Message from the Chair

Susan L. Whitney, PT, PhD, NCS, ATC, FAPTA
Vestibular SIG Chair

It was a pleasure to see so many people at CSM in Chicago. As part of the Neurology Section, your volunteers worked hard to bring you nationally and internationally recognized faculty. Dr. Marousa Pavlou from the United Kingdom, Kings College, presented at our Vestibular SIG meeting and also presented a 2-hour session. Her area of expertise is in providing visually complex stimuli to persons with uncompensated peripheral vestibular dysfunction. Dr. Pavlou provided her insights and also introduced the group to her ongoing work in the area of “visual vertigo”.

The Vestibular SIG meeting was wrapped into the programming, as required by the CSM programming committee. We held a short business meeting and raffle of prizes. People took home DVDs, CDs, books, and one lucky person took home MicroMedical video goggles.

At present, the SIG continues to work on ongoing efforts including: the advanced vestibular course, the betterment of the website, the fact sheets for patients and physicians, our Facebook page, the podcasts, working on helping people with reimbursement issues, the abstract of the week, and the dizzy pub references that are published once a month. There are over 45 volunteers working to move the Vestibular SIG forward.

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Combined Sections Meeting 2012

Vestibular SIG Programming Review:

My Clinical Take-Aways: VESTIBULAR IMBALANCE HIGH TECH GADGET SHOWCASE
by Wendy Webb Schoenewald, PT, OCS

Balance/Falls and Vestibular SIGs: Vestibular and Balance Hi-Tech Gadget Show Case: Are we critically appraising technology?

Speakers: Anne K. Galgon, PT, MSPT, PhD, Jeffrey M. Hoder, PT, DPT, Julie K. Tilson, PT, DPT, MS, NCS, Steven Allred, MPT, MBA, Rene’ D. Crumley, PT, DPT, NCS, Cecelia Griffith, PT, DPT

In this session the presenters discussed integrating technology into clinical practice designed for postural control, gait, and visual/vestibular integration. A framework for evaluating technology for clinical utility was presented, and the participants were guided through questions for critically

Not being a “Digital Diva,” my objective in attending the High Tech Gadget Showcase was to find useful guidance and new technology to integrate into my small Private Vestibular Practice. The goals of the course aimed to allow participants to critically appraise these devices for examination and treatment in clinical practice. Jeffrey Hoder, PT, DPT, NCS discussed how we should embrace technology while being weary of “Caveat Emptor.” He suggested guiding questions that could be utilized to critically appraise these High Tech Gadgets:

1. What is the intended purpose of the device?
2. Is the measure valid and reliable? If so, in which population(s)?
3. Have normative data been established?
4. Does the measure offer predictive information (e.g. fall risk)?
5. How will this device enhance our clinical practice?
6. Is the device safe and user friendly?
7. Is the manufacturer reputable and established?
8. What is the feasibility of using the device in my clinic?
9. How do I bill for the device’s use?
10. Finally, overall COST of the device? Is it worth it?

We were then given the opportunity to use our kinesthetic senses to move through the room to different stations that were set up with these devices. This engaging format thrilled me, as I now had the opportunity to actually test these products and see the ease of their use.

As a Private Practice business owner who is always evaluating the ease of implementation and the cost and return on my investment, my favorite gadgets were the App’s that I could download to my iPhone or iPad. The first was aVOR, which is a Vestibular Education App, developed at the University of Sydney, that can be utilized to teach PT students or patients about various vestibular impairments or normal function related to the VOR. A screen displays a head and inner ear labyrinth, the menu allows you to choose a pathology such as Posterior Canal Canalithiasis, a particle then appears placed in the PSC and by tilting the iPad or using the touch screen feature, you are able to tilt the head. When the head is positioned in the plane of the Hallpike Dix maneuver, the eyes produce the torsional and upbeat nystagmus associated with the particle shift through the displayed canal. I have been able to demonstrate easily to my patients how the Canalith Repositioning Technique will reposition the otoconia in the canal and abolish their symptoms of vertigo. There are many options of Vestibular pathologies to demonstrate within the technology. It is so simple, it is amazing!

The next App was called Subjective Visual Vertical, which can be reportedly used in the bucket test to measure perceived vertical orientation in place of the protractor measurement. You simply download the App to your phone and use poster
which are small devices that can be strapped to the body movement. The first was the ADPM Movement Monitor, which are small devices that can be strapped to the body (arm, chest, sacrum, legs). The monitors gather movement related data during three commonly used clinical tests of balance and gait: the TUG (iTUG), CTSIB (iSWAY), stand and walk test (iSAW), and walking distance (iWALK). I thought of it as a more dynamic version of posturography with many functional implications in practice. Overall the device yields 90 different measurements of gait, turning, postural sway, and balance (www.apdm.com) that are simply interpreted via software into measurable comparisons for the patient. Similar devices to monitor the patient’s movement include StepWatch StepActivity Monitor and DynaPort Move Monitor. Both measure multiple patterns of gait speed, step length, postural sway and energy expenditure, even sleep movements, using small comfortable measurable pedometer-like devices. These devices can be worn for a 24-hour period to give the therapist variable measures of exactly how much the patient does after he leaves the clinic. There are many published studies of the use of these activity monitors. I personally see their use predominantly for research and educational purposes.

Since Optokinetics was another hot topic of the lecture at CSM, I was pleased to find two options for treatment. The first was a free App called OPK+, which is a simple video of drum, stripes and patterns with options to control speed of a stimulus per the patient’s tolerance. Dr. M. Pavlou, our expert speaker from the United Kingdom on Optokinetics, also played the DVD that she used with her clients with optokinetic sensitivity. She plays the 45-minute DVD for progressively longer periods as the clients’ tolerance improves. The cost of these optokinetic treatment options ranged from $2.99 for the App to under $100. For free options, Dr. Pavlou recommended various You-Tube videos such as a walking tour of Tower Bridge in London or a visit to the Winn-Dixie supermarket. Please make sure that you view these videos before prescribing for your patients, as they can be quite difficult to tolerate, even to someone without sensitivity!

The biggest gadget was the GAITRite, which is a 14-foot portable carpet with 16,000 embedded sensors that connect to a personal computer for a very sophisticated analysis of...
The purpose of this article is to outline the practical use of optokinetic stimulation in a clinical setting. This is only an example of how it is used in my facility, and there are wide variations across the country, indeed internationally. We encourage discussion regarding variations in treatment approaches, via follow-up articles or the neuro listserv.

In our clinic, we address visual vertigo, or space and motion discomfort, or visual motion sensitivity (all terms used interchangeably), using a progression of graded exposure to visual movement. Patients are identified at evaluation using one of two questionnaires. Dr. Pavlou described the Situational Vertigo Questionnaire (2), derived from Dr. Jacob's original Situational Characteristics Questionnaire (3). This scale contains a series of nineteen environments in which a patient rates their symptoms on a scale from 0-4. A copy of the scale is available on the Vestibular SIG website, under the CSM tab. The second scale is the Visual Vertigo Analog Scale, developed by Dr. Elizabeth Dannenbaum (1). This scale uses a 10 cm analog scale for the patient to rate nine environments that may cause symptoms. Our clinic has used both scales. The important factor is that one uses some measure to document the extent of the patient’s symptoms in visually challenging environments and progress over time.

Once a patient has been identified as having impairments in their tolerance of visual movement or complex visual environments, the therapist determines at what level the patient must work for optimal tolerance. Our program utilizes a series of YouTube videos, presented to the patient on an Ipad or computer screen, to assess a patient’s tolerance, based upon symptoms. Once a video has been identified that causes dizziness that resolves in 15 minutes at most, then this video can be used as a starting point. We start with urban walking videos or videos with some visual motion. Instructions to the patient are to look at the video, but not necessarily to follow every movement on the screen—rather, to take in the whole screen or look through the scene. The patient views the video for 3-5 minutes on the screen, daily. The patient’s symptoms should increase some, but should resolve to baseline within approximately 15 minutes. For those with headache, I prefer that the headache not increase from baseline at all—just the dizziness. It is my experience that it is harder to limit the exacerbation of headache once one is triggered in this manner.

The patient works with a video at home for a period of time, increasing their time watching as well as increasing the movement on the screen. Once the patient is able to tolerate 10 minutes of a briskly moving video, we then consider progressing to a full field stimulus, like a disco-ball. The disco-ball is progressed in the same manner—starting with 3-5 minutes, working up to 10-15 minutes at a time. The patient can start in sitting, then work on standing, and eventually to moving about the room. Foam surfaces or other eye/head coordination tasks can be introduced while the patient is in the moving environment. A word of caution regarding full immersion into visual motion environments: these environments may be a strong trigger for migraine, so be sure to move into them gradually and carefully.

Patients are progressed along this continuum as long as is needed for them to tolerate “real life” settings, such as grocery stores and sports stadiums. In addition to this work, we encourage our patients to gradually expose...
themselves to community environments that may be exacerbating. Education is important in order to avoid patients spending too much time in the environment and exacerbating their symptoms too much. Once the patient is able to tolerate the environments that are important to that patient, the patient is discontinued from this type of therapy modality. Patients are often encouraged to continue to immerse themselves in challenging environments on a regular basis, so as to maintain their level of comfort with being in those environments.

References:


walking speed, cadence, step length and step time. It appeared easy to use, and there are studies based on knee joint replacement patients, Multiple Sclerosis, Huntington’s disease, Parkinson’s Disease, as well as children with motor deficits.

The last device I will mention is one about which I have had nightmares. My patient enters the clinic having purchased this high tech gadget and then asks me if they think that it would benefit them. The real nightmare begins when they tell me the cost, which equals 20 times their co-pay! The GaitAid Virtual Walker is recommended for use with Parkinson’s disease at the price of $1,995, but comes with a 30-day free trial. It is a pair of virtual reality glasses. In the virtual reality screen display, a video of a black and white tile block pattern scrolls while the person walks. The patient is encouraged to try and “step” on the tiles as he or she walks, encouraging the patient to take larger steps. The client also wears an earpiece that provides an auditory cue for stepping cadence, similar to a metronome. I personally found that the video display obstructed vision, except for downward gaze where you are able to see the floor. The device is FDA approved. The manufacturer claims that it will reduce freezing and shuffling as well as increase stride length. All of the presenting group’s questions apply to this one: Is it safe? Reliable? Is there evidence? What is the cost? In my assessment, the cost is quite high. My nightmare ends with recommending they return it as quickly as possible!

Overall, I found that attending this event gave me, as a Technological Immigrant, an opportunity to assess these devices critically while interacting with them. I have been able to apply many of them into my clinical practice after returning from CSM. The added bonus, after sharing them with my staff, is that we all have come close to achieving that Digital Diva status!

CALL FOR NEWSLETTER ARTICLE WRITERS!!!

Do you want to get involved with your SIG? Consider writing an article for the newsletter!!

You can write on a topic of your choosing or an appropriate topic could be assigned to you. If you are interested in getting involved with the newsletter, please contact Betsy Grace Georgelos at Elizabeth.grace@uphs.upenn.edu or Jeff Hoder at jhoder@emory.edu.
Britta Smith Receives Service to the SIG Award!

Debbie Struiksma PT, NCS
England Physical Therapy

If you’ve ever had the privilege of meeting Britta Smith, PT, MMSc, you immediately feel that you’ve known her for much longer than the few minutes of introduction. She has the ability to put anyone at ease and the uncanny ability to connect people to opportunities in which their strengths flourish. Call it a gift or maybe Southern hospitality – but the Vestibular Rehab SIG has definitely grown and flourished as a result of her willingness to use her talents serving on the SIG Leadership board.

For this and so many more reasons, she was presented with the “Service to the SIG” Award in February 2012 at CSM in Chicago. Britta, who practices Vestibular Rehabilitation in the Atlanta, Georgia area, was instrumental in the early years of establishing the VR-SIG as SIG Chair beginning in 1996. The SIG was in its infancy, and under her direction she led a two pronged mission that included the recognition of Vestibular Rehabilitation within and outside the profession and to increase SIG membership. This mission was accomplished by developing quality vestibular rehabilitation educational programming at CSM and making recommendations during the development of The Guide to PT Practice to include language that supported vestibular rehabilitation. She continued to establish a solid foundation initiated from the previous leadership team and even after her term, has been persistent in bringing new clinicians into the SIG to include them in using their talents to develop and further advance the VR-SIG. Britta says that her best experience in the VR-SIG has been “watching the growth of the SIG and the dedication we have to reach across section lines and be ambassadors to demonstrate how vestibular rehab can benefit various diagnoses. And most importantly the VR-SIG has fun - because

APTA/ Emory Vestibular Competency Course turns 15!

In 1997, a small group of physical therapists and an audiologist sat down together at the Association for Research in Otolaryngology meeting in St. Petersburg, Florida. They discussed, among other things, the idea of offering a comprehensive course on vestibular rehabilitation, a course that would require the participants to successfully demonstrate that they could perform all the tests and treatments that were used by physical therapists as well as pass a written exam. They figured that if the course were successful, it could be repeated for maybe 4 or 5 years. This April marked the 15th year for the Vestibular Rehabilitation - A Competency-Based Course. The course has grown and changed over the years, but is it just as exciting for the faculty now as it was the first year it was offered. Over 3300 therapists from the United States, Canada and 15 other countries have taken the course. It has been an amazing experience to see how the field of vestibular rehabilitation has grown over the years and for this course to have contributed to the education of so many therapists.

Susan J. Herdman, 2012
Thank You and Welcome!
Jennifer Nash, PT, DPT, NCS

We are very fortunate to have innovative, dedicated people in the Vestibular Rehabilitation (VR) SIG, and wonderful people that volunteer their time to serve on the VR Board. Board members spend time coordinating education, advancing knowledge, and expanding our reach to caregivers and patients alike. Each year, we take time to thank those who have shaped our past and welcome new members that are eager to shape our future!

This year the VR SIG would like to recognize Michelle Gutierrez, PT for her past 6-years of service as SIG Secretary. Michelle has also been an invaluable member of the team and resource for the VR SIG. She has been meticulous in the keeping the SIG minutes, contributing significantly to the VR SIG advancement, and has been a strong advocate for the VR SIG membership. Thank you Michelle, we look forward to her continued contributions to the SIG on multiple upcoming projects!

We would also like to thank Becky Olson-Kellogg, PT, DPT, GCS for her service as Nominating Committee Chair. Becky recently completed her 3-year term in office. During this time she was a strong asset and leader for the Nominating Committee and the VR SIG as a whole. We would like to thank her for all of her hard work, time, and dedication to the VR SIG. Becky has been an invaluable resource to the leadership team. Becky is planning to remain active in the VR SIG to assure its’ continued growth as the chair of the vestibular certification task force. Thank you Becky for all that you have done!

The VR SIG is excited to welcome our newest officers:

Lisa Heusel-Gillig, PT, NCS has been elected as Nominating Committee member. Lisa is an ABPTS board certified Neurological Clinical Specialist, and has been working in the Emory Dizziness and Balance Center for approximately 10 years. She treats patients with BPPV, bilateral and unilateral vestibular hypofunction, older adults with disuse disequilibrium/ fear of fall, neurologic patients with cerebellar and brainstem disorders, as well as patients with Parkinson’s and PSP. She specifically enjoys treating patients with motion sensitivity due to migraines, stress, concussion, and conversion disorders. She has been on the faculty of numerous courses, including the Vestibular Rehabilitation Competency course held in Atlanta. She has also worked on a number of research projects and has published articles, which she finds both challenging and exciting! She would like to continue to do more research in the future. She will join the team in recruiting the future leadership of the VR SIG. Welcome Lisa to the VR SIG leadership team!

Janene M. Holmberg, PT, DPT, NCS has been elected as Secretary. Janene is an ABPTS board certified Neurological Clinical Specialist and has worked in the field of vestibular/balance rehabilitation for past 20 years. She is currently the Coordinator of Balance Rehabilitation at the Intermountain Hearing and Balance Center in Salt Lake City, UT. Janene serves as auxiliary faculty at Drs Herdman and Clendaniel’s annual Vestibular Competency course. She has lectured nationally with many leaders in the field of vestibular and balance rehabilitation and was recently selected by to help develop and present an Advance Vestibular Rehabilitation Course for the APTA. Janene was the key note speaker in the Vestibular SIG’s annual meeting at CSM in 2011. Since 1998, she has taught many courses in Vestibular Rehabilitation both introductory and advanced as well as courses in falls interventions in the elderly. She is passionate about all things vestibular and is excited to be a part of the Vestibular Special Interest Group. She will join the team to records the minutes of all SIG meetings and conference calls and maintain record of all official actions and decisions of the SIG. We are very excited to welcome Janene to the VR SIG leadership team!
VR SIG—Call to Vote

Melissa Bloom, PT, DPT, NCS
VR SIG Nominating Committee

It’s that time of year again, when the summer sun and fun are winding down, and you are starting to think about how to get more involved in your Vestibular Rehabilitation (VR) SIG. If you are looking for a way to get more involved, serving as VR SIG officer is a great way to do so. The positions of Vice Chair and a member of the Nominating Committee are up for election this year.

Volunteering as VR SIG officer is an excellent opportunity for involvement in the APTA leadership and to grow as a clinician. It is an exciting time to get involved with the SIG as we have taken on several new projects recently. In the past year we have made VR specific podcasts, began discussion on a vestibular certification process, continued the Abstract of the Week, initiated the monthly Dizzy Pub Fare (a summary of recent literature citations), and began making international relationships with other VR groups worldwide. Currently we are working towards designing clinical practice guidelines as well as maximizing the value of the VR SIG for our members.

Meetings occur monthly in the form of one hour conference calls. During these calls we discuss information affecting vestibular rehabilitation and the therapists who perform it. Past topics have included: billing, Medicare rules, current laws and research, patient/physician fact sheets, the International Neurological Physical Therapy Association, CSM program planning, and new guidelines for clinical practice. We also work to make the VR SIG the most useful for our members.

The SIG Vice Chair is responsible for:

• Assumes the duties of the Chair if the chair is absent or incapacitated
• Assists the Chair in all activities of the SIG
• Assists the Chair in preparation and submission to the Board of Directors a yearly plan for the SIG
• Attends the SIG meeting with the Section Vice President at CSM
• Serves as liaison with the Program Chair of the Neurology Section to coordinate SIG programming at CSM (two sessions)

The Nominating Committee is responsible for:

• Preparing a slate of candidates for open SIG positions each year
• Helping to coordinate and facilitate the election process
• The senior member of the Committee serves as Chair of the Committee during the third year of service

Both positions require that candidates be Neurology Section members for at least two years prior to the election. Each positions serves as SIG leadership for a three-year term.
Message from the Chair
(Continued from page 1)

The Vestibular SIG recognized Britta Smith from the Atlanta region with the Service to the SIG award. It was an honor to recognize her for her ongoing contributions to the SIG. She has been involved with the Vestibular SIG since its inception and always says “yes” when asked to serve the SIG.

There is a new reference about BPPV on PTNow on the APTA web site. It was written by Dr. Susan Herdman with the goal of improving practice with persons with BPPV. We hope that you will find this helpful.

The Vestibular SIG is now considering whether vestibular practice guidelines development is possible with our resources. We have a call planned with Dr. James Irrgang, chair of the Orthopedic Section, to determine what resources are needed in order to move this effort forward.

The Barany meeting was held in Uppsala, Sweden this year immediately following the APTA annual conference in Tampa. It is held every 2 years and is an opportunity to meet and discuss issues with clinicians and scientists whose primary aim is to help people with balance and vestibular disorders. The international vestibular meeting is held every 2 years. The next meeting will be in Buenos Aires, Argentina. Presently, the Barany meeting is the only international vestibular meeting. The Barany website is: http://www.barany2012.se/ There was a pre-instructional course on the ICF by physical and occupational therapists and its implications for use with persons with vestibular disorders.

In addition, I was invited to help develop the ICF Core Sets for “vertigo” in Munich in May. The goal of the meeting in Munich was to define a standard minimal set of functioning aspects to describe functioning and disability - the so called ICF Core Sets – for persons with vertigo. We will be working as 3 small groups with at least one physical therapist in each group. There were physical therapist representatives from Sweden, Germany, Luxembourg, and the United States at the meeting plus vestibular scientists, neurologists, and otolaryngologists from all over the world. The 3 core groups are led by Drs. Bronstein (the UK), Dr. Furman (US), and Dr. Zee (US). I will keep you informed of any potential outcomes from the ICF meeting.

We are moving forward with the Vestibular EDGE task force this year. Dr. Matthew Scherer will be in charge of the task force.

I invite all members to send a message to me or anyone else listed on the website if you have ideas that you would like us to work on in the future. We have been able to accomplish many things because of the good work of volunteers who want to improve care for people living with balance and vestibular disorders. We take ideas seriously and will try to act on them within our physical and monetary resources. I have the pleasure of working with an amazing team of people and it is a pleasure to serve as your SIG chair.

Susan L. Whitney, Vestibular SIG Chair

Congratulations!
Donna Pelligrini wins the Vestibular SIG “Best Article Award!”

Donna Pelligrini won the 2012 “Best Article Award” for her article on the Clinical Applications of treating Cervicogenic Dizziness. Ms. Pelligrini graduated from Boston University’s Sargent College of Allied Health Professions with an MSPT in 2001. She has been a PT for 11 years and has worked with neuro and ortho patients in outpatient, acute rehab and acute care settings. She currently works in a hospital-based outpatient facility treating neuro, vestibular/balance and ortho patients. She completed her vestibular training (facility based) and the APTA/ Emory Competency-Based Vestibular course in 2009. She is an active member of the Neuro and Vestibular Special Interest Groups at GSPP, and as a vestibular therapist, is part of the Balance Center at the Hospital of the University of Pennsylvania. Congratulations, Donna!
We would like to thank the following companies and individual authors for their contributions for our drawing at CSM:

- MicroMedical Technologies for the **Micromedical InView Goggles**. ([http://www.micromedical.com](http://www.micromedical.com))
- Visual Health Information for **the balance and vestibular VHI kits**. ([http://www.vhikits.com](http://www.vhikits.com))
- Fay Horak for the BESTest DVD.
- IOS Press for the one year **online subscription of Journal of Vestibular Research**.
- Alan Desmond for the second edition of the book **“Vestibular Function: Evaluation and Treatment”**.
- Susan Herdman for 2 copies of the book **“Vestibular Rehabilitation, 3rd Edition”**
Treats for Geeks...Bon APPettit!

1. **aVOR** is a free app for the iphone or ipad that is a teaching tool for the vestibular ocular reflex system and its disorders.

2. **Visual Vertical** is an app (currently $9.99 on itunes) that is designed to measure visual vertical utilizing your iphone and a bucket.
   b. [http://www.youtube.com/watch?v=mkIiOcrxkgM](http://www.youtube.com/watch?v=mkIiOcrxkgM)

3. **U-stabilize Lite** is a free game app for the iphone or ipad to give you feedback about your balance. You hold your device out and front of you and attempt to stabilize while in tandem stance, single limb stance or with feet together. The app then generates a score.

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**Vestibular Rehab SIG on Facebook and Twitter!**

April Hodge, PT, DPT, NCS
Social Media Coordinator

The Vestibular Rehab SIG is excited to be active on both Facebook and Twitter. Our Facebook page has been up for just over 2 years, and the SIG has recently begun Tweeting. We currently have 99 "Likes" on Facebook. Reaching 100 will be an exciting milestone for our social networking. By using these two forms of social media, our goals are to inform members of current events related to the SIG and involve members in discussions. We also want our members to be allied with each other and the world of vestibular rehab and ongoing research. Encouraging communication between the SIG and its members provides individuals with needed information pertaining to clinical practice. It also insures we are meeting the expectations of our members. To check us out simply search "Vestibular Rehab SIG" in the search engine of Facebook and/or Twitter and begin to "Like" or "Follow" us. Your information will remain anonymous when you do.

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**What’s new in the Vestibular SIG??**

The Vestibular SIG has introduced a number of new initiatives for our members recently. Check out our website for details on all these new resources:

- Patient and Physician Fact sheets
- Abstract of the Week
- Dizzy Pub Fare
- Podcasts
Looking ahead...

CSM 2013: Date & Location Change
CSM 2013 event will not be held in February in Nashville as originally planned. Instead, CSM 2013 will take place January 21-24 in San Diego, California.

http://www.apta.org/csm/

PT 2013 June 26-29, 2013 – Salt Lake City, Utah
CSM 2014 February 3-6, 2014 – Las Vegas, Nevada
CSM 2015 February 4-7, 2015 – Indianapolis, Indiana

We hope you can join us for some or all of the upcoming APTA conferences!!