taking Percocet. This may result in the patient falling if he stands up too quickly. The patient reported that he hit his head after landing on his buttocks. Dizziness and lightheadedness are also signs of a concussion.

Signs of bleeding should be monitored since he is on Atrixa and Neoral. Both of these medications increase the risk of bleeding. The body areas this patient fell on should be examined for

signs of hemorrhage. The TKA incision should also be frequently examined for signs of bleeding.

The patient reports a high pain intensity of 9 out of 10. The level of pain will need to be controlled in order to effectively perform his postoperative rehabilitation program. The Percocet should provide peak relief of pain one hour after taking this medication. Therapy should be scheduled at this time. Other methods to control pain may also be used such as ice packs, nerve stimulation, and massage to the surrounding muscle tissue. Since Percocet may cause some degree of mental slowing, home instructions should be written and reinforced with his caregiver.

PHYSICAL THERAPY PLAN OF CARE

The treatment plan for this patient will need to include educating the patient and his wife on his present impairments including decreased endurance, strength, and balance along with his functional limitations. Education on health and fitness programs for weight reduction and risk factors for pathophysiology (infection) and impairments should be included along with recommendations to resume his cardiac rehabilitation program at the completion of this program.

Endurance conditioning for walking will be needed to eliminate his dependence on the wheelchair and improve his cardiovascular conditioning. If strength and endurance impairments limit his ability to walk, use of a stationary bike or recumbent cross trainer could be incorporated into his exercise program. Balance and agility training are included into his exercise program to reduce the risk of falling while performing activities of daily living. Include exercises such as weight shifting, side stepping, walking with a narrow gait, step-ups and step-downs.

Regaining range of motion can prevent impairment and functional limitations. Flexibility exercises including range of motion, joint mobilization, soft tissue mobilization, and stretching are performed to obtain functional joint motion. Use of functional activities has also been shown to improve range of motion.¹⁴

Gait training should include normalization of his gait with appropriate assistive devices. This training should include stairs, ramps, and uneven surfaces. Aquatic exercise programs have also been used successfully in gait training following total knee arthroplasties.¹⁵ Strength training focusing on closed kinetic chain exercises for the involved lower extremity will be initiated. Improved strength is accomplished with active and resistive exercises along with task specific strengthening for stair climbing, walking, and transfers. In a meta-analysis of physical therapy exercises following TKA, patients who were instructed in functional exercises demonstrated improved scores on quality of life and range of motion compared to the traditional strengthening group.¹⁴

Since this patient has a history of loss of balance, an injury prevention program related to risk of falling would be included in his plan of care. Blood pressure will need to be monitored for signs of hypotension. Transferring the patient from supine to sitting and sitting to standing should be performed slowly to avoid loss of balance. The patient should also be instructed to pick up all loose rugs, and continue to use the walker for ambulation until he has been cleared to ambulate independently.

Cold compression will be used to assist with pain management, inflammation, and edema reduction. Cold compression therapy has been shown to decrease hospital length of stay, increase range of motion, and decrease blood loss in the acute stage following surgery.¹⁶ Patients using cryotherapy also reported lower pain scores.¹⁷

The patient's physician should be notified immediately of the shortness of breath due to the potential adverse effect of his medication. If a medical condition is eliminated as to the cause of his breathing problem, anxiety, stress, and pain may be the cause of his symptoms.¹⁸ Relaxation techniques and breathing exercises can be used to control abnormal breathing patterns. Exertion during exercise should be monitored by use of a visual analog scale, respiratory rate, heart rate, and blood pressure checks. This patient

has risk factors for cardiovascular disease and should be monitored closely for signs of over exertion.

The patient will be scheduled for physical therapy 3 times per week for 3 weeks, then 2 times per week for 2 weeks. A written home exercise program with specific exercises to increase his range of motion, strength and endurance will be provided. Following completion of his physical therapy, the patient should continue with a low impact aerobic exercise such as stationary biking or walking. Both of these activities have been shown to be safe following total knee arthroplasties.¹⁹ Functional exercise such as chair squats, step-ups and step-downs should also be included in the home program. This case is unique in that the patient presented with a history of heart transplantation; failed cardiac rehab secondary to OA of his knee; and symptoms of shortness of breath, lightheadedness, and falling. The symptoms of lightheadedness, shortness of breath, and falling all had the potential of being caused by adverse effects of his medications. This demonstrates the importance of reviewing each patient's medication list to determine if current symptoms are the result of the medications and pose potential risk for injury. The co-morbidities must be reviewed and appropriate precautions used during treatment. It was determined that standard strengthening and endurance exercise can be used with this patient. The case review also identified the increased risk of falling and bleeding. Strategies were included in the plan of care to address these concerns.

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PHARMACOLOGY CASE REPORT: FIBROMYALGIA SYNDROME

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BACKGROUND AND PURPOSE

Fibromyalgia syndrome (FMS) affects between 3 and 6 million Americans¹ and is often a diagnosis of exclusion of other potential disorders. The prevalence of FMS is 3% to 4% for both men and women in the general population, but increases to 7% of women over 70 years old.² The exact mechanism of FMS is unknown. Patients with FMS may present with all over body aches and bilateral tender points in 11 of 18 identifiable body areas. Other symptomatology may include nonrestorative sleep, fatigue, anxiety, morning stiffness, cognitive changes, insomnia, headache, paresthesias, and swelling sensation. Other common conditions include irritable bowel syndrome, chronic fatigue syndrome, temporomandibular joint syndrome, migraine headaches, myofascial pain syndrome, depression,³ restless leg syndrome, abnormal leg movements, and sleep apnea.⁴ Sleep problems affect glucose metabolism, and along with decreased activity and increased body mass index (BMI), women with FMS have a higher rate of diabetes.⁴ FMS smokers tend to have greater pain and more functional impairments than nonsmokers.⁴

Fibromyalgia syndrome is not associated with lab abnormalities or identifiable pathology. However, some researchers have linked FMS to low normal ranges of thyroid, adrenal, and gonadal hormones. According to Teitelbaum, undiagnosed or inadequate treatment of hypothyroidism can contribute to FMS symptoms.¹ According to Bazzichi et al, 41% of women with FMS have one or more thyroid antibody present, indicating autoimmunity, even though thyroid hormone levels are normal.⁵ Postmenopausal women have a higher frequency of thyroid autoimmunity than premenopausal women.⁵ Subclinical hypothyroidism is also associated with a 2.6x increased risk of ischemic heart disease.⁶

Women with hypothyroidism are two times more likely to have a heart attack, contributing up to 60% of heart attack cases in women, contributing more to heart attack risk than smoking, hypertension, high cholesterol, or diabetes.⁶

Normal serotonin levels are necessary for proper nociception and sleep regulation.³ A link between low serotonin and tryptophan levels in plasma and cerebrospinal fluid is shown in patients with FMS.^{3,7} Falling estrogen during the menopausal transition may be a contributing factor as estrogen helps regulate tryptophan levels.³ Patients with FMS also display hyperactive hypothalamic-pituitary-axis resulting in decreased stage 3 and 4 sleep (required for restorative sleep), decreased insulin growth factor and growth hormone, and neurotransmitter hypofunction, including norepinephrine and dopamine, important in regulating mood, somatic processes, stress response, motivation, and nociception.^{3,7} FMS is also associated with increased prolactin levels compared to controls.² Prolactin suppresses effects of dopamine and decreases normal levels of estrogen and progesterone. In addition, substance P, normally involved in pain transmission, is three times higher than normal in patients with FMS.³

Fibromyalgia syndrome is more common in women (up to 90% of cases are women²) than men and the diagnosis most commonly coincides with the menopausal transition.³ Postmenopausal women with FMS report more anxiety, insomnia, irritability, concentration problems, decreased ability to handle stress, depression, and fatigue compared with ovulatory-phase (peak estrogen levels) premenopausal women.⁸ According to Wilbur, peri- and postmenopausal women with FMS had higher severity scores for musculoskeletal, GI, and vasomotor factors than premenopausal women, indicating potentially a more

difficult midlife transition in patients with FMS.⁸ Women with FMS are also more likely to be diagnosed with bladder cystitis, dysmenorrhea, premenstrual syndrome, breast cysts, and more negative changes in sexual function (less sexual activity, less arousal, and more pain with intercourse).⁴ In premenopausal women, symptoms worsen in up to 72% of women with FMS^{3,4} during pregnancy and premenstrually. Women also tend to be more depressed, distressed, and sensitive to pain in the perimenstrual (falling estrogen) than the ovulatory phase.⁸ During perimenopause, serum FSH levels rise in an attempt to keep estradiol levels within the normal range. FSH levels greater than normal have significantly elevated total and LDL cholesterol.⁹ While some women seem to 'sail' through perimenopause and menopause, others have life-disrupting hot flashes, night sweats, vaginal dryness, difficulty with memory or cognitive function, mood swings, decreased tolerance to life stressors, depression, and diabetes. Postmenopausally a woman's risk and mortality for heart attacks and strokes, match that of her male counterparts. During this time, women also develop an increased risk for blood clots, bone loss, memory decline and increased risk for dementia and Alzheimers.

Recent studies have indicated hormone replacement therapy (HRT) using conjugated equine estrogens, is not effective in reducing cardiovascular risk of heart attack and stroke postmenopausally. Conjugated equine estrogens are prescribed more often in the United States than in European countries and are only one of the many HRT options. The combination of estrogen and progesterone appears to carry more risks than estrogen alone, but progesterone is required for women with an intact uterus. Other research demonstrates estrogen replacement, when prescribed to

restore normal estradiol levels using non-conjugated equine estrogens, improves mentation and sleep, reduces depression and sexual dysfunction, and reduces mortality risk.¹⁰

The average FMS patient spends roughly \$50,000 on testing and treatment before finding a doctor trained to properly treat this disease.⁶ The purpose of this report is to discuss physical therapy, pharmacology, lifestyle, and alternative medicine interventions for postmenopausal patients with FMS; a common patient scenario seen in outpatient orthopedic clinics.

PAST HISTORY AND REVIEW OF SYMPTOMS

The typical patient with FMS seen for outpatient physical therapy is peri- and postmenopausal, whether naturally or s/p hysterectomy. Chief complaints include nonrestorative sleep, anxiety, memory problems, cognitive decline including 'brain fog,' difficulty managing stress and demands of work and family, poor dietary habits and use of caffeine, all over body muscle aches and pain, weight gain, and avoidance of exercise due to pain. Relevant history including high blood pressure, subclinical or clinical hypothyroidism, high BMI, and high cholesterol. Typical medications include lorazepam (anxiety), amitriptyline (anti-depressant), Lipitor (statin), propranolol (antihypertensive), synthroid, HRT, analgesics, antiinflammatories, capsaisin cream, and valerian root or melatonin to improve sleep.

The patient typically has no identifiable tissue pathology and diagnostic testing, including negative blood tests, MRI, and X-rays. Once the FMS diagnosis is made, physicians are reluctant to order additional testing for existing or new complaints. Oftentimes, patients with FMS have coexisting pathology including mechanical low back pain, knee pain, rotator cuff pathology, or neck pain coexisting and complicating the clinical diagnosis, prognosis, and treatment. Systems review is often negative apart from cardiovascular risk factors. Often these patients have signs and complaints of low endogenous estrogen including incontinence and sexual dysfunction.

Current medical treatment of FMS includes avoidance of caffeine, maintain-

ing a regular sleep schedule, education, and an individualized pharmacological regimen. Physical therapy interventions including manual therapy, strengthening, stretching, promoting a life-long exercise program including aerobic conditioning. Modalities are used minimally within the clinic, unless there is identifiable concurrent pathology, otherwise self-treatment education is completed.

CLINICAL IMPRESSION

Education deficits often are found in appropriate aerobic exercise and proper progression, pharmacological prescriptions/dosages, and lifestyle and dietary modifications. The examination plan appropriate for this patient includes identifying limitations and baseline functional levels, baseline aerobic fitness, and pain levels without over focusing on pain. Function should be the focus of the evaluation as FMS is a chronic pain state. Establishing symptoms pattern/behavior, previous effective and ineffective treatments, self-treatment, self-management along with evaluating trunk, upper and lower extremity strength and endurance, range of motion limitations, identifying compensatory movements, and special tests to rule in or out additional pathology is important.

Examination

Physical therapy examination and evaluation findings including gross manual muscle test strength losses, usually 4/5 to 5-/5 muscle strength. Muscle endurance is usually impaired or limited by pain in the trunk and extremities. Compensatory patterns noted during gait, extremity movements, body mechanics, and functional activities is often observed. Range of motion is not usually lacking, although stiffness and pain with motion may occur. Patients with FMS often have other musculoskeletal pathology, such as a torn rotator cuff, mechanical low back or neck pain that should not be overlooked and mislabeled as part of FMS. These other pathologies must be differentiated from the FMS and addressed properly with physical therapy.

The Fibromyalgia Impact Questionnaire (FIQ) is a reliable tool implemented as part of the initial evaluation, at discharge, and during therapy to assess

treatment outcomes. This tool can be easily implemented to assess longer term outcomes after discharge. Reassessment of aerobic fitness levels and progression without flaring symptoms also gives valuable outcome information. Reassessment of coexisting musculoskeletal pathology with the intention of symptom resolution and restoration of the condition the goal; and should be assessed separately from the FMS symptoms.

PHYSICAL THERAPY INTERVENTIONS

Research demonstrates there are many physical therapy interventions aimed at decreasing the FMS symptoms. The majority of patients with FMS have extreme deconditioning and an increased BMI.⁴ Submaximal exercise is a reliable predictor to estimate fitness levels and base initial exercise prescription.² Exercise programs must be tailored to the specific needs and symptom challenges of each patient to help promote compliance. Patients with FMS tend to overrate their level of perceived exertion, have lower anaerobic thresholds, lower peak oxygen uptake, lower heart rates, and have poor neuromuscular recruitment.² Exercise consisting of warm up, aerobic activity, cool down, strengthening, stretching, body awareness, ergonomics, and relaxation training is effective in reducing daytime fatigue, stiffness, and improving mood, cardiovascular fitness, grip strength, physical function, social functioning, self-efficacy, quality of life, and decreasing pain, impairment, anxiety, psychological distress, symptom severity, and depression in both land and pool-based programs.¹¹⁻¹³ Aerobic exercise reduces depression, number of tender points, and pain when compared to stretching or relaxation alone.^{3,14} Strength training has favorable outcomes without exacerbating symptoms or causing musculoskeletal damage.¹⁵ Addressing neuromuscular recruitment, starting exercise gradually, for example 1-2x/wk for 10-30' per session and gradually increasing duration and frequency to 3-4x/week without flaring symptoms. Patient education to reduce exercise volume to 50% if symptoms flare with gradual return to baseline exercise levels

in about a week will help long-term compliance.² Exercise is the cornerstone of life-long self-management and with promoting compliance is key.

Apart from exercise, various modalities supported by research can reduce pain associated with FMS. Low power laser, or light therapy, administered for 3 minutes at 2/cm² 5 days per week x 2 weeks is effective in reducing pain, muscle spasms, morning stiffness, and total number of tender points.¹⁶ Soft tissue manipulation for 5-20' combined with high volt pulsatile current (50Hz, 5 seconds on/off in a 1:1 ratio for 10') or 1MHz, 1.5w/cm² pulsed ultrasound (US) are both effective in increasing function, reducing pain, and improving restorative sleep.¹⁷ 1 MHz pulsed US, 2.5W/cm² combined with 4000 Hz interferential current at sensory threshold to painful areas decreased the number of painful areas and improved sleep.¹⁸ Biofeedback and exercise combined is more beneficial than either alone to improve and maintain physical activity and self-efficacy.¹⁹ Transcutaneous electric nerve stimulation has shown little benefit in these patients.³ Specific modalities chosen will depend upon patient presentation, other concurrent pathologies treatable with physical therapy, while preventing modality over-reliance. Teaching the patient self-treatment pain-relief techniques, such as heat, cold, home paraffin unit, self trigger point release as indicated, as part of a home program is important.

ADDITIONAL INTERVENTIONS

Cognitive behavioral therapy is an additional intervention effective in decreasing feelings of helplessness, developing pain handling strategies, and altering negative thoughts leading to pain.³ Also helpful are biofeedback, hypnosis, massage, chiropractic treatment, diet, lifestyle changes, and acupuncture.³ Acupuncture can temporarily reduce reliance on pain medication. Significant reductions in pain, stiffness and improved sleep, physical function, and well-being can occur when patients with FMS avoid the use of cosmetics, creams, lotions, and ointments when compared to controls.²⁰

Referral to a dietician for education is indicated. Foods most frequently in-

creasing FMS symptoms include meat, wine, alcohol, coffee, chocolate, sweets, sugar, citrus, and apples.²¹ Research shows a vegan diet consisting of uncooked fruits, berries, vegetables, mushrooms, nuts, seeds, legumes and cereals, alleviates FMS symptoms.²¹ Patients need to avoid known allergens or eliminate suspected food allergens from their diets and gradually reintroduce foods to see if symptoms return. Properly balanced and smaller more frequent meals maintain blood glucose levels and help prevent episodes of hypoglycemia in those with diabetes or glucose intolerance.

Relief of vasomotor symptoms are one of the major reasons menopausal women seek HRT and can be worse in women with FMS. Strategies to decrease vasomotor symptoms include exercise, soy, black cohosh (not recommended for use longer than 6 months and research results are somewhat controversial), and progesterone (although not recommended for patients with FMS as lipid profiles can be adversely affected and increased fatigue and sedation can result).²² Other controversial substances showing no more benefit than placebo for vasomotor symptoms include dong quai and evening primrose oil. There is lack of evidence to support the use of fish oil, flaxseed oil, omega-3 fatty acids, red clover, ginseng, rice bran oil, wild yam, calcium, gotu kola, licorice root, sage, sarsaparilla, passion flower, chaste berry, ginkgo biloba, and valerian root.²² However, soy, omega-3 fatty acids/fish oil, and red clover can decrease risks of cardiac events including sudden cardiac death.²²

PHARMACOLGY INTERVENTIONS

Approximately two thirds of patients with FMS have depression.⁴ Selective serotonin reuptake inhibitors (SSRIs) and tricyclic antidepressants have shown promise in reducing pain, improving sleep, mood, and fatigue in one fourth of patients.³ Tricyclic antidepressants block neurotransmitter reuptake and prolong action in the synaptic cleft, while SSRIs block serotonin reuptake. Serotonin, norepinephrine and dopamine levels are important to restore in patients with FMS. Combining amitriptyline (a tricyclic antidepressant) and fluoxetine (a SSRI) im-

proves symptoms more than either drug taken alone.³ Antidepressants can also be effective in reducing chronic pain and for the treatment of anxiety. Lorazepam, a benzodiazepine, is not indicated for the treatment of anxiety due to sedation side effects and addiction risk.³ A better option is an antidepressant also effective in reducing anxiety, such as amitriptyline. Other antidepressants such as Sibutramine has shown an 83% decrease in pain after 4 to 8 weeks and Bupropion (selectively inhibits dopamine reuptake) has shown improved mood and cognition effects.³ Sibutramine can also promote weight loss, but should not be used with poorly or uncontrolled hypertension, other centrally acting prescription, OTC, or herbal appetite suppressants, or with sumatriptan, bupropion, dextromethorphan, ergots, fentanyl, lithium, meperidine, pentazocine, tricyclic antidepressants (amitriptyline), tetracyclic antidepressants (trazodone), tryptophan, and SSRIs (fluoxetine) as "serotonin syndrome" may result.²³ Additionally, estrogen acts similarly to antidepressants by altering the serotonin and dopamine systems to decrease pain, and improve mood and cognition.³ Antidepressants and estrogen taken together may decrease estrogen side effects.³ Estrogen, when prescribed to reestablish normal estradiol levels as confirmed by pre- and post-estrogen intervention using non-conjugated equine estrogens, can also decrease CVD mortality risk along with improving mental clarity and sleep and reducing depression and sexual dysfunction.¹⁰

Improved sleep and daytime energy levels has also been shown with zolpidem (Ambien), a non-benzodiazepine antianxiety agent effective in maintaining level 3 and 4 sleep.¹ Zolpidem is safer and has fewer side effects than benzodiazepines.³ Benzodiazepines are not indicated for use in patients with FMS.³ Dopamine agonists can decrease daytime sleepiness, improve mood, and enhance cognition, but must be closely monitored for paradoxical insomnia, abuse, postural hypotension,³ and confusion/hallucinations with prolonged use.²⁴ D-ribose supplementation may also improve sleep, energy levels, mental clarity, well being, and reduce pain in those with FMS,²⁵ but need to be con-

sidered by the patient's physician in context with other medications and/or supplements.

Nonsteroidal antiinflammatories such as ibuprofen, aspirin, naproxen, and ketoprofen and steroid antiinflammatories such as corticosteroids provide little pain relief for patients with FMS and are not recommended due to the lack of effectiveness and absence of an identifiable inflammatory process.³ Antiinflammatories may also cause mood disturbance.³ Opioids as a class are not recommended due to risk for addiction, negative cognition, sedation, and fatigue effects, and potential to worsen FMS symptoms.³ Muscles relaxants are also not indicated, except for cyclobenzaprine, the only muscle relaxant shown to reduce FMS symptoms.³ Capsaicin, an inhibitor of substance P, when applied topically can reduce tender point number and severity and may increase grip strength.³ Growth hormone supplementation can decrease pain and increase quality of life.³ Gabapentin and pregabalin can modulate pain by inhibition at the spinal cord level,³ but the primary side effects are sedation, fatigue, dizziness, and ataxia.²⁴ Acetaminophen does not have anti-inflammatory properties and side effects do not include gastric irritation or sedation, but can be effective in reducing mild to moderate pain. The physician is ultimately responsible for prescribing pain-relieving medication, but physical therapists can offer feedback to the effectiveness of pain-relieving measures, including medication.

Medications to reduce cardiovascular risk factors and mortality include: cholesterol-lowering statins, propranolol, HRT and synthroid. Worsening myalgia symptoms often develop when taking cholesterol lowering statin medication. Statins alone reduce LDL levels by 8%, but when combined with a low fat or a mediteranian diet can reduce LDL by 30%.²⁶ Myalgia symptoms may improve by either lowering the statin dose or taking a different approach. A high fiber vegetarian and plant sterol diet alone compared to a low fat diet combined with a statin reduce cholesterol similarly (about 30%).²⁶ Also, supplementation with red yeast rice extract, curcumin

(tumeric), fish oil, pantethine and/or niacin with physician supervision can improve lipid profile.²⁷ Patients have options besides medication to lower high cholesterol, but these options should be approved by the physician.

Propranolol is a nonselective beta blocker used to treat hypertension. The use of propranolol is most successful when combined with diet and weight loss. Beta blockers blunt heart rate response to exercise necessitating the patient to use perceived exertion levels over heart rate response to guide and monitor exercise levels. This may be a problem as FMS patients overrate their level of perceived exertion. The patient will be educated in proper cool-down to prevent vascular pooling and potential orthostatic hypotension. With patient compliance exercise can be as effective in reducing blood pressure as antihypertensive medications.²⁹ Patient education to avoid adding salt and high sodium foods can be helpful. Reducing blood pressure is effective in preventing major cardiovascular events in patients with established risk factors.²⁸

Hypothyroidism treated with medication, including synthroid, to elevate levels within the normal range or within the higher level of normal range with symptom reduction guiding dosage, 50% of patients improve significantly.^{1,6} Synthroid side effects include headache, fever, insomnia, hot flashes, sweating, nervous or irritable feeling, menstrual changes, weight changes, and appetite changes;³⁰ all of a concern with FMS and reinforces necessity of follow-up blood tests to prevent over-dosage. Thyroid hormone helps regulate substance P levels in an inverse relationship. Low thyroid hormone levels, common in patients with FMS, are associated with increased substance P levels linked with higher pain perception.³¹ Therefore, medication to address this deficit pharmacologically is important as well as avoiding foods or other substances altering thyroid function, such as excess soy intake, pesticides, and chemicals in food and water.

OUTCOME/DISCUSSION

Menopausal women with FMS can benefit from any number of physical therapy interventions well supported

by the evidence including modalities, education, manual therapy, emphasis on proper exercise prescription and progression and life-long compliance, and a plan to manage set-backs. Proper coping, cognitive and behavioral skills, diet and lifestyle changes, and complementary medicine should be considered individually and addressed through proper referral. Medications such as antidepressants, antihypertensives, HRT, statins, thyroid medication, and pain-relievers can be helpful, and need to be considered along with diet, exercise, and lifestyle changes. Individualized treatment cannot be over emphasized. The best prognosis for patients with FMS occur when a multidisciplinary approach is used, the patient is willing to change perceptions and ways of responding to stress, is treated by their primary care physician, and willing to establish a life-long aerobic conditioning program.²

Further research should be conducted in many areas including the role of HRT and various types of HRT replacement besides conjugated equine estrogens, alternative herbs and supplements (including adverse reactions with medications), role of diet, specific nutrients, and treatment of subclinical syndromes based on symptoms. Continually striving to meet the needs of this patient population, while promoting self-efficacy and best practice measures are paramount. FMS affects many women of menopausal age, but there is much that can be done to improve outcomes and quality of life. Up to 91% of FMS patients can improve with proper treatment.⁶

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CSM 2008

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Members give up time at CSM to work at the Section Booth and answer questions.



Members celebrate at the Opening Ceremonies reception.



Treasurer, Dr Bill Staples discusses the benefits of section members during his many hours at the booth.



Members enjoy the breakfast to celebrate the newly GCS and welcome attendees to CSM.



Past Joan Mills Award Winners join the newest award winner, Dr Cathy Ciolek.



Dr John Barr recognizes Dr Marilyn Moffatt for her generous donation to the APTA Foundation.



Alumnae Dr John Barr joins PT students from SUNY UpState Medical University and their community exercise class.



Dr Dale Avers and her community exercise class show attendees how it is done.



President, Dr John Barr installs new officers.



Special Interest Group Chairs work to plan goals and activities for 2008/2009.



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CSM 2008: ANOTHER RECORD BREAKING YEAR AS THE SECTION ON GERIATRICS CELEBRATES 30 YEARS

*Jill Heitzman, PT, DPT, GCS, FCCWS
Program Chair, Section on Geriatrics*

Weather again tried to dampen the excitement of the Combined Sections Meeting. Even tornadoes and blizzards couldn't stop over 7200, physical therapists, assistants and students from descending upon Nashville for another fun filled educational week at CSM 2008. On the eve of the opening ceremonies, the tornado warnings at the Gaylord Opryland resulted in an unusual adult pajama party while the last session of the conference, "Laugh and Live Longer," sent everyone home laughing.

With changes in programming selection process and the addition of block scheduling, attendees found things easier in choosing sessions that most fit their needs and interests. Every education session was open to all attendees so there was interaction between all 18 sections and their members.

The Section on Geriatrics added to the excitement by celebrating 30 years as a Section. The programming allowed for many member interactions. The kickoff breakfast to celebrate the newly certified/recertified specialists and to welcome new CSM attendees allowed for the 117 members attending this event to have round table discussions on what are therapists doing at the local level to promote PT as the exercise specialists. The student forum on Friday is always a highly attended event where students meet our Section leaders and learn about working with the aging adult. The students love the prize giveaways, too. We thank our members who have authored books for their generous donations to this event.

Our students never cease to amaze us and this year was no exception. Students from SUNY Upstate Medical University in Syracuse joined their faculty and members of their community exercise class for aging adults in demonstrating how to develop challenging and effective community exercise programs. The dy-

namic interaction between the students and these retired adults exemplify the added socialization and learning across generations that is achieved beyond the exercise classes.

The Members' Meeting and Award celebration is a highlight of every CSM. This year was even more exciting as over 235 members attended this meeting. Meeting new Section members and renewing friendships with members from all over the country, allows our Section to remain a dynamic force in this ever-changing world of working with the aging adults. Our award winners are always strong mentors to others. We congratulate all the award winners and thank them for all they have done for our Section.

Our Section Booth was a very popular place to be this year. Being staffed by Section members for many more hours than ever before, attendees were able to meet our leaders and we welcomed many more new members to our Section. A new addition this year was the Section booth events during unopposed exhibit hours. Attendees were encouraged to meet and ask questions of the editors, SIG chairs, and other leaders at various times. A highly popular event was when the Osteoporosis SIG leaders along with Carleen Lindsey demonstrated the use of the flexicurve and answered questions at this event. Look for events like this at future CSMs.

Our state advocates were found sharing ideas with the newly appointed Regional Advocates and with each other. These members are looking for ways to improve communication and interaction among Section members at the state level. Look for more events at the local level that promotes physical therapy with the older adult. If you have any ideas or want to serve on the state advocate committee, let your state advocate know of your interest. We want to

build our family of Section members at the state level.

The programming committee had many new faces helping to monitor education sessions. These new committee members were mentored by experienced members and were a welcome addition. New ideas are already being generated as this committee is beginning the planning for CSM 2009 in Las Vegas. A big thank you goes out to these members who gave up some of their time at CSM 2008 to insure the education programming ran smoothly--Greg Hartley, Celine Evitt, Kathy Brewer, Lisa Butler, Nancy Bookstein, Dave Musmann, Rubeye Kendrick, Gail Stern, Jane Okubo, Melody Washington, Reenie Euhardy, Bob Latz, Judy Daniels, Kim Galbreath, Jane Bernavotich, Eric Dacey, Alice Bell, Lucy Jones, Priscilla Raasch-Mason, and Missy Criss.

Finally, a thank you to all attendees. The CSM events are for you, the clinician. If you have any ideas on how to improve the CSM events for the future or if you have a topic idea, let us know. All Section members are encouraged to apply online to be a presenter for education sessions. The program committee will be choosing the programs for CSM 2009 in early summer. Go online at the APTA website, to the Combined Sections Meeting tab and the submission process for CSM 2009 is open for both poster/platform abstract submissions (deadline June 18) and programming session proposals (deadline April 1).

Plan to attend the CSM 2009 in Las Vegas. This again will provide excitement and educational opportunities you won't want to miss. Remember the dates for CSM 2009 are February 9 through February 12, 2009. ***THIS IS MONDAY THROUGH THURSDAY.*** Mark your calendars now and join us for the fun.

OUTGOING VOLUNTEERS FOR CSM 2008

Kathy Brewer, PT, MEd, GCS

The Section on Geriatrics Delegate holds a very important position. Our Delegate is a Board Member, and thus participates in determining the priorities of the Section, based on the perceived needs of the members. This person must also represent our Section at APTA's House of Delegates, and is thus responsible for making sure that House Policy optimally represents the needs of the aging population. Kathy Brewer has served two terms as our Section's Delegate, and has been representing us in the House since 2003. Kathy took her role seriously, and has always taken time to review the voluminous House proposals and report back to our Board whenever she thought we should take action. Having an active, informed Delegate not only ensures that gerontology is not left out of APTA policy: it raises our Section in the estimation of APTA and Chapter leaders, and Kathy has represented us very well. Most recently, she guided 5 motions written by our Section through the House. Three of them were successful, and one is being resubmitted this year. It can be a monumental effort moving motions through the editing process, having them debated and edited by Delegates leading up to the House, and getting them passed in the meeting. As a Delegate, Kathy has truly excelled at representing our Section and our field. As a Board member, Kathy has been dependable and has completed the numerous advocacy projects assigned to her. The connections she forged with the American Diabetes Association appear to be leading to collaboration on consumer resources, which will have a huge impact on consumer awareness of the role of PTs in management of diabetes. Kathy is a great example of why the Section Board is a great group in which to serve: she is focused, productive, and a joy to be around. Kathy: our Board would like to thank

you on behalf of the profession and our membership, for all the time and talent that you have shared with us.

Chuck Gulas, PT, PhD, GCS

The Nominating Committee is responsible for identifying potential candidates for office and conducting the elections each year. The Section on Geriatrics Nominating Committee not only recruits candidates each year, but looks forward to elections happening 3 years in advance, providing leadership fostering of qualified candidates for present and future elections. Chuck Gulas, PT, PhD, GCS has served on the Nominating Committee from 2005-2008, and has participated in recruiting candidates for every position on our Section's Board. He led the committee as Chair in 2007. It was a successful year for the committee: they recruited some members to run for office who had never held positions in the Section before, two out of four positions were contested, and the balloting process went without a hitch. Chuck says that he enjoyed the opportunity to talk and catch up with so many Section members in his role. He also enjoyed participating as a volunteer leader in the Section, and knowing in more detail everything that the Section does for its members. Thank you for your service, Chuck: we hope that our Nominating Committee will be recruiting YOU to run for office at some point in the future.

Pat Wilder, PT

The Section on Geriatrics Awards Committee has the difficult task of selecting winners for Section Awards from among the outstanding award nominations we receive each year. They also work to encourage submission of nominations, improve the award submission and review process, and recognize awardees. Pat Wilder, PT has served on the Awards Committee from 2002-2008. Pat has kept the Commit-

tee running smoothly each year, and has always maintained a passion for increasing award nominations in order to recognize outstanding PTs and PTAs. During her tenure, she oversaw the change from paper to electronic submissions, which made the nomination process easier and streamlined award reviews. She has continued to work to improve the policies and procedures for nominations and the selection process, and to develop a tracking system for potential nominees for national awards. She says that she enjoyed reading the accomplishments of award nominees: in many cases it left her awe struck that individuals can be so accomplished. Through this position, Pat says that she gained a greater appreciation for the broad range of talent we have within the profession. Pat's biggest frustration in her role was an occasional paucity of award nominations, so I encourage all of our members to make life better for the new Awards Chair by nominating worthy colleagues for awards! As a Committee Chair participating in Board Meetings and Strategic Planning, Pat saw the Section take on a huge range of responsibilities, from educating students in entry level program to debating regulations for medical care at the national level, and says it made her proud to be member of such a strong, active and influential Section. Pat: leaders like you are why our Section is able to be so active, and we sincerely appreciate your long volunteerism in this role. Thank you.

Jane Okubo, PT

The Section on Geriatrics is proud to have a Cultural Diversity Committee, which works to promote issues of cultural diversity and cultural competence, and to encourage a diverse population to enter the fields of physical therapy and physical therapy assistance for aging adults. Jane Okubo, PT, has served as Chair of this committee since 2002. In that time she has worked con-

sistently to find cultural diversity programming for CSM, advance projects related to cultural diversity as assigned by the Board, make sure the Section financially supports and is represented at APTA's annual Diversity Fundraiser, and recruit members of color to run for Section and APTA leadership positions. Jane was co-editor of the Section's Cultural Diversity Home Study course, which is still being offered to PTs and PTAs nationwide. She co-authored a *GeriNotes* article in July 2007: "Cultural Identity and Health Perspectives and Promotion in the Elderly." Under Jane, the Cultural Diversity Committee made a successful motion to the Section Board that they create a Section Poster Award for Cultural Diversity, meant to raise awareness about recent advances in research that benefit culturally or ethnically diverse populations. We asked Jane what she enjoyed about this position, and here were her words: "Being the Chair of the Cultural Diversity Committee for the Section on Geriatrics was such a growth experience for me. The leaders of this section are so gifted, dedicated, passionate, and compassionate. This is the only Section which has a separate committee for cultural diversity, and the Section's commitment to cultural competence and cultural diversity is evident. Mary Ellen Riordan, the previous Chair, set up a good foundation for this committee. I had a great group of committee members, who had great ideas, and willingness to jump in when tasks needed to be completed." Thank you, Jane, for sharing your time and talent with us.

Greg Hartley, PT, MSPT, GCS

Greg is Director of Rehabilitation and Geriatric Residency Program Director at St. Catherine's Rehabilitation Hospital and Villa Maria Nursing Center in Miami, FL. St. Catherine's Geriatric Residency Program was the first credentialed geriatric residency in the US. In 2003, Greg was appointed to serve on the Section's newly created Clinical Residency Task Force, with an aim to promoting the development of more APTA-credentialed geriatric residency programs.

As Chair of the Clinical Residency Task Force, Greg was incredibly active

and productive. Working with the task force members, he led the following efforts:

- Establishment of the Section on Geriatrics Residency Grant Program, awarding up to two grants per year to pay for the expenses associated with application for APTA credentialing.
- Working with ABPTS to allow residents to sit for specialty exams based solely on completion of a credentialed residency education program.
- A reduction in fees for ABPTS Exams for residency graduates.
- Establishment of a prototype for a model curriculum for postgraduate residency education.
- The development of models of residency education that can work in various practice settings.
- Publication of the "Breadth and Depth of Geriatric Practice" article in *GeriNotes* as a guide for residency education.
- The development of financial models for various practice settings.
- The development of a Section sponsored pre-conference course entitled "*Clinical Residency 101: Getting it Started and Doing it Well*" which has been a success since its inception in 2005. This year was the most successful year yet, with registrations doubling compared to last year.
- Participation in the APTA Strategic Planning Session which included postprofessional education., residency education, and ABPTS certification.
- Establishment of the Section on Geriatrics as a vocal proponent of residency/fellowship education in all APTA activities.

Greg's work isn't over: he is currently overseeing the evolution of this Task Force into a permanent Section committee on Advanced Clinical Practice, which will address various issues and concerns related to Board certification and specialization, PTA Advanced Proficiency, residency/fellowship education and credentialing, and postprofessional development. Greg's effectiveness as an advocate for clinical residency programs has been recognized at the national level: he is chair-elect of APTA's Committee on Credentialing Residency and Fellow-

ship Programs. As Task Force Chair, Greg says that he enjoyed working with some of the most inspiring and capable people in our profession including: Dale Avers, Carol Davis, Rita Wong, Marilyn Miller, and Judy Canfield-Henry. In the final years, Greg was elated that 2 graduates of the residency program at St. Catherine's, Tamara Gravano and Sabrina Camilo, joined the Task Force. Both of these members added value and insight to the group as graduates (and now faculty) of a residency program.

Greg has also just been re-elected as a Director on the Section Board of Directors: a role he will fill until CSM 2011. Greg: we are very fortunate to have you as a volunteer leader. Thank you for your outstanding contributions as Clinical Residency Task Force Chair.

Marilyn Moffat, PT, DPT, PhD, FAPTA

At the 2005 Section Member's Meeting, the members passed a motion charging the Section to investigate creation of a course focusing on geriatric exercise for strength and conditioning. The Section Board created a Task Force with an expanded vision: promoting physical therapists as exercise experts in the aging population. Taking the reins was Dr. Marilyn Moffat, a recognized leader in the United States and internationally whose accomplishments, past leadership roles, and awards would be far too lengthy to list here. Luckily for the Section, one of Marilyn's passions is the incredible role of exercise in physical therapist practice. The Task Force brought together some of the greatest minds and researchers who are working with older adults today. The incredible work ethic of the Task Force resulted in things far beyond what was originally intended for this group. Some examples: consumer awareness tools for member use, suggested edits to the Guide to Physical Therapy, connections initiated with groups such as the American College of Obstetrics and Gynecology, and a suggested curriculum for entry-level PT program (still under review by the Section Board). I encourage members to review the January 2008 *GeriNotes*, a special issue on exercise that features many of the Task Force's products, and to visit the Section website, where

many of the final products of the Task Force are being shared for members only. Regarding the exercise courses originally requested by our members, the Task Force developed a 2-day course that is being offered twice in 2008 (in Kansas and Portland), and is considering expanding the course into a 3-part certificate program.

These are some words from Dr. Moffat herself: "I wish to personally thank Dale Avers, Marybeth Brown, Karen Kemmis, Carole Lewis, Katie Mangione, Mark Richards, and Rita Wong, as well as our Board Liaison, Anne Coffman for their enduring contributions to the work of the task force. Our work was also supported in the past by Michelle Lusardi, Anthony Walker, and Steve Wolf. We earnestly hope that the outcomes of this task force will have far reaching implications for the management of our older adults. I thank the Section for giving me the opportunity to serve in this role and look forward to contributing in the future."

Thank you, Marilyn, for your extremely productive tenure as Exercise Task Force Chair, and for your many other contributions to the Section on Geriatrics.

Sandy Levi, PT, PhD

The Section on Geriatrics has a simple but far-reaching goal: to promote evidence-based practice and outstanding research in the Section on Geriatrics. For 5 years, Sandy Levi has dedicated herself to this goal. As Research Chair she has written or coordinated numerous articles for *GeriNotes* and the listserv that educate members on the best ways to access current research, and on translating literature into practice. Sandy has worked with the PT Foundation and APTA Research Department, to identify priority topics related to the aging adult, and thus advance the evidence base for gerontology PT through advocacy and funding. The Research Committee is also responsible for the annual review of all Section Research Award applications, including the Adopt-A-Doc awards, Fellowship, and Student Research awards, as well as applications for poster and platform presentation at CSM. This means that Sandy has been coordinating the review of 40 to 70 various research-related applications each year! The volume of information that has been vetted by Sandy and her committee and shared with practitioners nationwide during

her term as Research Chair is staggering. We have been very blessed to have Sandy Levi leading our Research Committee, and are extremely pleased that she has recently accepted a position as an Advanced Clinical Practice Committee Member. Thank you for your past and continued service to the Section on Geriatrics, Sandy!

Committee Members

All of these outstanding leaders were supported by outstanding committee members. Committee Members are not just the workers that keep all of our projects moving: they are the future leaders of our Section. We would like to recognize and thank the following committee members for their dedicated service.

Name	Position	Term
Kate Brewer, PT, MBA	Finance Committee Member	6/2004 – 6/2007
Dale Avers, PT, DPT, PhD, MSED	Clinical Residency Task Force Member	2003-2007
Judy Canfield, PT, EdD	Clinical Residency Task Force Member	2003-2007
Carol Davis, PT, EdD, MS, FAPTA	Clinical Residency Task Force Member	2003-2007
Marilyn Miller, PT, PhD, GCS	Clinical Residency Task Force Member	2003-2007
Rita Wong, PT	Clinical Residency Task Force Member	2003-2007
Larry Nosse, PT	Awards Committee Member	2000-2008 (served as chair in 2002)
Holly Clynych, PT, MA, GCS	Section on Geriatrics Advocate to Minnesota	2005-2008
Alicia Ruth Souvignier, PT, MPT, GCS	Section on Geriatrics Advocate to New Mexico	2006-2007
Charity Johansson, PT, PhD, GCS	Section on Geriatrics Advocate to North Carolina	1997-2007

SECTION ON GERIATRICS CELEBRATES ITS 2008 AWARDEES

The 2008 Section on Geriatrics Awards Ceremony was held on Friday, February 8th at the Combined Sections Meeting in Nashville, Tennessee. This is a time when the Section recognizes the hard work and dedication of some of its most outstanding members. These dedicated and talented members have used their various skills to demonstrate commitment to quality patient care and advancement of geriatric physical therapy. The Section extends sincere thanks to all nominators: without you we would not have this opportunity to recognize these fantastic clinicians, educators, and researchers. Anyone interested in submitting a nomination for 2009 may visit www.geriatricspt.org for more information. It is never too early to nominate someone for a Section award.

For those of you who were not able to attend the ceremony, read on. . .

Words from Pat Wilder, PT, Awards Chair:

To start off the ceremony I would like to first acknowledge the newly certified Geriatric Specialists. There are well over 845 Geriatric Certified Specialists (GCS) in the United States. As many of you well know, the certification process requires thousands of clinical hours and hundreds of hours of study time. It is an arduous task that requires dedication and commitment.

The Section had 73 individuals who were awarded clinical specialization this past Wednesday evening. The Section would again like to acknowledge these individuals. If any of you are present please stand now and allow us to offer our congratulations.

The Section on Geriatrics strongly supports excellence in practice and specialist certification. I would like to ask all those individuals in the audience that have received their Clinical Specialization in Geriatrics to stand and be recognized.

The specialization process would not possible if it were for the hard work of

the Specialty Council. Council members work to determine the examination content, set and update the requirements for taking the exam, and screen exam applicants. I would like to ask the members of the Council to stand and allow us to say thank you for your hard work and commitment towards ensuring excellence within the Section and the Profession.

At this time it is our honor to present the following awards.

2008 Poster Award, presented by Jessie Van Swearingen, PT, PhD, Research Chair

The award for the best research poster in geriatrics went to S Chesbro and J Peacock, Howard University, for the poster, Assessing the Learning Style of Older Consumers: Is Asking About Sensory Receptor Preference a Reliable Indicator?

Adopt-A-Doc Awards, presented by Jessie Van Swearingen, PT, PhD, Research Chair

Four Adopt-A-Doc scholarship awards were given this year to the following students: Dennis Klima, PT, MS, GCS, NCS, a Lecturer in the Department of Physical Therapy, University of Maryland Eastern Shore, working on his PhD from Temple University on age-related differences in physical performance and fear of falling in community-dwelling older adults; Jennifer Mai, PT, DPT, MHS, an Assistant Professor in Physical Therapy, Clarke College, working on her PhD from Nova Southeastern University on interpersonal and communication skills in physical therapy students; Jaime Talkowski, PT, MPT, an Instructor in Physical Therapy, University of Pittsburgh, working on her PhD from the University of Pittsburgh, on using the Actigraph accelerometer to measure physical activity in community-dwelling older adults; and David Wert, PT, MPT, a Research Associate in Physical Therapy, University of Pittsburgh, working on his PhD from the University of Pittsburgh

on Variable Gait, Energy Cost and the Impact of Assists and Interventions. Dennis, Jennifer and Jaime were present at the meeting to accept their award and our support for their academic and research endeavors.

Excellence in Research Award, presented by Jessie Van Swearingen, PT, PhD, Research Chair

The award for Excellence in Research, recognizing the excellence in published research report in the recent past, was awarded to Jennifer S. Brach, PT, PhD, GCS and her colleagues for the paper Gait Variability and the Risk of Incident Mobility Disability In Community-Dwelling Older Adults. *J Gerontol Med Sci.* 2007;62A:983-988.

Clinical Excellence in Geriatrics, presented by Pat Wilder, PT, Awards Chair

As advocates, role models, innovators, and leaders in geriatric care settings, the recipients of the Clinical Excellence in Geriatrics Award demonstrate their commitment to improving the lives of older adults. The challenges of practice in this setting require specialized knowledge and appreciation of the changes that occur physically, mentally, and emotionally as one ages. Beyond that, the clinicians who are successful in this environment are adept at teamwork, creative problem solving, and education. They set high standards of excellence and challenge us all to follow their example of professionalism and compassion.

To be eligible for this award, the nominee must:

1. Be a current member of the Section on Geriatrics.
2. Be an advocate for older adults and a role model for excellence in physical therapy practice.
3. Have been involved in geriatric clinical practice settings for a minimum of 5 years.
4. Demonstrate innovation and leadership in program planning or man-

agement, clinical education and/or outstanding quality of care multidisciplinary teamwork, in meeting the physical therapy needs of older adults.

The individual who was selected to receive the 2008 award for Clinical Excellence in Geriatrics graduated with a BS in PT from Queens University in Kingston Ontario, Canada. She received a Masters in Business Administration from Fairleigh Dickinson University in Teaneck, New Jersey, is a certified Clinical Instructor and has an additional certification as a Dementia Care Practitioner, and has over 10 years of experience in the sub-acute/skilled nursing facility setting. She is currently employed by Prime Rehabilitation Services of New Jersey.

This individual was described by her nominator as:

- An advocate for patient rights.
- Someone who leads by example and drives her team forward with creativity and enthusiasm.
- A person who makes education and mentoring a priority: mentoring not only students but colleagues as well.
- Having been instrumental in establishing nursing driven wheelchair positioning programs, falls prevention programs, and restraint reduction programs.
- Having developed a special interest in Alzheimer's disease, obtaining certification as a Dementia Care Practitioner and frequently speaking on this subject to continuing education programs locally and at the state level.
- Exemplifying excellence in patient care.

Please join me in congratulating Sheila Francis, PT, MBA, CCI, CDP who has been selected as the nominee for the 2008 award for Clinical Excellence in Geriatrics. Sincere thanks to Sheila's nominator, Yaffa Liebermann, PT, GCS, and CEO of Prime Rehabilitation Services, Inc, for taking the time to recognize Sheila.

**President's Award, presented by
John O. Barr, PT, PhD, President**

The President's Award recognizes individuals who have provided outstanding service to the President of the Section on Geriatrics, while fostering

the mission and goals of the Section on Geriatrics. This year, there are 2 recipients of this award:

Carleen Lindsey, PT, MSc, GCS

During her career, Carleen has participated in research and publication related to osteoporosis and balance, and has presented numerous lectures and courses to professional and lay audiences. She has been co-chair of the National Osteoporosis Foundation's Committee on CE for Physical Therapists. Most recently, she accepted the position as interim chair of the Section's Osteoporosis SIG.

Specific to this award...over the past 2 years, she has served as the creator, editor, and PT star of the Section's instructional video "Kypholordosis Measurement Using a Flexible Curve." This video, on CD, and related support documents are available at the Section booth and at our on-line store. A portion of sales proceeds go to support the Geriatric Fund at the Foundation for Physical Therapy. Your work on this project has been greatly appreciated, Carleen!

**Marilyn Moffat, PT, DPT, PhD,
FAPTA**

Dr. Moffat is a true "force of nature" in the PT profession as an inspirational leader, educator, practitioner, consultant, and author. She has given over 800 professional presentations, including APTA's Mary McMillan Lecture in 2004. A past president of the APTA, Marilyn now serves as the president of the World Confederation for Physical Therapy.

Specific to this award...since 2005, Marilyn has chaired the "Task Force on Promoting Physical Therapists as Exercise Experts for the Aging Population." Under her leadership, this Task Force brought together some of the greatest minds in our profession who have been researching and teaching in areas related to exercise for older adults. To date, this taskforce has benefited from the participation of Dale Avers, Marybeth Brown, Anne Coffman, Karen Kemmis, Carole Lewis, Michelle Lusardi, Katie Mangione, Mark Rogers, Anthony Walker, Steve Wolf, and Rita Wong.

The quantity and quality of work done by this taskforce has been truly amazing, and has included:

- Five motions, presented to the 2007 House of Delegates, and one mo-

tion planned for the 2008 House (ultimately concerned with the promotion & marketing of physical therapists as exercise experts; and PTs/PTAs as activity / exercise role models)

- Suggested changes to the Guide to Physical Therapist Practice template
- Regional and Focus continuing education courses
- Curriculum Guidelines for Exercise and the Aging Adult
- A Guide to Safe & Effective Physical Activity & Exercise for the Aging Adult; and additional Guides for osteoporosis & diabetes
- Consumer Powerpoint presentations ("From Frail to Fit" and "So you want to begin exercising?")
- Three consumer brochures
- Two community screening forms (Aging / frail adults)
- Exercise recommendations for Older Adults
- The marketing tool "Be a Hip MD"
- A pocket card "Osteoporosis: Evidence-based Guide to Physical Activity & Exercise for the Aging Adult"
- An exercise prescription card

Many of these accomplishments are included in the January 2008 issue of *GeriNotes*, our newsmagazine, and will be available online at our website.

Your vision for and leadership of this taskforce are greatly appreciated, Marilyn

**Joan Mills Award, presented by
John O. Barr, PT, PhD, President**

Established in 1980 to honor the first President of the Section on Geriatrics, Joan M. Mills, this award is presented to a member who has given outstanding service to the Section. Joan Mills possessed the vision and determination to unite physical therapists, physical therapist assistants, and students in a commitment to excellence in providing physical therapy for older adults. Her leadership and dedicated involvement directly contributed to the evolution of the Section and nurtured leaders who have continued to promote the mission of the Section.

This award annually recognizes a member who has followed in the footsteps of Joan Mills, generously contributing their time, talents, and efforts in furthering the development of the Sec-

tion on Geriatrics. In addition to meeting the essential criteria for this most prestigious Section award, this year's recipient has demonstrated valuable service to the Section through areas of leadership, personal influence, achievements, and sustained work toward the development of the Section.

It is a great pleasure to present this year's award to: **Cathy Haines Ciolek, PT, DPT, CGS**

Cathy has served the Section in many capacities for over 10 years. From her initial role as State Liaison from Delaware, she has been:

- an insightful Section Board member & efficient Secretary
- a persuasive Nominating Committee member & chair
- an advocate, educating members regarding physical & chemical restraint issues and taking action on these matters in the House of Delegates
- and a representative of the Section to various APTA appointed groups

(including the Advisory Panel on Practice and at the Clinical Education Standards Conference)

Cathy currently is the Section's Listserv Coordinator.

A past recipient of the Section's Lynn Phillippi Award for Advocacy, the Clinical Educators Award, and the President's award, Cathy is the proud Director of the second geriatric clinical residency program to be credentialed in the U.S....at the University of Delaware. She also is the Associate Director of the Neurologic and Older Adult PT Clinic at the university.

Please applaud Dr. Ciolek's sustained and outstanding service to the Section on Geriatrics!

**In closing this ceremony....
(Pat Wilder, PT, Awards Chair)**

I would like to acknowledge that I have come to the end of my term as Chair of the Awards Committee and I would like to publicly express my

thanks and appreciation to the members of the Awards Committee for all their hard work, time, and thoughtfulness in reviewing documents of nominees and making the difficult decisions concerning award winners

I would also like to thank Jill Heitzman, the Board liaison to the awards committee for her support and friendship over the past 8 years.

Any lastly I need to thank Jessica Sabo, our Section's Executive Director. Jess can't be here this evening but I can not end this evening without thanking her for all her for all her gentle prodding and encouragement through frequent e-mails and telephone calls. She was always there to think through problems and offer suggestions. She has been a pleasure to work with and I look forward to seeing many beautiful pictures of her baby (due in a few months).

Thank you for helping us recognize and congratulate our 2008 awardees.

The Section of Geriatrics sincerely thanks its 2008 CSM Sponsors!

Section members: sponsor money at CSM allows us to spend your dues money pursuing our mission, rather than paying for AV, catering, etc. You can help the Section grow the sponsor program by visiting our sponsors' web pages and sending them an e-mail thanking them for their sponsorship.

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Diversicare Management Services, www.diversicaremanagement.com

Genesis Rehabilitation Services, www.geneshihcc.com

Gentiva Health Services, www.gentiva.com

Juvent, www.juvent.com

PeopleFirst Rehabilitation Svcs., www.peoplefirstrehab.com



Section on Geriatrics, APTA Regional Courses - 2008

Four Outstanding Courses to be Offered!

Physical Therapists as the Exercise Experts for the Aging Adult: Evidence-based Assessment and Exercise Prescription Worth 15 Contact Hours

Being presented twice in 2008:

April 12-13, 2008 (8 am–5 pm)
University of Kansas Medical Center
Kansas City, KS

September 27-28, 2008 (8 am–5 pm)
Providence Portland Medical Center
Portland, OR

Presented by: Karen Kemmis, PT, DPT, MS, CDE and Mark Richards, PT, MS

UPON COMPLETION OF THIS COURSE, YOU WILL BE ABLE TO:

- Explain the relationship between aging, activity, exercise, and functional abilities
- Explore barriers to physical activity participation and effective exercise program
- Integrate components of an effective exercise program for individuals with pathologies, impairments, and functional limitations and disability
- Choose, justify and perform best objective tests and measures to identify relevant impairments and functional limitations
- Establish an effective exercise prescription informed by functional limitations and impairments
- Interpret exercise responses and modify exercise prescription accordingly
- Adapt an effective exercise prescription for individuals considering specific pathologies and needs

WHO SHOULD ATTEND?

Physical Therapists, Physical Therapist Assistants, and Physical Therapist Students working with older adults in a variety of settings.

Best Practice Forum: Caring for the Aging Adult with Amputation Worth 16 Contact Hours

September 26-27, 2008 (8:30 am–5:30 pm)

The Virginian
Fairfax, VA

Presented by:

Michelle M. Lusardi, PT, PhD
Victor G. Vaughan, PT, MS, ATC
David H. Rooney, CPO

This 2-day interactive workshop uses a case based, problem-oriented approach to illustrate “best practice” for the rehabilitation and prosthetic care of aging adults, from time of amputation across the continuum of care toward independent function. The course draws on evidence from the clinical research literature as well as expertise of faculty and experience of participants, and applies and adapts this evidence the evaluation and care of aging adults with complex health issues, functional difficulties, and social/emotional/cognitive resources.

WHO SHOULD ATTEND?

Physical Therapists and Physical Therapist Assistants working with older adults in a variety of settings.

Manual Physical Therapy for the Geriatric Patient Worth 15 Contact Hours

October 25-26, 2008
University of Indianapolis
Indianapolis, IN

Presented by:
Carleen Lindsey, PT , MScAH, GCS

This 2 day course is designed to give experienced therapists a practical approach to manual therapy interventions for the geriatric patient. The introductory lecture reviews the aging process highlighting musculoskeletal and soft tissue mechanics. Assessment approaches for tissue flexibility and trunk muscle strength will also be presented. Lab sessions and demonstrations will feature flexible curve kypholordosis measurement, myofascial and tender point releases, PNF with deep tissue mobilization, mobilization with movement, and muscle energy techniques for spinal, rib, and SIJ dysfunctions. Detailed video and slide case presentations, as well as class member examples will be utilized for specific clinical problem solving. The personal mechanical health of the individual participant will be addressed throughout the course. Patient case studies will assist the therapist in developing an overall comprehensive treatment approach by appropriately combining tissue and postural assessment, manual therapy techniques, and exercise programs. This course has been designed for the therapist to immediately apply the information in the clinical setting to geriatric patients with restrictions that can be addressed through a variety of manual therapy interventions. This is a clinically comprehensive “hands-on” workshop featuring osteopathic muscle energy techniques.

WHO SHOULD ATTEND?

Physical Therapists, Physical Therapist Assistants, and PT students who are in their final year of school.

Pricing and Registration Information

	Before Advance Deadline	After Advance Deadline
Section on Geriatrics Member	\$280	\$330
APTA Member	\$340	\$390
Non-member	\$400	\$450

Course	Dates	Advance Deadline
Physical Therapists as the Exercise Experts for the Aging Adult	Kansas, April 12-13	3/21/08
Physical Therapists as the Exercise Experts for the Aging Adult	Oregon, Sept 27-28	9/5/08
Best Practice Forum: Caring for the Aging Adult with Amputation	Virginia, Sept 26-27	9/5/08
Manual Physical Therapy for the Geriatric Patient	Indianapolis, Oct 25-26	10/3/08

To Register:

Visit www.geriaticsppt.org

Call or e-mail to request a registration form:
800/999-2782 x8588, lataschamagness@apta.org



LEGISLATIVE & REIMBURSEMENT UPDATE

Kimberly M Lee, PT, DHS

The good news: The “cap exceptions” process has been extended, and the “cap” has been increased to \$1,810.00 for physical therapy and speech therapy services, combined. More good news: the case-mix threshold for inpatient rehabilitation facilities has been permanently frozen at 60%, and possibly the best news: the proposed 10.1% reduction in the physician fee schedule has instead been replaced with a 0.5% increase through June 30, 2008. All of this was made possible when, President Bush signed *The Medicare, Medicaid, and SCHIP Extension Act of 2007* (S 2499) on December 29.

Also on a positive note, Medicare’s Physician Quality Reporting Initiative (PQRI) has been expanded with 7 new initiatives of interest to physical therapists. The Falls Risk Screening initiative continues, and the Centers for Medicare & Medicaid (CMS) have added an obesity screening, health technology, diabetic footwear, diabetic neurologic evaluation, verification & documentation of medications, and a pain assessment to the list of initiatives. Successful reporting in the PQRI program will make physical therapists eligible for a 1.5% bonus payment on all allowable charges, but early participation is essential so that you meet the thresholds for the bonus payment. More information on the PQRI program can be found at: http://www.apta.org/AM/Template.cfm?Section=Coding_Billing&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=343&ContentID=45337.

Personnel qualifications have also been addressed in the final Physician Fee Schedule Rule. In a prior release, CMS defined Physical Therapy personnel requirements for Medicare reimbursement; in the new rule, CMS has added definitions for the Physical Therapist Assistants. The new stan-

dards affect all practice settings, including hospitals, skilled nursing facilities, rehabilitation agencies, private practice, CORFs and home health. These new standards will become effective **July 2008**. Details about the standards can be found at: http://www.apta.org/AM/Template.cfm?Section=Medicare_Personnel_Qualifications1&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=293&ContentID=34079.

A reminder about NPI: Effective 1/1/08, NPIs are required to identify the primary providers (the Billing and Pay-to Providers) in Medicare electronic and paper institutional claims (ie, 837I and UB-04 claims). You may continue to use the legacy identifier in these fields as long as you also use the NPI in these fields. This means that 837I and UB-04 claims with ONLY legacy identifiers in the Billing and Pay-to Provider fields will be rejected starting on 1/1/08. (Pay-to Provider is identified only if it is different from the Billing Provider). You may continue to use only legacy identifiers for the secondary provider fields in the 837I and UB-04 claims, until 5/23/08, if you choose. Test your claims now! A helpful resource page with links to NPI information can be found at: http://www.cms.hhs.gov/NationalProvIdentStand/Downloads/NPI_Resource_Sheet.pdf.

Key Dates for the NPI are:

Jan. 1, 2008, 837I electronic and UB-04 paper claims without an NPI in fields identifying the primary provider (billing and pay-to) will be rejected.

March 1, 2008, Medicare FFS 837P and CMS-1500 claims must include an NPI in the billing, pay-to, and rendering fields. NPI/legacy pairs are acceptable.

May 23, 2008, CMS will lift NPI contingency plan. Only the NPI will be accepted and sent on all HIPAA electronic transactions, paper claims, and SPR (Standard Paper Remittance) advice.

It is clear that APTA and our Section have been working hard to protect our practice and reimbursement, but the work is not complete. We continue to need your help on several key issues, including a permanent Repeal of the Therapy Cap, Medicare Direct Access, Falls Prevention, Student Loan Forgiveness, and Public Health Initiatives. The Federal Advocacy Academy will be held in Washington DC on March 29 – April 1, 2008 and we would love to have you there to increase the strength of our voice. Information on this annual event can be found at: <http://www.apta.org/AM/Template.cfm?Section=Grassroots1&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=249&ContentID=44119>. We would love to see you there, but if you can’t be there in person, please help us by contacting your legislators and letting them know that you care about these issues. If you are unsure who your legislator is, the APTA Government Affairs Section has made it easy: just visit the Legislative Action Center from the APTA home page. They will guide you step-by-step in locating your legislator and there are even pre-written e-mails and letters that you can use to contact your legislator so that your message can be heard at our nations Capitol!

APTA CONTINUUM OF CARE FOR PEOPLE WITH LIFELONG DISABILITIES TASK FORCE

*Lucy Henck-Jones, PT, MHA, GCS
SOG Task Force Representative*

The APTA Continuum of Care for People with Lifelong Disabilities (LLD) Task Force has been busy implementing the charge of the motion RC34-05 which was passed by the APTA House of Delegates in 2005.

“APTA’s initiative, Continuum of Care for Individuals with Lifelong Disabilities, focuses on concern over the challenges of obtaining appropriate healthcare for adults with lifelong disabilities, and the challenge of transitioning from pediatric to adult care. “

The Task Force represents a critical need in society as a whole, and physical therapy as a profession, as technology expands with more individuals with lifelong disabilities living into middle age and beyond.

Fact of the Matter:

- There are 200,000-500,000 individuals with lifelong disabilities over the age of 60 and this number is expected to double by 2030. (1,2)
- 12.6 million(18%) children in the US have a chronic medical condition. (3)
- 90% of youth with special healthcare issues survive into adulthood. (4)
- There approximately 270,000 adult survivors of childhood cancer in the U. S. (5)

Onsite work meeting at APTA headquarters in November 2007. The group has refined their mission to address the issues in transitioning people with lifelong disabilities to adult oriented health care and further the physical therapist’s role in the prevention, diagnosis, providing ongoing supports and intervention of movement dysfunctions of people with lifelong disabilities in order to promote the highest quality of life for all people with developmental disabilities.

In order to meet the listed goals, various strategies and products will be developed for entry level curriculum, clinicians, and consumers. As an overview of the issues affecting both consumers and all physical therapists, a white paper, and “Guidelines for Transition to Adulthood” are being developed. The focus of the educational products is to infuse the issues of lifelong disability into already existing documents and instructional models, and current curriculae. Activities include:

1. Integrating issues of LLD with the Normative Model for physical therapists and physical therapist assistants.
2. In addition, a variety of case scenarios integrating issues of LLD with common adult onset diagnosis and conditions will be to be available for instruction. For practicing clinicians, fact sheets, a resource compendium, and speaker list for continuing education topics are being developed.

3. As these products are developed and approved they will be available to physical therapists from all sections, both now and in the future, through the APTA.
4. A kick off educational session with a panel of speakers from the taskforce is planned for the 2008 Annual Conference.

The goals being addressed by the taskforce include the following:

1. Improve the content of entry level education within the context of a doctoring profession.
Strategies include:
 - Identify core knowledge and skills for delivering care and addressing the transition needs of adolescents and adults with lifelong disabilities
 - Incorporate core knowledge and skills into appropriate association documents
2. Educate members and stakeholders to create an environment of autonomous practice for physical therapists working with people with LLD. Strategies include:
 - Develop educational tools
 - Provide multi-sectional programming at conferences
 - Provide strategies for teaching the didactic and affective core knowledge to increase awareness of PTs/ PTAs
3. Explore and promote the role of physical therapists in a variety of practice settings to the membership and public. Strategies include:
 - Delineate the role of the PT as a resource to other health care provider
 - Promote the role of the PT as a resource to other health care providers in increasing access to and coordination of health care services to those individuals with lifelong disabilities
 - Develop a business case
 - Collaborate with external stakeholders
4. Explore the magnitude of the issues. Strategies include:
 - Brainstorm/survey members to identify issues
 - Develop document accessible to all APTA members
 - Develop transition guidelines for physical therapists

The Section on Geriatrics wants to thank all task force members for devoting time for this important issue:

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Mary Fran Delaune PT, MPT (APTA Practice Department)

Section Representatives:

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 Robbie O'Shea PT, PhD (Neurology)
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 Lorrie Sylvester, PT (Pediatrics)
 Karolyn Grimm PT, MS, CSCS(Aquatics)
 Anne Turner PT, PhD (Pediatrics).

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YOUR SECTION ON GERIATRICS WEBCONNECTION

Lucy H Jones, PT
Website Committee Chair

Check out our new logo on www.geriaticsppt.org! We now have a search engine. You are seeing the redesigned *GeriNotes* with a listing of previous issues now on our website under the Publications tab. Order your back dated issues today. The website is updated bimonthly and offers new Member's Only information. There is a promotional page for our Kypholordosis video which can be ordered through our on-line store. A brochure for PT &PTA students is available for downloading entitled, "Why Practice Geriatric PT?" Registration for our home study series and regional courses and descriptions are available also at the online store. The Adopt-a-Doc application may be completed and sent from the website. Suggested changes to the Guide to Physical Therapy are ready for your download with member only access.

Your website offers a myriad of current information, news items, and clinical resources just for starters. Links to various organizations and information sources are revised and updated with the latest being the National Osteoporosis Foundation Community Board. The description of both of the Clinical Geriatric Residencies and testimonials for the GCS exam are available for viewing. You can join the Section on Geriatric list serve on the website. Our Volunteer Opportunity Applications are accessible and ready for you to complete. Go to the Committees and Leadership tabs to view your leaders at work with a description of each area of service in your Section on Geriatrics.

Legislative updates are added as they happen to the Legislative page, News items can be found on the Home page. Consumer updates can be located on the Consumer tab at the left of the home page. Get to know your www.geriaticsppt.org. If you have content you would like to submit for review, the Web Committee is always available; questions or comments please contact: lhjonespt@aol.com

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SPEAKERS WANTED: Opportunity for Members to Educate Individuals About Osteoporosis

Anita Bemis-Dougherty, PT, DPT, MAS

The American Physical Therapy Association (APTA) is a founding member of the United States Bone and Joint Decade (USBJD). The USBJD is a global, multidisciplinary initiative targeting the care of people with musculoskeletal conditions—bone and joint disorders. For more information about the decade, you can click on the following link: <http://www.usbjd.org/index.cfm>.

One of the programs that the USBJD sponsors is the **Fit to a T** program. **Fit to a T** is an educational program developed by members of the USBJD designed to help the public learn more about bone health, as well as the early detection, diagnosis, treatment, and the prevention of osteoporosis.

The USBJD continually receives requests from companies/organizations who wish to plan a **Fit to a T** session or have already planned a session date and are in need of a presenter. The USBJD is also looking for Physical Therapists who would be interested in presenting the content in their particular areas. Presently, the USBJD has received requests for the presentation at the following locations/dates and is in need of presenters:

1. New York Life Insurance - Lebanon, NJ (close to Flemington, Somerville, Bridgewater, Clinton) - April 15, 2008
2. Towpath Trail YMCA - Navarre, OH - looking to present a session in either January or February 2008

3. State Farm Insurance- Concordville, PA looking to present a session in May 2008

The BJD provides the PowerPoint presentation and all of the speaker's notes. The presentations usually last from 45 to 60 minutes, are very well organized and the participants are genuinely interested, attentive, ask many questions, and are looking to make positive changes in their bone health. The **Fit to a T** booklet, a risk assessment sheet, the Surgeon General's "What it Means to You" plus resource materials are provided to the presenters for distribution to the participants.

If you are interested in providing any of the above three presentations or if you are interested in scheduling a session in your area, please contact the U.S. Bone and Joint Decade (USBJD) at usbjd@usbjd.org, or by phone at 847.384.4010.

This is a great opportunity for Section members to educate the public about osteoporosis. If you have any questions, please contact Anita Bemis-Dougherty, PT, DPT, MAS at anitabemis-dougherty@apta.org.

Anita Bemis-Dougherty is APTA's representative to the Board of Directors for the US Bone and Joint Decade.

PHYSICAL ACTIVITY TASK FORCE OPPORTUNITY!!

The Section on Geriatrics is very excited to announce the opportunity to serve on the Planning Task Force for our 2009/2010 Physical Activity Conference! This is not going to be just any old conference—we are setting out to create the premiere, must-attend, national event on physical activity and exercise for aging adults. In the style of the "III STEP" conference, we will be engaging a multidisciplinary, cutting edge faculty to inform and challenge conference participants.

The Task Force Chair is Ellen Miller, PT, PhD, Professor of Physical Therapy and Executive Director of the Center for Aging & Community at the University of Indianapolis. The Task Force will have its first meeting by conference call in May, and those who are available will be meeting at the Annual Conference in San Antonio in June. Potential members must be willing to commit to a conference call meeting each month, 2 to 3 hours of committee work between conference calls, and attendance at meetings during CSM and Annual Conferences. Task Force members with many different skill sets will be required to make this event a reality.

If you are interested in using YOUR creativity and organizational skills to help plan this event, please send an e-mail, stating your interest and qualifications, to Stephanie Black (blackst@uindy.edu) before May 1. Details of the May conference call will be provided to volunteers during the first week of May.

CALL FOR VOLUNTEERS

Why do We Want Volunteers?

Browse the website. Read the Journal. Look through our course offerings or newsletter. Everything produced by the SoG has been created by volunteers. You ARE the Section on Geriatrics. We welcome your interest in getting involved, and invite you to read about available positions.

Visit www.geriaticsppt.org, and click “About Us” for Volunteer Opportunities.

Some current vacancies include:

Committee Members on: Advanced Clinical Practice, Membership, PTA Advocacy, and Web Committees.

Section on Geriatrics Advocate positions in the following states: CA-Northern, CA- Southern, CT, HI, IN, ND, TX, MN, MO, MD, DC, ME, KY, LA, VA, NC, PR, UT, WA, WI

TEACH FOR THE OLDER ADULT: AUTHOR A SECTION ON GERIATRICS HOME STUDY!

Would you be interested in authoring future Section on Geriatrics Home Study monographs? If so, please provide your name, contact information, and topics that you would like to write about to Sue Wenker, Home Study Course Editor: wenker@surgery.wisc.edu.

Topics in Geriatrics volume 3 (premiering in April 2008)

- Fall Prevention, Celinda P. Evitt, PT, PHD, GCS
- Physical Therapy Applications for assessing and counseling older drivers, Cheryl Anderson, PT, PHD, MBA, GCS
- Health Promotions in Geriatric Care: The Collaboration between Physical Therapy and Public Health, Kathryn K. Brewer, PT, MEd, GCS
- Exercise Prescription for Older Adults, Dale Avers, PT, DPT, PhD, MEd and Patrick VanBeveren, PT, DPT, MA, OCS, GCS
- Bariatric Geriatrics: Physical Therapy Management of Older Adults who are Obese, Michael I. Puthoff, PT, PhD
- Successful Aging, Mary M Thompson, PT, PHD, GCS

Anticipated Monographs for 2009:

- Seating Systems and Electrically Powered Mobility Devices, Robbie B. Leonard, PT, MS
- Reimbursement: Updates in the Medicare System and Trends Across Other Payment Sources, Robert L Thomas, Jr, PT, MPT, BS
- Breast Cancer: The Role of the Physical Therapist, Nicole Stout Gergich, PT, MPT, CLT-LANA
- Issues in the Veterans Administration System: A Focus on the Veterans Administration System for the Physical Therapist, Alice Dorworth Holder, PT, MHS and Angela K Williams, MA
- Interdisciplinary Approach to End-of-Life Issues, Nancy R. Kirsch, P, DPT, PhD
- Pharmacokinetics and Disease Management: Implications for Physical Therapists, Orly Vardeny, RPh

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Supporting Geriatric PT Research

2007/2008 MATCHING CAMPAIGN

The Section on Geriatrics will match up to **\$50,000** in donations made this year! We have raised \$4,528 towards our goal. Thank you to everyone who has donated so far!

You can assist us by making a contribution of money, or of your time/knowledge. If even half of our members respond to this ad, we will easily reach our goal. Please read on for more details.

ALL donations to the APTA Foundation can be allocated to the Geriatric Endowment Fund.

The Geriatric Fund supports physical therapy research related to the aging adult. Our long-term goal is to build the "restricted" area of this fund: the part that will never be given away but will build interest, until we are able to award one \$40,000 grant each year. We can do this with your support: please consider a donation and encourage friends, colleagues, and patients to do the same. Every little bit helps. Together we can advance physical therapy practice for the older adult!

To have your Foundation contributions earmarked for geriatrics, just write "Geriatric Fund" in the memo portion of your check or on the credit card form.

Geriatric Fund 

More information about the Geriatric Endowment Fund: www.apta.org/foundation

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Faculty Position

A.T. Still University, Arizona School of Health Sciences invites applications for a faculty position at the assistant, associate or full professor level to teach in our entry-level Doctor of Physical Therapy program. Responsibilities include teaching, scholarship, academic and research advising, and service. Rank and salary are commensurate with experience and qualifications.

Qualifications: A PhD or equivalent post-professional doctoral degree preferred. Candidates with a post-professional master's degree and clinical specialization will be considered. The ideal candidate will also demonstrate evidence of scholarly activity and excellence in teaching at the graduate level using web-assisted media. Must be eligible for and agree to secure physical therapy licensure in Arizona. Preference will be given to candidates with expertise in one of the following areas:

- **Musculoskeletal Rehabilitation**
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ATSU is a fully-accredited graduate health professions institution offering doctoral degrees in Physical Therapy (entry level and post-professional), Osteopathic Medicine, Dentistry and Audiology. Masters programs are offered in Occupational Therapy, Athletic Training, and Physician Assistant studies. Opportunities for interdisciplinary education and research are available and encouraged. As the founding school of Osteopathic Medicine, ATSU is committed to the integration of body, mind and spirit. Additional information can be obtained from our website at www.atsu.edu.

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Interested applicants should send a cover letter and curriculum vita to:

Jim Lynskey, PT, PhD, Assistant Professor
AT Still University, Arizona School of Health Sciences
5850 East Still Circle
Mesa, Arizona 85206
Phone: 480 219-6000
FAX: 480 219-6100
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