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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.geriatricspt.org, and click “About Us” for Volunteer Opportunities.

CORRECTION

The article by Krystal Csuk and Meri Goehring in the March 2009 issue of GeriNotes included a misspelling of the word “subarchoid.” We apologize for the error.
PRESIDENT’S PERSPECTIVE:
OPPORTUNITIES FOR INVOLVEMENT ABOUND

John O. Barr, PT, PhD

Important outcomes from our two Board of Directors’ meetings at the CSM in Las Vegas included actions to improve the efficiency of our internal functions as an organization and to enhance the external advocacy by our profession for optimal aging. Steps taken towards achieving the first outcome included assessment and redrafting of the Section’s organizational chart. This revised chart, printed below, depicts the alignments of our Board members with the specific committees, taskforces, special interest groups, and other operational units (eg, Web site, list serve, journal, newsmagazine, etc.) that conduct the on-going activities of our section. This chart does not just portray reporting functions. During our meetings, all Board members renewed their commitment to stimulate more regular and supportive interaction with the groups that they are aligned with. It is anticipated that this action will contribute to better follow-through on our strategic plan and related action items.

Steps taken to achieve the second outcome of external advocacy have most recently related to activities of our taskforce on Retooling for an Aging America, chaired by Rita Wong, PT, EdD. Working collaboratively, Rita and I have finally been able to more fully engage the APTA in following-up on the Institute of Medicine’s report on the crisis facing our health care workforce. The APTA has now become one of 28 national organizations that are members of the Eldercare Workforce Alliance (EWA). Supported by grants from the Atlantic Philanthropies, Inc. and the John A. Hartford Foundation, the Alliance is comprised of organizations that represent health care providers, direct care workers, and consumers and their families. The Alliance was formed in direct response to “Retooling for an Aging America: Building the Health Care Workforce” from the Institute of Medicine. As GeriNotes readers well-know by now, this report concluded that America’s health care workforce is dangerously understaffed and unprepared to care for the rapidly growing number of older adults in the U.S. In addition to building awareness of the issues facing the eldercare workforce and our health care system, the Alliance intends to propose solutions that will: address clinician and faculty shortages, strengthen the direct care workforce, ensure a competent workforce, and re-design health care delivery. APTA’s representative to the EWA is Marc Gold...
EDITOR’S MESSAGE

YOU ALL HAVE SOMETHING TO SHARE: SUBMIT TO GERI NOTES

Carol Schunk, PT, PsyD

As you read GeriNotes, you must often think of a program you would like to share with others or a topic you would like to investigate. Bringing this information to the members of the Section on Geriatrics is the backbone of GeriNotes. A clinical magazine, GeriNotes, is intended to bring clinically relevant and easy to read information to the readers, information that stimulates discussion among clinicians which in turn improves patient intervention. In keeping with this philosophy, my Editors Message this issue is basically a CALL FOR ARTICLES. Below is the Instruction for Authors so all those who are considering submitting an article can move forward and see how easy it is to send in an article or an idea or a student paper. You all have something to share, so submit to GeriNotes.

Instructions to Authors

GeriNotes is an official publication of the APTA Section on Geriatrics. GeriNotes is a clinical magazine which includes clinically applicable articles and Section News. It is not a refereed text but not all submissions are accepted. The publication has a distribution of over 5,000, primarily physical therapists and physical therapist assistants who work with older adults or physical therapists in academia who teach related subjects.

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CONTENT

GeriNotes will consider articles addressing any clinical or nonclinical aspect of interest to physical therapist who work with older adults. Authors do not have to be Section members or physical therapists. Student papers at all levels are welcome. Submissions include but are not limited to:

- Clinical Reports
- Reviews of the Literature
- Policy Papers
- Student Papers of any Type
- Case Histories
- Articles Involving Interesting Issues Regarding Older Adults
- Physical Therapist’s Role as Advocates for the Older Adults
- Community, Chapter Activity Related to Older Adults

ARTICLE REVIEW PROCESS

Articles are reviewed by the Editor who will be the primary contact for the author. At the Editor’s discretion an article may be forwarded to member(s) of the Editorial Board for input. Minor edits will be made by the editor with communication to the author. If major re-writes are required, the author will be contacted by the editor.

SUBMISSION

Articles should be submitted via electronic mail. They can be e-mailed as an attachment preferably in a word document. Please send to the following address: carolschunk@earthlink.net

Submissions should include a title, authors name and credentials that follow your name. Contact information via e-mail. Include a 3-5 sentence bio and a photo in electronic format. Do not include an abstract.

FORMAT

Submissions should follow the style outlined in the AMA Manual of Style. With the following criteria:
Each page should be numbered. Text should be double spaced in a 12-point font. Articles can be of any length. Authors should keep in mind that in general 4 typed pages will equal one page in printed format. Margins should be one inch on each side. Do not use tracked changes.

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.
The concept of frailty has been hard to define. Frailty is neither due to aging alone nor is it a disease. Frailty is related to comorbidity and disability. Comorbidity is a risk factor for frailty. Frailty is a risk factor for disability.

Unlike geriatric syndromes such as falls and incontinence, frailty is not an occurrence or event. Yet, physical therapists must be able to identify and treat frailty because frailty increases a person’s risk of falls, impaired mobility, limitations in activities of daily living, hospitalization, and death. Moreover, to prevent frailty, a new framework for understanding the transition into and out of frailty may be needed.

There are several methods for defining frailty. They are largely predicated by the view that frailty is a geriatric syndrome. A geriatric syndrome is a health condition that occurs when the accumulated effects of impairments or, more broadly, deficits render an older adult vulnerable to situational challenges.

One approach to defining frailty posits that frailty has a particular phenotype or clinical presentation. Specifically, when a threshold of aggregate loss of function and/or adaptive capacity in multiple physiologic systems is reached, a person has an increased vulnerability to internal or external stressors. This aggregate loss may be identified through specific impairments and characteristics, so-called frailty components.

These markers of phenotypic frailty include unintentional weight loss, self-reported exhaustion, weakness, slow walking speed, and low physical activity. As the markers are impairments and characteristics, they can be identified by simple methods, easily incorporated into the physical therapy clinical setting (see Table).

An additional feature in the classification of phenotypic frailty is that an older adult can be identified as robust (an absence of frailty with 0 frailty components), prefail (1-2 frailty components), or frail (3, 4, or 5 frailty components). Note the transition to frailty using this classification scheme is viewed as a linear accumulation of phenotypic components.

Another method for defining frailty measures an accumulation of many physical and nonphysical deficits. This accumulation of deficits approach to the

<table>
<thead>
<tr>
<th>Frailty Component</th>
<th>Measured By</th>
<th>Scoring</th>
</tr>
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<tbody>
<tr>
<td>Unintentional Weight Loss</td>
<td>10 pounds or 5% unintentional loss within past year</td>
<td>Yes or No</td>
</tr>
<tr>
<td>Exhaustion</td>
<td>2 questions on the CES-D Scale: 1. I felt that everything I did was an effort. 2. I could not get going.</td>
<td>“How often in the last week did you feel this way?” 0=rarely or none of the time (&lt;1 day) 1=some or little of the time (1-2 days) 2=a moderate amount of the time (3-4 days) 3=most of the time Score of 2 or 3 to either question is positive for exhaustion in frailty</td>
</tr>
<tr>
<td>Physical Activity</td>
<td>Minnesota Leisure Time Activity questionnaire</td>
<td>&lt; 383 Kcals for Men &lt;270 Kcals for Women</td>
</tr>
<tr>
<td>Walk Time</td>
<td>15 feet</td>
<td>Men &gt;173 cm Cutoff 7s ≤173 cm Cutoff 6s</td>
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<td></td>
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<td>Women Taller than 159 cm Cutoff (sec) 7</td>
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<td>159 cm or less Cutoff (sec) 6</td>
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<tr>
<td>Grip</td>
<td>Hand Grip Dynamometer</td>
<td>Men (Body Mass Index) ≤24 24.1-26 26.1-28 &gt;28 Cutoff (Kg) ≤29 ≤30 ≤30 ≤32</td>
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<tr>
<td></td>
<td></td>
<td>Women (Body Mass Index) ≤24 24.1-26 26.1-28 &gt;28 Cutoff (Kg) ≤17 ≤17.5 ≤18 ≤21</td>
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classification of frailty suggests that the more deficits an individual has the greater the likelihood that individual will be frail.\textsuperscript{9} A major feature of this approach to defining frailty is that markers of frailty are not just impairments or physical characteristics. Markers also include signs, symptoms, disabilities, diseases, and laboratory measurements. Markers include a very broad range of items, for example, help with ADLs, feelings of loneliness or happiness, cancer, diabetes, high blood pressure, grip strength, walking pace, and body mass index to name a few.\textsuperscript{10} A frailty index is established from these deficits (i.e., the number of deficits present/the number of possible deficits listed).\textsuperscript{11}

How do these two approaches compare in defining frailty? They possess a fundamental similarity in defining frailty. For both, the more components or deficits identified, the greater the likelihood the individual will be frail. However, the items to be identified or examined on each approach are quite different. This may be one reason why a recent study identified 27\% or 63\% of a sample of hospitalized older adults as frail, depending on the method used.\textsuperscript{12}

Much needs to be done in order to understand relationships between frailty and aging, disability, and chronic disease, and frailty as a measurably useful concept.\textsuperscript{13,14} Principles of pattern formation in complex systems\textsuperscript{15-20} can inform the understanding of the transition from vitality to frailty. Frailty as pattern formation departs from other approaches to understanding frailty not by examining vitality or frailty alone, but by primarily examining the transition from vitality to frailty. Frailty is neither seen as a medical syndrome with a particular phenotype nor as an index of an accumulation of deficits across many domains. In the pattern formation approach, an individual is seen as transitioning from vitality to frailty when the individual exhibits fluctuations in medical status (fluctuations) and takes a longer time to recover from perturbations to health (slowing recovery). Moreover, regaining vitality from a frail state is more difficult and takes longer than the original transition from vitality to frailty (hysteresis). The Figure depicts these phenomena graphically. Physical therapy aimed at reducing fluctuations in health and recovery time from perturbations may preserve vitality more effectively than physical therapy aimed at changing a patient from a state of poor health to a better state of health.

We propose the concept of resilient aging to aid in the identification of vitality and frailty. Resilient aging implies the capacity for adaptation to ever-changing environmental challenges.\textsuperscript{21} Resilience would then have at least 2 states: vitality and frailty. Vitality is a state of resilience reflecting functional adaptive capacity. Alternatively, frailty is a state of (decreased) resilience as well, reflecting the incapacity to adapt to changing environments. Fluctuations and slowing recovery time are quite possibly very important because they offer the physical therapist relevant cues to frailty’s arrival. The quantitative value of information (gleaned from our assessments) is in how much uncertainty is reduced. The great uncertainty in identifying frailty lies not in manifest vitality or frailty but how and when someone is transitioning to frailty. For example, it is quite easy to identify a vital older adult. A vital older adult is someone who is able to adapt quite successfully to most challenges from their environment. It is, after all, a very stable state. Their clinical measurements are stable and the time to recover from a medical event is minimal. In terms of the information gathered in such an assessment, it is like saying it is day when the sun is out: a statement without much uncertainty. Similarly, it is relatively easy to identify a frail individual: much like knowing it is night after the sun has set. Again, this is a fairly uninformative statement and once someone is frail, we gain little by measuring additional frailty components.

We contend that there exist shades of gray filled with useful information during transitions between vital and frail states. The person is neither vital nor frail in the transition phase. Identifying the transition to frailty is immensely important for preventing frailty because it is more difficult to transition from frailty to vitality once someone has become frail.\textsuperscript{7} Said another way, it may be easier to prevent frailty when we have information about the transition than to try to rehabilitate someone back to a vital state once they have already become frail.
We believe a major focus of physical therapy should be on diagnosing and stabilizing fluctuations in health before observable frailty and on reducing recovery time from isolated events in the transitional period. This may increase the probability that the frailty transition will not be completed.

REFERENCES

St. Catherine’s Rehabilitation Hospital and Villa Maria Nursing Center, Miami FL
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THE LIFE STORY PROJECT
Patricia Gillette, PT, PhD, CSCS; Dennis Lesch, PT, GCS; Tony Brasky, PT, MS, SCS

INTRODUCTION
The article, which follows on page 9, by Kevin Beale was written to partially fulfill requirements for “Gerontology for Physical Therapists;” a class taught by Patricia Gillette, PT, PhD and Dennis Lesch, PT, GCS at Bellarmine University in Louisville, KY. The “Life Story Project” in our class was born out of exploring a new way to: (1) introduce students to potential clients/patients from the older generation when the students had limited clinical background and (2) to provide a service-learning course experience and foster our relationship with one of our community partners, a newly formed Senior Wellness Center in Schnitzelburg about 10 minutes from campus.

In the course, students in the Doctor of Physical Therapy Program were introduced to basic issues associated with aging including the biological, physical, social, psychological, and emotional aspects. Throughout the course, students visited frail elderly living in long-term care facilities, cognitively-impaired adults in memory care units, aging adults attending adult day care centers, and well elderly living in the community and aging in place successfully. Student feedback from the previous year indicated that the physical therapist students desired more face-to-face interaction with the aging adult. This posed a challenge as students were only in their second semester of the physical therapy curriculum and had very limited experience and exposure to clinical skills including history taking and interviewing. Instead of focusing on clinical interventions, the students were asked to engage with the aging adults by documenting someone’s life story. In the previous years’ course, students were required to interview an older adult and to write a reflection paper on their experience. This was received well by the students in post-experience focus groups and on the course evaluations. However, review of previous reflection papers noted an important limitation as many students simply emphasized the factual content of the interview and had difficulty reflecting on how the experience impacted them as students, individuals, and future clinicians.

THE LIFE STORY
To prepare the students in obtaining a life story we invited one of our colleagues—a social worker specializing in geriatric practice and home care—to interview an older adult in front of the class with one of the PT instructors, D. Lesch, narrating the encounter between the interviewer, the interviewee, and the student audience. Through this role-play scenario with an older adult, we demonstrated how to collect a life story through an interview with a person one had met for the first time. In preparation for the interview, we had given the client (and students) a guideline and a list of potential questions that may be asked. The format for the life story was modified from Best Friends, a book by Bell and Troxel and an article written in the local newspaper, the Courier-Journal. The local newspaper included significant events that occurred in the community over the last 50 years and this made it more specific to the intended audience as many of students are not from the Louisville area. The monumental events included community-wide disasters like the 1937 flood and the 1974 tornado that left many people homeless or in need.

Class time was set aside for the students to conduct the interview. Volunteers over the age of 65 were identified through the Schnitzelburg Senior Wellness Center where the interviews took place. Most interviews were completed in 60 minutes. The written project was graded by the instructors for the mechanics of writing, grammar, etc. and was reviewed by the older adult for content accuracy. Then the students made the proper revisions and corrections and the final copy of the life story was delivered to the older adult just in time for Christmas.

REFLECTION PAPER
The students also wrote a reflection paper about the assignment and were asked to address the following:

- attitude of the interviewee regarding their age and the aging process;
- physical effects of aging noteworthy to include changes in overall health and physical abilities;
- social impact of getting older to include changes in recreational activities, hobbies, vacation plans, regular social outings, circle of friends, and community resources and agencies used;
- lifestyle changes associated with aging to include retirement issues, living arrangements, family structure, and future plans.

In addition, each student was asked to reflect on his or her reaction to the information learned and to the personality of the interviewee. They were expected to comment if one’s ideas or attitudes about aging were changed or challenged. Finally, the student was requested to select one salient point of interest from the interview and reflect on how this newly gleaned knowledge may make one a better physical therapist.

The following article on page 9 is an example of student Kevin Beale’s reflection paper.

ACADEMIC AND CLINICAL PERSPECTIVE
As instructors we felt this experience was valuable and offered many benefits to the class and the older adult. For the students, this service project personified the core values of the APTA. It was a unique but practical way to introduce social responsibility, altruism, integrity, caring/compassion, excellence, and professionalism into the curriculum with second-semester students. The Life Story Project gave students a real life opportunity to employ and demonstrate these values. The students commented on how it helped to sharpen their interviewing skills, and to better appreciate the older generation and what great accomplishments and sacrifices they made in their lifetime. It gave them a deeper respect for the elderly. Many students were able to correlate the physical, so-
cial, and psychological changes associated with aging presented in class to the person they met through the interview. Several commented that the older person had a more active lifestyle and were in better physical shape than they were! A number of students reported that the experience gave them more confidence in working with older adults and hoped that older adults gained more confidence in younger people as future health care professionals.

The value of the Life Story Project was in providing an opportunity for the aging adults to reflect and affirm their purpose in life and to help them leave a written legacy and/or history for their family. It was an affirming experience in that a stranger (the student) recognized something the older adult did as meaningful, beneficial, and interesting and for the older adult to acknowledge that they did have something worth sharing. One older woman reflected on the fact that she recently became a widow and had not been able to talk with anyone about it until this interaction with the student.

VALUE TO PHYSICAL THERAPY

In a service profession such as physical therapy, helping someone reaches further than the present, it filters out to their family, friends, and community. This process heightened the students’ awareness of how their day to day interactions not only impact day to day patients, but how it can trickle to other aspects of a person’s life. Reflecting back on the process it’s obvious that the students as well as most practitioners are busy focusing on career goals and not really cognizant that they are building a professional and personal legacy and the art of physical therapy. For the present day PT practitioner, this story may give them opportunity to pause, reflect, and see what his or her legacy might be in another 15 to 20 years. As the Baby Boomer Generation of PT professionals approach retirement, it may be worthwhile to document their own life story.

ACKNOWLEDGEMENTS

Brad Castleberry, Director of the Schnitzelburg Senior Wellness Center and the members who volunteered.

REFERENCES


THE LIFE STORY PROJECT

Joseph A. (Tony) Brosky is currently an Associate Professor and faculty member of the Bellarmine University Doctor of Physical Therapy Program in Louisville, Kentucky. He is a clinician-educator in the area of musculoskeletal physical therapy with over 20 years of experience and is also an American Board of Physical Therapy Specialties (ABPTS) certified Sports Clinical Specialist.

Patricia (Patty) D. Gillette is a Professor of Physical Therapy at Bellarmine University in Louisville, KY. She engages in applied research and clinical practice with older adults across the continuum and enjoys introducing her students to the world of older adults.

REFLECTIONS ON A LIFE STORY INTERVIEW

Kevin Beale, SPT

The following is a reflection paper written for the Gerontology class at Bellarmine University in Louisville, KY. The class project is described in the article on page 8.

INTERVIEW

On Wednesday October 8, 2008, I sat down with Connie Morris and discussed her life, health, attitudes about growing older, and anything else she was willing to share. It was an exercise designed to help us develop our interview skills, to put us face to face with an older adult so that we might better understand the aging process, and to provide an act of community service by documenting some of the highlights of our interviewee’s life story. Mrs. Morris and I spoke for an hour and ten minutes in one of the meeting rooms at the Senior Wellness Center at Schnitzelberg.

Mrs. Morris was hesitant at first, having just received a copy of the interview template and slightly apprehensive about what exactly she had agreed to. I tried to put her at ease by describing the rationale behind the exercise and the topics we would be discussing. Her cousin Ruth—whom she views as a sister—was also in the room being interviewed by another student, which afforded her an additional source of comfort and allowed us to confirm the dates and details of some of their shared childhood experiences. We began with the formal life story questions and gradually Mrs. Morris warmed to the process, let her guard down, and spoke freely about her childhood, family, health, and getting older. From the outset, her
REFLECTIONS ON A LIFE STORY

up medications, and getting to doctor’s appointments. Her other priority was keeping up with her 10-year-old granddaughter, Raven, whom she watches every weekend while her daughter, Kimberly works.

Mrs. Morris’ approach to life, health, and the aging process were one and the same: do the best you can, accept things as they come, and be thankful for what you have. Because of this, she didn’t dwell on any of the problems typically associated with aging, because she genuinely did not experience them. She was, after all, relatively young at age 65 or because she quickly integrated these changes into her perception of normal baseline function. Any subtle changes in strength, muscle mass, endurance, aerobic capacity, etc. may also have been masked by the relatively sedentary lifestyle she maintained because of her COPD. Most cardiopulmonary changes associated with aging have little effect on resting function, but rather become apparent during activity.

The social impact of getting older seemed to be either inconsequential to Mrs. Morris or simply something she hadn’t considered. Her life at the time of our interview was much the same as it was 10 years ago, except that she was now retired. She still had the same hobbies, the same relatively small circle of friends, and used few community resources (such as the Senior Wellness Center). She very much prided herself on being self-sufficient and having a strong work ethic, even in retirement. In addition, she preferred to focus on the needs and well-being of others much more so than herself. This was evident in how she described her free time activities—caring for her granddaughter and helping 2 older friends with physical limitations with their instrumental activities of daily living. She plans to maintain this level of independence for as long as possible, living in her own home, driving, and doing for herself, etc. until physical limitations absolutely preclude doing so.

REFLECTIONS

For me, performing this interview was not unlike having a casual conversation with my own mother, but without the initial familiar rapport. Mrs. Morris and my mother are roughly the same age and similar in their personal philosophies regarding aging and health challenges. Specifically, they pride themselves on being self-sufficient, focus on their abilities rather than their physical limitations, and are uncomfortable discussing the effects of aging because they feel that by doing so, they are somehow being egocentric and/or too inwardly focused. Instead, they prefer to direct their energy outward, doing for others, keeping busy, and working hard even when the circumstances of their retirement may afford them more leisure time. This is an important lesson I took away from the interview—that in many ways, my role as a physical therapist may not simply be to help a geriatric patient regain function. Rather, my role as a PT is to help a patient regain physical function so that she can be physically capable to perform the activities necessary to fulfill the purpose she has defined for herself at that particular time. It isn’t about simply helping a patient with gait mechanics and endurance so she can walk 1000 feet. It is about helping a patient improve her gait mechanics and endurance so she can take her granddaughter to the zoo, or maintain independent living, or sit through a 2-hour movie without pain. Understanding functional limitation and disability in this manner represents the application of true patient-centered care. When you stop treating impairments and start treating the person while being mindful of the person’s self-described purpose, it gives an entirely new urgency to our practice, the effects of which may be far-reaching. Not only does therapy impact the life of the individual receiving treatment, but also the recipients of that person’s energies—the granddaughter who wants to go to the zoo, the friend who needs help shopping for groceries, the sister who needs a ride to her doctor’s appointment. In this regard, providing physical therapy for a single individual may have an exponentially magnified impact at the community level. By treating one, we may be benefiting dozens. This concept is a very exciting one, indeed. As a physical therapist, I find this to be both a tremendous privilege and responsibility.
Alabama State University provided an excellent setting to initiate the first in the series of three CEEAA courses. Steven Chesbro, PT, DPT, EdD, GCS and the entire PT staff of Alabama State University graciously opened their beautiful facility for the 65 course participants. The sold out crowd of attendees were challenged by the expert instruction of Marilyn Moffat, PT, DPT, PhD, FAPTA, CSCS and Karen L. Kemmis, PT, DPT, MS, CDE.

The first course objectives focused on anatomical and physiological changes that occur with aging, the effects of inactivity on these changes, and the best functional tests and measures to use for the examination of aging adults. This very active and hands on learning environment provided an exceptional platform for the PT and PTA participants to take the first steps to becoming the first Certified Exercise Experts for the Aging Adult!

Course participant Sharon Weise, PT, from No Place Like Home Physical Therapy, P.C. stated, “The seminar provided an interesting focus on more challenging, functional and non-traditional techniques for strength and endurance testing; offering a practical alternative to the more (static) manual muscle testing procedures. I am happy to see the emphasis on overall function and safety as opposed to specific deviations, which may be hard to overcome in older adults. The information provided practical options to work with individuals within the parameters of their own unique aging process.”

Course participants reported the mix of lecture and lab components kept the day interesting, with continual hands on reinforcement of the lecture material. The enthusiasm of all the course participants added to the collegial atmosphere, where new friendships were quickly developed and course participants are now eagerly awaiting the second and third CEEAA courses in Alabama.

The CEEAA courses consists of three, 2-day sessions, 2 take home tests, and a practical examination. See course description and details on page 14. Plan now to join your colleagues in promoting Physical Therapists as the exercise experts for the aging adult. Learn to challenge your patients to improve their quality of life and begin the road to successful aging!

If you are interested in hosting a CEEAA course series please contact Danille Parker Co-Chair of the Regional Course Committee at Danille.parker@marquette.edu for further information and space requirements.
Cathy Ciolek is the Section on Geriatrics Delegate to the APTA House of Delegates. This is only one of the many positions Cathy has held within the Section. She was the 2007 recipient of the Sections highest Award, The Joan Mills Service Award. In her non-Section on Geriatrics life, Cathy wears many hats. She is Director of Clinical Education/Service Learning and MS Clinic and Director of the Geriatric Physical Therapy Residency and Associate Director of Neurologic and Older Adult Physical Therapy Clinics at the University of Delaware. Meet Cathy our focus of the GeriNotes Meet the Leaders series.

How did you first get involved with the SOG and move on to leadership positions?
I was first appointed as a state liaison for Delaware by our chapter president. From there I joined the Program Committee and co-wrote with my husband a home study module on Clinical Management of Restraints. After that we got to know several leaders and then Dale Avers appointed me to take over as Secretary to fill a vacancy. I was hooked by the people-getting to know people like Dale, Rita Wong, Jennifer Bottomley—the “stars” of our geriatric leadership. Having them believe in what you can bring to the Section is wonderful.

What experience or person influenced your direction to work with older people?
The funny thing is I went to PT school because I wanted to work in pediatrics! My peds internship was cancelled at the last minute. So when I took my first job it was in an acute care hospital with rotations (rehab, outpatient, home health) where I ended up working with older adults. From there, Dan and I started our own business doing home health and SNF coverage which just cemented that geriatrics was where I was meant to be.

What is the best strategy that educators can take to spark students’ interest in working with older adults?
Getting students to understand that aging is not what you see in a skilled nursing facility! SNF is one level of care for frail older adults but there are many more living independently and who are high functioning! In our program, we have the student do functional assessments in an adult day care center but we are also sure to bring in adults who are in their late 60s, 70s, 80s, and 90s who are still living independently so they get a good view of a variety of people who can benefit from physical therapy.

What is the biggest issue facing physical therapy intervention with older adults?
There are really two:
1. The lack of research that can be translated to older adults. So much of the research limits participants to those under 75, or those with no co-morbidities. Now, this is done for a good reason but it gets frustrating to see they rule out all my patients that I would typically see in PT. So, hopefully more studies will be including larger age ranges and accepting some co-morbid bias to better reflect real people.
2. Secondly, too much PT out there is not pushing our older adults to their best potential. Repeated/seated long arc quad exercises with 1 or 2 pounds is not going to build muscle strength and is not using the best available evidence that we do have. Physical therapists should really involve challenging each patient, pushing the envelope of functional activities, balance, and strength. We are not doing enough of that consistently.

What is one of your favorite “moments” in working with older adults?
My favorite moments are the ones where you work with patients who think they can’t do anything anymore, and you use objective measures/outcomes tools and their own goals to show them all that they can do now and after therapy. These are the people who you know you improved their quality of life!

Describe your nonphysical therapy life.
Dan and I have been married for 19 years and have 3 children—twins Alexander and Danielle (15 yo) and Hannah (12). This year high school has introduced new meaning to the word busy! In spring season they are participating on 6 sports teams (all 3 play travel/club soccer plus Dan plays soccer for high school and club volleyball, Alex is on the high school track team). So, outside of work our lives revolve around various sports teams and driving anywhere in the Mid-Atlantic region! Dinner as a family is a rare but welcome event right now, but we are looking forward to summer and a little more reasonable pace!
What is it like to have a PT/PT marriage?
I don’t know what it would be like to not have a PT/PT marriage! Dan and I met at the end of my PT school. So we’ve been together as long as I have been a physical therapist. When we had our own business, it was great to be able to share caseloads and be each others sounding board. That happens less often now that he is not a “treating” therapist; but he can bounce health policy ideas (and I certainly offer him health policy advice!) and he understands when I share frustrating physical therapy experiences. But honestly, we don’t have much time now to discuss PT anymore. Our kids keep us really busy with sports teams and high school experiences!

Where do you think the SOG should be heading in the future?
Ideally I would like to see more members who do not think of themselves as working in geriatrics. Clearly a large number of PTs work with older adults but are not Section members. This is a group who can benefit from the resources, educational materials, and courses that the SOG offers to better improve care provided to older adults. We are clearly not just the Section on long term care; we just need to get that across to all those PTs out there.

What advice would you give members who would like to get more involved?
The leadership of the Section on Geriatrics includes some of the most wonderful people you will ever meet! Being involved has given me more opportunities and valued friends. Being involved has been worth every bit of time donated to the work. I think it is really best to join a committee and get to know where your interests and skills will fit. Some people wait to be asked, so consider this that request—“Would you be interested in joining a committee and developing into one of the future leaders of the SOG?”

APTA Foundation Dinner

At SOG Board of Directors Meeting

Cathy Ciolek with Past President, Jennifer Bottomley

President’s Award

CALL FOR NOMINATIONS
Our organization needs strong, proactive leaders to guide us through the changes. Leaders like you!

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Positions that are up for nomination for 2010 are:

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- Director
- Nominating Committee

To nominate yourself or someone else, please contact the Section Office at geriatrics@apta.org by June 1, 2009, or andreasaevoon@apta.org. A job description and consent to serve form for you to complete will be emailed. Thank you for participation in your Section on Geriatrics.
The topic concerning the role of religion and/or spirituality and health among older adults has been widely investigated. There has been ample research that examines the different facets of the impact religion/spirituality has on mortality rates, preventive service utilization, health status, and length of stay in health care facilities among older individuals. Having an understanding of the effects that religion and/or spirituality may have on older adults’ health care can be very helpful in managing the physical therapy patient. Some of the research suggests that religiosity and/or spirituality can have a positive impact in the lives of many older adults. It is crucial to understand both the positive and negative effects in order to provide optimal care.

REVIEW OF THE LITERATURE

Analyzing the current evidence regarding this topic will help provide insight into the possible effects that religion and/or spirituality may have on elderly patients. Noting the distinction between religion and spirituality is essential. Religion is defined as “an organized system of beliefs, practices, and symbols designed to facilitate closeness to a higher power; it emphasizes relationship with and responsibility toward one another in a community.”

Spirituality is defined as “the quest for understanding life’s ultimate questions and the meaning and purpose of life; it emphasizes individual experience and may or may not lead to participation in a community.”

There is literature that suggests a positive relationship between mortality rates and religiousness by reducing the risk of mortality. For example, a higher church attendance rate has been predictive of a decrease in mortality. On the other hand, very little research has focused on the relationship between religious struggle among medically ill elderly patients and mortality rates. A 2-year longitudinal study by Pargament et al. found that having higher religious struggles was associated with a greater risk of mortality. These results were consistent with previous studies. Individuals who had high levels of religious involvement, including church attendance, had a greater prediction of lower mortality.

Specific aspects of religious struggle have been identified, including patients’ feelings of being estranged or unloved by God. Many patients also blamed themselves for lacking devotion and as a result were being punished by God. Others believed that their illness was caused by the devil. Although there are no definitive answers as to why this relationship exists, there are many hypotheses to explain the association with an increased risk of dying. These struggles may have negative effects on overall physical health and individuals who are experiencing religious inner conflicts may have differences in emotional and personality traits. Additionally, they may experience higher levels of emotional distress, depression, and anxiety. Experiencing these feelings may result in decreased social interactions and a resistance to seek out social support.

Another area of religion and spirituality that has been explored is utilization of preventive services among older adults. Diabetes and heart disease is a main concern in today’s society. Taking advantage of preventive services and identifying risk factors are very important in maintaining a healthy lifestyle. Understanding the factors that may prevent someone from using valuable health care services can help health care professionals determine ways to encourage more individuals to prioritize and develop healthy habits. Much of the past research has involved looking at studies within the US and Western Europe. In a study by Benjamin, the target population included middle-aged and older adults in Mexico. A large percentage of Mexicans have high religious involvement, and a majority of them report a preference towards a Catholic religion. Since religion is largely considered a cultural institution, this was the main focus rather than looking at spirituality. The researchers focused on the prevalence of individuals who receive screens for blood pressure, cholesterol, and diabetes, all of which if detected early on can change the individual’s life. After adjusting for confounding factors, they found that individuals who have high levels of religious salience, or the importance of religion in one’s life, are 60% more likely to participate in a preventive service including blood pressure and cholesterol screening. Moreover, individuals who attend weekly religious activities are more likely to have had blood pressure and diabetes screening.

One of the major hypotheses for this finding involves the amount of social support that one might receive if participating in religious activities and a religious organization. These individuals may be more likely to be exposed to valuable health information, transportation services, and a reduced cost of services. Additionally, they may be hearing messages that encourage the importance of taking care of one’s body and utilizing services to identify risk factors and prevent future health problems. This may have an overall effect on individuals’ values and beliefs about the health care system and promote a trusting relationship with health care professionals.

For older adults, having an understanding of their body and their health status is something that can have major implications on their functional status. Individuals who self-report their health as poor are more likely to see decreases in their physical functioning. In one study by Daelman et al., differences were seen between religiosity and spirituality. The authors categorized 5 items into frequency of service attendance
as an organizational religiosity, frequency of prayer and spiritual rituals as a non-organizational religiosity, strength of orientation to religion or spirituality, intimacy towards God or a higher being, and the frequency of spiritual encounters. These researchers found that within the geriatric population, those who have greater spirituality, not religiosity, were more inclined to report their health as good. Contrary to other research findings, a greater religiosity was associated with poorer self-reported health statuses. The explanation for the differences between religiosity and spirituality is unclear but may be attributed to the idea that individuals with high levels of spirituality have beliefs similar to health optimists. Instead of looking at their problems as illnesses, they may attribute bodily changes to the natural aging process.

The role of religion and/or spirituality has also been investigated in the area of the length of stay in health care facilities among the geriatric population. In a study by Koenig et al., they found very little evidence that supports the hypothesis that religious and/or spiritual attitudes, beliefs, and practices will minimize the number of days spent in the hospital as well as the number of times hospitalized. They investigated the impact of religion and spirituality on the number of days spent in long-term care facilities (LTC) and acute care hospitals (ACH). In this study, religious activity was categorized into 3 groups including organized religious activity (ORA), non-organizational religious activity (NORA), and listening/watching religious radio/television (RTV). Organized religious activity was the only item that had a weak but positive relationship between fewer days spent in ACH. They also assessed spirituality by having patients report “I am not spiritual at all” or “I am very spiritual.” An increase in NORA, RTV, and daily spiritual experiences were associated with a decrease in number of days in LTC. Older adults who had greater levels of NORA are suspected to have greater levels of social support. A recurring theme that seems to be a major finding within this study is the overwhelming social support that older adults experience when compared to those who report less devotion to religion or spirituality.

IMPLICATIONS FOR PHYSICAL THERAPY

The current research has not investigated the role of religion and/or spirituality in the area of physical therapy. However, many of the findings can help physical therapists understand the elderly patient and treat him/her as a whole. In addition to looking at the neurological, physiological, and biomechanical effects, psychosocial or behavioral aspects should also be incorporated into a physical therapist’s decision-making. This information may be revealed in an interview or conversations with the patient. The physical therapist needs to be supportive without imposing belief/disbelief regarding religion and/or spirituality. He/she may offer support by simply listening to the patient and possibly referring the patient to outside resources, such as chaplaincy. These types of situations need to be communicated with professionalism and respect for the patient. One of the goals of the physical therapist is to identify the patient’s health belief model which will help guide the rest of the patient’s treatment.

Participating in religious/spiritual activities or services provides individuals the opportunity to interact socially. In dealing with a patient who is receiving physical therapy, his/her values need to be taken into consideration. Encouraging the patients to get involved in the community so that they can experience social support is very important. This may mean religious or spiritual involvement depending on whether the patient has these beliefs. If they do not share these values, any type of involvement where they get to interact with others may be beneficial for them. Having a positive support system on which they can rely may help them to remain or become optimistic and motivated about managing their health issues.

Some patients may be dealing with internal struggles with religion and/or spirituality. The evidence shows that this is correlated with an increase in mortality among patients who are medically ill. Finding ways to provide support and help for these patients is crucial. Some of these older adults may have misconceptions about their illnesses, which may lead them to believe that a higher force or God is punishing them. Therefore, education will be very critical in managing the physical therapy patient. For instance, educating the geriatric patient about the natural changes that occur with aging as well as common pathologies that are associated with aging may help the patient understand his/her diagnosis or medical problem better. Also, patients may have inadequate coping mechanisms. Therefore, the goal is to work with the patient and find effective ways to relieve stress. If patients suffer from anxiety or depression, referral to a psychologist may be indicated.

Some of the researchers hypothesize that individuals who regularly attend religious services are more likely to use preventive services. Those individuals may have access to more information and more positive messages that encourage taking care of one’s body. Given this information, the physical therapist can educate the patient on the importance of maintaining an active lifestyle, having healthy habits, and using preventive services. The current research concerning health and religion and/or spirituality among the geriatric population has mainly been investigated outside the area of physical therapy. Therefore, future research should focus on the effects that religion and/or spirituality may have on health and physical therapy among older adults. There are 3 suggestions for future research on this topic. First, it would be interesting to see whether or not an increase in religious attendance among the elderly correlates with a decrease in amount of time spent in physical therapy. One hypothesis for the increase in religiosity and/or spirituality and decrease in mortality rates deals with more social interactions among those individuals. Therefore, a second suggestion for future research would compare social involvement in activities that do not deal with religion/spirituality to social involvement in religious/spiritual activities among older adults and whether there is a relationship with self-perceived health status. Finally, future research should study the differences between religion and spirituality and whether this has an effect on long-term effects of physical therapy.

CONCLUSION

In conclusion, the evidence shows that having involvement in religion and/or spirituality can have positive outcomes on older adults’ health. There is still some speculation as to why these findings are repeatedly seen throughout the literature. Future research is needed to investigate the relationship between religion, spirituality, and health. Providing individualized care, with an emphasis on patient education, is of utmost importance when considering the management of the physical therapy patient. A physical therapist will be a source of support and a valuable resource of information for the older patient. Therefore, incorporating the patient’s beliefs into physical therapy care may facilitate positive
outcomes in the management of the older adult patient.

REFERENCES

Betsy Rolfes, is a second year DPT student in the Department of Physical Therapy and Human Movement Sciences at Northwestern University. She is originally from Celina, Ohio and obtained her Bachelor’s degree from The Ohio State University. She enjoys athletics, going to sporting events, traveling, and anything involving the outdoors. She will graduate in December 2009 and plans to begin her professional career in either outpatient pediatrics or outpatient orthopedics shortly thereafter.

Nora Francis is Assistant Professor and Assistant Chair of Clinical Education with the Department of Physical Therapy and Human Movement Science at the Feinberg School of Medicine, Northwestern University, in Chicago, IL.

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Course 1:
Introduction and Examination/Tests and Measures

Course 2:
Exercise Prescription, Consensus Guidelines

Course 3:
Special Populations, Complementary Exercises, Motivation, Drug and Nutritional Considerations, Marketing

<table>
<thead>
<tr>
<th>Locations</th>
<th>Course 1</th>
<th>Course 2</th>
<th>Course 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Marcos, CA</td>
<td>July 18-19, 2009</td>
<td>Dec 5-6, 2009</td>
<td>CSM 2010</td>
</tr>
<tr>
<td>Boston, MA</td>
<td>November 21-22, 2009</td>
<td>April 10-11, 2010</td>
<td>PT 2010</td>
</tr>
</tbody>
</table>

Courses provide formal didactic education, supervised and mentored skill development, followed by home-based reflection and critical thinking. Mastery is assessed by home-based examination (Courses 1-3) and onsite skills test for the content of the first 2 courses during Course 3.

For further information, visit http://geriatricspt.org or contact the Section on Geriatrics Office at geriatrics@apta.org.
PULMONARY FIBROSIS: A CASE REPORT

William H. Staples, PT, DPT, GCS

The following is a case report on a patient with Pulmonary Fibrosis. The clinical information on the patient is presented first followed by an in-depth discussion of the disease.

HISTORY
An 87-year-old male, retired auto worker living in an senior living community reported symptoms of increasing dyspnea over the last 3 days with thick, purulent sputum present, difficulty with ambulation, and increased confusion. The patient’s daughter brought him to his physician, and he was subsequently admitted to the hospital. Upon admission to the hospital X-rays were taken which revealed a left lower lobe infiltrate. Oxygen saturation was noted at 64% to 75% in readings before the patient was placed on 3 liters nasal oxygen.

It should be noted that the top five reasons for hospitalizations in 2006 were all for cardiopulmonary diagnoses. See Table 1. He was diagnosed with community acquired pneumonia and started on Solu-Medrol, Levaquin (an antibiotic), Duonebs, Mucomyst, Mucinex, to improve breathing, and a sliding scale insulin dosage. Additionally, he did have a course of IV antibiotics during the hospital stay.

Table 1.

<table>
<thead>
<tr>
<th>DISEASE</th>
<th>NUMBER OF ADMISSIONS / 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHF</td>
<td>839,000</td>
</tr>
<tr>
<td>PNEUMONIA</td>
<td>770,400</td>
</tr>
<tr>
<td>CORONARY ATHEROSCLEROSIS</td>
<td>675,700</td>
</tr>
<tr>
<td>CARDIAC DYSRHYTHMIAS</td>
<td>484,200</td>
</tr>
<tr>
<td>ACUTE MYOCARDIAL INFARCTION</td>
<td>449,000</td>
</tr>
</tbody>
</table>

He also had an ingrown toenail removed from the left great toe. The pneumonia resolved, and he was discharged to his previous residence, an apartment in a senior living community, after 8 days with orders for home health rehabilitation. He was not seen by physical therapy during the hospital stay. The physician and a social worker both suggested a brief stay in a skilled nursing facility following hospitalization but the patient adamantly refused.

He was seen the day after hospital discharge by this physical therapist to admit for home health care. His previous medical history included: idiopathic pulmonary fibrosis, a pulmonary embolism, type II diabetes mellitus, hypertension (HTN), congestive heart failure (CHF), prostate carcinoma, coronary artery disease (CAD), multiple episodes and locations skin carcinoma, hyperlipidemia, and a transluminal angioplasty 2 years ago. He had an allergy to penicillin.

The physician was called to get order to have nurse draw/check prothrombin time and to review insulin procedures. Orders were also received to titrate oxygen with activity to maintain oxygen saturation at or above 90%. An additional order for occupational therapy was obtained to assist this patient with ADLs, energy conservation, and donning TED hose.

PSYCHOSOCIAL
There were many psychosocial issues to deal with to provide complete and adequate care for this patient. The daughter that lives 10 miles away is the primary caregiver. She takes care of finances, medication set-up, and shopping. Meals are provided to residents of this senior community, but the patient must make it down to the dining room or there is a $25 room service charge. There is also an availability of in-house nurse which also costs $25 to walk in the room for a scheduled visit, and $35 if the call button is used for an unscheduled visit. He is a retired salesman, a widower who was previously quite active in the senior community. He was also known as a practical joker with a big sense of humor.

MEDICATION / LAB DATA
The medications he was taking upon home health admission were:
- Sliding scale insulin
- Glipizide XL 2.5mg p.o. q 24 hrs (for diabetes)
- DuoNebs nebulizer qid (to aid in loosening mucosal secretions)
- Coumadin 2.5 mg p.o. M, W, F, Sa, Su (anticoagulant)
- Coumadin 5.0mg p.o. Tu, Th
- Bacitracin ointment (L) great toe, wrap with sterile gauze bid
- Bisacodyl 5mg p.o. bid (laxative-stimulant)
- Zocor 20mg p.o. qd (for cholesterol)
- Paroxetine 20mg p.o. qh6 (generic Paxil)
- Docusate 100mg p.o. bid (Colace-lubricant)
- Prednisone 40 mg p.o. qd (steroid)
- Mucinex 1200 mg p.o. bid (expectorant)
- Lasix 80mg p.o. tid (diuretic)
- K-Dur 20mg p.o. tid (potassium supplement due to use of Lasix)
- 3.0L/min nasal oxygen

His lab values are listed in the box below.

<table>
<thead>
<tr>
<th>Test</th>
<th>Normal Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Urea Nitrogen (BUN)</td>
<td>43.8mg/dL (H)</td>
</tr>
<tr>
<td>Creatinine 1.5mg/dL (H)</td>
<td>7.0-19.0</td>
</tr>
<tr>
<td>Glucose 69mg/dL</td>
<td>0.7-1.4</td>
</tr>
<tr>
<td>Potassium 3.0 meq/L (L)</td>
<td>64-112</td>
</tr>
<tr>
<td>Sodium 139 meq/L (L)</td>
<td>3.5-5.5</td>
</tr>
<tr>
<td>Chloride 85 meq/L (L)</td>
<td>135-145</td>
</tr>
<tr>
<td>Carbon Dioxide 41.7 mmol/L(L)</td>
<td>98-113</td>
</tr>
<tr>
<td>Calcium 9.6 mg/dL</td>
<td>20.0-33.1</td>
</tr>
<tr>
<td>BUN/Creat Ratio 29.9 (normal)</td>
<td>none given</td>
</tr>
<tr>
<td>Prothrombin 18.9 sec (L)</td>
<td>20.5-29.5</td>
</tr>
<tr>
<td>INR 1.9 (L) (International normalized ratio)</td>
<td>2.0-3.0</td>
</tr>
</tbody>
</table>

* Protime range is in the therapeutic range. Normal range for pts not on anticoagulant meds is 9.3-11.0
The procedure for administering the sliding scale insulin was to perform glucose-finger stick before meals and at bedtime. The patient was to administer the insulin subcutaneously in accordance to the following standardized scale:

<table>
<thead>
<tr>
<th>Blood Sugar</th>
<th>Units of Insulin</th>
</tr>
</thead>
<tbody>
<tr>
<td>60-150 mg/dl</td>
<td>0</td>
</tr>
<tr>
<td>151-200 mg/dl</td>
<td>4</td>
</tr>
<tr>
<td>201-250 mg/dl</td>
<td>6</td>
</tr>
<tr>
<td>251-299 mg/dl</td>
<td>8</td>
</tr>
<tr>
<td>Above 300 mg/dl</td>
<td>10</td>
</tr>
</tbody>
</table>

The patient did not have the physical ability or stamina to self measure blood sugar, draw or inject himself with insulin. As it turned out, this patient’s blood sugar was kept in control with diet and the Glipizide, so no insulin injections were needed.

Prednisone, a corticosteroid, is the most common drug given to patients with idiopathic pulmonary fibrosis. About 25% to 35% of all patients respond favorably to this medicine. No one knows exactly how corticosteroids work on this disease, or why some patients do well on prednisone while others do not. Patients take prednisone by mouth every morning, starting with a high dose for the first 4 to 8 weeks. As they improve, they gradually take smaller amounts and often left on a low dose, as this patient was. Changes in mood are one of the more common side effects of prednisone; most patients, however, can handle the mood changes such as anxiety, depression, or sleeplessness once they know that the drug is causing the problem. A less common side effect is a rise in blood-sugar levels. This might affect this patient who has a diagnosis of diabetes. Long-term use of steroids can also affect bone density. This person does not get outside and so doesn’t get his “10 minutes” to make any vitamin D.

**OASIS DATA**

The standardized OASIS evaluation was performed per Medicare Part A requirements. The evaluation found that the patient used a lounge chair for sleeping, as he was unable to lie flat. The lounge chair has an electric motor lift that enables the patient to come to standing, and assist for transfers. His vital signs were a heart rate (HR) of 96 and regular; a respiratory rate (RR) of 36 and regular; and a blood pressure (B/P) of 104/66 while sitting. Oral temperature was 98.0°. No carotid bruits present. He was on 3L/minute nasal oxygen with a saturation of 94% at rest. This sat level dropped rapidly with accompanying shortness of breath with any activity, even minimal such as using a urinal, indicating severe debility. His vision was adequate and he wears glasses for reading. He was hard of hearing in both ears, but communication can be made by raising the volume of speech. He was only able to speak with short phrases between breaths. He denied any pain. Assessment of the integument system revealed an open circularly-shaped wound that measured 0.5cm in diameter and 0.25cm in depth on the medial nail bed border of the left great toe. The wound had been covered with gauze but had fallen off. It was redressed with sterile gauze following the assessment. Both lower extremities had absent hair growth. There were many areas of ecchymosis on the upper extremities, which the patient stated were from the IV and repeated blood draws in the hospital. Sensation to light touch was diminished in a stocking type distribution in both legs.

The patient reported a height of 5’6” and a weight of 205 pounds. He has episodes of urinary incontinence, urinal present at side of chair. The urine was dark yellow in color and clear. His abdomen was soft. Cognition was normal and he scored a 30/30 on the mini mental state examination. There were no outward signs of depression, and he was taking an antidepressant. He has a daily bowel movement and has bedside commode next to chair at 45° and a standard wheelchair on the opposite side of the lounge chair at 45°. There was a rolling walker with a seat and hand-brakes in the center that the patient uses to transfer between the lounge chair, commode, and wheelchair.

The durable medical equipment that was present was an oxygen concentrator that he was currently using, a portable tank for travel that can be filled from a liquid oxygen container, and 50 feet of cannula tubing. Additional equipment included a tub seat and a reacher. He had one needed piece of equipment, a basket for the walker, in order to carry the portable oxygen tank. Medicare does not pay for this, so the daughter was contacted to purchase this item as it is necessary for patient independence.

**HOME ENVIRONMENT**

A home environmental assessment shows an apartment that can be negotiated with a walker, but is not truly wheelchair accessible to small doorways and tight corners. It was not possible to get the wheelchair into the bathroom without taking the door off the hinges, which was done. No fall hazards were present including a pet, wires, area rugs, or general clutter.

**FUNCTIONAL ABILITY**

His functional abilities were quite limited. He needed assistance for all activities of daily living (dressing, grooming, and bathing). His meals were being brought by staff to the room. His transfers required maximal assist to stand from a chair, but independent to pivot from chair to the commode. With the use of the lift chair he can come to standing independently. Bed mobility was not tested due to his inability to lie flat. Gait used a 2-wheeled rolling walker to ambulate up to 8 feet with moderate assist before tiring. During that brief period of gait his oxygen saturation (sat) dropped to 82%, the heart rate increased to 112, the respiratory rate increased to 40, and the blood pressure remained stable at 112/66. No irregular rate noted with exercise. Gait pattern consisted of bilateral short strides, approximately 5 inches with forward flexed posture. The feet barely cleared the floor surface and had no discernable “push-off” or heel strike. A Gait Assessment Rating Score (GARS) and the modified functional ambulation tool were not able to be performed. His strength was measured grossly at 4+/5 all 4 limbs. Sitting balance was normal, and standing balance was limited as he had to use the upper extremities for support to prevent a fall. He was unable to perform any of the standardized screens/tests for balance (POMA, Berg) due to the fatigue status. Functional reach was 0 inches.

Since he was on an antidepressant medication, and there were no outward positive signs of depression (crying, sad expression) it was reasoned that the “Two question depression test” should be used.
The 2 questions of the screening tool are:
1. “During the past month, have you often been bothered by feeling down, depressed, or hopeless?”
2. “During the past month have you often been bothered by little interest or pleasure in doing things?”

The literature shows that a positive response to the 2-item instrument had a sensitivity of 96% and a specificity of 57%. So if person answers no to both questions it is quite doubtful that they have depression and a good chance that they are depressed if they answer yes. One must remember that these scales are not linear. As a review for the reader, if the sensitivity is high, a negative test will rule the disorder out, and if the specificity is high, a positive test will rule the disorder in.

His functional abilities have recently deteriorated because in the previous 3 months he was independently ambulating with a rolling walker approximately 100 feet. He was also independent in all transfers and ADLs and was able to use the bathroom. He did not previously use oxygen, but had had several episodes of “panic attacks.” These might be linked to periods of low oxygen sats that were not previously detected.

The significance of all these findings is that this patient needs a lot of time and work. He is very dependant for activities due to poor ventilation and is a high risk for re-hospitalization. Re-hospitalization is one of the quality measures used in home care. One of the primary goals of home health care is to prevent re-hospitalization because of the extensive costs involved.

PRACTICE PATTERN
Using the Guide to Physical Therapist Practice, this therapist determined to place him in a cardiopulmonary pattern. Pattern 6E: Impaired Ventilation and Respiration/Gas Exchange Associated With: Ventilatory Pump Dysfunction or Failure appears to be the best fit for this patient. The expected range of 20 to 60 visits over a course of 8 to 10 weeks would be considered normal but there are factors that may modify frequency and duration. The factors that would directly affect this case are age, chronicity or severity of the condition, comorbidities which he has many, and the level of impairment which is severe. At the time of the evaluation, this therapist expected to recertify for an additional 60 days following the initial 60 day certification.

Physical therapy long-term goals: (120 days) were:
• (I) gait , rolling walker 250’ before sitting (distance to dining room)
• (I) ADLs, including use of bathroom
• (I) transfers
Short-term goals (30 days) were:
• increase gait distance 20 feet per week
• independent with home exercise program
• decrease assist required for ADLs and transfers by increasing endurance
• Plan of care: PT 3x/week 60 days; OT 2x/week; RN consult for medication review and instruction; Lab 1x/week PT/INR

A study by Myers of 6,213 males showed that aerobic exercise capacity alone is a greater predictor of mortality than any risk factor including smoking, HTN, DM, or cholesterol in healthy males. It was also shown to be a greater predictor than CHF, MI, and smoking among men with known CVD. In all subgroups of risk, the participants with the lowest exercise capacity had twice the risk of death as compared to highest capacity. An increase in exercise capacity was protective against all causes of mortality. The study revealed that an increase in exercise capacity as low as 1 MET increased survival by 12%.

In addition to the aforementioned study, there are many benefits of aerobic exercise. There are increases in exercise tolerance, quality of life indicators, ADL function, survival rate, and psychological status, all of which are needed in this individual. There is a decrease in hospitalizations and respiratory infection.

CARDIOVASCULAR AND PULMONARY
Along with the ongoing pathologies in this patient, aging is also taking its toll on the cardiovascular and pulmonary systems. There are multiple physiologic and cellular changes occurring in the cardiovascular system. There is an overall reduction in distensibility, contractility, and elasticity. Changes include a decrease in microvascularity of myocardial myocytes and pacemaker cells. There is an increase in fat (noncontractile) and fibrous (nondistensible) tissue. Additionally, there are multiple structural changes that lead to a decrease in function. The left ventricular wall increases in thickness as do the cardiac valves. The heart has a decreased excitability with a decreased venous return and maximum stroke volume leading to a decreased maximum cardiac output by 25% to 30%. There is an increase in cardiac dysrhythmias. There should however, be no change in resting heart rate.

In the pulmonary system there is no change in total lung capacity, but chest excursion may be limited. There may be a small increase in respiratory rate. There are decreases in vital capacity (40-50%), maximal inspiratory and expiratory pressure, and VO2 max. The residual lung capacity increases by 30% to 50% which leads to a decrease in elastic recoil. These changes make breathing more difficult. There are also cellular changes occurring including the loss of alveolar-capillary interface (surface area), the destruction of capillary walls leading to a decreased surface area, fewer blood vessels, and a decrease in cilia function and numbers. These all make oxygen less available at the tissue level.

RESPIRATORY
Age affects every aspect of the respiratory system. The anteroposterior diameter of the chest is increased. The rib cage becomes more rigid due to calcification of the costal cartilage. Osteoporosis, if present may increase the thoracic curvature. This did not appear to be present in this patient. Due to the fact that this patient was placed on a steroid, he may become more susceptible to osteoporosis. Muscular atrophy and sarcopenia can lead to decreased efficiency in breathing. The collapse of smaller airways (decreased elasticity) leads to an increased air flow resistance. This means that the physical effort of breathing increases by 29% from age 20 to 70. Alveoli surface area decreases by 4% each decade. Thinner walls and less vascularity, and the loss of elasticity and recoil lead to an increased amount of unoxygenated blood. Diminished gag and cough reflexes in combination with diminished ciliary action to assist excretion can produce increased risk for infection and pneumonia. Sedatives and alcohol can further depress these leading to hypoxia or aspiration. This patient did not imbibe.

When we look at the normal aging process in relation to the ability to perform work, there are many factors to
consider. Exercise capacity and aerobic performance decrease with age, about 1% per year after age 40. The MET and \( V_O_2\) max levels decrease which is indicative of a decline in ability to perform ADLs. The size and number of mitochondria decrease along with the capillary/fiber ratio which means that there is decreased blood flow and healing. This patient’s work capacity would normally be 30% to 40% decreased, but add the disease processes on top, and one can see how difficult even the simplest activities can be.

There are some implications of the combined comorbidities in this individual. The cardiac diagnoses of HTN, CHF, CAD, and the pulmonary diagnoses/complications from pulmonary fibrosis, pneumonia, pulmonary embolism; not to mention an open wound and NIDDM have precautions, signs, and symptoms that need to be carefully monitored. The need to monitor vital signs cannot be underestimated.

One example of this is how to monitor the threat of pulmonary embolism is available on line. The Wells’ clinical prediction rule for pulmonary embolism is as follows:

<table>
<thead>
<tr>
<th>Clinical feature</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical symptoms of DVT</td>
<td>3</td>
</tr>
<tr>
<td>Other Diagnosis less likely than PE</td>
<td>3</td>
</tr>
<tr>
<td>HR &gt; 100 bpm</td>
<td>1.5</td>
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<tr>
<td>Immobilization or surgery within 4 weeks</td>
<td>1.5</td>
</tr>
<tr>
<td>Previous DVT or PE</td>
<td>1.5</td>
</tr>
<tr>
<td>Hemoptysis</td>
<td>1</td>
</tr>
<tr>
<td>Malignancy</td>
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</tbody>
</table>

Risk Score Interpretation
- 6 points: high risk (78.4%)
- 2-6 points: mod risk (27.8%)
- < 2 points: low risk (3.4%)

Another issue that needs to be addressed with this patient is proper nutrition. The use of accessory muscles for breathing in this patient, especially when ambulating, require extra energy. He has recently lost weight and may need extra caloric intake just to maintain his current status. He will also need energy to heal the open wound, promote the ability to tolerate the increased energy demands of an exercise program. I would recommend a multi-vitamin to prevent the multitude of complications that can be caused by nutritional deficiencies.

### OUTCOME MEASURES

To determine whether we are making significant progress with this patient some outcome measures need to be established.

1. Vital signs
2. Mobility measures: transfers: amount of assistance, gait: amount of assistance and distance ambulated
3. ADL function: assist required for dressing, bathing, dining
4. Functional reach: a beginning measure of balance and risk for falls
5. Seated Step Test: a test for endurance (described in next section)
6. 6-minute walk test: a test for functional endurance. Can compare within subject to determine progress and/or compare to norm referenced data from the Senior Fitness Test
7. Independent with home exercise program (HEP) for maintenance during nontherapy days

The Seated step test can be used in a lower functioning patient. The HR and BP monitored and at 2 minutes if they are below 75% max HR then the patient should continue for 5 minutes. After 5 minutes of stepping, if the patient remains under 75% of the max HR then the patient should be progressed to the next stage.

- Stage 1: alternate placement of feet onto step or bar at 6 inches, rate of 1 per second
- Stage 2: 12 inches
- Stage 3: 18 inches
- Stage 4: 18 inch step and add alternating arms

### EXERCISE PROGRAM

There are parameters of any exercise program to take into account. These include the type or mode of the exercise such as strengthening, stretching, aerobic, or relaxation programs; the intensity; the frequency; and the progression. Intensity is probably the most challenging for physical therapists, especially in the elderly. Are we challenging this patient enough, but not overdoing it? Are we increasing the MET level and how do we know? We need to monitor the vital signs and follow the American College of Sports Medicine (ACSM) guidelines.

The exercise program should have a target HR range 60% to 85% of max, a 50% to 85% level of max \( O_2 \) consumption. These need to be adjusted in older adults with low levels of function, such as this patient. The maximal oxygen uptake (\( V_O_2\) max, measured in ml/kg/min) is the accepted measure of cardiorespiratory fitness. Of course, most clinics/settings, including home health care can’t measure \( V_O_2\) max. In this situation we can monitor vital signs directly, use the “talk test” and the Borg rating scale of perceived exertion (RPE).

There is a linear relationship between percent \( V_O_2\) max and HR (between 110-150 bpm), so we can use HR as long as the patient is not taking beta or calcium channel blockers, which this patient is not. To establish intensity we can use a target heart rate which can be determined by using the Karvonen formula where max HR = 220 – age. We can then adjust the exercise to fall within the ACSM guidelines. However, Tanaka hypothesized that the Karvonen formula underestimated HR max in older adults and he designed a different formula 208 – 0.7 x age = HR max. The 6 Minute Walk Test has an “easy” conversion formula developed by the ACSM, and is most accurate for people ambulating 50-100m/min. The following is an example of how this formula was used for this patient. The distance walked 250 ft., duration 6 min.

- 250 ft x .3048 = 76.2 meters
- Speed: 76.2/6 min = 12.7m/min (0.47mph)
- \( V_O_2\) = 0.1 x speed + 3.5
- \( V_O_2\) = 0.1(12.70m/min) + 3.5
- \( V_O_2\) = 4.77ml/kg/min at that speed

This considered very, very poor as would be expected in this individual. But, this is a way to document progress, and as noted in the Myers study, a way to decrease mortality.

The Rating of Perceived Exertion is especially good when working with those taking medications that alter CP response to exercise. There is an original and a revised scale. The revised scale may be easier to use because it is on a 1-10 scale. I used a score of 8/10 for this patient to stop exercise and rest. This would be somewhere between very strong and very, very strong exertion, and still submaximal.

Intensity and duration equals a training response. ACSM recommends 30
to 60 min/day in “normal” individuals. This will have to be adjusted do to the initial cardiopulmonary status. Exercise frequency may also depend on original cardiopulmonary status. ACSM recommends 3 to 5 sessions per week of a MET level greater than 5, but this patient is unable to tolerate that level so a lower MET level during multiple brief sessions throughout the day was a better solution to this problem. This patient was given a home exercise program of active exercises to practice on non-therapy days. He was instructed to perform the exercises twice per day. The goals in exercise progression for this patient were to first emphasize duration. Second was to increase intensity of activity and change duration and intensity as adaptation to exercise occurs. The therapist still has to take into account the client goals. Additionally, each mode of exercise has separate progression.

When working with this client it was imperative that vital signs were taken before, during, and after the exercise program. HR, rhythm, O2 sat, BP; RR/rhythm/pattern were all noted in the chart. Observations of any sweating, pain, fatigue, cognition were also documented. When HR and BP return to resting levels after 5 minutes; and respiratory rate returns after 10 minutes or less it is safe to progress the patient. These are especially important to monitor with any respiratory pathology, where a resting dyspnea level may be 1+. The dyspnea level was not allowed to exceed 3+. Dyspnea Scale - ACSM

1+ Mild, noticeable to patient, but not observer
2+ Mild, some difficulty, noticeable to observer
3+ Moderate difficulty, but can continue
4+ Severe difficulty, patient cannot continue

Pulse oximetry was monitored constantly by placing the clamp on a finger. This measures the arterial O2 saturation (SAO2) of hemoglobin. Less than or equal to a 95% sat is considered normal. Older adult with a resting level be equal to a 95% sat is considered normal. This measures the arterial O2 sat.

Monitoring improvement is vital to patient care. Documenting progress in this patient and use outcome measures can be done in a number of ways. Any increase in VO2max or MET level of activity signifies progress. An increase in distance, speed, repetition, and weights, decreased RPE, signifies increased exercise tolerance. Positive training response at established workloads at lower HR and BP. Older adults with cardiac disease have shown a greater relative improvement, especially initially, than younger counterparts. The probable explanation for this is that the lack of regular exercise prior to start of an exercise program allows for this rapid improvement.

The exercise program was set up as follows:
1. Warm-up: 5-10 min. to stretch, increase blood flow and MET level. This also reduces the risk for musculoskeletal injuries.
2. Training (Endurance): 30 min session or multiple shorter sessions, primarily walking. Duration depends on intensity and vital sign response. These gait trials use large muscle groups in a continuous or intermittent, depending on length of rest periods. The goals were to achieve 60% to 85% max HR. A 6 minute walk test is an excellent training tool as the patient can help determine the right intensity.
3. Cool down: Diminished intensity of activity; lowers the HR and BP; facilitates venous return; prevents post-ex hypotension and dizziness; reduces potential detrimental effects from rise in plasma catecholamines that may cause ventricular arrhythmias in elders with heart disease. This is a good time to stretch and helps to dissipate body heat.

PROGRESSION

This patient progressed nicely with the treatment plan and was eventually able to ambulate independently up to 1500 feet times three trials taking 8 to 9 minutes each, with about 4 to 5 minutes of rest in between the gait trials. He was able to independently fill his portable oxygen tank for use. He also progressed to independence in ADLs including utilization of the bathroom. He was discharged from care after 4 months. Unfortunately, this individual did not follow through with his exercise and walking program and was again referred for physical therapy 6 months later. Therapy was again successful in returning him to independent function. Another acute illness 3 months after discharge forced a move to an assisted living facility, where rehabilitation was started, but patient was hospitalized with acute CHF and cellulitis and eventually succumbed.

PULMONARY FIBROSIS

The primary diagnosis for this patient is pulmonary fibrosis (PF). Pulmonary fibrosis involves scarring of the lung. Gradually, the alveoli become replaced by fibrotic tissue. When the scar forms, the tissue becomes thicker causing an irreversible loss of the tissue’s ability to transfer oxygen into the bloodstream. These tests will allow the physician to rule out other lung diseases that affect the immune system. A physical examination, chest X-ray, C-T scan pulmonary function tests, and blood tests are important. These tests will allow the physician to rule out other lung diseases and determine the extent of disease. End-inspiratory Velcro crackles (rales) can be heard at the lung bases. Clubbing of fingers is noted in 20% to 50% of cases. Synonyms for various types of pulmonary fibrosis that have been used in the past include: chronic interstitial pneumonitis, Hamman-Rich Syndrome, diffuse or cryptogenic fibrosing alveolitis, and interstitial diffuse pulmonary fibrosis.

PULMONARY FIBROSIS

10,11
The prevalence of pulmonary fibrosis is higher than one might suspect. There are 5 million people worldwide that are affected by this disease. In the United States alone there are 128,000 patients with 48,000 new cases annually. As a consequence of misdiagnosis these numbers may be significantly higher. Of these more than 40,000 expire annually. This is the same as die from Breast Cancer. Typically, patients are in their 40s to 60s when diagnosed. However, diagnoses have ranged from age 7 to the 80s. This patient was diagnosed at age 81. The cause of pulmonary fibrosis is not clear cut. Traditional theories have postulated that it might be an autoimmune disorder, or the after effects of an infection, viral in nature. There is a growing body of evidence which points to a genetic predisposition. A mutation in the SP-C protein has been found to exist in families with a history of Pulmonary Fibrosis. The most current thinking is that the fibrotic process is a reaction to microscopic injury to the lung. While the exact cause remains unknown, associations have been made with the following: inhaled environmental (molds, fungi) and occupational pollutants (asbestos) or cigarette smoking. This patient was a former smoker. It is related to diseases such as Scleroderma, Rheumatoid Arthritis, Lupus, and Sarcoidosis; certain medications, and therapeutic radiation. In some people, chronic pulmonary inflammation and fibrosis develop without an identifiable cause. Most of these people have a condition called idiopathic pulmonary fibrosis (IPF) that does not respond to medical therapy, while some of the other types of fibrosis, such as nonspecific interstitial pneumonitis (NSIP), may respond to immune suppressive therapy. Cyclophosphamide, also referred to as cytoxan, an immunosuppressive drug, may be taken together with prednisone, or instead of it. Like prednisone, cytoxan is taken orally each day. One of the more serious side effects of cyclophosphamide is leukopenia, a condition in which the number of white blood cells drops to a dangerously low level. Leukopenia can be controlled by regularly checking the blood count and adjusting the dose of cytoxan if necessary. There are currently no effective treatments or a cure for Pulmonary Fibrosis. The pharmacological agents designed to treat lung scarring are still in the experimental phase while the treatments intended to suppress inflammation have only limited success in reducing the fibrotic progress. Medical interventions focus on the immune system. The immune system is felt to play a central role in the development of many forms of pulmonary fibrosis. Some types of lung fibrosis can respond to corticosteroids such as prednisone and/or other medications that suppress the body’s immune system. These types of drugs are prescribed in an attempt to decrease the processes that lead to fibrosis. The goal of treatment with immune suppressive agents such as corticosteroids is to decrease lung inflammation and subsequent scarring. Responses to treatment are variable. Once scarring has developed, it is permanent. Those whose conditions improve with immune suppressive treatment probably do not have idiopathic pulmonary fibrosis. Supplemental oxygen improves the quality of life and exercise capacity. Pulmonary fibrosis is a very complex disease and the prediction of longevity of patients after diagnosis varies greatly. Single lung transplant may be considered for some patients. Other tests that are used in evaluation of a person suspected to have IPF include bronchoalveolar lavage, and lung biopsy. The bronchoalveolar lavage is a test that permits removal and examination of cells from the lower respiratory tract and may be used to diagnose IPF. This test helps to identify inflammation in lung tissue, and also helps exclude infections and malignancies (cancer) as a cause of a patient’s symptoms. The test is done during bronchoscopy. A lung biopsy is either done during bronchoscopy or as a surgical procedure that removes a sample of lung tissue to study. This procedure is usually required for diagnosis of IPF. Exercise is another recognized treatment for PF. Regular exercise may be useful for patients with IPF. A daily walk or regular use of a stationary bicycle or treadmill can improve muscle strength and breathing ability and also increase overall strength. If needed, supplemental oxygen should be used; sometimes it is the only way a patient is able to do a reasonable amount of activity. This idea was followed through with development of the home exercise program. This was used during regular treatment to be performed on nontherapy days and after discharge.

Most people live only about 3 to 5 years after diagnosis. The most common cause of death related to IPF is respiratory failure. Other causes include: pulmonary arterial hypertension, heart failure, pulmonary embolism, pneumonia, and lung cancer. This gentleman succumbed to heart failure 7 years after diagnosis.

Clinical research on pulmonary fibrosis is ongoing and may have additional benefits for other fibroproliferative diseases such as atherosclerosis, cirrhosis, and connective tissue diseases. Similarities between atherosclerosis and pulmonary fibrosis were discussed, and there were common themes concerning the importance of certain growth factors, cytokines, and cell-cell interactions. The biologic principles of pathogenesis and, therefore, the opportunities for therapy are similar for these diseases. Therefore, the total benefit from studies of pulmonary fibrosis may also impact other fibroproliferative diseases. However, pulmonary fibrosis occurs in the very special microenvironment of the lung. Although observations made in other fibroproliferative diseases can guide the design of studies and help prioritize agents for therapy, the ultimate test still requires specific evaluation in patients with pulmonary fibrosis. Ultimately, efficacy of therapy requires formal studies with sufficient numbers of patients in order to provide convincing results.

REFERENCES


POLICY TALK

RECOVERY AUDIT CONTRACTORS – WHY YOU SHOULD CARE

Ellen R. Strunk, PT, GCS

If you haven’t heard of the term “RACs,” then you have probably been living in another country for the past year. What comes to most people’s minds when they hear this word? If you are honest, you will probably answer: ‘oh no,’ ‘help,’ or ‘please - not me.’ One way to avoid these thoughts is to better understand what RACs are and how to prepare for them. Recovery Audit Contractors (RACs) are entities whom contract with the federal government—specifically the Centers for Medicare & Medicaid Services (CMS)—to detect and correct overpayments and under-payments made to providers by the Medicare program.

Medicare is a very complicated program with many facets. A number of different payment systems (fee for service, per diem, case based, and episodic) exist within Medicare and CMS has historically contracted with a number of different contractors who process over 1.2 billion claims each year submitted by more than 1 million health care providers. The contractors who pay the claims are responsible to enforce Medicare regulations and to educate providers, like therapists, about how to submit claims that are appropriately coded and meet the guidelines set forth by CMS for medical necessity. However, a January 2008 report issued by the Office of Management and Budget (OMB) stated that Medicare is among the top three Federal programs with improper payments. They estimate that in 2007, CMS contractors made $10.8 billion in improper payments. This was not the first time that CMS had been singled out as having problems with paying claims correctly. When the Medicare Prescription Drug, Improvement, and Modernization Act (MMA)
of 2003 was signed into law, most providers were rushing to learn about the Medicare Part D benefit and therapists were reveling in the fact that another year of a therapy cap moratorium had been won. However, Section 306 of that bill required the Secretary of Health & Human Services (HHS) to conduct a demonstration project to demonstrate the use of recovery audit contractors in helping CMS identify payments made in error. That demonstration project was launched in 3 states: California, Florida, and New York. The RAC companies focused on 4 main areas of potential overpayment or underpayment:

1. Was Medicare the appropriate payer for the claim? In other words, should the services have been paid for by an auto policy, home policy, or other employment benefits?
2. Was the documentation submitted enough to support the claim? Were services that were not reasonable and necessary paid for?
3. Were services coded incorrectly? Was a lesser service performed? Or does the documentation support a more complicated procedure than was billed?
4. Did the provider submit 2 separate claims for the same service? Were duplicate services paid for?

They used data analysis to first identify claims most likely to contain overpayment by fiscal intermediaries, carriers, and durable medical equipment regional carriers (DMERCs). Providers complained about the program for many reasons including the fact that this program added another layer of audit to an already crowded field of audit programs in the Medicare world (including CERT reviews, payer focus reviews, QIOs and program safeguard contractors) and the RACs had very few regulations about the level of clinical expertise they must employ in their reviews. But the most difficult aspect of the program for providers to accept was that RACs are paid on a contingency basis. In other words, they receive a percentage of the total overpayments or underpayments they identify.

Because of the initial success of the program in recouping money for the Medicare program, Congress decided to make the RAC program both permanent and national in the Tax Relief and Health Care Act of 2006. In the summer of 2007, Massachusetts, South Carolina, and Arizona were added to the list of states the RAC contractors could include.

In late 2008, the 4 permanent RAC contracts were awarded to the following companies: Diversified Collection Services, Inc. of Livermore, CA; CGI Technologies & Solutions, Inc. of Fairfax, VA; Connolly Consulting Associates, Inc. of Wilton, CT; HealthDataInsights, Inc. of Las Vegas, NV. To find out which company will be in your state, and for an updated schedule (as of 10/2008) of the RAC phase-in nationally, visit the APTA Web site. You can find the map in the member’s only section at: http://www.cms.hhs.gov/RAC/Downloads/RAC%20Expansion%20Schedule%20Web.pdf.

Now that the RAC program is here to stay, what have the results been?

As of March 28, 2008, RACs had succeeded in collecting more than $1.02 billion in Medicare payments they deemed “improper.” Approximately 96% were overpayments collected from providers and only 4% were underpayments repaid to providers. While this amount seems incredible, it only represented 0.3% of the total dollar amount of claims received during the same time period (2006 through mid-2008).

Many providers have chosen to appeal the RAC determinations. As of August 31, 2008, 22.5% of RAC determinations had been appealed. Of those providers who appealed 34% had received a favorable decision, resulting in the RAC’s decision being overturned.2 CMS is pleased with the fact that even after subtracting the dollars in refunded underpayments, overpayments overturned on appeal, and the RAC demonstration operating costs, $693.6 million had been returned to the Medicare Trust Fund.

How can providers prepare for the RACs coming to their states?

CMS has promised to work closely with national and state medical, hospital, and nursing home associations to be more proactive in addressing the concerns of providers. Before work begins in a state, the RACs are to hold Town Hall type meetings with health care providers and CMS staff.

To prepare for an audit, health care providers might consider taking the following steps:

• Conduct an internal assessment to ensure their documentation meets Medicare guidelines for justifying medical necessity.
• Conduct an internal assessment to ensure the submitted claims correspond to the information documentated in the medical record.
• Implement procedures to promptly respond to RAC requests for medical records.
• Develop a system to keep track of denied claims and follow them through the appeals process.
• Track the reasons for denied claims and analyze possible trends that can be used for educating clinicians to document &/or code more effectively as well as educating billing staff to submit correct claims in the future.
• Review the RAC’s Web sites and monitor where they have found improper payments; then use that information to identify any of the same patterns within the practice.

What do you need to know if you are contacted by a RAC contractor?

If your practice, employer, or facility has been identified through data analysis by one of the RACs, you will receive notification (also called a demand letter) explaining the rationale behind their decision, the amount of overpayment (or underpayment), and information on where you are to send the payment. Once a provider receives the demand letter, the clock on appealing that decision begins immediately. It is recommended the provider then:

• Evaluate the reasoning for the RACs decision.
• Review the medical records associated with the decision.
• Determine if you have a valid reason for appealing the RACs decision.

If your decision is to appeal, the RAC appeal process mirrors the 5-level Medicare claims appeal process.2 The 5 levels include:

1. Redetermination by the Fiscal Intermediary
2. Reconsideration by a Qualified Independent Contractor (QIC)
3. Administrative Law Judge (ALJ) Hearing
4. Medicare Appeals Council Review

It is important to file an appeal within the timeframes specified below; otherwise your opportunity to appeal is lost (see Table).
Surviving in the New World with RACs

Several independent organizations supported CMS in an evaluation of the RAC program. Econometrica, Inc assessed the completeness of the data entered in the RAC database. The Gallup Organization conducted a telephone interview of providers to determine their level of satisfaction with the demonstration project. AdvanceMed also provided external validation by independently conducting reviews of the RAC claim determinations to ensure accuracy of their decision.

What did they find? 1.
- Claim RACs were able to find a large number of improper payments
- Providers do not appeal every overpayment determination
- Overpayments collected were significantly greater than program costs
- RACs are willing to spent time on provider outreach activities
- RACs can work closely with a Medicare claims processing contractor
- RAC efforts did not disrupt other law enforcement or anti-fraud activities
- Companies are willing to work on contingency fee basis

There were also some positive changes made to the permanent program as a result of the program's evaluation: 1.
- All new issues a RAC wants to pursue for overpayments must be validated by CMS or an independent contractor and then share the upcoming new issues with provider organizations
- Each new RAC must hire a physician medical director as well as certified coders
- The RAC must now pay back contingency fees when an improper payment determination is overturned at any level of appeal
- Change the look-back period to a 3-year (rather than a 4-year) period. The maximum look back date for any RAC is October 1, 2007
- A web-based application will be added to allow providers to look up the status of their RAC reviews

RACs are here to stay. Therapists continue to provide its members with resources to continuously evaluate their strengths and weaknesses in the area of documentation as well as provide learning opportunities to stay abreast of new changes.

REFERENCES

Ellen Strunk is Managing Director for Restore Outpatient Services and Restore Staffing Solutions. She works in skilled nursing facilities, home health and assisted living facilities, and outpatient settings.

Table.

<table>
<thead>
<tr>
<th>Level of Appeal</th>
<th>Once I receive the letter, how many days do I have to file an appeal?</th>
<th>Is there a minimum monetary amount to reach in order to file an appeal?</th>
<th>Is there a form I have to use to file my appeal?</th>
<th>How many days do I have to wait until a final decision is issued?</th>
</tr>
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<tbody>
<tr>
<td>Redetermination by the FI/Carrier</td>
<td>120 No, but you can use Form CMS 20027</td>
<td>No, but you can use Form CMS 20033. <strong>This is also the last opportunity to submit additional documentation to support your appeal.</strong></td>
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<tr>
<td>Reconsideration by a QIC</td>
<td>180 No, but you can use Form CMS 20033.</td>
<td>60</td>
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<tr>
<td>ALJ Hearing</td>
<td>60 Total must reach $120.00 No, but you can use Form CMS 20034 A/B</td>
<td>90</td>
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<td>Medicare Appeals Council Review</td>
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<td>Judicial Review</td>
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Course Description

*Topics in Geriatrics: Volume 5* offers the course participant an increased depth of knowledge on multiple topics: amputee rehabilitation for patients with diabetes; the integumentary system; health promotion; orthopedic considerations in the lower quarter; and osteoarthritis in the upper quarter. The participant will gain clinically-applicable knowledge across a variety of practice areas, making this course ideal for the generalist in geriatric physical therapy who is committed to lifelong learning and providing top-quality, evidence-based care to his or her patients.

**Topics & Authors**

- Evaluation and Treatment of the Patient With Diabetes Post Amputation—
  *Terri Naccio-Youngs, PT, DPT*
- Differential Diagnosis in the Management of the Integumentary System—
  *Paula Simon, PT, DPT, GCS*
- The Role of the Physical Therapist in Health Promotion for Older Adults—
  *Jason Hardage, PT, DScPT, NCS*
- The Aging Skeleton: Lower Quarter—*Holly Lookabaugh-Deur, PT, DSc, GCS*
- Osteoarthritis in the Upper Quarter—*Leon F. Bradway, PT, MS, CMT*

**Editor**

Jason Hardage, PT, DScPT, NCS
Sue Wenker, PT, MS, GCS

**Additional Questions**

Phone toll free 877/766-3452 • Fax 608/788-3965
Section on Geriatrics, APTA, 2920 East Avenue South, Suite 200
La Crosse, WI 54601

**Current Courses Available**

- Topics in Geriatrics: Volume 4—30 contact hours (topics include electrical-ly-powered mobility devices and seating systems; reimbursement issues; breast cancer; issues in the Veterans Health Care System; end-of-life issues; and pharmacokinetics, pharmacodynamics, and disease management)
- Topics in Geriatrics: Volume 3—30 contact hours (topics include the older driver; bariatric geriatrics; fall prevention; public health; exercise prescrip-tion; and successful aging)
- FOCUS: Geriatric Physical Therapy—30 contact hours (topics include the muscu-lokeletal system; the neuromuscular system; the pulmonary system; the integumentary system; the cardiovascular system; and multisystem involvement)
- Topics in Geriatrics: Volume 2 (formerly named Topics in Geriatrics 2005)—30 contact hours (topics include therapeutic exercise; chronic obstructive pulmonary disease; post-polio syndrome; aquatic exercise; management of physical and chemical restraints; and ethics)
- Topics in Geriatrics: Volume 1 (formerly named Topics in Geriatrics 2004)—20 contact hours (topics include issues in home care; Alzheimer disease; and diabetes)
- Focus on Physical Therapist Assistants in Geriatrics—10 contact hours (topics include wound care and red flags in acute care)

**Fees for Current Home Study Courses**

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<th>APTA Member</th>
<th>Non-APTA Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topics in Geriatrics: Volume 5 (available thru Dec 2014)</td>
<td>$200</td>
<td>$300</td>
</tr>
<tr>
<td>Topics in Geriatrics: Volume 4 (available thru Dec 2013)</td>
<td>$200</td>
<td>$300</td>
</tr>
<tr>
<td>Topics in Geriatrics: Volume 3 (available thru Dec 2012)</td>
<td>$200</td>
<td>$300</td>
</tr>
<tr>
<td>FOCUS: Geriatric Physical Therapy (available thru Dec 2011)</td>
<td>$200</td>
<td>$300</td>
</tr>
<tr>
<td>Topics in Geriatrics: Volume 2 (available thru Dec 2010)</td>
<td>$200</td>
<td>$300</td>
</tr>
<tr>
<td>Topics in Geriatrics: Volume 1 (available thru Dec 2009)</td>
<td>$135</td>
<td>$200</td>
</tr>
<tr>
<td>Focus on PTAs (available thru Dec 2009)</td>
<td>$440</td>
<td>$25 while supplies last!</td>
</tr>
</tbody>
</table>

WI residents add applicable state sales tax.

If notification of cancellation is received in writing prior to the course, the registration fee will be refunded, less a 20% administrative fee. Absolutely no refunds will be given after the start of the course.

**Home Study Course Registration Form**

I am registering for course(s) ____________________________

Name ____________________________ Credentials (circle one) PT, PTA, other ____________________________

Mailing Address ____________________________ City ____________________________ State Zip ____________________________

Billing Address for Credit Card (if applicable) ____________________________

Daytime Phone ____________________________ APTA# ____________________________ E-mail Address ____________________________

Please check: [ ] Section on Geriatrics Member [ ] APTA Member [ ] Non-APTA Member

I wish to join the Section on Geriatrics and take advantage of the membership rate. (Note: must already be a member of APTA) [ ] I wish to become a PTA Member ($55).[ ] I wish to become a PT Member ($45).

Fax registration and Visa, MasterCard, American Express, or Discover number to: (608) 788-3965

Visa/MC/AmEx/Discover (circle one) # ____________________________

Expiration Date ____________________________

Signature ____________________________

Registration Fee ____________________________

WI State Sales Tax ____________________________

Wisconsin County ____________________________

Membership Fee ____________________________

**TOTAL** ____________________________
Wrinkles should merely indicate where smiles have been.

- Mark Twain
SECTION ON GERIATRICS RECEIVES DONATIONS TO THE

In Memoriam Fund

The Section on Geriatrics has a memorial fund that is used to support research in the field of geriatric physical therapy. This fund is a superlative way of honoring or memorializing a friend, a patient, a family member, or even a cause. The donor and the person or family will be notified of the gift and the purpose for which it will be used.

Most recently, the Section on Geriatrics received donations from Timothy Kauffman, PT, PhD in memory of:

Georgina Moffat
Emily Ridgway

We sincerely thank everyone for their contributions. Your support will bring us closer to our current goal: to build the fund until we are able to award at least one research grant every year. This will ensure that we are truly expanding evidence-based physical therapy practice and improving care for aging adults.

If you would like more information or to make a contribution, you may visit www.geriatricspt.org, or contact us for a donation form at geriatrics@apta.org, 800/999-2782 x3238.