DIRECTIONS

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2018 NATIONAL CRT CONFERENCE

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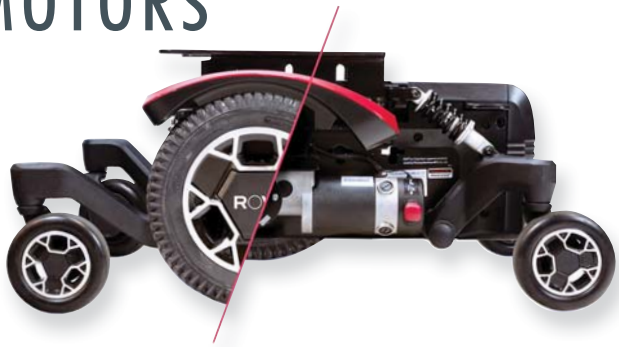

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2018 NATIONAL CRT CONFERENCE

Written by: **ELAINE STEWART,** ATP, CRTS®

The National CRT Conference this year was a breath of fresh air for me. Simply stated, I had a great CRT consumer, Donelle Henderlong, attend the conference. Over the years I have had others attend with me, but this year was more impactful because I had an actual user of the equipment we provide to not only demonstrate but also to verbalize how much this specialized equipment assists her throughout her day. To paraphrase Henderlong, her equipment is an extension of her body, allowing her to live independently, be employed, enjoy being part of her community and living life. It was most evident the equipment we provide makes a difference when Henderlong arrived in a standard manual wheelchair (her family doesn't trust the airline with her power chair).

During our first day at the CRT conference, I watched her posture change, and her infectious smile reduced to grimace. She was beginning to have great discomfort due to not being properly supported, allowing her to change her posture during the day. Prior to coming to the conference, I reached out to the manufacturer (Sunrise) who provided her power chair and inquired if there was a rep who had a similar chair she could borrow. They were champions. Pat Daley, Account Manager, had a similar chair and brought it to the hotel. Within five minutes, the change in Henderlong's body posture and facial expression was evident.

Even though the Hill prep was a bit overwhelming, Henderlong took it all in and formulated a great delivery the following day. We met with Rep. Peter Visclosky, D-Ind., her representative, and had a wonderful conversation. He was engaging and positive throughout the entire meeting. As we departed his office, he told Henderlong's mom, Kathy Jackson, that he would be signing onto both bills HR 3730 (S 486) and HR 750. Our other visits were not so successful, but the experience to speak passionately about a need-not-a-want-is necessary to bring our bills into laws. I encourage everyone to take just a moment to get involved; it is very important to everyone we service to be in appropriate equipment for their daily needs. Next year, I will do my best to again bring a consumer … and if Henderlong is willing, it will be her.

TOP – 2018 NRRTS Award Recipients
BOTTOM LEFT – Donelle Henderlong and Elaine Stewart
BOTTOM RIGHT - Rep. Peter Visclosky, D-IN, Donelle Henderlong and her mother, Kathy Jackson, and Elaine Stewart

NRRTS was also able to make an annual awards presentation at the National CRT Conference. Award winners include Julie Piriano, PT, ATP/SMS, Leadership Award; Lew Shomer, Leadership Award; Angie Kiger, M.Ed., CTRS, ATP/SMS, Leadership Award; and John Zona, ATP, CRTS®, Simon Margolis Fellow Award. Congratulations to these individuals, and NRRTS appreciates all your efforts.

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Elaine Stewart is president of NRRTS and works for National Seating & Mobility in Fort Wayne, Indiana.

2018 CRT CONFERENCE *highlights*


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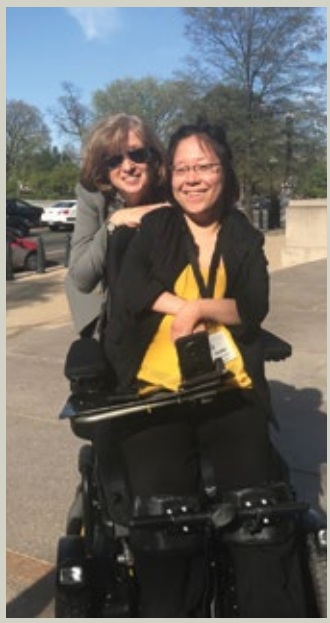




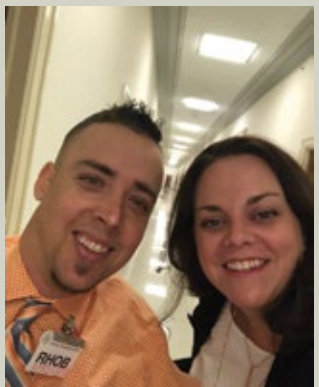



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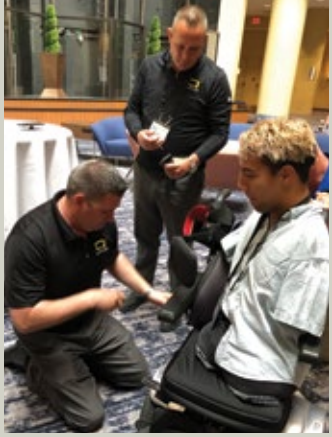

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2018 CRT CONFERENCE *was successful!*

The National CRT Conference

afforded many opportunities for attendees to take pictures after their appointments. Thank you to the following individuals for taking the opportunity to meet with our group and then allow us to have a photograph made with you!

Greg Packer, Tom Powers and Rep. David Young, R-Iowa

Florida delegation with Rep. Val Demings, D-Fla. (third from left)

Katie Roberts withRep. Frank Lucas, R-Okla.

Georgia group with Rep. Drew Ferguson, R-Ga. (middle, back row)

New York team with Rep. Adriano Espaillat, D-N.Y., (standing second from right)

Sen. Cory Booker, D-N.J., (standing second from right) and the New Jersey group

Rep. Bobby Rush, D-Ill., (standing second from right) with the Illinois group

Rep. Bill Posey, R-Fla., with Michele Gunn

Rep. David Price, D-N.C., and Justin Richardson

Rep. Dan Newhouse, R-Wash., (left) with Josh Anderson and W.B. Mick

Missouri delegation with Rep. Blaine Luetkemeyer, R-Mo.

Josh McDermott and Rep. Joe Crowley, D-N.Y.

Indiana delegation with Rep. Peter Visclosky, D-Ind.

2018

ONE VOICE CAN MAKE A DIFFERENCE

Written by: **ROSA WALSTON LATIMER**

Diagnosed with cerebral palsy when she was 6 months old, Donelle Henderlong got her first power wheelchair when she was 4 years old, and nothing has stopped her since. Making her way through public school in mainstream classes, many of which were honors classes, after graduation Henderlong chose to attend Ball State University in Muncie, Indiana, to pursue a teaching degree. "I wanted a traditional college experience away from home and chose Ball State because it is one of the more accessible campuses for people in wheelchairs," she said. "The school is nationally known for its wheelchair accessibility, and its teachers' college has a great reputation. It is also known as the school that David Letterman attended."

The transition to an independent life at college had its challenges, and Henderlong found help with the student affairs professionals at Ball State. "I made some good connections with them, and they encouraged me get involved in student life," she said. "As I made my way through my college career and got more involved, I began to think that I would like to be one of those people to help bring nervous students out of their shells and to help students get adjusted to college life."

Four years into earning her teaching degree, Henderlong changed her major to English. After receiving her undergraduate degree, she went to graduate school and received a masters degree in student affairs administration in higher education. "I worked as the graduate assistant for the disabilities services office to pay for grad school, and I really loved the work," she said. "A month after I received my masters at Ball State in 2015, I began working as disability services coordinator at Purdue Northwest."

Some of Henderlong's job responsibilities include working with students who need appropriate class accommodations for their disabilities and helping students get their needs met whether it is someone to take notes, closed captioning or any other disability services. "I coordinate with the school to make it happen! I feel there is still a general attitude that students with disabilities can't be successful in a higher education setting. I want all of the students I work with to know they can do this. They can go to school and work and do whatever they want to do."

"AS I MADE MY WAY THROUGH MY COLLEGE CAREER AND GOT MORE INVOLVED, I BEGAN TO THINK THAT I WOULD LIKE TO BE ONE OF THOSE PEOPLE TO HELP BRING NERVOUS STUDENTS OUT OF THEIR SHELLS AND TO HELP STUDENTS GET ADJUSTED TO COLLEGE LIFE."

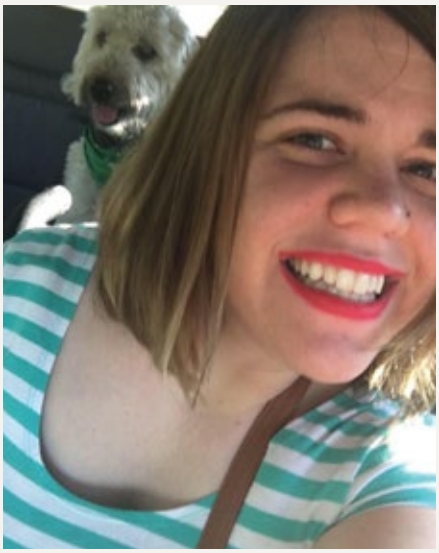
Henderlong's work on behalf of those with disabilities is an important part of her life, and her "can do" attitude is a positive influence on others. These qualities along with her experience and dedication made the 28-year-old a perfect choice to attend the National CRT Leadership and Advocacy Conference and "go to the Hill" to advocate for those who depend on Complex Rehab Technology (CRT.)

"I was invited to participate in the conference by Elaine Stewart with National Seating & Mobility. Elaine is the provider of my equipment, and we've worked together for a long time," Henderlong said. "I was in Colorado learning how to sit ski when Elaine called to explain about the conference and asked if I would be willing to go. I didn't know anything about the event and certainly didn't know anything about lobbying, but I was willing to learn and I was excited for the adventure."

When asked about her experience at the 2018 conference, Elaine said, "I was honored to be accompanied by Donelle and her mother, Kathy, this year. Donelle is a well-spoken young lady and her enthusiasm to affect change and be part of the larger picture speaks volumes. My hope is she will empower others to be a louder voice so policymakers understand that everyone is important and deserves access to be part of our society."

Of the approximately 160 attendees at the 2018 conference, Henderlong was one of 30 who uses a wheelchair. These participants met with legislators and their staffs to provide them with a personal experience with individuals who depend on CRT to lead productive lives. "Elected officials need to meet people who are giving back to their community,

Donelle Henderlong and her uncle, Steve Watts, skiing in Winter Park, Colorado.



Donelle Henderlong with her dog, Finn.

Donelle Henderlong (center) with her mother, Kathy, and her two younger sisters, Bailey (l) and Cassie (r).

yet depend on rehab technology to make that possible," she said. "I met with my local congressman, U.S. Rep. Pete Visclosky, and also with three legislative aides for other representatives. I was surprised when interacting with Rep. Visclosky by his nice, easy going manner. I felt completely at ease talking with him, and he seemed very much invested in what I had to say. The legislative aides were professional and very thorough. They took many notes, so I felt confident they would get my information to their representatives."

"This entire experience in Washington, D.C., was very positive, and I am so pleased that I could participate," Henderlong said. "I realized – I know this will sound cheesy – but I realized that if I'm not going to speak up, then who is it going to be? I may just be one voice, but that may 'shoulder tap' another voice which may 'shoulder tap' another voice and so on until there is a change. Even though I'm just this girl from Valparaiso, Indiana, perhaps I got someone thinking about something they don't live every day. We need CRT funding legislation. Period. There is power in the human experience if we communicate it to the right people in an effective way."

During "Capitol Hill Day" of the CRT conference, providers, manufacturers, consumers and consumer organizations, clinicians and clinical organizations, family and caregivers, researchers, and other advocates from a total of 36 states made visits to 240 Congressional offices. These individual voices combined to make a profound statement.

Henderlong's recent experience is proof that one voice most certainly can make a difference. A week after her visit with Visclosky, Henderlong received word that he had signed on to HR 3730. This legislation, if passed, will stop Medicare from

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ONE VOICE CAN MAKE A DIFFERENCE
(CONTINUED FROM PAGE 15)

inappropriately applying Competitive Bidding Program payments to CRT manual wheelchair accessories. "I am elated," she said. "We are working right now on following up with the other representatives in hopes to get their support, as well as continuing to build our relationship with Rep. Visclosky."

Henderlong's experience as an advocate outside of her job responsibilities gave her confidence when she went to Washington. "If someone is interested in advocacy, there are opportunities without having to travel. There is much work to be done on the local level. I've written to the mayor about accessibility issues in our city. I've spoken to several groups and participated in a women's march in Valparaiso," she said. "I'm involved with different social issues in our community, but never had I done anything at the level of having a one-on-one, face-to-face conversation with a U. S. Representative. However, I am certain these local activities prepared me for my trip to 'the Hill.'"

Another positive experience for Henderlong during her conference participation was the personal interaction with others with disabilities. "At the conference I met a ton of cool people!" she said. "There aren't many people where I live who live independently with disabilities like I do. Meeting people from across the country who are living lives similar to mine really meant a lot to me. I would love to meet with more people who share my experiences and have the opportunity to see more of Washington, D.C. I would absolutely go back again!"

Donelle Henderlong and Charlie Cardinal, the mascot of Ball State University, where she received both her undergraduate and graduate degrees.

Donelle Henderlong (center) with her mother, Kathy Jackson, (l) and Elaine Stewart, at the Leadership and Advocacy conference for CRT in May, 2018.

Bri Beck and Donelle Henderlong enjoying a evening at the theater in Chicago.

CONTACT
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DONELLEHENDERLONG01@GMAIL.COM.

Donelle Henderlong is a consumer advocate from Indiana.

AMNESTY PROGRAM

Beginning January 1, 2018, until June 30, 2018,
the NRRTS Board of Directors has approved an
Amnesty Program for awarding the CRTS® designation
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- *Registrant or applicant must have documented a minimum of three years of experience providing direct service to CRT consumers;*
- *Be an ATP in good standing for a minimum of three years at time of application; and*
- *Complete the Application for Registry or Renewal to the satisfaction of the review chair within the time frame.*

[NRRTS]

For more information, contact
Weesie Walker at **wwalker@nrrts.org**

ROBINSON FINDS KINSHIP, INSTILLS HOPE IN CLIENTS

Written by: **JULIE BARNETT**

A bee sting in 1998 changed the course of Tim Robinson's career and his life.

"Back in 1998, I was over 6 feet and on top of the world. In the tech sector during the Internet boom was a very good place to be," he said. "I was stung by a bee and developed a relatively rare condition – transverse myelitis. About a month after my first symptom, I was wheelchair bound."

The initial chair that a supplier brought him was a high-back, recliner with elevating leg rests. "If I remember correctly, it weighed around 100 pounds. I later learned that it was optimized for an excellent margin, if not for me," he said. "Through my own efforts and with the help of a very good therapist, I designed my first custom manual chair. I couldn't find anyone that knew anything about custom mobility. I thought there had to be a better way."

"About five years later, I left the tech sector and joined a very small company that specialized in the type of equipment I needed," he said. "Fifteen years later I'm still doing it. I miss the money I made in the tech sector but enjoy the satisfaction of helping those with mobility challenges."

Robinson, ATP/SMS, CRTS®, works at National Seating & Mobility Inc. in Grand Prairie, Texas.

"My practice is very diverse, split fairly evenly between pediatric, neurological and geriatric users," he said. "The one constant is Texas is a big place, and I get to spend quality time with my steering wheel."

His days generally involve either getting up early to get to a clinic or to an end-user's home to conduct the initial evaluation with a therapist. That evaluation will be used to determine the needs of the end user and gather the information for funding.

"WHEN THEY CAN MOVE ALL BY THEMSELVES. THE SMILES AND LAUGHTER ARE VERY HARD TO BEAT!"

"Chairs are designed, bathing systems spec'd out, standing systems or bed needs determined," he said. "Documentation is gathered then … we wait. Depending upon the funding source, the wait may be 60 to 90 days. Sometimes it is even longer. I have seen delays of five or six months with some of the funders. In the meantime, I go see the next user. I carry between 100-150 active users at any one time."

Robinson feels a kinship with his clients.

"As a paraplegic myself, I love meeting (a person with) a new injury for the first time. They suddenly realize that while life may be different, it's a long way from over," he said. "As we share stories and experiences, I can feel the hope building within them."

He can also relate to the joy of delivery day. "I remember my first good chair delivery," he said. "The first time they sit in a chair that was optimized for their individual needs and abilities, whole vistas open before them! And they take off. I consider it a success when I can't catch my user!"

"I got into this to work with the newly injured to help them avoid some of the things I had to work through," he said. "So, working one-on-one with the end user is pretty amazing.

While Robinson enjoys working with end-users, he also finds fulfilment in working with teams.

"Then, there is working with a group of therapists educating them about wheeled mobility and rehab technology in general, so they can recognize the need for customized equipment, document so that it is funded, and create a solid design for the system," he continued. "Not as much fun perhaps, but it reaches more people and does more good in the long run.

"And last but not least is where I work. The people I work with are amazing," he said. "They are always pushing forward to get the end user what they need and when they need it. We are a team, and we depend on each other."

He credits NRRTS webinars with broadening his options in assisting end users.

"NRRTS is one of my go-to places to find information and acquire my CEUs for continuing certifications,"

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he said. "As often as not, what I come away with is a different perspective on ways to approach a situation."

Like many in the industry, Robinson finds that funding is a big challenge.

"Frequent cuts in reimbursement, increasing difficulty in getting approval and shrinking margins all combine to make it a really long day sometimes," he said. "Funding is the biggest challenge by any measure."

Another challenge is when he's unable to deliver good news.

"Managing expectations can sometimes be difficult," he said. "I had a user that required a 22-inch seat width. Unfortunately, they had 19-inch doorways at several points in their home. I don't think they ever did understand why I couldn't find a chair that would go through the doors."

But the good days, funding successes and instilling hope in clients make it all worthwhile.

"It's hard to beat the first time a child takes off in their new mobility device," he said. "When they can move all by themselves. The smiles and laughter are very hard to beat!"

CONTACT THE AUTHOR
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Tim Robinson, ATP/SMS, CRTS®, is a self-proclaimed wheelchair jockey because of contracting transverse myelitis in 1998. The first wheelchair delivered to him weighed around 100 pounds! He was working full time and coaching three little league teams at the time — not a particularly workable solution. That began his interest in wheeled mobility, and he formally entered the rehab industry in 2003. He has experienced every position in the industry as both a provider and as a consumer.

ALWAYS REACHING FOR NEW HEIGHTS

Written by: **ROSA WALSTON LATIMER**

Barbara (Barb) Crane, PhD, PT, ATP/SMS, is always reaching for new heights both in the classroom and in the mountains. She has been a professor of physical therapy in the Department of Rehabilitation Sciences at the University of Hartford in Connecticut for almost 14 years. For more than 25 years Barb has been hiking some of the most beautiful and challenging terrain in the United States and Canada.

FIRST, BARBARA, TELL US HOW YOU BEGAN ON A CAREER PATH THAT HAS LED YOU TO THE UNIVERSITY OF HARTFORD.

I began as a physical therapist in 1989 and worked primarily at Gaylord Hospital, an acute rehabilitation hospital in Wallingford, Connecticut. While there, I became interested in wheelchair seating and positioning as I evaluated my patients for their equipment when leaving the hospital. I began taking advantage of continuing education opportunities to learn more on the subject, and in 1995, I convinced the hospital to let me establish a part-time wheelchair clinic. Our goal was to centralize the process of prescribing equipment and also have a means of following up with patients after they were discharged to make sure the equipment was working appropriately. Eventually it became a full-time clinic, and I continued to work there until I left to go to the University of Pittsburgh in 2000 to get my PhD.

WHAT PROMPTED YOU TO GO BACK TO SCHOOL AT THIS TIME?

In addition to my work at Gaylord Hospital, I had been doing some teaching as an adjunct faculty member at some local universities and developed an interest in teaching. At the time, the University of Pittsburgh had what was called an RERC – Rehabilitation Engineering and Research Center – for wheelchairs and seating. I was invited to come there and study with Doug Hobson. He was working on a project specifically relating to dynamic seating intervention for people with multiple sclerosis and that was an area of interest for me. While working on this project, I completed my PhD in rehabilitation science with a focus on assistive technology.

I moved back to Connecticut and for a time worked per diem as a physical therapist, did some consulting and also participated in some professional education activities. A year later, I was offered a full-time assistant professor position at the University of Hartford, and I have now been there almost 14 years.

AFTER 14 YEARS OF TEACHING, TELL US HOW STUDENTS HAVE CHANGED IN THIS LEARNING ENVIRONMENT?

We've seen differences over the years that are usually attributed to the "millennial" generation. The students like to have immediate feedback, and as faculty members we've tried to adapt to these expectations. We try to teach our classes in a more active and interactive way and use more group problem solving and hands-on learning. This lends itself very well to learning about wheelchairs and other areas of assistive technology. Students now prefer to acquire information in ways other than reading information in books. We make sure we provide quick turnaround and opportunities for students to understand how well they are doing in learning the information. This works very well for the courses that I teach.

The learning style of students is different than in the past, but their motivations are very similar. Most often they enter into the physical therapy world based on some personal experience. Many of the students don't know very much about populations of people with disabilities, but they have the motivation to work directly with patients because they want to help people.

YOU MENTIONED THAT SOME CHANGES YOU MADE IN YOUR TEACHING STYLE WORK VERY WELL WITH THE COURSES YOU TEACH. WHAT ARE THOSE COURSES?

Our program made an intentional decision to include a course that is specifically about assistive technology and disabilities. That is a required course I teach in the early summer every year. In the fall, I teach neuroscience,

neuroanatomy, neurophysiology and neuropathology. In the spring, I teach a hands-on skills course called Examination and Intervention. In that class, students learn some of the basics of equipment they might use with patients in an acute care hospital or a rehab center. I also do a fair amount of guest lecturing in other courses where my expertise is helpful if we are introducing seating and positioning, skin protection and other related subjects. Within our college, we have a masters degree program in prosthetics and orthotics, and I also help teach these students basics of wheelchairs and seating as they will likely have patients who use lower extremity prosthetics as well as wheelchairs and seating.

YOU ALSO HAVE CONDUCTED WORKSHOPS AND SEATING SYMPOSIUMS. HOW HAVE THESE EXPERIENCES INFLUENCED YOUR TEACHING?

I have conducted workshops at the International Seating Symposium in Vancouver, Canada, and also in the United States, and as a student at the University of Pittsburgh, I led a two-day wheelchair seating and mobility workshop in West Virginia. However, perhaps the experience most interesting to me personally was a two-day seating symposium that Mary Ellen Buning and I conducted at the request of Jongbae Kim, associate professor in the Department of Occupational Therapy and the director of YESTEC (Yonsei Enabling Science and Technology Research Center) at Yonsei University in South Korea. Mary Ellen, Kim and I were at the University of Pittsburgh together, and we all three received our PhDs about the same time.

The experience of the workshop in South Korea helped me develop a better understanding of the similarities and differences in other environments and countries. The South Koreans have more of an engineering approach where in the United States we have more clinical people who are leading the charge – physicians and therapists mostly. In Korea, and probably in other countries also, engineering individuals take the leadership. It is still inter disciplinary, and they work very closely with the clinical team, but the approach is from an engineering perspective. The Korean participants in our seating symposium were very interested in learning more about the hands-on clinical piece because this was not a part of their training.

This experience has led me to believe that perhaps we need to be teaching more of the technical aspect for the engineering principles behind our work. I believe broadening the educational background of our clinical people would make a big difference in how they think about wheelchair seating and how to apply technology in different ways to obtain the desired result. I know we have some clinical folks who have that perspective, and they consider the mechanics and bio-mechanics of wheelchair seating, but I don't think it is natural for all clinicians. This is something we could probably teach more strongly in our educational program.

NOW THAT WE HAVE A GOOD UNDERSTANDING OF YOUR COMMITMENT TO YOUR STUDENTS AND TO MEETING THEIR NEEDS, TELL US ABOUT YOUR LEISURE ACTIVITY OF HIKING TO WHICH YOU ARE ALSO COMMITTED.

I began hiking in the early 1990s when I started working because I wanted to get into some sort of recreation activity. A local gentleman led hikes regularly so I started with that. Then I got involved with the Appalachian Mountain Club, a large hiking organization on the East Coast, and I did summer trips with them. Most of

CONTINUED ON PAGE 22

Barbara Crane, Jongbae Kim, and Mary Ellen Buning at a seating symposium at Yonsei University in South Korea.

"I BEGAN HIKING IN THE EARLY 1990s WHEN I STARTED WORKING BECAUSE I WANTED TO GET INTO SOME SORT OF RECREATION ACTIVITY."

Barbara Crane hiking a trail up to Observation Point in Zion National Park, Utah.

Barbara Crane, center, with two of her students, Brian Wally and Jessica Lobisser, on Observation Point in Zion National Park, Utah.

ALWAYS REACHING FOR NEW HEIGHTS
(CONTINUED FROM PAGE 21)

these adventures were within the United States, but I also took a trip to Peru to hike. In the summer, I'm basically done teaching by the middle of June and come back to work at the end of August, so I usually go on a couple of longer hiking trips over the summer. In the past, I went to the Canadian Rockies and Colorado and I'll go back to Colorado, again this year to hike the southern range of the Rockies.

I would say that at this time hiking is my main avocation. I am involved in an activity called "high pointing." This involves visiting the highest point in each state in the United States. So far I have visited 27 of the state high points. Some of the points are tall mountains and require hiking while others are just places you drive to that happen to be the highest point in the state.

WE HAVE A PHOTO OF YOU HIKING WITH SOME OF YOUR STUDENTS IN UTAH. HOW DID YOU MANAGE THAT?

We have students who do clinical internships in many different places around the country, and one of our clinical internship sites is in Cedar City, Utah. This happens to be just outside of Zion National Park; when I have been to Cedar City to visit with my students, because they know I'm an avid hiker, we often go hiking together in Zion. Actually, that has become a tradition!

Whether in a lecture hall, a lab or among the red rocks of Utah, we can be sure Barbara Crane will carry on the tradition of always striving for new summits

CONTACT
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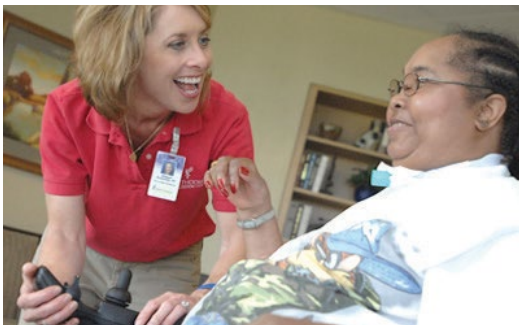

Photo used with permission from Washington University, Saint Louis

CTF is the dedicated clinical voice protecting and improving access to CRT for people with disabilities.

ctf Clinician Task Force

Email: info@cliniciantaskforce.us
Office: 404 370 6172
Website: www.cliniciantaskforce.us

Barbara Crane, Kelly Waugh and Faith Savage hiking in Colorado.

Experiencing a different kind of height: Barbara Crane and Susan Johnson Taylor on the Sky Deck of the 103rd floor of the Willis (formerly Sears) Tower in Chicago.

Barbara Crane at the top of Mt. St. Helens in Washington State. Mt. Rainier in the background.

Barbara Crane is a Professor of Physical Therapy at the University of Hartford in West Hartford, CT. She received a BS in Physical Therapy from the University of Connecticut, an MA in Gerontology from Saint Joseph College, West Hartford, CT, and a PhD in Rehabilitation Science and Technology from the University of Pittsburgh, Pittsburgh, PA. She is also a certified Assistive Technology Professional (ATP) and Seating and Mobility Specialist (SMS) by the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA).

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SUCCESSFUL NATIONAL CRT CONFERENCE

Written by: **DON CLAYBACK**

The mission of protecting access to Complex Rehab Technology (CRT) got a major boost at the National CRT Leadership and Advocacy Conference held in Arlington, Virginia, April 25-26.

This partnership of NCART and NRRTS brought CRT stakeholders together in one place for high-value education, networking and advocacy. The program culminated with attendees delivering the CRT access message directly to the offices of more than 240 members of Congress.

The 160 attendees represented all sectors of the CRT community, including providers, manufacturers, consumers and national consumer organizations, family members and caregivers, clinicians and clinical organizations, researchers, and other advocates. Thirty of the individuals were CRT wheelchair users who came to personally share their stories.

The first day of the conference included a variety of panel presentations: The CRT Consumer's Perspective, Health Care Policy Trends and Politics, Challenges Facing CRT Suppliers, and Industry Issues and Initiatives. The panelists did an excellent job sharing their experiences and expertise on a wide range of topics that provided timely information and updates in these important areas.

The second day, Capitol Hill Day, produced more than 240 congressional visits focused on two requests: (A) Cosponsor and pass HR 3730 and S 486 to stop Medicare from inappropriately applying Competitive Bidding Program payment rates to CRT manual wheelchair accessories (critical components); and (B) Cosponsor and pass HR 750 to create a Separate Benefit Category for CRT within the Medicare program and make needed changes to improve coverage policies and safeguards.

Thanks to all the attendees, particularly the consumers, clinicians and other advocates who came to personally visit with their members of Congress. Also, special thanks to all the sponsors for their financial support that allowed the conference to happen.

If you're on Twitter, you can search hashtags #CRTCONF2018 and #Access2CRT for some great posts and photos.

The National CRT Conference served to promote a healthy CRT industry. It also provided more than 240 opportunities to push Congress to protect access to CRT for the people with disabilities who rely on it. Let's build on the momentum!

FEDERAL CRT LEGISLATION

As of this writing, conference attendees are doing the important follow-up work with their members to secure sponsorships and help with passage. We are already seeing positive results with the addition of 23 cosponsors to our CRT bills in the past three weeks.

The cosponsorship scoreboard shows HR 3730 at 103 cosponsors, S 486 at 23 cosponsors, and HR 750 at 105 cosponsors. Visit www.protectmymobility.org to see a complete list of cosponsors.

If your members are not signed on to the bills yet, use the links at the site to send an email and/or make a phone call. Use polite persistence to get their cosponsorship and support for passage.

CURES ACT MEDICAID DME PROVISION

Advocacy work relating to the Medicaid provision in the 21st Century Cures Act continues in states across the country. As reported, this legislation includes a 2018 provision that limits federal "Medicaid reimbursement" to state Medicaid programs for certain Durable Medical Equipment (DME) to "Medicare payment rates" in specific situations.

This provision has risks to both CRT and DME access, and NCART has been collaborating with the American Association for Homecare, state associations and others on individual state discussions and education.

To protect CRT access, Reps. Bill Johnson, R-Ohio, and Bob Latta, R-Ohio, are leading a letter to Centers for Medicare and Medicaid Services (CMS) Administrator Seems Verma to formally inform CMS that Congress did not intend for the provision and DME Competitive Bid payment rates to be applied to CRT products. They have circulated the letter within the House of Representatives inviting fellow representatives to add their signatures.

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THANKS TO ALL THE ATTENDEES, PARTICULARLY THE CONSUMERS, CLINICIANS, AND OTHER ADVOCATES WHO CAME TO PERSONALLY VISIT WITH THEIR MEMBERS OF CONGRESS. ALSO, SPECIAL THANKS TO ALL THE SPONSORS FOR THEIR FINANCIAL SUPPORT THAT ALLOWED THE CONFERENCE TO HAPPEN.

As of this writing, CRT stakeholders are pursuing those additional offices.

The concluding paragraph of the House letter summarizes the key message to CMS: "We respectfully submit that this policy, which was designed to create federal budget savings in Medicaid, was never meant to include CRT products. Congress made this intent clear when it included policy in the same 21st Century Cures Act to protect CRT from competitive bidding, and we ask that you follow Congressional intent and protect CRT from payment cuts due to DME competitive bidding pricing, whether in Medicaid or Medicare."

COMPETITIVE BIDDING INTERIM FINAL RULE

On May 9, CMS published the long-awaited Interim Final Rule (IFR) entitled "Durable Medical Equipment Fee Schedule Adjustments to Resume the Transitional 50/50 Blended Rates to Provide Relief in Rural Areas and Non-Contiguous Areas."

A key provision is this "amends the regulation to resume the transition period's blended fee schedule rates for items furnished in rural areas and noncontiguous areas (Alaska, Hawaii and United States territories) not subject to the Competitive Bid Program

CONTINUED ON PAGE 26

SUCCESSFUL NATIONAL CRT CONFERENCE
(CONTINUED FROM PAGE 25)

(CBP) from June 1, 2018, through December 31, 2018." For these "rural and noncontiguous areas (Alaska, Hawaii, and United States territories)," Medicare will go back to the January 1, 2016, payment rates for dates of service during the seven-month period of June 1 to December 31, 2018.

Unfortunately, this return to January 1, 2016, payment rates for the seven-month period does not apply to all non-CBP areas. It only applies to the "rural and non-contiguous areas." Relief to these other areas is the focus of federal CBP legislation HR 4229.

From a CRT perspective, this will have the effect of increasing Medicare payment rates for CRT manual wheelchair accessories for those dates of service in those rural and noncontiguous areas. Group 3 power wheelchairs and accessories are mentioned in the IFR with a confirmation that CBP rates do not apply to them.

CMS indicates that it will use the June 1 to December 31, 2018, period to further evaluate the adequacy of these "transitional" rates and examine other CBP issues.

There is a public comment period through July 9, and NCART will be submitting comments, including highlighting the need to rescind the application of CBP pricing to CRT manual wheelchair accessories.

INTRODUCTION TO CRT VIDEO

As we continue to work to increase CRT awareness and understanding, we want to remind everyone of a helpful CRT video that is a great educational tool. "Complex Rehab Technology – Essential for Health. Essential for Life" introduces CRT from the perspectives of consumers, medical professionals and advocacy organizations.

The 11-minute video has been viewed more than 14,000 times and has gotten very positive reviews from people looking to better understand what CRT is all about. It can be viewed directly at https://vimeo.com/33923265 or www.access2crt.org.

Share the video as part of your federal and state advocacy work to help people understand the CRT provision process and the positive impacts that result from adequate access.

CONTACT THE AUTHOR
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Don Clayback is executive director of NCART. NCART is national organization of Complex Rehab Technology (CRT) providers and manufacturers focused on ensuring individuals with disabilities have appropriate access to these products and services. In this role, he has responsibility for monitoring, analyzing, reporting and influencing legislative and regulatory activities. Clayback has 28 years of experience in the CRT and Home Medical Equipment industries as a provider, consultant and advocate. He is actively involved in industry issues and a frequent speaker at state and national conferences.

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CLINICIAN TASK FORCE:

ADVOCACY FROM THE CLINICIAN'S POINT OF VIEW

Written by: **CATHY CARVER,** PT, ATP/SMS, CLINICIAN TASK FORCE EXECUTIVE BOARD

Take Action!

An inch of movement will bring you closer to your goals than a mile of intention. ~Steve Maraboli

"There's Power In Numbers!" It's true! People are not just numbers, but numbers represent people. In my world (and yours,) those people are people with disabilities (PWD). When I see PWD out there living life and making a difference when able to have (or gain) access to the right mobility equipment, it encourages me. It's in my blood! I am energized by being part of helping people get the needed equipment to participate in all life has to offer. When access to that needed equipment is limited or even denied, it ***really*** bothers me. Does it bother you to the point of action?

The National CRT Leadership and Advocacy Conference and Capitol Hill Day were April 25 - 26, 2018. It was a privilege to attend with nine members of the Clinician Task Force to represent the clinician perspective. Multiple panel discussion occurred on Day 1. Consumer advocates spoke about their stories and experiences and delays in obtaining the appropriate and necessary mobility equipment they need for independence and function in their homes and communities. Government affairs leaders of our industry spoke about the financial and long-term impact of policy changes on client access to much needed topics: quality and timely technology and related services and the impact of coding, coverage and payment on industry wide innovation, research, and technology transfer. Even though the technological know-how exists to solve consumer mobility problems, the inability of manufacturers, suppliers and researchers to obtain appropriate coding, coverage and payment prevents ground-breaking solutions from reaching the people who need it.

In the afternoon, we broke into small groups organized by state and were trained on how to talk with our senators and representatives about the Manual Wheelchair Accessories bill (HR 3730 and S 486) and the Separate Benefit Category bill (HR 750). We were provided written materials and talking points so we could conduct educated confident visits. In my small group, I met and was paired off for Hill visits with a consumer advocate employed by a supplier. It was effective to go to the Hill meetings in interdisciplinary teams representing the different Complex Rehab Technology (CRT) stakeholders. In this way, each team member was able to relay their role and responsibilities in the service delivery process and the impact policy changes have had. Consumer advocates have the most influential and powerful voice when speaking with policymakers as they are the most impacted. Clinicians also have a very influential and effective voice because we do not have a financial bias to the equipment recommended. Our interests are strictly tied to the person's needs, which is the role and strength of the Clinician Task Force. Manufacturers' and suppliers' voices are critical as they have intimate understanding and examples of how the policy changes have impacted the people they serve.

Now, I am following up with our visits and encouraging our legislators to be a part of making life better for our people with disabilities who require access to the equipment they need. What will motivate you, clinician? Start small by following the www.access2crt.org website and sending emails and making calls. Ask questions to your trusted suppliers about what this legislation means. Talk to your clients about the impact this will have on them and others and engage them to take action and call or write their legislators. Encourage more consumer advocates to go to Capitol Hill on the next Hill Visit. Even if the trip to Washington, D.C., is out of reach, the same activities can occur from home. Plan ahead, schedule a visit at the home district office when your representative is in town and plan to bring your CRT stakeholder friends (clinician, consumer advocate/family/caregiver, suppliers and manufacturers). Schedule a representative visit at your clinic or at the CRT company office.

Yes, we had sweat pouring from our bodies, but CRT stakeholders were prepared and empowered to go and advocate. We all are busy with life and work but what a sense of pride and joy I felt when I returned to work and let my clients know that I personally have been to the Hill to advocate for and represent them. I have been making calls and emails to follow up and am giving my clients, their families and caregivers the tools to advocate for themselves. I have been engaging my Rehab Technology

"Proud to speak up!"

Rep. Bradley Byrne,R-Ala., (center) Karen Roy and Cathy Carver.

Consumer advocates make their voices heard

Suppliers and clinical colleagues to also act. Will you join me?

It is true – there is "Power in Numbers." It is necessary to get our representatives' attention and action. It is by increasing the noise of the people they represent that we hope to move the needle forward toward getting the CRT legislation heard in Congress before year's end!

The ball is in your court … How will you engage?

CONTACT THE AUTHOR

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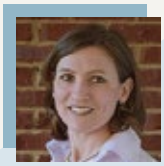
The Clinician Task Force is a nonprofit independent national coalition of 50 seating and wheeled mobility clinicians that advocate for professionally sound, clinically based public policies that ensure individuals with mobility impairments have appropriate access to seating, positioning and mobility products and services.
For more information, contact Laura Cohen at laura@rehabtechconsultants.com.

Cathy Carver PT, ATP/SMS, has practiced in adult neurology rehabilitation for more than 20 years and for the past eight years specialized in wheelchair and seating system service provision at Spain Rehabilitation Center/UAB in Birmingham, Alabama. She has been teaching wheelchair and seating courses around the state and nationally since 2007. Carver is on the executive board for the Clinician Task Force, a member of RESNA, APTA (Neuro Section) and a friend of NRRTS. She is a consultant for Qualis Health and reviews medical necessity requests for custom wheelchairs.



JOIN THE ROLLING REVOLUTION

Written by: **ALEX BENNEWITH,** MPA

I am, of course, preaching to the choir, as many, if not all, of you, are already active team members of the Rolling Revolution. The Rolling Revolution Advocate for change for wheelchair users across the country. United Spinal, along with other consumer advocacy stakeholders such as Paralyzed Veterans of America and National Multiple Sclerosis Society joined the NCART and the NRRTS at their annual legislative and policy conference in April.

Since the conference, we have, of course, been advocating against the Medicaid Cures provision and getting additional signatories to the Dear Colleague letter, addressed below, as well as advocating for additional cosponsors for the Complex Rehab Technology (CRT) bills; HR 750 - Ensuring Access to Quality Complex Rehabilitation Technology Act of 2017, HR 3730 and S 486 - Protecting Beneficiary Access to Complex Rehab Technology Act of 2017. As of this writing, it's great to hear that making additional six names have been added since the conference to the HR 750 cosponsor list, 105 cosponsors in total. Sen. Chuck Grassley, R-Iowa, signed on in May to S 486 bringing the total senator cosponsor list to 22. Sixteen new cosponsors have been added to HR 3730 since the conference bringing the total list to 103.

OTHER ISSUES WE WILL BE ADDRESSING INCLUDE IMPROVED PROTECTIONS IN AIR TRAVEL FOR PASSENGERS WITH DISABILITIES; HEALTH CARE BENEFITS AND COMMUNITY SUPPORTS AND SERVICES; DISABILITY RIGHTS AS WELL AS VETERANS' HEALTH BENEFITS AND VETERANS' LIFE INSURANCE ISSUES.

On the Medicaid Cures provision, the 21st Century Cures Act (Cures) is legislation passed in 2016 that included limits on the federal Medicaid Durable Medical Equipment (DME) subsidy to states in specific situations. This limitation, when applicable, involves applying Competitive Bid payment rates to certain DME items. The Cures Act was not meant to negatively impact CRT items, but unfortunately that is happening in some states. To formally inform the Centers for Medicare and Medicaid Services (CMS) that Congress did not intend for the provision and DME Competitive Bid payment rates to be applied to CRT items, Reps. Bill Johnson, R-Ohio, and Robert Latta, R-Ohio, are sending a letter to CMS Administrator Seema Verma. To strengthen the message, they asked their fellow representatives to add their signatures to a Dear Colleague letter.

In addition to CRT and Medicaid cuts, United Spinal is also taking the lead, as an ITEM Coalition Steering Committee member on other critical issues for our membership, such as Medicare coverage for seat elevation and standing wheelchairs as well as addressing coding problems with titanium wheelchairs.

United Spinal Association, as always, will continue the fight on CRT advocacy in June when many of our members and United Spinal leadership come into town for our annual policy and advocacy conference, Roll on Capitol Hill, June 24-27, 2018. Other issues we will be addressing include improved protections in air travel for passengers with disabilities; health care benefits and community supports and services; disability rights as well as veterans' health benefits and veterans' life insurance issues.

For all of your clients and customers, who are interested in speaking up and getting involved, have them visit our Action Center at: https://unitedspinal.org/action-center/.

Roll on!

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Alex Bennewith is vice president of government relations for United Spinal Association. Bennewith advocates for legislation and regulations regarding disability and health policy at both the federal and state level. She works closely with a range of stakeholders in the durable medical equipment and supplies, prescription drug, public health and disability communities. She graduated from Brandeis University and received a Master of Public Administration from American University.

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CEREBRAL VASCULAR ACCIDENTS

Written by: **MICHELLE L. LANGE,** OTR/L, ABDA, ATP/SMS

Cerebral vascular accidents (CVA) are commonly referred to as strokes. Like a heart attack, in which a portion of the heart does not receive blood flow, a stroke occurs when blood flow ceases to part of the brain. Nearly 800,000 people experience a new or recurrent stroke every year. Strokes are the fifth leading cause of death in the United States and the leading cause of adult disability. Complete recovery is possible; however more than two-thirds of stroke survivors have some level of impairment. Impairment is dependent upon the area and extent of damage.

STROKES ARE THE FIFTH LEADING CAUSE OF DEATH IN THE UNITED STATES AND THE LEADING CAUSE OF ADULT DISABILITY. COMPLETE RECOVERY IS POSSIBLE; HOWEVER MORE THAN TWO THIRDS OF STROKE SURVIVORS HAVE SOME LEVEL OF IMPAIRMENT. IMPAIRMENT IS DEPENDENT UPON THE AREA AND EXTENT OF DAMAGE.

TYPES OF STROKE

Strokes fall into two categories:

- Hemorrhagic strokes are caused by bleeding. An aneurysm may burst, or a weakened blood vessel may leak, preventing blood flow to specific areas of the brain. In addition, bleeding leads to swelling and pressure, causing further damage. This is a less common form of stroke (15 percent) but has a higher fatality rate (40 percent of all strokes).

- Ischemic strokes occur when a blood vessel is blocked by a blood clot or plaque and account for about 87 percent of all strokes. High blood pressure is a risk factor.

    o Embolic strokes occur when a blood clot or plague fragment forms in the body (often in the heart) and travels to the brain. This type of stroke often occurs in people with atrial fibrillation.

    o Thrombotic strokes occur when a blood clot forms in an artery supplying blood to the brain and is common in people with high cholesterol and atherosclerosis.

Another related incident is a transient ischemic attack (TIA). This occurs when blood flow is stopped to part of the brain for a short period of time, leading to stroke-like symptoms that last less than 24 hours before disappearing. TIAs can be recurrent and are a warning sign that a stroke may occur.

RECOGNIZING STROKE

Early recognition and treatment can significantly reduce brain damage. An easy to remember acronym is FAST:

FACE: Ask the person to smile. Does one side of the face droop?

ARMS: Ask the person to raise both arms. Does one arm drift downward?

SPEECH: Ask the person to repeat a simple phrase. Is their speech slurred or strange?

TIME: If you observe any of these signs, call 9-1-1 immediately.

It is also important to note the time of the first symptom, as this can affect treatment decisions.

TREATING STROKE

Stoke treatment includes prevention, therapy immediately after the stroke, and post-stroke rehabilitation. Preventing an initial or recurrent stroke focuses on treating underlying risk factors including high blood pressure, atrial fibrillation and diabetes. The use of blood thinners is common. About 25 percent of people who have had a stroke, will have another stroke within five years.

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22 million

people in the United States depend on a wheelchair for day-to-day tasks and mobility

135,000

monthly visitors to United Spinal's websites and resource center

95,000

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in costs are associated with spinal cord injuries annually

285,000

people in the U.S. are currently living with spinal cord injury

100,000

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POST-STROKE REHABILITATION IS DESIGNED TO MAXIMIZE RECOVERY THROUGH THERAPIES AND NEEDED MEDICAL EQUIPMENT, INCLUDING COMPLEX REHABILITATION TECHNOLOGY.

Acute stroke treatment attempts to halt the stroke by quickly dissolving a blood clot or stopping bleeding of a Hemorrhagic stroke. The gold standard treatment for ischemic stroke is currently TPA, but this must be used within three hours of initial symptoms.

Post-stroke rehabilitation is designed to maximize recovery through therapies and needed medical equipment, including complex rehabilitation technology.

CONTACT THE AUTHOR

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REFERENCES:

1. NATIONAL STROKE ASSOCIATION, WWW.STROKE.ORG

2. AMERICAN STROKE ASSOCIATION, WWW.STROKEASSOCIATION.ORG

3. NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE, HTTPS://WWW.NINDS.NIH.GOV/DISORDERS/ALL-DISORDERS/STROKE-INFORMATION-PAGE

Michelle Lange is an occupational therapist with 30 years of experience and has been in private practice, Access to Independence, for more than 10 years. She is a well-respected lecturer, both nationally and internationally, and has written numerous texts, chapters and articles. She is the co-editor of Seating and Wheeled Mobility: a clinical resource guide; editor of Fundamentals in Assistive Technology, 4th ed.; NRRTS Continuing Education Curriculum Coordinator and Clinical Editor of DIRECTIONS magazine. Lange is on the teaching faculty of RESNA and Michelle is a member of the Clinician Task Force. She is a certified ATP, certified SMS and is a Senior Disability Analyst of the ABDA.

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Who can participate in NRRTS webinars?

Our webinars are open to anyone whose goal is to improve skills and be on the cutting edge with new and emerging techniques and concepts in Complex Rehab Technology and related fields.

Audience: CRTS®s, RRTS®s, other ATPs and physical and occupational therapists (intermediate to advanced).

All participants must score a 70 percent on the post-test assessment to receive CEU credits.

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Amber Ward, MS, OTR/L, BCPR, ATP/SMS

WEDNESDAY, JULY 18, 2018
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What Happens When You Sit?
Explaining Seated
Buttocks Deformation
Sharon Eve Sonenblum, PhD

WEDNESDAY, JULY 25, 2018
11 AM – 12 NOON EASTERN TIME
Pivot, Shift, Slide or Lift: How Transfer Techniques Impact Wheelchair and Seating Equipment Selection
Angie Kiger, M.Ed., CTRS, ATP/SMS
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7 – 8 PM EASTERN TIME
The Mat Assessment: Where to Begin?
Barbara Crume, PT, ATP

THURSDAY, AUGUST 16, 2018
7 – 8PM EASTERN TIME
Body Segment Angles:
The Key to Better Understanding Postural Deviations
Kelly Waugh, PT, MAPT, ATP

TUESDAY, SEPTEMBER 11, 2018
7 – 8 PM EASTERN TIME
Integration of Mobile Devices with Advanced Powered Wheelchair Electronics
Emma Smith, MScOT, ATP/SMS

THURSDAY, SEPTEMBER 13, 2018
7 – 8 PM EASTERN TIME
Cortical Visual Impairment (CVI) and How It Can Deter Power Mobility
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WHEELCHAIR SEATING IN A RESTRAINT-FREE ENVIRONMENT

SORTING THROUGH FACT AND FICTION

Written by: **STACEY MULLIS,** OTR/L, ATP

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OVERVIEW

As professionals involved in wheelchair seating and positioning, we understand the importance of proper positioning to provide the end user with optimal function, stability, skin protection and function. Sometimes these goals can be achieved simply by providing the correct primary support surfaces: an appropriate seat support surface, a back support set at the right angle, footplates and armrests. We know that in many cases primary support surfaces may not be enough to provide the support needed to meet the seating goals stated above or the individual needs of the end user. This is when secondary support surfaces are considered. These include, but are not limited to, lateral trunk supports, lateral knee supports, medial knee supports and head supports, etc. When the secondary support surfaces are not enough to provide optimal stability and function, then secondary supports, often referred to as postural support devices (PSD) may be considered. These include pelvic belts, shoulder straps and lower extremity strapping to position the legs. Although not in a neat category, tilt-in-space wheelchairs and lap trays are also used at times to promote optimal postural stability and function. These PSDs, secondary support surfaces, tilt-in-space chairs and trays may at times be considered a restraint, which poses a great challenge to therapists who are responsible to provide their clients with the most appropriate, individualized seating system to promote stability and function.

It is important for us to understand the differences, since sometimes even our facilities are unclear as to what would be considered a restraint or not. If your experience is like mine, there is almost a fear of using what may be considered a restraint because of state surveyor penalties! Join me as I sort through fact and fiction. There are clear guidelines available regarding the Centers for Medicare & Medicaid Services (CMS) definition of restraint and patient rights, but real life often doesn't fit into clear guidelines. I will walk through the most current definition of a restraint and possible exceptions you can share with your facilities. I will discuss the most common conditions that lead to restraint use and provide alternative clinical solutions to trial before going to a PSD. Of course, strong documentation is key when using PSDs, so I will provide you tips and suggestions throughout the article for effective documentation. One of the most common responses I get from therapists on this topic is, "But my facility says absolutely No to any device that may be considered a restraint." This article will give you information that you can discuss with your administrators regarding the fact and fiction of restraint use. Let this article provide you with tangible ways to advocate for what your client needs for optimal function and quality of life!

HISTORY AND DEFINITION OF RESTRAINT AND PATIENT RIGHTS GUIDELINES

Prior to 1987, restraints were used freely, primarily to protect residents from falls or injury. Although protecting residents was the primary intent, studies found the opposite to be true. Research showed that restraint use resulted in increased incidences of falls, pressure injuries and even mortality. This led to the Omnibus Budget Reconciliation act of 1987 (OBRA-87). Since 1987, this act has changed the use and view of restraints in long-term care and hospital settings by setting a standard that remains today. Here is what we need to know from OBRA-87:

- The act strongly discourages use of restraints in hospital settings.
- The act prohibits the use of restraints in long-term care unless "medically necessary."
- The act requires thorough documentation of interventions tried prior to use of restraints.
- The act requires a specific physician's order for the restraint.

OBRA-87 led CMS to adopt their definition of a restraint as: "any manual method, physical or mechanical device, material, or equipment that immobilizes or reduces the ability of a patient to move his or her arms, legs, body, or head freely" (Department of Health and Human Services, 2007).

The definition has since been updated by CMS [State Operations Manual (SOM), Appendix PP] to describe a restraint as: "any manual method or physical or mechanical device, material, or equipment attached or adjacent to the resident's body that the individual cannot remove easily which restricts freedom of movement or normal access to one's body." (Department of Health and Human Services, 2007).

This definition of restraint is important to know because the **Patient Rights Regulation 42 C.F.R. §483.13(a) states:** "The resident has the right to be free from any physical or chemical restraints imposed for purposes of discipline or convenience, and not required to treat the resident's **medical symptoms.**" (Department of Health and Human Services, 2007).

Since some of the terms in the definition and Patient Rights Guidelines can be ambiguous, CMS provides interpretive guidelines to add clarity. For example:

• **"Freedom of Movement** means any change in place or position for the body or any part of the body that the person is physically able to control."

• **"Remove Easily** means that the manual method, device, material, or equipment can be removed intentionally by the resident in the same manner as it was applied by the staff (e.g., siderails are put down, not climbed over; buckles are intentionally unbuckled; ties or knots are intentionally untied; etc.) considering the resident's physical condition and ability to accomplish objectives (e.g., transfer to a chair, get to the bathroom in time)."

• **"Medical Symptom** is defined as an indication or characteristic of a physical or psychological condition. There must be a link between the restraint use and how it benefits the resident by addressing the medical symptom. Medical symptoms that warrant the use of restraints must be documented in the resident's medical record, ongoing assessments, and care plans." (Department of Health and Human Services, 2007).

Now that we have the most current CMS definition of a restraint, Patient Rights Regulations and interpretive guidelines, here are some guiding questions you can ask yourself when considering a PSD that could be viewed as a restraint:

1. Will the PSD limit my client's ability to move parts of their body? This does not apply if paralysis is involved (i.e. spinal cord injury, CVA, progressive neurological disorder). If yes, it may be considered a restraint. For example, if a client has independent movement of the upper extremities and we immobilize an upper extremity in an arm support, this would be considered a restraint.

2. Is my client able to remove the PSD easily and at will? If no, it may be considered a restraint.

3. Does use of the PSD increase freedom of movement for my client? If yes, then it may not be considered a restraint. For example, a pelvic belt that stabilizes the pelvis, allowing independent wheelchair propulsion may not be considered a restraint even if it can't be removed independently.

4. Does the PSD address a medical symptom? If yes, it may not be considered a restraint. For example, a properly positioned pelvic belt can be used to minimize abnormal tone (medical symptom) and may not be considered a restraint.

5. Have I spoken with the resident or power of attorney (POA) and explained the benefits and considerations?

Although some would like to categorize restraints as a black and white issue, we can clearly see that this is not the case. Key words in justifying a PSD as a non-restraint include: **improved function, improved mobility and increased independence.** By documenting that an intervention improves a client's ability to function, surveyors may deem a PSD that would have been a restraint a necessary positioning component. Our goal should always continue to be providing what is best and medically necessary for our clients. With good documentation and clear interdisciplinary treatment plans, we can often provide our clients what they need without fear of penalties. We will look at a clear example of this

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later, but let's start with how we can address the most common positioning issues without the use of a restraint.

COMMON PROBLEMS AND ALTERNATIVES TO RESTRAINTS

As clinicians, we are client advocates and are always concerned with their safety. When we see a potential risk, we want to do something about it. At the wheelchair level, the most common injury risk is falls from sliding forward or trying to stand up unsupervised. There is a common misconception that falls justify the use of a restraint for our clients. But CMS guidelines state, "[F]alls do not constitute self-injurious behavior or a medical symptom that warrants the use of a physical restraint. Although restraints have been traditionally used as a falls prevention approach, they have major, serious drawbacks and can contribute to serious injuries. There is no evidence that the use of physical restraints, including but not limited to side rails, will prevent or reduce falls. Additionally, falls that occur while a person is physically restrained often result in more severe injuries."

So, what can we do when we feel our client is at risk for falls? In my experience, the two most common reasons for using restraints to prevent falls are: sliding forward in the chair and agitation/trying to stand up due to cognitive issues. In each of these cases my approach is to look at why this is happening rather than using a restraint as a "band aid." Often, when I identify the why, I can adjust the primary support surfaces (the seat and back) and not have a need for secondary supports (pelvic supports, trunk supports, head supports) or trays.

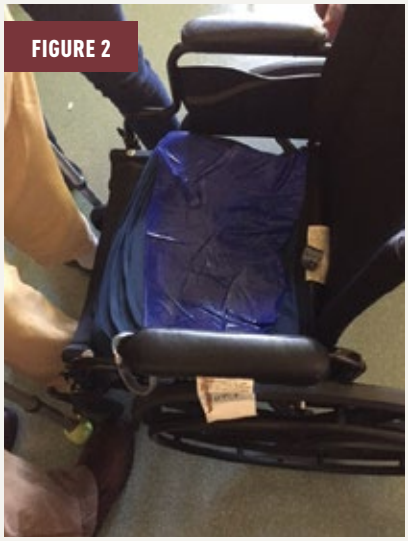
Let's take a deeper look at common reasons for sliding forward and agitation/attempts to stand. Within each section, I will offer alternative solutions to using a restraint.

SLIDING FORWARD: Increases risk of falls from the wheelchair and pressure injuries (See Figure 1 and 2).

FIGURE 1

Example of sliding forward in the wheelchair

FIGURE 2



The facility used Dycem to prevent sliding forward

I think anyone reading this can relate to dealing with this familiar issue. It is especially common in long-term care but can be seen in other practice settings as well. This issue is important as sliding forward could potentially lead to a fall from the wheelchair and/or pressure injury to the sacrum. The most common interventions for this seating issue are:

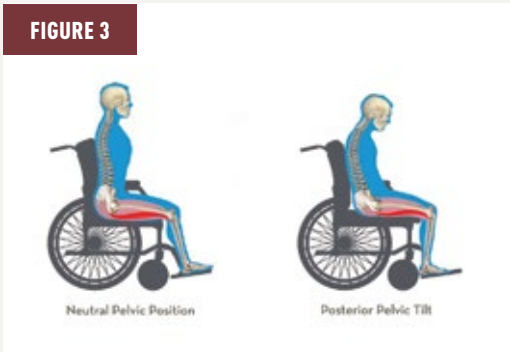
- Use of a wedge cushion;
- Use of a "pommel" cushion (Yes, these still exist!);
- Tilting the wheelchair by lowering the rear axle;
- Use of a pelvic positioning belt;
- Use of a lap tray; and
- Dycem (No, I'm not kidding).

When I look at this list, I consider each of these options a Band-Aid approach to the problem. Each of these is an attempt to keep a client from sliding forward without actually finding out why the problem exists. Not only can some of the above interventions be considered a restraint, but they could also ultimately cause harm since these don't address the cause of the sliding forward. So, let's take a step back and look at some reasons why a client could be sliding forward in their chair.

1. SHORTENED HAMSTRINGS

Consider wheelchair users seated in a chair all day. Their hamstrings are in a shortened position several hours each day, and eventually they begin to tighten (See Figure 3). Remember, the hamstrings insert at the pelvis and the knee. If we place a client in a wheelchair system that pulls on those tight hamstrings by forcing a more open upper leg to lower leg angle, the pelvis will be pulled forward. Here are a couple examples of how we may be pulling on shortened hamstrings:

FIGURE 3



Hamstrings in a neutral position versus a shortened position

• Use of elevating leg rests force the lower extremities into an angle that the shortened hamstrings can't tolerate, resulting in the pelvis sliding forward.

• If the seat depth is too deep, it will force a more open trunk to upper leg angle, pulling the pelvis into a posterior pelvic tilt, resulting in sliding forward.

Solutions

Shortened hamstrings are often associated with a kyphotic posture and posterior pelvic tilt. When you see this posture, it is very important to determine whether it is reducible or non-reducible (flexible or fixed). For example, if non-reducible you can adapt the seat depth and back angle to match the client's posture and angles by using an adjustable back support to maximize pressure redistribution. With the pelvis in a fixed posterior pelvic tilt, an immersion style cushion can help protect the sacrum and coccyx from pressure injury.

2. HIP RANGE OF MOTION LIMITATIONS

This is frequently seen in long-term care with elderly residents who have developed contractures at the hip. They are commonly seated in K0001-K0003 fleet chairs with a set seat-to-back angle of 90 degrees. If a resident has limited hip flexion, even on one side, he or she will slide forward in an attempt to open the seat-to-back angle.

Solutions

In this case, simply adjusting the seat-to-back angle can prevent the client sliding forward. Imagine providing this resident with a wedge cushion that closes the seat-to-back angle even more. This will result in them sliding even more! So, consider matching the angles that a client can tolerate with your back support angles and seat support.

3. SEAT-TO-FLOOR HEIGHT TOO HIGH FOR SELF-PROPELLERS

Our clients want independence and self-propulsion provides this. When a client has been provided with a fleet wheelchair or a rental manual chair, attention may have not been paid to the seat-to-floor height required for lower extremity self-propulsion. In this case, the individual will slide forward to get a good heel strike for propulsion.

Solutions

If getting another wheelchair is not an option, check the axle setting of the wheelchair and ensure it is at its lowest setting. If this is still not low enough, consider a drop seat to further lower the seat to the desired setting.

4. POOR TRUNK STABILITY AND STRENGTH

Most clients in long-term care who slide forward are seated in wheelchairs with a fixed 90-degree seat-to-back angle (See Figure 4). Even healthy, able-bodied individuals do not tolerate sitting a mere couple of hours in this position, so it is reasonable to expect someone with weakness or compromised balance to not tolerate this extreme position. It's also important to consider the client's diagnosis. For example, a client with multiple sclerosis may sit up fine for the first hour but will begin to slide forward for stability as his or her muscles begin to tire.

Solutions

Simply opening the seat-to-back angle will provide more support and stability. Also, consider using an offloading-style cushion that loads the trochanters as this will help stabilize the pelvis.

FIGURE 4

Trunk weakness leads to sliding forward in the wheelchair

COGNITIVE IMPAIRMENT: Agitation and trying to stand on their own.

This is one of the most difficult issues to address, as we fear for our client's safety and well-being. But again, prior to implementing any sort of solution, we need to try and determine why the client is trying to get out of his or her chair. Although this issue involves a multidisciplinary approach, as therapists we can help determine what is happening in the seated posture that may be causing the agitation and attempts to stand. Since this most commonly occurs in long-term care, I will use this setting as an example.

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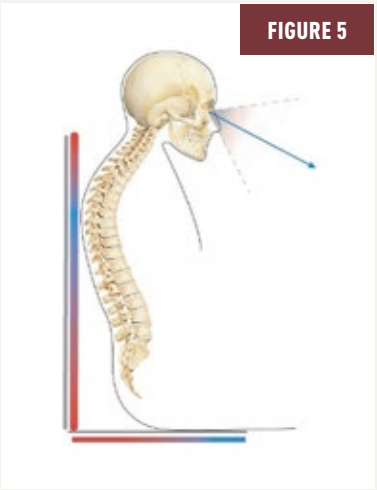
There are two primary physical reasons that a resident will be agitated in their wheelchair: comfort and function.

COMFORT

Again, let's consider the fleet K0001-K0003 wheelchairs most commonly used in long-term care. They have a fixed 90-degree seat-to-back angle, have minimal to no adjustability, and often come in 16" seat depth. We are placing individuals of all shapes and sizes in wheelchairs that have no adjustability and no customization (See Figures 5 and 6). So now, let's consider our agitated resident who is not at risk for pressure injury due to constant movement: We place him on a basic cushion in a very basic chair with a 90-degree seat-to-back angle. Wouldn't you want to get up too? We have to consider that we are asking these residents to sit in wheelchairs all day. Those who can't verbally express discomfort may communicate it by agitation, constant movement, and attempts to stand.

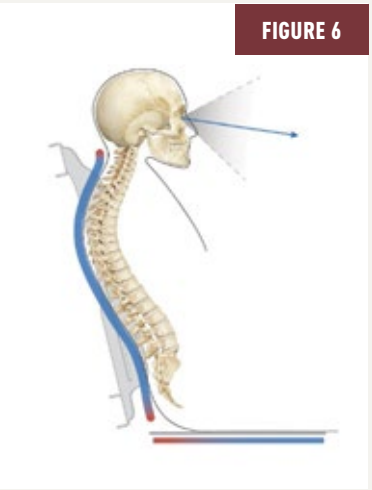
Solution
Do a thorough evaluation and consider any range-of-motion limitations as you take your measurements. Provide a wheelchair that fits the individual and can be adjusted for him or her. Consider that most clients with cognitive impairment or dementia remember how they felt in the past. Provide a seating system that fits like a glove, and that makes them feel safe. Using back supports and seat cushions with contours can possibly decrease agitation by making the client feel snug and enveloped. The other benefit is that if the client tries to get up from a contoured seating system, it may be more difficult, giving staff necessary time to assist them.

FIGURE 5



A 90-degree seat-to-back angle can result in posterior pelvic tilt, kyphosis and a downward gaze

FIGURE 6



A contoured back support with an open seat-to-back angle greater than 90 degrees, provides trunk and pelvic stability and a neutral eye gaze

Another consideration to optimize comfort and stability is the lower extremity position. These clients spent their lives with their feet on the floor while seated in a chair and not on footplates. The use of footplates may feel strange to them and increase agitation. By lowering the seat-to-floor height for solid foot placement on the ground, you may provide a sense of familiarity and comfort. In this case, you can use swing away leg rests just for transport.

FUNCTION

When we consider residents in long-term care, our goal is to provide clients with optimal function and quality of life. When dealing with cognitive impairment, we need to remember that even if residents can't clearly express themselves, they still deserve the same thing: optimal function. There are two main reasons why a client may be wanting to stand independently: They are seeking independent mobility, or they are seeking activity.

Solution
Once you have determined that your resident who is agitated and trying to stand is now in an appropriately fitted wheelchair, it may be that they want to be able to propel it independently. For the client, the motion of walking is what they remember, and this wheelchair is foreign to them. This is why I would start by training foot propulsion. Foot propulsion can feel the most like walking for these clients, and they may catch on more quickly than with upper extremity propulsion. It's a familiar motion to move your feet back and forth, so often with little training and proper set up, clients are able to self-propel. Consider lowering the seat-to-floor height using the wheelchair axle or a drop seat to ensure a good heel strike without the client sliding forward. This can decrease agitation and anxiety by giving the client a sense of freedom and independence.

Since cognitively impaired clients often live in the past, sitting all day is probably not familiar to them! This may be another reason they are trying to stand, because in the past they've always had something to do whether it's work, housework, sports or hobbies. Once you have provided the client with the most appropriate seating system and they still make attempts to stand, discuss with the interdisciplinary team an activity schedule and plan to engage the

client. This can be as simple as placing residents at a table with towels to fold, providing plastic storage containers to stack or offering a baby doll to hold and care for. These activities can provide a sense of familiarity and comfort, thus reducing attempts to stand.

RESTRAINT-FREE AND STILL A RISK: DOCUMENTATION IS KEY

There will be times when you have addressed the current wheelchair positioning needs (primary support surfaces) and find that it's still not enough. You know a postural support device will increase your client's function and independence. At this point, your documentation is going to be key. You will have already documented your thorough evaluation and positioning goals for your client. Be sure to paint a word picture in your daily notes of all your interventions along with the results as it relates to function and independence. Read through the following case example that clearly demonstrates how the therapist tried other interventions first and found he could increase patient function by the use of a PSD that may be considered a restraint.

CASE EXAMPLE V.B.

Bart Van Der Heyden, PT, recently presented a case study at the International Seating Symposium 2018 that directly illustrates how a PSD is sometimes beneficial, even if it may be considered a restraint. He has graciously approved the use of his case study for this article. For more information on this case study, resources or information related to wheelchair seating and positioning, please visit his website at www.super-seating.com.

FIGURE 7

V.B.'s presentation upon initial evaluation

V.B. CURRENT PRESENTATION

V.B. is a nursing home resident who was chosen for this case study because she was frequently agitated in her wheelchair and, as a result, required frequent repositioning. This resident was on Risperidone (an anti-psychotic), but the agitation continued in the wheelchair. She also had frequent incidences of high tone while in the wheelchair, again requiring frequent repositioning. Her basic history and goals are listed below. (See Figure 7)

PRESENTATION	GOALS
64-year-old female	Increase seating comfort and seating time, currently 7 hours per day
Fronto-temporal dementia	Facilitate a better head position for interaction
Alzheimer's, aphasia	Decrease energy consumption of cervical spine and while seated
Flexed fingers right hand, hip adductor flexion contractures right leg	Decrease unrest and high tone during seating, currently at least 10 episodes/day
Incontinence	Promote symmetry and anterior pelvic mobility when seated, currently leans to left side
No independent ADLs or transfers	Improve alertness when seated, decrease agitation when seated
Invacare Azalea Assist tilt wheelchair with Matrix cushion (23 degree tilt-in-space position)	Decrease transfer times. Currently: wheelchair to toilet 35 seconds,toilet to wheelchair 2 minutes 16 seconds

INTERVENTION

After a thorough physical assessment, Bart was ready to begin his intervention, starting with adjusting the wheelchair frame and primary support surfaces: seat cushion, and back support. The resident's current wheelchair had a tension adjustable back on it already, so this was used to provide appropriate posterior pelvic and trunk input. As you can see by his interventions, he focused on angles and provided support where it was needed at the pelvis, back, and lower extremities (See Figure 8). He used a shear measuring device to monitor shear forces at the seated surface as these resulted in sliding forward in the chair. These measurements served as indicators of how well the primary support surfaces were configured for optimal seating to minimize movement or sliding in the chair. Note that he was going to "investigate the need to block the femurs" once the primary support surfaces were adjusted correctly.

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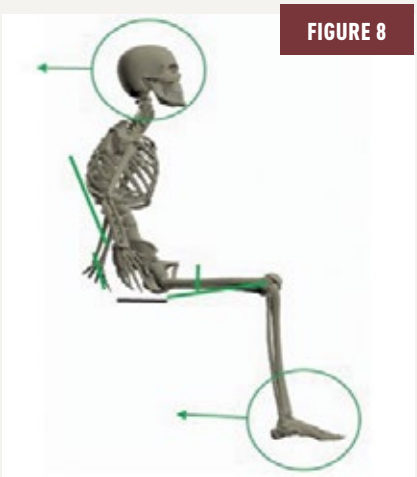
FIGURE 8



Proposed interventions for V.B.

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Proposed interventions:

- Accommodate limitation in range of motion, kyphosis, hamstrings contracture (impact of knee 90 degree flexion on thigh-to-pelvic angle = 125 degrees);
- Adjust lateral supports;
- Block ITs from moving forwards with 5-degree tilt;
- Block region below iliac crest using tension-adjustable straps;
- Accommodate posteriorly for mid-dorsal apex of spinal kyphosis with recline and tension-adjustable straps; and
- Investigate the need to block the femurs rather than anterior pelvis. (prevent bladder pressure)

Shear measurements were taken pre-intervention, post-addition of primary support surface and post-addition of secondary support surfaces and PSDs to show the results of the intervention.

Pre-Intervention	Post-Primary Surface Intervention	Post-Primary and Secondary Support Intervention
I Shear 6.9kg	I Shear 5.4kg	I Shear 1.9kg

*a lower number indicates lower shear forces

SUMMARY OF RESULTS FOR V.B. (SEE FIGURE 9)

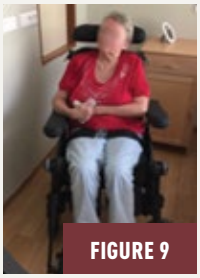

FIGURE 9

V.B.'s presentation post-intervention

As you can see, the shear forces were reduced with each intervention. The team found that by using an asymmetric pelvic belt (the belt was attached to match the angle that she sat in, as opposed to symmetrically side to side) across the femurs, rather than the pelvis, they achieved the following results:

- Increased sitting time from 7 hours/day to 7.5 hours/day;
- Decreased frequency of high tone during sitting from 10 times/day to 0 times a day, resulting in decreased need to reposition by staff;
- Achieved symmetry of head and trunk in the frontal plane when seating, when before she was constantly leaning to her left side;
- Improved alertness and decreased agitation when sitting; Client was taken off Risperidone, as a result;
- No gait training before, client now walks assisted with two caregivers for 75 meters; and
- Decreased transfer times:
  - Wheelchair to toilet time 35 seconds before, now 29 seconds.
  - Toilet to wheelchair 2 minutes 16 seconds before, now 55 seconds.

If Van Der Heyden and the team had simply asked themselves if they were impeding the movement of V.B.'s legs and whether she could remove a pelvic positioning belt easily, they would not have attempted the pelvic belt positioned over her thighs. By thoroughly documenting the assessment, all interventions applied, and final results, they are demonstrating to surveyors V.B.'s increased alertness and interaction with her environment without being medicated and increased independence with transfers and mobility.

EXAMPLE DOCUMENTATION FOR USE OF PELVIC BELT FOR V.B.:

Primary interventions of adjusting the back support position and angles and the seat support angle, as noted in daily note, have resulted in decreased shear force measurements, but client continues to be agitated and experience high tone episodes, requiring frequent repositioning. A pelvic belt was trialed, positioned asymmetrically over the thighs rather than across the pelvis. This placement stabilizes the pelvis in a position that allows symmetrical head and trunk alignment for increased alertness and socialization. This stabilizing belt also resulted in decreased incidence of high tone episodes during trial period and decreased incidence of agitation. These decreased incidences of agitation and high tone result in preserving energy for transfers, and transfer times to and from the toilet have significantly decreased. The client is unable to remove the pelvic belt independently, so staff will remove it for short periods every two hours. Staff have found that removing the pelvic belt during sitting increases agitation, and reapplying the pelvic belt decreases agitation and increases function. The family/POA was notified about the use of the pelvic belt and why it is being proposed for the seating system, and the POA has agreed to its use.

This example is providing a possible scenario and was not part of Van Der Heyden's case study. Note that I did not mention risk of falls, as CMS guidelines do not recognize this as a reason to use a restraint.

STEPS TO TAKE WHEN CONSIDERING A POSTURAL SUPPORT THAT MAY BE CONSIDERED A RESTRAINT:

• Meet with the interdisciplinary team to discuss other possible approaches. For example, a medication review may indicate that the client needs anti-anxiety medications adjusted. Maybe the client's sitting schedule needs to be adapted for safety. If a secondary postural support such as a pelvic belt is required, the team must be in agreement, and the documentation must reflect the need.

• Get a physician's order that states the PSD is medically necessary, and this order must be reviewed periodically to show the need continues to exist if planning to use over time.

• Although the use of restraints is prohibited unless medically necessary with a physician's order, the surveyors will review all measures taken before even considering what may be viewed as a restraint. The following questions can be reviewed as a guide and answered in your documentation to satisfy the need for a PSD that may be considered a restraint:

o What are the medical symptoms that led to the consideration of the use of what may be considered a restraint?

o Are these symptoms caused by failure to:
- meet individual needs in accordance with the resident assessments?
- use rehabilitative/restorative care?
- provide meaningful activities?
- manipulate the resident's environment, including seating?

o Can the causes of medical symptoms be eliminated or reduced?
o If the causes cannot be eliminated or reduced, then has the facility attempted to use any alternatives in order to avoid a decline in physical functioning associated with the restraint use?
o If alternatives have been tried and deemed unsuccessful, does the facility use the least restrictive restraint for the least amount of time?
o Does the facility monitor and adjust care to reduce the potential for negative outcomes while continually trying to find and use less restrictive alternatives?
o Did the resident or legal surrogate make an informed choice about the use of restraints? Were the risks, benefits and alternatives explained?
o Has the facility reevaluated the need for the restraint, made efforts to eliminate its use and maintained resident's strength and mobility (CMS interpretive Guidelines/Restraint, 2018)?

WHAT IF MY FACILITY SAYS ABSOLUTELY NO TO POSTURAL SUPPORT DEVICES?

This is a question commonly asked as some administrators don't want the risk of a PSD being considered a restraint and will flat out say they are not allowed per facility policy. In this case, the therapist could respectfully approach the administrator to discuss the actual CMS Guidelines and Patient Rights Guidelines. Explain how a PSD may not be considered a restraint when multiple interventions have been tried and documented and the use of the postural device increases function or mobility. Show them the list of questions above that surveyors will ask, and explain that if these are satisfied, the PSD may not be considered a restraint. Offer to educate the staff at your facility to ensure that the team provides the best quality of care without incurring costly penalties. Our responsibility is to provide our clients with optimal function and quality of life within the parameters we are given. Continue to be client advocates and continue to sort through what is fact or fiction even when there is push back. It's why we do what we do!

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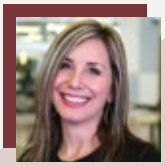


UTILIZING WHEELCHAIR CONFIGURATION TO POSITION A RESIDENT RESTRAINT-FREE IN LONG TERM CARE

Written by: **ANA ENDSJO,** MOTR/L, CLT
THIS ARTICLE IS SPONSORED BY PERMOBIL.

Long-term care facilities can be a tricky place to work when attempting to position residents well regarding preventing falls and pressure injuries from the wheelchair. Facilities are fearful that certain equipment may be misconstrued as a restraint. Administrators and/or nurses can sometimes question the choices therapists make in seating and positioning evaluations. This is not because the facility is trying to be difficult but rather to stay in favor with federal regulations, and they can make decisions without truly understanding the difference between a restraint and a postural support device. This case study is to be used as an example of how the client's seating needs were met despite restraint concerns. The goals of fall prevention, pressure redistribution, elimination of pain and maximum function were achieved for a resident with positioning needs by providing an optimal wheelchair seating system and configuration.

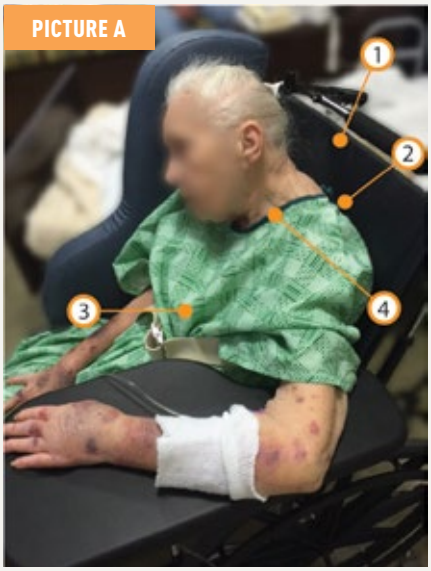
CAROLYN'S HISTORY AND PRESENTATION:

Carolyn is a 75-year-old female with a primary diagnosis of hemiplegia and hemiparesis following cerebral infarction affecting the left (L) non-dominant side. Secondary diagnoses include dysarthria, dysphagia, COPD, muscle weakness, anorexia, neuromuscular dysfunction of the bladder and constipation.

Carolyn had two cerebrovascular accidents (CVA) within six months. After the first CVA, Carolyn suffered mild paresis. She recovered nearly full strength after a short stint in acute rehab and was able to return home at supervision level with her husband. Six months later she suffered a more severe CVA that resulted in complete paralysis of her non-dominant left side. She presented with poor trunk strength, requiring maximum assist to sit up against gravity and maximum assist of two people for all ADL related transfers. Her neck and head were affected as well: she was unable to maintain her head upright in midline against gravity for more than 15 minutes before fatiguing, resulting in right lateral flexion, forward flexion and right rotation. This posture negatively affected voice quality and projection, prohibited a safe swallow and caused a downward eye gaze, interfering with her interaction with the

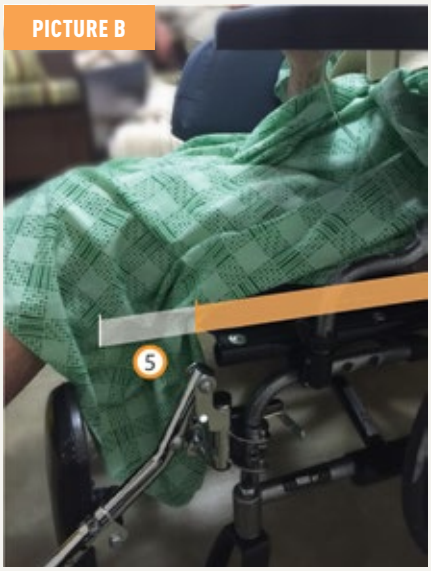
CAROLYN HAD TWO CEREBROVASCULAR ACCIDENTS (CVA) WITHIN SIX MONTHS. AFTER THE FIRST CVA, CAROLYN SUFFERED MILD PARESIS. SHE RECOVERED NEARLY FULL STRENGTH AFTER A SHORT STINT IN ACUTE REHAB AND WAS ABLE TO RETURN HOME AT SUPERVISION LEVEL WITH HER HUSBAND.

PICTURE A



The original recline back chair was too tall and taut, leading to fatigue and causing an excessive kyphosis of the thoracic spine in addition to forward and lateral neck flexion.

PICTURE B

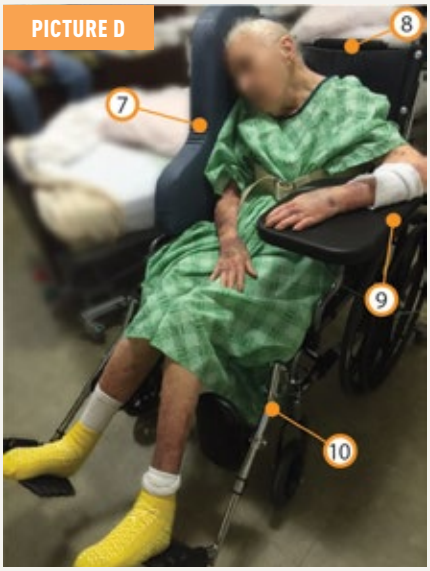


Short seat depth prevented full femoral contact and maximum seat support contact, increasing the risk of sliding forward out of chair.

PICTURE C

The wheelchair was too wide leading to the sling seat hammocking and causing the pelvis to collapse into a posterior pelvic tilt.

PICTURE D



The use of inappropriately sized accessories increased the right lateral lean.

PICTURE E

After trialing various postural supports, Carolyn's posture was corrected to her optimal midline to decrease pain, risk of injury and allow for maximum function.

environment. She could tolerate a maximum of one and a half hours in the wheelchair system. She complained of 10/10 pain in her trunk, pelvis and neck while sitting up in the wheelchair. Nurses reported a stage 2 sacral wound and stage 1 wound along the thoracic spine.

EVALUATION:

Carolyn and her husband were both present for the initial evaluation. They reported that going home was no longer an option as the husband could no longer meet Carolyn's physical requirements. She would become a long-term resident in the facility. They wanted her to be pain free, function at the highest capacity, and be stable and safe enough in the wheelchair system to sit up and go out on "dates" from time to time. The following goals were established for Carolyn:

1. Sit up with less than 10/10 pain at her pelvis, neck and spine.

2. Sit up in the wheelchair for longer periods of time to go on outings. She was tolerating < two hours in the wheelchair system due to pain and fatigue.

3. Sit with her head and neck in a better posture so she could "see and hear who was speaking to her." She especially wanted to see her husband. She presented with a downward eye gaze, looking at the floor due to poor head and neck posture.

4. Present with better voice quality and projection. The significant kyphosis caused her trunk to collapse, constricting her lungs and abdominal cavity. This, coupled with forward and lateral flexion of the head and neck, allowed Carolyn to produce only a barely audible, faint whisper.

5. Eat solid foods without the risk of aspiration. Carolyn was aspirating due to muscle weakness. The speech therapist could not get her positioned properly in the wheelchair to make progress with upgrading her to more solid foods.

6. Sit with proper pressure redistribution to allow her existing wounds to heal. Carolyn had developed a sacral wound and had reddened areas along her spine. This caused her pain and the risk of progression concerned them both.

7. Sit with postural stability to decrease the risk of sliding out of her chair. Carolyn slid forward out of her chair multiple times a day and developed a fear of getting into the wheelchair. The role of repositioning her fell on her husband's shoulders, and she didn't want to be a "burden" to him anymore.

Upon evaluation, the following postural abnormalities were identified: a significant posterior pelvic tilt, an excessive thoracic kyphosis, right lateral neck flexion, forward flexion and right rotation of the head and neck, 2+ pitting edema of the left upper extremity (UE), and adduction of lower extremities (LEs). Due to the use of elevating legrests, Carolyn's LEs fell between the legrest, resulting in poor femoral contact with the seat and LE swelling.

During the mat assessment, it was found that all postural abnormalities were reducible. The goal was to find the appropriate wheelchair model, support surfaces (cushion and back support) and accessories that would allow for as much correction as possible of these abnormal postures toward Carolyn's optimal, midline posture.

CONTINUED ON PAGE 46

UTILIZING WHEELCHAIR CONFIGURATION ...
(CONTINUED FROM PAGE 45)

Carolyn and her husband recognized the current wheelchair system did not give her the stability and alignment to achieve their stated goals. They wanted a wheelchair system that would provide her the ability to be safe and function better while sitting up. Once Carolyn was assessed in her previous wheelchair system, the following problem list was created:

1. The use of a tall, taut, straight recline back support fatigued the resident too quickly due to underlying poor core strength. Her trunk collapsed, and she slid down in her chair, producing an excessive kyphosis (See Picture A).

2. The straight, tall back didn't conform to her spine, creating peak pressures at the apex of the curvature of the thoracic kyphosis, causing pain and reddening of the spine (See Picture A).

3. The chest and abdominal cavity collapsed with the kyphotic posture, causing poor respiration, increased fatigue, poor voice quality and projection, and bowel and bladder dysfunction (See Picture A).

4. The kyphotic posture and the posterior pelvic tilt pulled the head and neck into forward and lateral flexion and rotation (See Picture A).

5. The seat depth was too short, preventing full femoral contact and maximum seat support contact, increasing the risk of sliding forward out of the chair and poor pelvic and LE alignment (See Picture B).

6. The combination of the wheelchair seat sling being too wide and, as a result, hammocking, caused the pelvis to collapse into a posterior pelvic tilt (See Picture C).

SHE COULD BOTH SEE AND BE HEARD TO ENGAGE WITH HER ENVIRONMENT. SHE THANKED US FOR HER NEW "WHEELS" AND SAID THE ONLY THING MISSING WAS A BUILT-IN RADIO SO SHE COULD TAKE NAPS IN HER NEW WHEELCHAIR.

The oversized foam lateral did not correct the lateral lean, but caused Carolyn to lean into it more, seeking stability her trunk lacked. The excessive leaning promoted the lateral flexion and rotation of the neck, as well (See Picture D).

8. The use of a tall recline back did not allow for the option of a proper head support. The head couldn't be adequately supported in a neutral, midline posture, increasing the abnormal postures of lateral and forward flexion and rotation of the neck, as well as causing pain and contracture risk (See Picture D).

9. The hemi tray was too high, pushing her trunk over into a right lateral lean and placed excessive strain and pain at the left shoulder. It lacked the angle adjustment to properly elevate the dependent forearm and hand, increasing edema (See Picture D).

10. The use of elevating legrests pulled the pelvis out of the chair, increased pressure and pain at her sacrum, and caused poor LE alignment due to poor femoral contact with the seat support. She presented with hip internal rotation and adduction of the LEs (See Picture D).

THE RESTRAINT FREE INTERVENTION:

The goals of seating and positioning intervention were to: 1. provide postural stability and alignment; 2. promote even pressure distribution and pressure relief/redistribution to allow for healing of existing wounds, prevent them from progressing and eliminate any associated pain; and 3. maximize sitting tolerance and function in the wheelchair to improve quality of life for both the resident and the caregivers. And of course, the aim was to achieve this restraint free!

The following equipment was recommended: a specialty manual tilt and recline wheelchair, a contoured cushion with positioning and skin protection properties, a contoured back support that would allow for the addition of mounted laterals and a head support. The use of these postural support devices was more than justified by her primary and secondary diagnoses lists.

Carolyn clearly was unable to attain or maintain postural control on her own, which increased her risk of falling from the chair and contributed to her pressure injury development and other medical complications associated with poor wheelchair position. The occupational therapist created a problem list during evaluation noting that the resident:

- Presented with paralysis and paresis on the left side of her body;

- Lacked core strength to achieve a safe posture that would prevent falls;
- Slid into abnormal postures creating pressure at her sacrum and along the spinous process, and collapsed her chest and abdominal cavities leading to respiratory, digestive, urinary and bowel complications; and
- Lack of head and neck musculature strength compromised communication, a safe swallow and interaction with the environment.

In accordance with RESNA's Position on the Application of Wheelchairs, Seating Systems, and Secondary Supports for Positioning versus Restraint, a "support" differs from a "restraint" as a support is "used to achieve a very specific position or posture of the body part in addition to minimizing migration in a specific direction."

After trialing various postural supports, Carolyn's posture was corrected to her optimal midline by (See Picture E):

1. Correcting her posterior pelvic tilt by utilizing a cushion with medial thigh separators and lateral tapered adductors to assist with pelvic and LE alignment and stability to prevent sliding out of the chair and to maintain a neutral pelvis.

2. Maintaining upright trunk alignment by utilizing a contoured back support that conformed to her spine, creating even pressure distribution by making maximum contact along the entire spine, relieving peak pressure from the apex of the thoracic curvature. It was sized properly (top of shoulder) for maximum stability, promoting an upright posture, which prevented her chest and abdomen from collapsing. This allowed for better voice quality and projection.

3. Utilizing a head support that was angle-adjustable prevented lateral neck flexion and rotation and allowed for midline eye gaze, a safer swallow and better voice quality and projection.

4. Utilizing a mounted lateral trunk support, provided counter pressure at the appropriate position for added trunk alignment and stability.

5. Utilizing a tilt-and-recline manual wheelchair, which allowed gravity to assist with core and neck strength issues, pressure relief off the pelvis through the tilt function, and an open seat-to-back angle of 110 degrees to prevent sliding forward as the fixed kyphosis was accommodated. Gravity, in conjunction with the head support, assisted to alleviate forward head flexion for optimal alignment and midline eye gaze. Some long-term care facilities question the use of tilt as a possible restraint, however this was not questioned in this situation due to the core strength issues.

6. Utilizing a wheelchair model with armrest height adjustability prevented excessive shoulder elevation and subsequent strain, relieving pain. The wheelchair accommodated an articulating arm rest (allowing her hand to be higher than her elbow), which reduced edema and prevented Carolyn from being pushed into a right lateral lean of the trunk. Straps were used as the left UE is flaccid and would often fall into her lap otherwise. The facility did not question the use of arm straps, understanding their positional application.

7. Utilizing standard legrests allowed full femoral contact with the seat surface and allowed the LEs to fit in the leg troughs created by the cushion's contours for optimal alignment and stability, decreasing edema and risk of contractures.

8. With the use of the contoured cushion and back support, as well as opening the seat to back angle and using tilt, a pelvic positioning belt was not required.

After performing a detailed chart review to understand her underlying diagnoses and completing a very thorough evaluation to present a problem list to justify intervention choices, Carolyn and her husband were pleased with her new seating system. She was able to sit pain free for > eight hours a day, went on outings, felt like less of a "burden" to her husband, and her increased stability in the wheelchair alleviated her fear of falling. She could both see and be heard to engage with her environment. She thanked us for her new "wheels" and said the only thing missing was a built-in radio so she could take naps in her new wheelchair.

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Ana Endsjo is an occupational therapist with a Master of Occupational Therapy from Nova Southeastern University and a Bachelor of Science in Nutrition and Dietetics from the University of Delaware. Endsjo has worked as an occupational therapist since 2001 in a variety of treatment settings including: acute care, sub-acute care, outpatient, acute rehab, long-term care and as a lymphedema certified therapist. She has worked mostly with the geriatric population, dedicated to the betterment of the treatment of the elderly in long-term care centers. Her focus has been on seating and positioning and contracture management of the nursing home resident. Endsjo is the clinical marketing manager of the LTC Division.

WHY IS EVERYONE SO QUIET?

Written by: **CLAUDIA AMORTEGUI,** PRESIDENT, THE ORION CONSULTING GROUP, INC.

As I sit down to write this article, I realize it's not a new issue, but I am amazed at how quiet the industry remains. At the end of 2016, the Medicare DMEPOS contractors published an article announcing that titanium frame options are not allowed to be billed separately (K0108) from the base of a wheelchair. They claimed that the codes (K0001 – K0009) and therefore the allowables were always based on equipment that included this option. I admit, there were some rumbles when this article first came out, but now the only complaints I hear are from the ATPs who are trying to provide the wheelchairs their clients are requesting.

Sadly, there are many providers who simply just stopped offering titanium wheelchairs. My thought is those that still provide these wheelchairs obtain additional funding from secondary funding sources or they simply "eat" the additional cost.

To make this situation worse, this past April the Medicare contractors took this a step further and actually added this language to the Manual Wheelchair Policy Article. Not only does this affect Medicare reimbursement, but it is something that will likely be picked up by most other funding sources. Once again, why is everyone so quiet?

Even more maddening is the fact that the 21st Century Cures Act requires a comment and notice period for any revisions made to a Local Coverage Determination (LCD) that restrict coverage; however, this addition was made to the Policy Article which does not fall under this requirement. If you read through any LCD, it clearly state *"In addition to the 'reasonable and necessary' criteria contained in this LCD there are other payment rules, which are discussed in the following documents, that must also be met prior to Medicare reimbursement … The LCD-related Policy Article …"* In my opinion, this means that for Medicare coverage, not only do I need to follow the LCD but also the Policy Article amongst other items. In this case, the Policy Article revision restricts coverage but is not affected by the requirements of the Cures Act. Does this not seem to be a rather big loophole? Interestingly enough, if you look back at recent changes made for many Durable Medical Equipment items, they all occurred in the Policy Articles and not the LCDs.

Some people may try to argue that the titanium issue is not a restriction on coverage since K0005 manual wheelchairs are covered items; however, as most of us know it is not a financially sound choice suppliers should make. The allowables will in no way cover the cost of such wheelchairs. At this point, the only way to provide titanium wheelchairs is by filing them non-assigned meaning the financial burden has been completely placed on the end-users. If a titanium wheelchair is preferred over other K0005 manual wheelchairs, your clients must pay out of pocket for the entire wheelchair order upfront versus only having to pay the difference for the upgrade. Realistically, how often will this occur? This policy means access to these products will be drastically reduced, if not eliminated, for Medicare beneficiaries.

Client choice, patient choice, end-user choice - no matter what you call it, it is simply that we all have the right to make a choice when it comes to our health care. No one has said Medicare must pay for such upgrades. If you look back at the creation of the Advance Beneficiary Notice (ABN), allowing a beneficiary to make an informed choice was critical, whether it was for an overall denial or the option to choose an upgraded product. It now appears, that choice has been eliminated.

Based on some initial Freedom of Information Act (FOIA) requests, there is no proof that titanium chairs were included in the calculation of the allowables back in 1993 and 1994. This is not necessarily a surprise since these types of chairs were barely in existence at that time. If this had been the case, then why would Medicare have officially code verified these chairs as K0009 for at least eight years, and paid for them under that code? A more in-depth FOIA request has been made to verify their claims regarding the allowable calculation, but not surprisingly, there has been no response in quite some time.

What most of this comes down to is the simple fact that the codes that were developed for manual wheelchairs and for wheelchair options/accessories are beyond archaic. These codes have in no way kept up with technology. Just think of the technological advances since 1993. How could it be that the codes have not changed? If anything, the manual wheelchair base codes became even more restrictive when the K0009 was essentially removed from current use. Medicare specifically states that *"K codes describe temporary DME and drug codes. Once these codes are approved for permanent inclusion in the Healthcare Common Procedure Coding System (HCPCS), they usually become 'A', 'E', or 'J' codes." In our world, these would*

become "E" codes. I would argue that since these "temporary" codes have existed for more than 20 years, it's time for an update that would finally cover current technology.

As I write these articles, it seems I continually repeat myself by saying we need to stand up and fight. In this case, it has been eerily quiet. You need to be sure that the end users are aware of what has happened, and they need to make their voices heard. Clinicians and providers also must speak up. Breaking this down into simple terms, Medicare beneficiaries have lost their right to choose higher level equipment with "extra" features, even when they are willing and wanting to pay for such features. I know my parents would be infuriated if they were ever told, "No, you cannot pay for the selected upgraded feature on the product you qualify for unless you pay for the entire order up front."

Codes should be updated, and patient choice must remain. If I were an end user, I would not be happy being told I could not spend my money as I wish. Medicare should realize that many of the beneficiaries do their own research online for the best products that could help their everyday lives. If Medicare does not hear any complaints, there is no reason to correct their error. It's time to fight!

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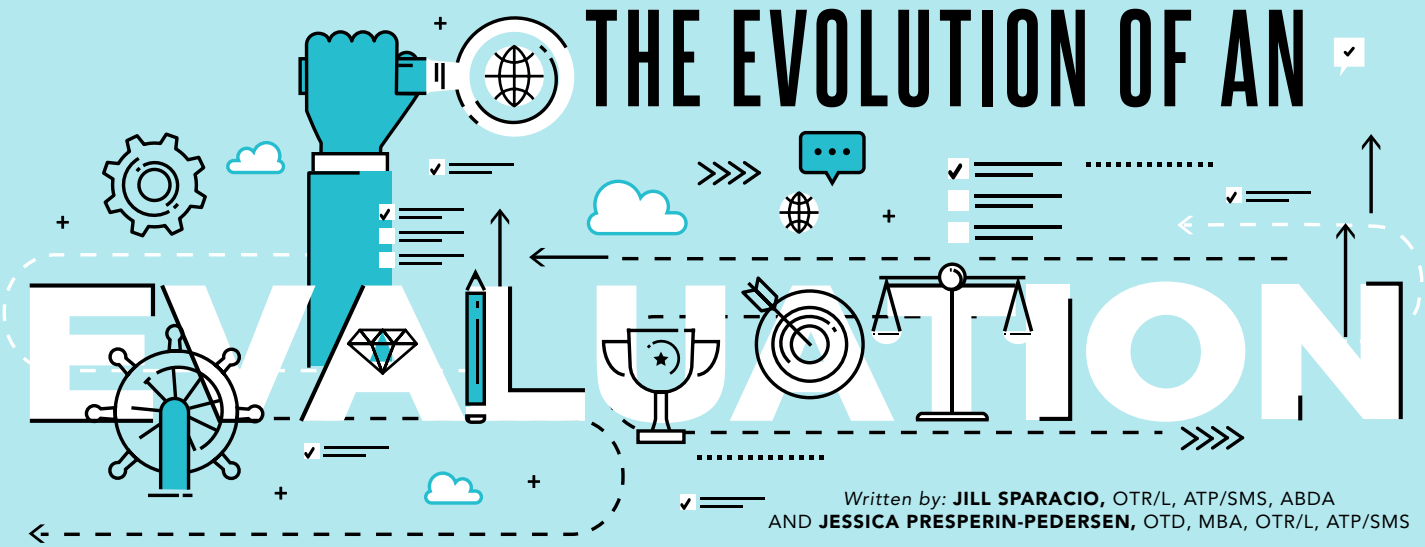
Claudia Amortegui has a Master of Business Administration and more than 20 years of experience in the DMEPOS industry. Her experience comes from having worked on all sides of the industry, including the DMEPOS Medicare contractor, supplier, manufacturer and consultant. For many of these years, Amortegui has focused on the rehab side of the industry. Her work has allowed her to understand the different nuances of complex rehab versus standard Durable Medical Equipment. This rare combination of industry experiences enables Amortegui and her team at The Orion Group to assist ATPs, referrals, reimbursement staff and funding sources in understanding the reimbursement process as it relates to complex rehab.



THE EVOLUTION OF AN EVALUATION

Written by: **JILL SPARACIO,** OTR/L, ATP/SMS, ABDA
AND **JESSICA PRESPERIN-PEDERSEN,** OTD, MBA, OTR/L, ATP/SMS

The provision of Complex Rehabilitation Technology (CRT) is based on the ability to evaluate and document consumer status and abilities while matching needs to product features. The CRT team may include the consumer, clinician, RTS/ATP and others. Documentation must clearly present the consumer and his or her needs to the funding source so that decision makers can make informed decisions. Through the last four decades, documentation has drastically changed. This has been in response to quickly changing technology, limited funding opportunities, changes in public policy and widespread fraud.

Using a team approach with the supplier and clinician completing an evaluation together to determine equipment needs began in the 1980s. Throughout the 1980s and 1990s, documentation for CRT was a two-step process. First, there was the evaluation report generated by the clinician at the time of the assessment, which included details used to make equipment decisions. This was client focused and painted a description of the person's abilities and limitations. However, this information was rarely shared with the funding sources. Instead, funding sources received either a completed order form for the requested equipment and/or narrative letters of medical necessity that addressed equipment specifics and purpose.

The evaluation process is key to understanding client needs, making specific recommendations and providing justification in the CRT process. The use of a detailed evaluation form allows all necessary information to be gathered and discussed during the process, ensuring important components are not overlooked. In 2004, a group of therapists in Chicago, Illinois, gathered to devise an evaluation form that could communicate information related to the provision of wheelchairs and seating to the team including the client and caregivers, therapist, physician, supplier and funding sources. The goal was to provide all necessary information in the initial document, eliminating funding reviewer requests for additional facts that would cause the funding process to be delayed. This form combined the evaluation findings with the medical justifications into one document, offering funding reviewers information on the requested equipment, rationale and clinical findings to support the need for the equipment.

THROUGH THE LAST FOUR DECADES, DOCUMENTATION HAS DRASTICALLY CHANGED. THIS HAS BEEN IN RESPONSE TO QUICKLY CHANGING TECHNOLOGY, LIMITED FUNDING OPPORTUNITIES, CHANGES IN PUBLIC POLICY, AND WIDESPREAD FRAUD.

This evaluation form was presented to reviewers at the Illinois state's public aid department https://bit.ly/2JkgqC8. Once a meeting was set, a plan to "sell" the concept was needed. As clinicians, the therapists knew

how tedious writing letters of medical necessity could be as they tried to paint a picture of the person and what was needed through narrative statements. During the meeting, the reviewers revealed that reading, locating all necessary information, and then making an informed funding decision was an arduous task.

As clinicians, writing justifications is a small portion of the workday. As a reviewer, the bulk of the day is spent reading letters of medical necessity. To help ensure that reviewers received all necessary information to make an informed decision, a first draft of the Seating and Wheeled Mobility Evaluation Form was presented to the group. This first draft offered a checklist approach with areas for short phrases when more detailed information was needed. From a clinical point of view, the evaluation form gathered information regarding aspects of the consumer's life including how the requested mobility device would impact daily tasks. The form's framework guided the evaluator to address all possible areas of concern. Areas addressed include: patient demographics, medical history, home and community environments including transportation, functional/sensory processing, communication, sensory and skin issues, current equipment, wheelchair skills, mobility and balance, client measurements, physical findings, goals, equipment trials, recommendations, and justification.

The reviewers provided recommended changes and allowed the evaluation to be used by the involved therapists at their places of employment instead of the typical narrative letter of medical necessity. The reviewers found that the evaluation provided the information they expected in an easy to read format. It was mandated by the state to be used for all requests for seating and wheeled mobility. Opportunities were made to educate clinicians and suppliers with presentations at different state conferences.

Reaction to the mandated form was mixed. Some therapists loved the idea of a checklist, while others stated that they did not want to give up the narrative process they were using. When the evaluation was shared with an expert clinician group comprised of members from across the country, resistance was met as some of the therapists felt that this made the process too structured with a loss of individuality. However, therapists in Illinois quickly learned that the form offered the ability, using phrases to reflect each client's individuality.

Mandated use of the State of Illinois Seating and Wheeled Mobility Evaluation continues. Some revisions were completed in 2008 by the state, attempting to further expedite the funding process. In 2013, it was determined that more revisions were needed. Therapists indicated that with recent changes in Medicare funding, it would be helpful if the form followed that process (Medicare algorithm). The authors were approached by medical directors of some of the state's managed health care programs and asked to revise the evaluation. In 2014, a revised draft was sent to multiple therapists, suppliers/ATPs, physicians and funding reviewers across the country. Feedback was received, and an updated version was generated.

The updated evaluation form, which includes some of the same basic information from the original form, which is located at http://www.nrrts.org/clinicians. The major changes include specific details in transportation, sensory abilities, sensation and skin integrity, ADL status as it relates to wheelchair use, and the inclusion of the Medicare algorithm from use of a cane to power wheelchairs with a checklist to further pinpoint necessity for a more complex solution. The postural documentation, originated by Michael Babinec, OT, in the 1990s, was expanded to better demonstrate limitations and function. The checklist for the equipment justification was also expanded to incorporate the different categories of manual wheelchairs. New technology developed since the original evaluation form was created are also itemized in the justification section.

THE SUCCESS OF THIS FORM HAS BEEN NOTED AS WE HAVE SEEN THE ORIGINAL FORM OR REVISIONS OF IT BEING USED ACROSS NORTH AMERICA AND COUNTRIES THROUGHOUT THE WORLD.

The success of this form has been noted as we have seen the original form or revisions of it being used across North America and countries throughout the world. This form was the product of the combined efforts of many clinicians, suppliers and manufacturers. Some of those were Michael Babinec, OT, Brenda Canning, OT, Susan Johnson Taylor, OT, Debbie Pucci, PT, Stacy McCusker, PT, Susan Kennedy, OT, Kristi Kirshner, M.D., Deb Spira-Gaebler, M.D., Denise Harmon, CRTS, Brenda Beal, Illinois state reviewer, along with Jessica Presperin-Pedersen, OT, and Jill Sparacio, OT. The original intent of this evaluation form was to share it with others to provide a guideline for the evaluation process. This evaluation form is available for anyone to use.

CONTINUED ON PAGE 52

A downloadable version of the current form is on the NRRTS website at http://www.nrrts.org/clinicians for your reference and use.

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Dr. Jessica Presperin Pedersen has almost 40 years of experience with an expertise in wheelchairs and seating. She has worked in a variety of settings including as a clinician, supplier, manufacturer representative, college professor and researcher. Pedersen works at the Shirley Ryan AbilityLab doing research as well as clinical seating intervention. She also has a private practice where she provides pre- and post-service education, advocacy, clinical consultation, product development and legal expertise. Pedersen is a RESNA Fellow, serves on boards of Devices4Disabled and Governors State University, is involved in the Illinois OT Association, AOTA, the Clinicians Task Force, the Access Living DME Committee, The Kids Equipment Network, and is a Friend of NRRTS.

Jill Sparacio is an occupational therapist (OT) in private practice with more than 30 years' experience. She provides OT services to children and adults with intellectual disabilities and medical fragility specializing in seating and wheeled mobility. Sparacio presents the clinical application of seating and wheeled mobility throughout North America and internationally. She is a member of the Clinician Task Force and has been actively involved in funding and delivery issues on the state and national levels.

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Fax: 803-779-4678
Registration Date: 5/16/2018

Mark Swanson, ATP, CRTS®
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Fax: 818-718-1662
Registration Date: 5/4/2018

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Registration Date: 4/18/2018

Michael Yates, RRTS®
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Fax: 408-736-0203
Registration Date: 4/10/2018

FORMER NRRTS REGISTRANTS

The NRRTS Board determined RRTS® and CRTS® should know who has maintained his/her registration in NRRTS, and who has not.
NAMES INCLUDED ARE FROM MARCH 21 THROUGH MAY 16, 2018.

FOR AN UP-TO-DATE VERIFICATION ON REGISTRANTS, VISIT WWW.NRRTS.ORG, UPDATED DAILY.

Robert P. Bechtel, ATP, Ann Arbor, MI
Sunshine Gutierrez, Anaheim, CA
Nancy Rewis, ATP, Valdosta, GA
Chad Schaffranek, ATP, Ebensburg, PA
William C. Skipworth, ATP, Nashville, TN

CRTS®

Congratulations to NRRTS Registrants recently awarded the CRTS® credential. A CRTS® receives a lapel pin signifying CRTS® or Certified Rehabilitation Technology Supplier® status and guidelines about the correct use of the credential. NAMES INCLUDED ARE FROM MARCH 21 THROUGH MAY 16, 2018.

Rajesh B. Amin, ATP, CRTS®
Universal Med Suppl
Irving, TX

Michael Bobala, ATP, CRTS®
National Seating & Mobility, Inc.
Largo, FL

Marshall "Scott" Callaway, ATP, CRTS®
Phoenix Rehab & Mobility
Woodbury, GA

Ray Cazalet, ATP, CRTS®
National Seating & Mobility, Inc.
Richmond, VA

Douglas Dulin, ATP, CRTS®
National Seating & Mobility, Inc.
Largo, FL

Donald R. Flewellyn, ATP, CRTS®
Numotion
Tifton, GA

Amy Johnson, ATP, CRTS®
National Seating & Mobility, Inc.
Columbus, OH

Scott Lucia, ATP, CRTS®
ATF Medical
Woodbridge, VA

Robert Macko, ATP, CRTS®
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Wall Township, NJ

Brian McGuire, ATP, CRTS®
National Seating & Mobility, Inc.
Memphis, TN

Curt Moreen, ATP, CRTS®
ATF Medical
Woodbridge, VA

Timothy O'Connor, ATP, CRTS®
National Seating & Mobility, Inc.
Wall Township, NJ

Cassi Jo Richardson, ATP, CRTS®
National Seating & Mobility, Inc.
Redding, CA

Zach Stewart, ATP, CRTS®
National Seating & Mobility, Inc.
Nashville, TN

Mark Swanson, ATP, CRTS®
National Seating & Mobility, Inc.
Chatsworth, CA

Desmond Wiles, ATP/SMS, CRTS®
Numotion
Mountlake Terrace, WA

Tristan Yapuncich, ATP, CRTS®
Numotion
Oak Creek, WI

RENEWED NRRTS REGISTRANTS

The following individuals renewed their registry with NRRTS between March 21 and May 16, 2018.

PLEASE NOTE **IF YOU RENEWED AFTER MAY 16,** YOUR NAME WILL APPEAR IN A FUTURE ISSUE OF DIRECTIONS.
IF YOU RENEWED PRIOR TO MARCH 21, YOUR NAME IS IN A PREVIOUS ISSUE OF DIRECTIONS.

FOR AN UP-TO-DATE VERIFICATION ON REGISTRANTS, PLEASE VISIT WWW.NRRTS.ORG UPDATED DAILY.

James B. Albring, ATP, CRTS®
Sarah Anderson, ATP, CRTS®
Amy Askelson, ATP, CRTS®
Michael Bavaro, ATP, CRTS®
J. Gregg Blanchard, ATP, CRTS®
Christopher E. Bridgeman, ATP, CRTS®
Orenthal Brown, RRTS®
Louis Chiappelli, III, RRTS®
Cyle Cook, ATP, CRTS®
Pamela Crutchfield, ATP, CRTS®
Thomas A. Daddino, ATP, CRTS®
James Dauber, OTR/L, ATP, CRTS®
Linda Donaldson, ATP, CRTS®
Scott P. Dyson, ATP, CRTS®
E. Scott Filion, ATP, CRTS®
Donald R. Flewellyn, ATP, CRTS®
Christopher Ford, ATP, RRTS®
Robert Ford, ATP, CRTS®
Stephen A. Frangione, ATP, CRTS®
Richard Evan Franklin, ATP, CRTS®
Rick Frelke, RRTS®
Joseph Matthew Garcia, RRTS®
Matthew A. Gonzalez, ATP, CRTS®
Wayne Gould, ATP, CRTS®
Scott Grant, ATP, CRTS®
Lance C. Guest, ATP, CRTS®
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Edward B. Homan, ATP, CRTS®
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Debbie Huston, ATP, CRTS®
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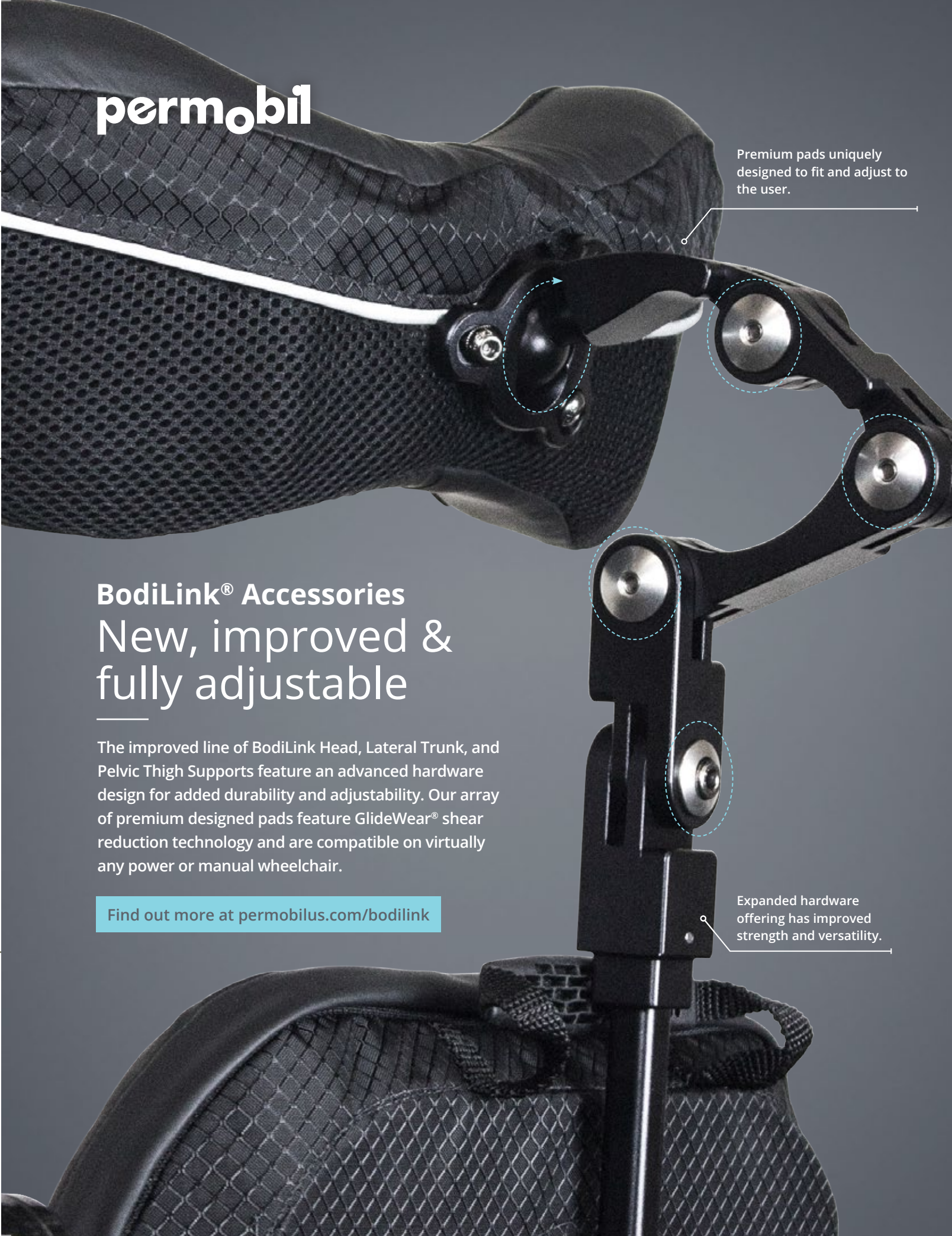

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