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NOT ENOUGH HOURS IN THE DAY!

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

As I've given thought to writing my article for this edition of DIRECTIONS, I find myself being pulled in multiple directions. This is nothing new but something that occurs on a regular basis. I am not only an ATP/CRTS® but also a branch manager and parent. There just doesn't seem to be enough hours in the "normal" workday to get it done. I am on the road for three-fourths of my day to meet with referrals and customers, which leaves late evenings (it is after 11 p.m. as I write this) to get paperwork done.

But still, I have found time to volunteer actively participating on the NRRTS board of directors. This has been very rewarding for me, not only because I believe this organization is important to my profession but also because it supports me in my role as rehab technology supplier. I have met some of the very best people in the industry. I can share my opinions without worry of who works for whom. I am involved in advocacy to protect access to the

products and services we provide. Through it all, I have developed lasting friendships along the way with CRT stakeholders.

Elections are just around the corner. The election committee will match people to the position, and the final slate is offered to the Registry for a vote of confirmation.

I believe the reason NRRTS has thrived over the past 27 years is because of the dedicated Rehabilitation Technology Suppliers (RTS) who serve on the board. They are in the trenches, and unless you have lived in those shoes, you cannot understand their passion. This is a unique profession that brings its own set of rules and responsibilities. NRRTS' mission is to represent, promote and educate Complex Rehab Technology (CRT) suppliers. Today, this mission is even more important. With ever changing regulations, NRRTS supports all individuals who provide CRT. We don't take this responsibility lightly. NRRTS is raising the bar to give due recognition to the professional RTS.

I would welcome anyone interested in being a NRRTS volunteer to throw your hat into the ring.

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



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FAITH IT UNTIL YOU MAKE IT

Written by: ROSA WALSTON LATIMER

The word “faith” can have different meanings for different people. Faith can mean a belief not based on proof, a trust or confidence. Certainly, a strong faith can provide hope when life is difficult. Faith can also provide assurance that no matter the situation, you will survive and perhaps even receive unexpected blessings. Very few lead a life of faith more thoroughly than Cole and Rhandyl Vinyard, and their greatest blessing is their three-year-old daughter, Remington Faith.

“Remington was born eight weeks early,” Rhandyl said. “My pregnancy had been uneventful. Everything was normal and going as planned, but my water broke at 32 weeks, and I went into labor very quickly. An hour and a half later, our daughter was born at University Medical Center in Lubbock (Texas).”

The baby couldn’t breathe, and the neonatal intensive care unit (NICU) team who was present in the delivery room was able to intubate within seconds. From there the newborn was taken immediately to the NICU where she was placed on a ventilator.

“We are certain God’s hand was in this because had I been a week or so farther along in my pregnancy when I gave birth, the NICU team would not have been required to be there for the delivery. We know now that even if she was born full term, the outcomes would have been the same.”

Cole and Rhandyl did not know the gender of their baby before she was born. “We had a few names picked out for either a boy or a girl and decided we’d choose once we met the baby,” Rhandyl said. “I

FAITH CAN MEAN A BELIEF NOT BASED ON PROOF, A TRUST OR CONFIDENCE. CERTAINLY, A STRONG FAITH CAN PROVIDE HOPE WHEN LIFE IS DIFFICULT. FAITH CAN ALSO PROVIDE ASSURANCE THAT NO MATTER THE SITUATION, YOU WILL SURVIVE AND PERHAPS EVEN RECEIVE UNEXPECTED BLESSINGS.



The Vinyard family, November 2018.

Photo by Therese Barrett Fine Art Photography



Two-month-old Remington Faith Vinyard

“TO MY SURPRISE, IT WAS A GIRL, AND ‘REMINGTON’ WAS A NO-BRAINER BECAUSE SINCE SHE WAS PREMATURE, WE KNEW SHE WOULD HAVE TO BE TOUGH.”

actually thought I was having a boy the whole time. To my surprise, it was a girl, and ‘Remington’ was a no-brainer because since she was premature, we knew she would have to be tough.” Initially, the couple chose Rhandyl’s middle name, LoRae, for their daughter’s middle name, but responding to a feeling a few minutes later, Rhandyl asked her husband if it was too late to change the name. “When Cole said he hadn’t signed anything yet, I told him that Remington’s middle name must be Faith.”

“During our time in NICU we realized we needed to seek pulmonary specialty care for Remi, and we transferred to the Texas Children’s Hospital in Houston (Texas),” Rhandyl said. “At three months old, Remi had her first surgery – a tracheotomy and G-tube (gastrostomy tube). She was in NICU at Texas Children’s for six months and then transferred to the Progressive Care Unit.” This extended stay in the hospital was necessary to allow time to adjust Remington’s ventilator settings and adapt to a home ventilator.



Two-month-old Remington Faith Vinyard with her parents, Rhandyl and Cole.

CONTINUED ON PAGE 10

FAITH IT UNTIL YOU MAKE IT (CONTINUED FROM PAGE 9)

During the entire fourteen-and-a-half months – 444 days – that Remington was in Houston, Rhandyl lived in an apartment near the hospital. Cole, a registered nurse, was working a 12-hour shift schedule of six days on and eight days off. “He would drive to Houston for his days off and then drive back to Lubbock to work (approximately 1,200 miles round trip),” Rhandyl said. “We lived at the Ronald McDonald House for the first month and then moved into an apartment in the medical district. The apartment was part of a local church ministry, and we could rent it on a per-day-basis, so we could stay as long as we needed. The apartment was fully furnished with linens, an equipped kitchen – everything we needed – and allowed us to have a place that felt like home while we could not be in our home.”

“Our occupational backgrounds helped us understand what was going on; however, as Cole said early on, this was a blessing and a curse,” Rhandyl said. “At times we understood too much.”

Bringing their daughter home brought mixed feelings of hope and concern. “When Remi was born, we had already set up a nursery for her in one of our spare bedrooms,” Rhandyl said. “As we prepared to bring her home, we realized there wouldn’t be enough space in the nursery for all of the equipment she would need. My brother and some friends helped Cole move the nursery into our master bedroom, and they even painted it in our original nursery color so as much as possible, it was Remi’s room.”

Rhandyl was very involved with Remi’s care during her time in the hospital. “I realized that once we were home, I would need to be able to do everything relating to her ongoing care as well as help teach home health nurses about Remi’s specific needs,” Rhandyl said. “It took me a little while to realize my responsibility as an advocate for my child. I learned to speak up to be sure nothing was done that we didn’t feel comfortable with. We know our child best, and we are the constant, unchanging influence in her care.”

“Remi qualifies for 24/7 nursing care, so there is almost always a nurse in the home with us; however, the first six months or so that we were home either Cole or I slept on a futon in Remi’s room,” Rhandyl said. “It took time to get home health staff in place and to feel comfortable with Remi’s care.” In addition to nurses, Monday through Friday Remi now has scheduled therapy at least once a day. “We have physical and occupational therapy, speech therapy, and nutritional therapy. She’s got the busiest schedule I’ve ever seen for a 3-year-old!” the young mother said.

“ALTHOUGH REMI IS NON-VERBAL, SHE CAN CERTAINLY LET YOU KNOW WHAT SHE IS THINKING. REMI IS DEVELOPMENTALLY BEHIND PHYSICALLY, BUT SHE’S A TYPICAL TODDLER WHEN IT COMES TO HER ATTITUDE ... ”

The young couple is uniquely qualified to guide the care of their daughter. Cole, 37, works at University Medical Center in Lubbock and is currently in the Family Nurse Practitioners Program at Lubbock Christian University. He is also a clinical instructor in the nursing program at South Plains College. Rhandyl, 31, is a physical therapist assistant; although since Remington was born, she has been a stay-at-home mom and caregiver to her daughter.

Remington’s condition, known as tracheobronchomalacia (TBM) causes her trachea to collapse when she breathes out. “Her tracheal rings are ‘u’ shaped rather than ‘c’ shaped,” Rhandyl explained. “From the beginning we were told that her trachea should improve with time. We were initially told a few months then up to 18 months, and then two years.”

The regularly scheduled bronchoscope that Remi had a little over a year ago indicated that she still had a 90% closure. This had not improved since her first scope when she was just over a month old. “We were again told that Remi’s airway may improve by age 4.” Her parents were also told that Remi would probably need her trach and potentially her ventilator for her entire life. “We just could not accept waiting for another two years.” Rhandyl began searching for another answer online and through social media. She located Dr. Russell

Jennings, a surgeon at Boston Children's Hospital who performs the airway surgeries that Rhandyl believed would help Remi. "Dr. Jennings is one of three doctors in the United States who does this surgery, and he taught the other two," Rhandyl said. "It took months for me to get referrals and send the required records by fax and email, but we got everything done and were accepted. Remi's posterior tracheopexy surgery was scheduled for January 15, 2019 – on my birthday. We came home early in February, and in March Remi's breathing began to improve. We recently began taking her off the ventilator, and since May, she has been off of the ventilator all day and only needs it when she is asleep. We hope that in a few years we can remove the trach. Remi will require other surgeries, but they will not be as rare as the surgery in Boston."

"WE HAD A GOOD MARRIAGE BEFORE, BUT I FEEL THIS ENTIRE EXPERIENCE WITH REMI HAS MADE OUR MARRIAGE EVEN STRONGER."

Remington Faith may have taken over her parent's master bedroom, and she may have a host of caregivers helping her to overcome her physical challenges, but at heart, she is a sassy, sweet 3-year-old girl. "Although Remi is non-verbal, she can certainly let you know what she is thinking. Remi is developmentally behind physically, but she's a typical toddler when it comes to her attitude," Rhandyl said. "She loves to be outside, loves her toys and enjoys Disney movies. We are all learning to sign, and Remi enjoys watching "Signing Time" on YouTube and DVDs. Beyond the equipment and the people who work with her, Remi is a little girl who enjoys things as much as any other child her age."

CONTINUED ON PAGE 12



Cole, Remington and Rhandyl Vinyard, June 2019. Photo by Therese Barrett Fine Art Photography

FAITH IT UNTIL YOU MAKE IT
(CONTINUED FROM PAGE 11)

Another definition of the word “faith” is “fidelity to one’s promise.” No doubt the promise and commitment Cole and Rhandyl made to each other when they married almost nine years ago is helping them through the challenges of caring for their daughter. “We had a good marriage before, but I feel this entire experience with Remi

has made our marriage even stronger,” Rhandyl said. “We have mutual respect and know that we will each do what we need to do. We have the assurance that we can lean on each other. We are aware of the toll this experience could take on our relationship. Statistics show that a very high percentage of parents who experience a two- to three-month NICU stay with a child end up divorcing. I give all the credit to God. Without him, we could not make all of this work.”

Cole and Rhandyl also recognize how fortunate they are to have strong, consistent support from family and friends. “Our hometown community of Shamrock, Texas, has put together countless fundraisers for our family. Shortly after Remi was born, the town started a ‘red ribbon’ campaign hanging ribbons

“OUR LIVES ARE
CHANGED FOR
THE BETTER
BECAUSE OF
OUR LITTLE
MIRACLE.”

Remington Faith Vinyard, 2 years old.

Photo by Therese Barrett Fine Art Photography





ABOVE: Cole Vinyard and Remington. Photo by Therese Barrett Fine Art Photography
BELOW: Rhandyl Vinyard and Remington. Photo by Therese Barrett Fine Art Photography



“MOST IMPORTANTLY,
WE ARE BLESSED
WITH LOYAL PRAYER
WARRIORS!”



on homes and businesses all over town to show support and as a reminder to pray for Remi.” Rhandyl’s former co-workers and Cole’s co-workers have also sponsored various fundraisers to help the young family. “Most importantly, we are blessed with loyal prayer warriors!” Rhandyl said.

Remi is now walking with a gait trainer and using a stander. She is also taking all her nutrition by mouth. “Our lives are changed for the better because of our little miracle. Cole and I are encouraged as we see Remi accomplish new things. Looking back at the progress she has made in the past six months; I realize the possibilities are endless. We hope, and we haven’t been told otherwise, that Remi will catch up to children her age within the next few years. From a neurological standpoint, she’s doing well and that is a blessing,” Rhandyl said. “We try to focus on the next 24 hours. We don’t know what the future holds. It is all God’s plan, and we must have faith that everything is going to work out. All we have is right now.”

Follow the family’s ongoing story on their Team Remi Facebook page:
<https://www.facebook.com/teamremingtonfaith/>

CONTACT

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RHANDYLLORAE@GMAIL.COM

Rhandyl Vinyard and her husband, Cole Vinyard, live in Lubbock, Texas. Their daughter Remington’s unexpected medical conditions have led to many challenges, but despite everything they’ve been through, they hold on to their faith.



WORK-LIFE BALANCE

FINK'S UNFALTERING FAITH DRIVES PERSONAL, CAREER PURPOSE

Written by: **DANETTE BAKER**

There's an undeniable enthusiasm as Todd Fink talks about the Therafin Corporation. The company's success. Opportunities to serve. But as he shares the back story to his current role as president, there's also an undeniable tone of respect and reverence for those in his circle of influence – both on the job and outside of the office.

Fink's first role at the rehabilitation manufacturing company was in inventory control – as an 8 year old counting bolts. Fink's father, who started the company in 1968, put his son to work mainly to keep him busy. But the elder Fink also fostered in his family an atmosphere of hands-on learning and creativity. He built his children a place to make candles and awed them with experiments such as “creating light” by spraying water on calcium carbide, which produces acetylene gas. The gas will “glow” when lit with fire. Fink laughs. “We'd probably go to jail now for some of the things he let us do. We liked to blow up things and burn things down.”

Where some perceived destruction, Fink's father saw creative opportunity. Curiosity. Innovation. This similar approach at the office turned a high-school age Fink on to the technical aspects

of manufacturing. Fink later earned a degree in chemical engineering with a biomedical concentration from the University of Colorado. His goal was to become a physician, and he graduated with the credits needed for medical school. Meanwhile, Fink was creating control systems for Therafin's manufacturing processes. By graduation, engineering had edged out medicine.

Armed with the purposeful fearlessness, which he learned by his father's side, and unwavering faith in God, developed from an initial faith encounter as a college freshman, Fink was beginning to understand the juxtaposition of science and religion and also how to put them to work in a purposeful career.

After working as a systems engineer for Don Munger Company, Fink returned to Therafin in the early '90s at his father's request and has since built the company into a leader in manufacturing rehabilitation and home health care products. Fink, however, doesn't mention the company's fiscal health as a career accomplishment. Instead, he focuses on improving the company culture – one of high trust – that he has worked to foster over the past decade. Fink developed and implemented what he calls a simple framework of character and competence – based on Stephen Covey's “speed of trust” tenets – that are reflected in personal credibility, trust in oneself and in others. “A lot of people lose trust by having big character but are not skilled at what they are trusted to do,” Fink said. When employees embrace character and competency, the result is a credible company highly trusted not only within its own walls but also to its vendors and ultimately to the end users.

Fink's 10-hour work days focus on building this culture of trust along with addressing internal systems to save production time, reduce errors and improve product quality. And, because he's an engineer at heart, Fink continues to be personally involved in product development. Case in point, “The Boss,” an adaptive ramp designed for the BC3-level athletes competing in the Paralympic sport of boccia. The game was best known as a leisure lawn activity until 1984 when it debuted as

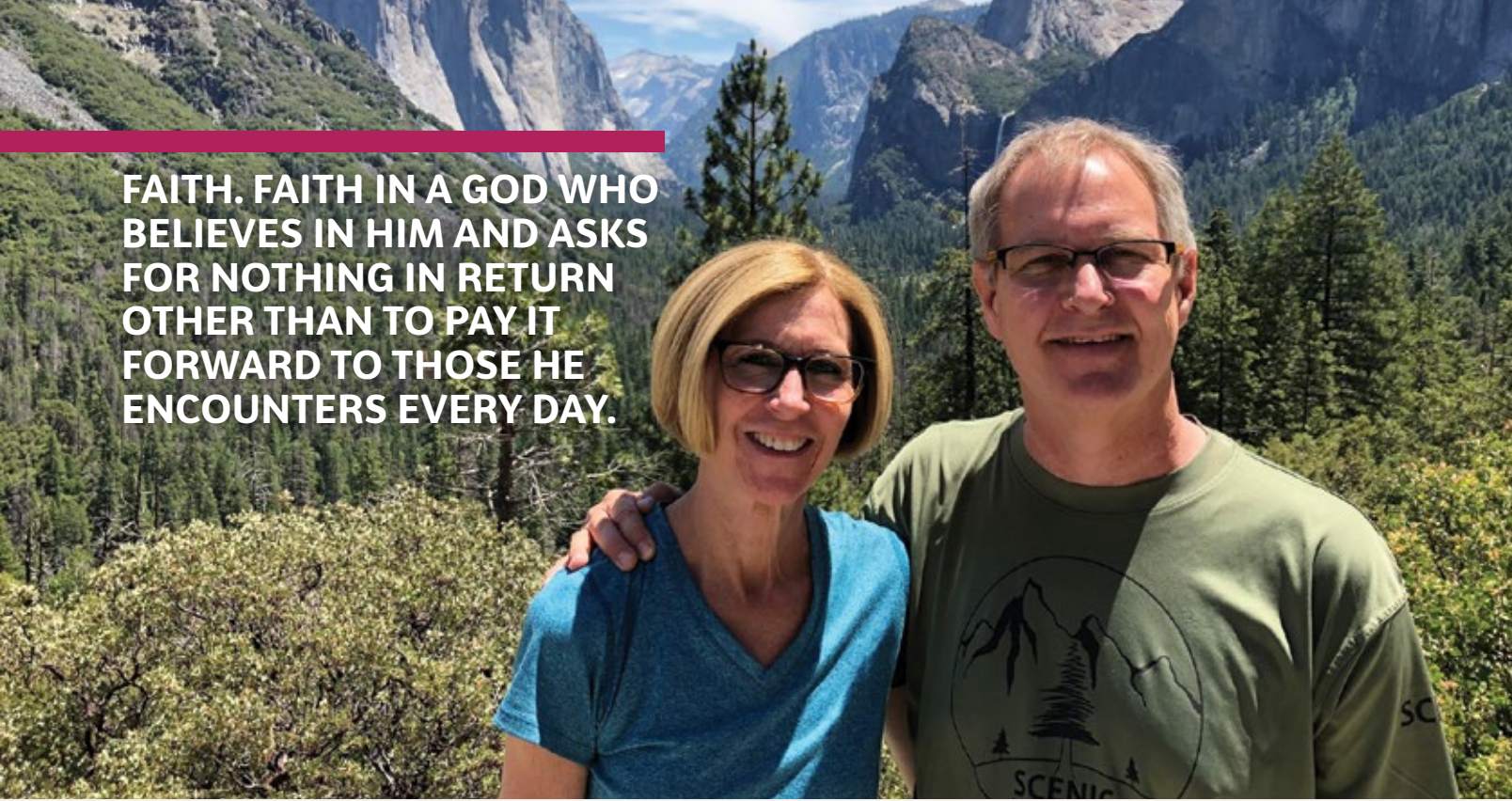


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A man and a woman are standing outdoors in front of a scenic mountain landscape. The woman, on the left, has short blonde hair and is wearing a blue V-neck shirt and glasses. The man, on the right, has short grey hair, wears glasses, and a green t-shirt with a circular logo that says "SCENIC". They are both smiling at the camera. The background features lush green trees in the foreground and steep, rocky mountains under a clear blue sky.

FAITH. FAITH IN A GOD WHO BELIEVES IN HIM AND ASKS FOR NOTHING IN RETURN OTHER THAN TO PAY IT FORWARD TO THOSE HE ENCOUNTERS EVERY DAY.

a competitive sport at the Paralympic Games in New York. BC3-level athletes have limited arm and leg functions and minimal trunk control. They use a ramp or other assistive devices to help them roll the ball on to the playing court.

An increase in the competition level for spots on the Paralympic team led to a greater demand for custom ramps. Two years ago, Therafin designed and manufactured Gravity Boccia Gear, a one of the first commercially available American-made competition ramps. At a recent national tournament, more than 50% of the athletes were using Gravity products.

Therafin is best known worldwide for their innovatively designed wheelchair trays and how they attach to the wheelchair, but the company's product line represents a multitude of accessories used primarily by those confined to a wheelchair full time. The reward with new innovative products, like the boccia ramp, Fink said, is to see them having a significant influence in the market.

Therafin remains one of the few independent manufacturing companies, a feat that brings opportunities and challenges in the current funding climate. The company can still make custom products at an affordable cost and usually ship stock products in 24-hours; however, today's reimbursement landscape often meets Therafin's desire to innovate with contention.

"Even if we have a great idea for a product that will greatly benefit an end user, we have to make sure it can be reimbursed, or it does them no good," Fink said. "The harsh reality is we can't do this for free."

"There is a great deal of satisfaction when you can provide someone in the worst of situations with the best tools and see them overcome their circumstances. That's the crown jewel of working in this industry; but the fact that we as manufacturers, vendors, suppliers, therapists and medical professionals can all come together, like a family, to meet their needs in powerful ways ... well, it just doesn't get any better."

Yet, Fink's influence in others' lives doesn't stop when he walks out the door each day. His "second job" is shepherding the 2,000 members of his church and the

greater faith community on a global scale. Fink has served 15 years as an elder (church leader) at the Chicago Church of Christ and five years as a board member of the church's European Mission Society. In the latter, he and his wife help steward new believers and establish churches in European countries.

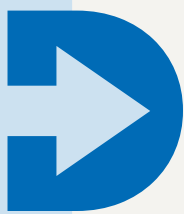
Fink's explanation for a work and personal life of serving others is simple. Faith. Faith in a God who believes in him and asks for nothing in return other than to pay it forward to those he encounters every day.

CONTACT

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Todd always had a deep love for helping, creating and building for the betterment of others. He has worked with Therafin nearly all his life, leading it as CEO for the past 25 years. He met his wife, Cheryl, in 6th grade and ultimately married her 36 years ago, building a fantastic partnership over the years. Todd and Cheryl have a deep passion for family, faith and friendship. They have three adult girls who are all married, some with children, and the family loves to spend time together whenever they can.





JILL MONGER

A COOPERATIVE SPIRIT

Written by: ROSA WALSTON LATIMER

CLINICALLY SPEAKING

Before Jill Monger, MS, PT, ATP knew precisely what a physical therapist (PT) was, she found herself immersed in a community of “wheelies” during her first year of college. Monger attended St. Andrews Presbyterian College in Laurinburg, North Carolina, a thoroughly accessible campus with 15% of students using wheelchairs. “I became fast friends with many of these bright, strong students,” Monger said. “By the end of the first year, many of my friends with spinal cord injuries were telling me that I reminded them of their physical therapists.” Monger was also often told that she should be a PT when she grew up. This community of college friends nurtured a positive attitude toward life that the therapist has embraced throughout her career: an attitude of community and cooperative spirit.

“I had no idea in 1979 what a PT was, but I took a leap of faith and moved forward,” Monger said. “While I was at St. Andrews, I became a coach of wheelchair athletes and a trainer for all of the students with disabilities whether it was in the pool, in the gym or on the track. “Taking the advice of her college associates to heart, Monger pursued a career in PT earning a degree in biology/adaptive physical education at St. Andrews, a physical therapy degree at East Carolina University and a Master of Science in Health Professions Education from Medical University of South Carolina.

After PT school, Jill worked as a full-time physical therapist in Florida and Virginia for a few years before taking a job in 1987 as the Rehab Team Leader

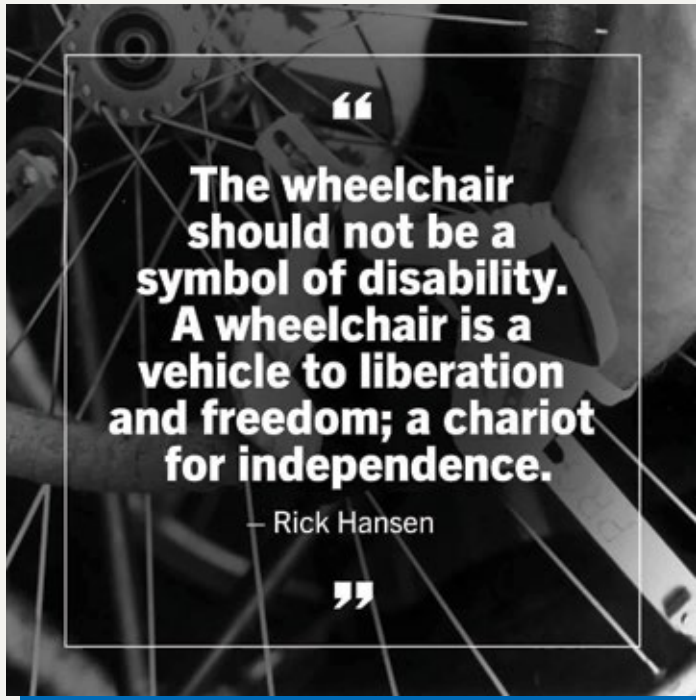
at MUSC in Charleston working with patients who had amputations or spinal cord injuries. “It was a wonderful opportunity! I grew with my clients,” Monger said. “When I came to MUSC, there were two ‘Quickie’ wheelchairs in the gym. I dissected them until I could make one of the two work for nearly any client to succeed as a manual wheelchair user. I soon realized that technology

was one of the keys to success for this population.” After a couple of years, Monger realized there was a large number of wheelchair users living in Charleston who were not active in the community. “I made it my quest to meet them and help them work together to break into the Charleston world. A lot of that was working on advocacy to make changes for access,” she said. “Those individuals soon became my mentors. We started a non-profit organization, and I became a true hands-on coach and transporter of athletes to wheelchair games all over the East Coast. I never looked back!”

“I WAS DETERMINED TO HELP THOSE VERY YOUNG CHILDREN BECOME SOMEONE WHEN THEY GREW UP.”

In the early 1990s, inspired by a 4-year-old boy with a spinal cord injury, Monger became “hooked” on pediatrics. “I was determined to help those very young children become someone when they grew up. “That young boy was Alex Jackson, who is now 31 years old. “Alex, his mother, his supplier and I have worked together for all of these years. I’ve been able to help Alex, and Alex, as well as other patients, has helped me.”

Monger’s community of longtime patients is one of the most positive benefits of her years at MUSC. “I’ve faced some difficulties in my life after coming to Charleston,” she said. “My friends with spinal cord injuries have



“The wheelchair should not be a symbol of disability. A wheelchair is a vehicle to liberation and freedom; a chariot for independence.”

— Rick Hansen

Jill Monger's mantra that helps enlighten her patients and their families.

been with me through it all. They would say, 'You've been there for us, and we want to be there for you.' We support each other through our adversities. When you've known someone for over 30 years, it is only natural to help each other. Those guys understand!"

Monger's work at MUSC has evolved and grown during her 30-plus years at the facility. Beginning with a focus on spinal cord injury rehab, prosthetic gait training, and seating and mobility, she also taught prosthetics, orthotics, Complex Rehab Technology (CRT) and gait analysis and assisted with computer and communication access team teaching. "Over the years, my employment became a mix of employee along with self-employment," Monger said. "I continued to see clients at MUSC and also became a private consultant statewide. In addition to patient care, I have had the amazing opportunity to travel this beautiful country, as well as the world, to teach what I have learned from my wonderful clients, athletes and friends with severe physical disabilities."

The experience of interacting with clinicians in diverse places such as Paris and Portugal has given Monger a broader perspective of how to help her patients. "When I traveled to other states and eventually to other countries to teach, I learned how others approach the same challenges but with a different perspective," she said. "I began to see things in an international context. We may be an industry, but we are also a service delivery system. Understanding how the needs of patients are perceived in other places allows us to broaden service to our patients. I've learned that in other countries, the focus is more on community and less on the home. This emphasis leads clinicians to think more about what a patient needs to get out into the community, to get to work, to be active and independent. In the United States, the focus tends to be more about what a patient needs in his home. For example, in many countries, the doors in a house may be only 20 inches wide. You can't get a power chair through those doors, so a patient might have to use a walker, a small manual chair or someone might have to carry them in the home, but they adapt. However, everything possible is done to put patients back into the community rather than isolate them at home."

Monger has been a member of the Clinician Task Force since it organized in 2006 and serves on the organization's executive board. "The work of the Clinician Task Force is extremely important," she said. "In the past, the group has been able to impact Medicare policy and now, while continuing to work with NCART and NRRTS, we are taking a more strategic, unbiased clinical approach so that we can meet specific goals unique to our organization. We are also focusing on bringing the next workforce generation into our leadership to ensure a continuation of our goals."

In recent years, Monger spends the majority of her time in the Wheelchair Seating and Mobility Clinic at MUSC in the pediatric rehabilitation facility. "I work with all ages and continue to enjoy



Jill Monger with longtime friends Steve Avinger and Steve Wooldrige.

"WHEN I TRAVELED TO OTHER STATES AND EVENTUALLY TO OTHER COUNTRIES TO TEACH, I LEARNED HOW OTHERS APPROACH THE SAME CHALLENGES BUT WITH A DIFFERENT PERSPECTIVE. I BEGAN TO SEE THINGS IN AN INTERNATIONAL CONTEXT."



Rep. Mark Sandford of Charleston, South Carolina, Jill Monger and Bret Tracey ALS Society and Merits Wheelchairs

CONTINUED ON PAGE 18



The view overlooking the marsh from Jill Monger's front porch just outside of Charleston, South Carolina.



Rita Stanley, vice president of government relations for Sunrise Medical, Laura Cohen, PhD, PT, Clinicians Task Force, and Jill Monger, MS, PT, ATP.



Jeff Brown, ATP, with NSM, Mike Duda, Regional Sales Manager with Permobil, Steven Still, ATP, with NSM. (front) Jill Monger with her English Lab pup, Rosco.

JILL MONGER: A COOPERATIVE SPIRIT (CONTINUED FROM PAGE 17)

the interaction with patients and learning new things," she said. "I also consult with several third-party payers educating their review teams as to the process and importance of approving the 'right' CRT for their consumers. I am now ready to become more active in the clinical education world sharing my journey and knowledge with clinicians, CRT providers and manufacturers as well as educators, physicians and insurance companies."

Following this description of a hectic work schedule, I asked Monger what she did for fun. "I live in Charleston!" she answered. "And friends are my fun. I live in an amazingly beautiful place on the marsh just outside of Charleston, and I entertain at home often."

The cooperative spirit attitude that Monger has fostered with her friends and many of her patients is reflected in her working relationship with equipment suppliers. "I work with over a dozen suppliers

"I LIVE IN CHARLESTON!" SHE ANSWERED. "AND FRIENDS ARE MY FUN. I LIVE IN AN AMAZINGLY BEAUTIFUL PLACE ON THE MARSH JUST OUTSIDE OF CHARLESTON, AND I ENTERTAIN AT HOME OFTEN."



Jill Monger in El Salvador helping Moses, a child injured in 2001 during earthquake.

CONTINUED ON PAGE 20

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JILL MONGER: A COOPERATIVE SPIRIT
(CONTINUED FROM PAGE 18)

who represent seven different companies,” Monger said. “They all get along extremely well and work closely together. We don’t have a large number of seating clinics in our state, so not only do I have patients from throughout South Carolina but also from Georgia and North Carolina. I also work with suppliers, technicians and administrative staff from all over the state, but we all work together as a team.” These team members have also provided support to Monger outside of the clinic. “We’ve experienced two hurricanes here in the past couple of years. These suppliers came together each time to help me clean up around my house after the hurricanes. Sometimes we just hang out together. This sense of camaraderie makes a positive impact on the service we provide our patients. This is what I’ve tried to build – cool camaraderie in Charleston, and it works really well!”

Jill Monger, ATP, holds a bachelor’s degree in physical therapy and a master’s in health professions education. She is certified by RESNA as an Assistive Technology Practitioner. Monger has been a practicing Physical Therapist since 1984. She began her focus on spinal cord injury rehab, and seating and mobility at MUSC in 1987. She is an adjunct professor in the Department of Rehabilitation Sciences at MUSC. She also teaches continuing education coursework regionally, nationally and internationally. Monger has many years of experience working with people of all ages who have disabilities as a coach for wheelchair sports and as an advocate in her community. In addition to her role as coordinator of the MUSC wheelchair seating and mobility clinic, she is a consultant for clinics, technology providers and manufactures as well as individuals with disabilities.



CONTACT

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ALL ABOUT ELAINE STEWART

Written by: ROSA WALSTON LATIMER

NOTES FROM THE FIELD

Elaine Stewart, ATP, CRTS®, has been a NRRTS Registrant for 25 years and will complete her tenure as president of the NRRTS executive committee later this year. While in high school, Stewart realized she would pursue a career that would enable her to make a difference in the lives of others.

STEWART TOOK A MOMENT TO SHARE WITH DIRECTIONS MORE ABOUT HER BACKGROUND AND JOURNEY INTO THE INDUSTRY.

I suppose you could say I fell into my profession sort of by accident, but I fell in love with it quickly. In high school, I enjoyed working with people, and one summer I worked at a camp for children with disabilities. That experience led me to pursue a career in physical therapy. I learned what the requirements would be for college and realized that I would need an A or A+ to be considered at that time, because schools were only accepting a small percentage of applicants for that particular program.

I decided to stay in a health-related field and earned a degree in biology with a minor in athletic training from Manchester College in North Manchester, Indiana. After I graduated in 1986, my first job was with Our Hope, a 200-bed facility in Indianapolis working as an aide in their physical therapy department. One of my responsibilities was to communicate with the staff of Indiana Home Health as they

were on-site to do seating and mobility for the residents. I especially enjoyed the variety of working with the consumers who resided there. I liked working with my hands, and there was something new every day. Eventually, Indiana Home Health asked me if I would like to come to work for them on the supplier side handling funding, insurance and acquisitions. At the time almost anything was better than the \$4 and change an hour I was making, so I accepted the offer. After a few years in that job, I transitioned into being a rehab technology supplier. That was pre-NRRTS, pre-ATP. I had very little

knowledge of what went into the evaluation process, the team aspect, but I was lucky enough to be associated with therapists who were willing to nurture my lack of knowledge. Their openness provided me the opportunity to learn, and I also took advantage of the education offered by manufacturers.

I've been a branch manager with National Seating Mobility for a total of 23 years. I want to thank Carolyn Hamann for believing that I would be a good fit with National Seating & Mobility, Inc. She has been a great source for support, guidance, encouragement, and friendship. I opened the Evansville, and after a couple of years there, I transitioned to the Fort Wayne location where I've

been the branch manager for 20 years. When I began, Evansville was the 20th office of the company, and now we have over 140 locations. I work with a staff of six, and as is common in our industry, I wear multiple hats within the branch. If needed, I can step in to help in any situation.

It is rewarding to have been at this job in the same location for so many years. The consistency is advantageous for our clients and their families. Very few people like change, so if clients can have the same contacts each time we interact, the situation is much more comfortable for them.

WHAT SIGNIFICANT CHANGES HAVE YOU SEEN IN THE INDUSTRY?

Looking back on the first job I had on the supplier side, it was a huge responsibility, but now the process is so much more intense and detailed. Back then, all that was required was a simple Certificate of Medical Necessity, which was a one-page form, or for our state agency, we had to submit a four-part, carbon copy form. Now it is nothing like that! A mobility evaluation with a therapist is required, and the physician must be more involved with the family for the patient's care. There are astronomically more hoops to jump through than ever before, and yet client needs haven't changed.

However, as much of a nuisance as the requirements and documentation it can be, the current process allows for everyone to be on the same, level playing field. If you don't get the

IN HIGH SCHOOL, I ENJOYED WORKING WITH PEOPLE, AND ONE SUMMER I WORKED AT A CAMP FOR CHILDREN WITH DISABILITIES. THAT EXPERIENCE LED ME TO PURSUE A CAREER IN PHYSICAL THERAPY.

ON A POSITIVE NOTE, THE ADVANCEMENT OF TECHNOLOGY IS FANTASTIC FOR OUR CLIENTS. THE NUMEROUS DRIVE FEATURES AND INTERFACES, SUPPORT STRUCTURES, AND SEATING SYSTEMS THAT ARE NOW AVAILABLE, AND MANY TIMES COVERED BY INSURANCE, ARE FABULOUS!



(l to r) Sam, Aubrey, Elaine and Mike Stewart.



Elaine Stewart's flower garden.

appropriate documentation, you are far less likely to get the equipment than if you do follow the protocol. I find that, in the past, without having the regulations that we now follow, there was more likely to be an abuse of the system with people receiving equipment with the potential of harming the individual. For example, I had a client who was a C-5 quadraplegic who was provided a scooter by a competitor. This gentleman had no use of his hands or his legs nor body balance, so this was an abuse of the system because the company got paid for the equipment, and the criteria were not in place.

As much of a headache as our funding protocols can be, I feel they are beneficial for our families that are having equipment provided to them. I do wish there was a streamlined way so the requirements wouldn't shift as frequently as they do. Unfortunately, we see small, nuanced changes by Centers for Medicare and Medicaid Services, private insurance and other agencies happening every few months that weren't in place when we started a process. Providers take the risk that no one else does. We hope that if we're told we are approved that we will get paid for a piece of equipment, but there is never a guarantee of payment until we submit a bill. So, we dispense equipment even though potentially Medicare could change their regulations and take those monies back, leaving the provider in a situation of trying to get the money back for the company. We walk a tightrope to make sure we do everything possible to take care of our families and keep our doors open for business.

On a positive note, the advancement of technology is fantastic for our clients. The numerous drive features and interfaces, support structures, and seating systems that are now available, and many times covered by insurance, are fabulous! New and

“NRRTS IS A TOP-NOTCH, DEDICATED RESOURCE, AND I HOPE THAT MORE PEOPLE WILL RECOGNIZE AND TAKE ADVANTAGE OF THE GREAT WORTH OF THE ORGANIZATION.”

improved technology will always be beneficial to those that we serve.

WOULD YOU TELL US ABOUT YOUR LONG ASSOCIATION WITH NRRTS?

I have been involved with NRRTS since 1994. The networking and camaraderie are a breath of fresh air! The organization has always had and continues to have, a positive impact on our industry as well as for me personally. NRRTS provides support for ATPs as well as informs consumers about what is happening in the industry that affects

ALL ABOUT ELAINE STEWART (CONTINUED FROM PAGE 23)

them. NRRTS is a top-notch, dedicated resource, and I hope that more people will recognize and take advantage of the great worth of the organization.

We work in a service-oriented field with a multitude of medical professionals to develop a good outcome for those that we serve. The networking and education opportunities offered by NRRTS helps us perform our responsibilities more efficiently.

I feel honored to have served as president of the executive committee. We are such a good group together, and I feel very blessed to have been involved in the discussions to make decisions that better benefit our ATPs, our consumers, our clinicians and anyone who wants to take advantage of what the organization has to offer.

“MICHAEL AND I MET IN EVANSVILLE, PLAYING SOFTBALL AND VOLLEYBALL. WE LOVE SPORTS, AND FOR A TIME WE PLAYED FOUR NIGHTS A WEEK. WE HAD A BLAST!”

TELL US ABOUT YOUR FAMILY AND WHAT YOU DO TO RELAX.

My husband, Michael, and I have been married 25 years, and we have two children, Sam, 20, and Aubrey, 19. Michael and I met in Evansville, playing softball and volleyball. We love sports, and for a time we played four nights a week. We had a blast! Michael, Sam and Aubrey have their black belts in martial arts. They perform, and I take pictures!



2013 National CRT Leadership and Advocacy Conference



CRT Conference 2019 with past Congressman Gabby Giffords (standing center).



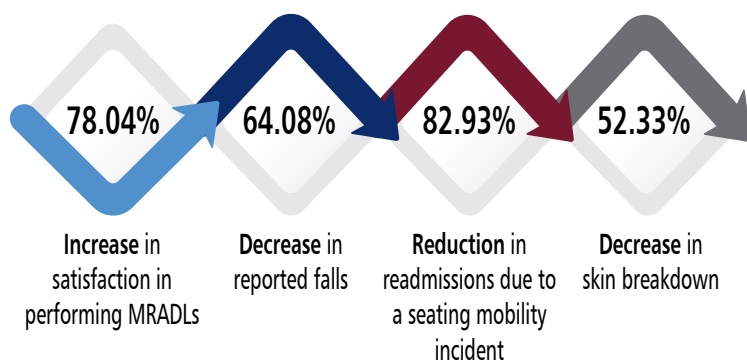
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Michael and I work on home projects together, and now that the kids have taken wing, we hope to travel. I like yard work and working with my flowers. Roses are my favorite, and I have five different varieties in my garden. I love any flower that gives me a pop of color in the summer! Working in the yard gives me quiet time when I don't have to talk or answer to anyone. It is a nice break from my job.

Don't misunderstand me. I love my job, and I wouldn't change it for anything. I would change the insurance, but not what I do. For many years my mom wanted me to go back to school, but I realized that this is a very good profession that allows me the opportunity to make a difference in someone's life. That's the big picture!

CONTACT

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





MUCH GOING ON AROUND CRT ADVOCACY

Written by: **DON CLAYBACK**

Advocacy to protect access to Complex Rehab Technology (CRT) got a major boost at the 2019 National CRT Leadership and Advocacy Conference held May 1 and 2. This annual partnership of NCART and NRRTS brought over 150 CRT stakeholders together for education and advocacy.

Day 1 focused on education and featured great presentations on health care trends, CRT policies and access topics at the Medicare, Medicaid and managed care levels. Day 2 consisted of taking the CRT message to Capitol Hill seeking co-sponsors and passage of our CRT bills. Attendees made over 230 visits to Members of Congress covering offices from 38 states.

Sincere thanks to our generous sponsors for their support that enabled the conference to be held and to our excellent speakers for their educational presentations. Big thanks also to all the attendees, especially the dedicated consumer advocates whose participation brought energy and depth to the meetings held

with those in the congressional offices. Attendees are continuing to do the important follow up to get their respective members on our bills.

To view some of the conference highlights

check out the conference videos at <https://youtu.be/f7h0jqzuvsM> and <https://youtu.be/ol3OoTXGYbl>.

Looking to next year, we need more CRT advocates, and we're planning for better and bigger things in 2020. The conference will be held March 30 and 31, 2020, at the Hyatt Regency Crystal City in Arlington, Virginia. Mark those dates on your calendar and plan on joining us.

CRT MANUAL WHEELCHAIR LEGISLATION

HR 2293, the "Protecting Access to Complex Rehab Wheelchairs Act," introduced by longtime CRT champions Rep. John Larson, D-Conn., and Lee Zeldin, R-N.Y., received good exposure at the National CRT Conference. As of this writing we are at 52 co-sponsors, with solid bipartisan support coming from 28 Democrats and 24 Republicans. The immediate priority is to secure as many congressional co-sponsors to the bill as quickly as possible.

The House bill has two provisions: (a) it will permanently exempt complex rehab manual wheelchairs from the Medicare Competitive Bidding Program; and (b) it will stop Medicare from applying Competitive Bidding payment rates

to critical components (accessories) used with complex rehab manual wheelchair for an 18-month period (July 1, 2019, through December 31, 2020). This suspension will allow for further discussions with the Centers for Medicare and Medicaid Services (CMS) on this issue and the development of a permanent policy change like that implemented in 2017 for the critical components (accessories) used with complex rehab power wheelchairs.

A similar bill, S 1223, has been re-introduced in the Senate by Sens. Bob Casey, D-Penn., and Rob Portman, R-Ohio. The Senate bill currently stands at seven co-sponsors, four Republicans and three Democrats, and pursuit of additional co-sponsors continues.

CRT SEPARATE BENEFIT CATEGORY BILL

HR 2408, the "Ensuring Access to Quality Complex Rehabilitation Technology Act of 2019," was introduced in late April in the House to create a Separate Benefit Category for CRT within the Medicare program and make other needed improvements in Medicare coverage and safeguards.

The legislation is again led by Rep. Jim Sensenbrenner, R-Wis., a long-time CRT leader, and he is joined by Rep. Brian Higgins, D-N.Y. We are very happy to have the increased CRT support of Higgins, who is an eight-term Member of Congress and serves on the important Ways and Means Committee.

LOOKING TO NEXT YEAR, WE NEED MORE CRT ADVOCATES, AND WE'RE PLANNING FOR BETTER AND BIGGER THINGS IN 2020. THE CONFERENCE WILL BE HELD MARCH 30 AND 31, 2020.



Representative Brian Higgins, D-N.Y. is joined by other CRT advocates in Buffalo, N.Y. at a press conference announcing the introduction of the CRT Separate Benefit Category legislation.

The new “reduced” legislative language remains centered on covering the core objectives of the SBC initiative: (a) to establish a separate category for CRT within the Medicare DMEPOS benefit to provide the needed segregation from standard DME; and (b) to provide pathways for product identification, coding, coverage policies, payment and supplier standards that will allow appropriate access for Medicare beneficiaries and others with significant disabilities and chronic medical conditions.

As of this writing we are at 20 co-sponsors with solid bipartisan support from 12 Democrats and 8 Republicans. As with the CRT wheelchair bill, the immediate priority is to secure as many co-sponsors to the bill as quickly as possible.

BECOME A 3 STAR CRT ADVOCATE

When it comes to congressional advocacy, as author Stephen Covey said, “begin with the end in mind.” Your advocacy work should be focused on your Representative and Senators and your “end” is getting them to sign on as a co-sponsor and help pass our CRT bills.

You earn one star as you get each of your Members to sign as co-sponsor to the CRT bills. Get all three of your Members signed on and you’re a “Three-Star CRT Advocate.”

You can use www.protectmymobility.org to get the email and phone links for your Members to either begin or continue your outreach. You can also access the current list of co-sponsors, position papers and other helpful information.

Remember, your Members must hear from you so they know this is important to their constituents back at home. Let us know of your progress and if we can provide any additional assistance.

NATIONAL CRT AWARENESS WEEK

The week of August 19 to 23 has been declared 2019 “National CRT Awareness Week” and is designed to shine a national spotlight on CRT and help secure more support for passage of our legislation.

As Members of Congress will be home for their August recess, it’s the perfect time for CRT stakeholders to connect with their representatives on a local level. With your Members back in town for the whole month, it’s easier to get to them in person.

You have a lot of options to connect: get them to visit your location, visit

MUCH GOING ON AROUND CRT ADVOCACY (CONTINUED FROM PAGE 27)

them in their district office, attend a town hall meeting or fundraiser, etc. If you can't connect that week, make the contact sometime during the month. The contact itself is far more important than the timing, and you can't beat a face-to-face connection.

THESE IMPORTANT OPTIONS ARE EXTREMELY IMPORTANT TO PEOPLE WITH DISABILITIES AND FUNDING SHOULD BE AVAILABLE BASED ON THE FUNCTIONAL AND MEDICAL NEEDS OF THE INDIVIDUAL.

RESNA POWER SEAT ELEVATION PAPER

As we've reported, advocacy work has been taking place to secure needed Medicare policy changes to provide coverage for power wheelchair seat elevation and standing. These important options are extremely important to people with disabilities and funding should be available based on the functional and medical needs of the individual.

On a related note, RESNA has published a draft update for comment of the "RESNA Position on the Application of Seat-Elevation Devices for Power Wheelchair Users Literature Update (2019 DRAFT)." The draft document can be found at www.resna.org and comments can also be submitted through the website up until July 11, 2019.

EXPANDED MEDICARE PRIOR AUTHORIZATION

CMS has announced the addition of seven CRT power wheelchair codes to those codes requiring a Medicare prior authorization beginning with dates of service of July 22, 2019, or after.

THE CODES ARE:

- K0857 - Grp 3 standard, single power option, captain's chair, 300 lbs.;
- K0858 - Grp 3 heavy duty, single power option, solid set/back, 301-450 lbs.;
- K0859 - Grp 3 heavy duty, single power option, captain's chair, 301-450 lbs.;
- K0860 - Grp 3 heavy duty, single power option, solid seat/back, 451-600 lbs.;
- K0862 - Grp 3 heavy duty, multiple power option, solid seat/back, 301-450 lbs.;
- K0863 - Grp 3 heavy duty, multiple power option, solid seat/back, 451-600 lbs.;
- K0864 - Grp 3 extra heavy duty, multiple power option, solid seat/back, 601+ lbs.

The DME Medicare Administrator Contractors will begin accepting prior authorization requests on July 8 for dates of service on or after July 22. All new rental series claims with dates of service on or after July 22, 2019, must have a prior authorization request on file.

MEDICARE COMPETITIVE BIDDING PROGRAM

As we've reported, the Medicare DME Competitive Bidding Program was suspended as of January 1, 2019, and will not go back into effect until January 1, 2021. CMS has recently announced it will be accepting bid submissions beginning July 16 and ending September 18. Winning bid amounts are scheduled to be published in Summer 2020.

There have been a variety of significant changes to the DME Competitive Bidding Program. Given the new regulations, it is critical that suppliers submit educated bids. With that in mind the American Association for Homecare and the VGM Group have developed a variety of educational programs and tools. You can get more details on these at www.dmeebpeducation.com. The official CMS website can be found at www.dmecompetitivebid.com.

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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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STEPH

"I love that my batteries can last as long as I do! I've really noticed a difference in the longevity of my batteries, especially on my busy days! When I'm going non-stop, so is my chair!"



BRYAN

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PAIN IN PEOPLE USING WHEELCHAIRS – PREVALENCE, CAUSE AND INTERVENTIONS

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

Wheeled seating and mobility is designed to support a person in an optimal position within a dependent or independent mobility base. Optimal positioning may be defined as orthopedic alignment, body symmetry in multiple planes, pressure distribution or increased function. Another measure of optimal positioning within a wheelchair is comfort – otherwise referred to as the lack or reduction of pain. Prolonged sitting can lead to pain, particularly in certain wheelchair users. This article will summarize current research related to pain in people using wheelchairs.

We often avoid the term ‘comfort’ in our documentation as this has unfortunately become associated with a lack of medical necessity by some funding sources. Beginning in the 1990s, increased attention was given to pain in the medical community. Eventually, pain was even dubbed the ‘fifth vital sign’ and became an important part of our documentation. We must ask about and document any end-user pain and attempt to alleviate pain through seating and wheeled mobility interventions.

PAIN PREVALENCE

People with conditions that include increased muscle tone and/or spasticity are likely to experience pain in their wheelchair seating system. Frank and De Souza (2017) conducted a study that looked at individuals with cerebral palsy (GMFCS levels IV and V) who use power wheelchairs. Of the 102 participants, 20 reported problematic pain (20%) caused by spasticity, spinal curvatures, back pain, hip pain and/or spasticity. The pain was significant;

18 of the 20 participants required medical management (90%). These same researchers in 2012 interviewed 64 power wheelchair users and found that pain is frequently experienced by this group and may be severe. They

concluded that clinicians need to distinguish between wheelchair-related pain and pain due to an underlying health condition. Finally, the researchers noted that improved power wheelchair design and additional features should reduce this pain and suffering, but at a financial cost. This study also showed that pain was better managed in children than in adults.

A study of 252 participants, aged 3 to 19 years across all levels of severity of cerebral palsy, found that 54.8% of participants reported some pain (Penner, et al., 2013). Further, 24.4% of caregivers reported participant pain that affected level of activity, and 38.7% of physicians reported participant pain.

Novak, et al. (2012) performed a systematic review with meta-analysis of 30 studies on cerebral palsy and found that three out of four children with cerebral palsy were in pain. Another group of researchers (Kembhavi, et al., 2011) reviewed 12 studies on pain in adults with cerebral palsy and found the three most common study themes were 1) prevalence of pain, 2) the effect of pain on functional activities and 3) coping or intervention strategies for pain.

PAIN ETIOLOGY

Lyons (2017) states that discomfort increases over the time an individual is unable to change their position in the wheelchair. Frank and De Souza (2017), as mentioned above, found

RESEARCH HAS SHOWN THAT UP TO 54% OF PEOPLE WITH CEREBRAL PALSY EXPERIENCE PAIN.

PAIN MAY BE CAUSED BY LACK OF MOVEMENT OR BE RELATED TO THE WHEELCHAIR ITSELF.

CONTINUED ON PAGE 32

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PAIN IN PEOPLE USING WHEELCHAIR (CONTINUED FROM PAGE 30)

that pain in individuals with cerebral palsy using power wheelchairs was caused by spasticity, spinal curvatures, back pain, hip pain and/or spasticity. Penner, et al. (2013) stated that physicians identified hip dislocation/subluxation, dystonia and constipation as the most frequent causes of pain in wheelchair users in their study. Over half of the participants in the Frank and De Souza 2012 study reportedly believed that their pain was related to the wheelchair itself.

Certainly not all end-user pain is directly related to the wheelchair, however this is an important consideration and must be explored in our evaluation.

PAIN INTERVENTIONS

Typically, we respond to discomfort in sitting by changing our position. If a wheelchair user is unable to change position, discomfort increases over time (Lyons, 2017). Many wheelchair users must rely on caregivers to note and intervene to alleviate their pain,

MOVEMENT AND CHANGING POSITION CAN BOTH REDUCE PAIN.

particularly if the user is non-verbal and/or has intellectual disabilities (Lyons, 2017). Frank and De Souza (2012) indicate that changing position relieves discomfort. Dicianno, et al. (2015) reported that use of the tilt feature on wheelchairs can reduce pain. Use of appropriate seating interventions, as well as competent seating assessment, may also reduce pain (Frank and De Souza, 2012).

Seating and wheeled mobility interventions cannot alleviate all pain, just as not all end-user pain is related directly to the wheelchair. However, pain mitigation must be an important consideration in our interventions.

CONCLUSIONS

Research has demonstrated a strong prevalence of pain among wheelchair users, up to 75% in one study (Novak, et al., 2012). Most of the studies focused on wheelchair users who have cerebral palsy, though pain may occur in anyone who is unable to change position (Lyons, 2017). Much of the research related to pain in people with spinal cord injuries reports shoulder and other upper extremity pain related to self-propulsion, rather than pain related to the wheelchair seating system or lack of movement.

These studies found that the following factors may contribute to pain: spasticity, spinal curvatures, back pain, hip pain and/or spasticity (Frank and De Souza, 2017), hip dislocation/subluxation, dystonia and constipation (Penner, et al., 2013). Pain, or the relief of pain, was also linked to the wheelchair seating and mobility equipment (Frank and De Souza, 2012).

Pain research has not focused on pain interventions for wheelchair users, though a shift has occurred from seeing pain as related to a medical condition only to pain also being related to the wheelchair (Frank and De Souza, 2012; Kembhavi, et al., 2011). Several studies concurred that movement and/or a change in position can alleviate pain (Lyons, 2017; Frank and De

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TO ASK ABOUT PAIN
IN OUR EVALUATIONS
AND ATTEMPT TO
ALLEVIATE PAIN TO
THE BEST OF OUR
ABILITY THROUGH
SEATING AND
WHEELED MOBILITY
INTERVENTIONS.”**

Souza, 2012). Studies that specifically addressed other pain interventions are now dated and did not specifically focus on wheelchair interventions.

Pain is common in wheelchair users. Wheelchair seating strategies to reduce that pain certainly include maintaining an optimal body position, pressure distribution (using appropriate contours and materials) and pressure relief (providing a change of position). Another important factor that can alleviate pain is movement. For end users unable to move within their wheelchair seating system (perhaps due to inability or required postural supports), movement can be provided through other technologies, including dynamic seating and seat functions such as recline, elevating legrests and tilt. Movement also can reduce spasticity in some wheelchair users (Phadke, et al., 2015). Spasticity was identified as a source of pain in wheelchair users (Frank and De Souza, 2017; Penner, et al., 2013).

A critical goal of wheelchair seating and mobility evaluation is to alleviate user pain. We must continue to ask about pain in our evaluations and attempt to alleviate pain to the best of our ability through seating and wheeled mobility interventions.

PAIN IN PEOPLE USING WHEELCHAIRS (CONTINUED FROM PAGE 33)

This article was adapted from a document developed for Seating Dynamics, "Pain in People using Wheelchairs," which can be found at <https://www.seatingdynamics.com/wp-content/uploads/2019/01/Seating-Dynamics-Pain-In-People-Using-Wheelchairs-2019.pdf>.

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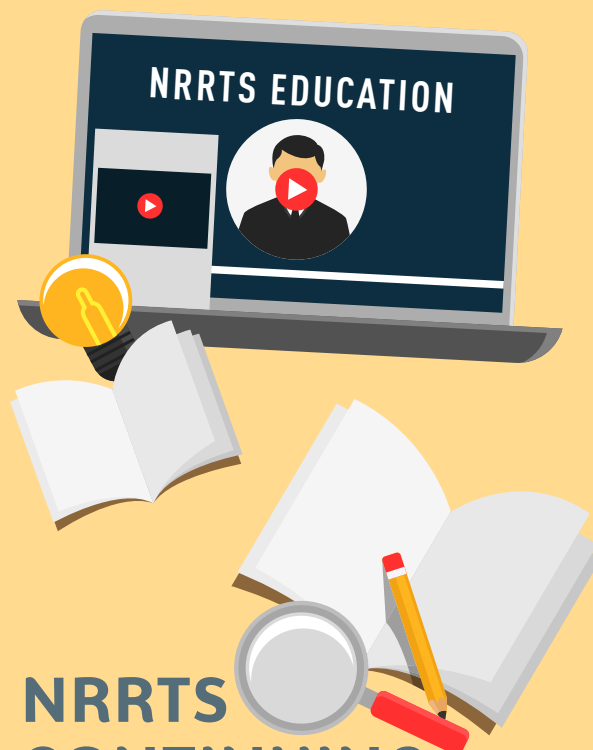
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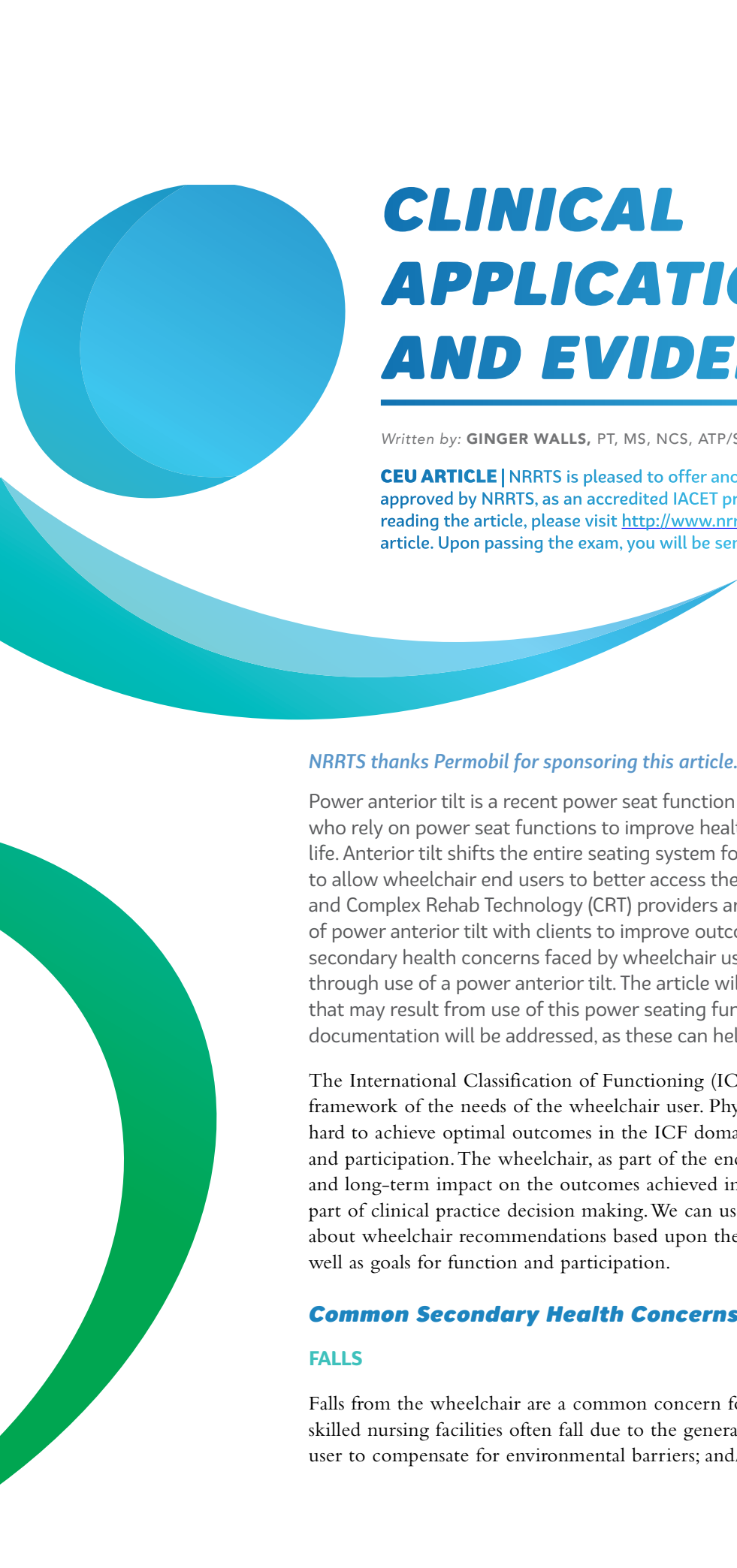
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POWER ANTERIOR TILT





CLINICAL APPLICATIONS AND EVIDENCE

Written by: **GINGER WALLS**, PT, MS, NCS, ATP/SMS

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Power anterior tilt is a recent power seat function available to power wheelchair end users who rely on power seat functions to improve health, function and participation in everyday life. Anterior tilt shifts the entire seating system forward by raising the rear seat to floor height to allow wheelchair end users to better access the environment in front of them. Clinicians and Complex Rehab Technology (CRT) providers are still learning how to use the application of power anterior tilt with clients to improve outcomes. This article will present common secondary health concerns faced by wheelchair users and how these can be addressed through use of a power anterior tilt. The article will also present functional improvements that may result from use of this power seating function. Finally, specific measures and documentation will be addressed, as these can help to justify funding for a power anterior tilt.

The International Classification of Functioning (ICF) Model (2001) provides a holistic framework of the needs of the wheelchair user. Physical and occupational therapists work very hard to achieve optimal outcomes in the ICF domains of body function and structures, activities, and participation. The wheelchair, as part of the end user's everyday environment, has a direct and long-term impact on the outcomes achieved in these three areas and, therefore, is a critical part of clinical practice decision making. We can use the ICF model to guide our decisions about wheelchair recommendations based upon the end user's clinical needs and risk factors, as well as goals for function and participation.

Common Secondary Health Concerns Faced by Wheelchair Users

FALLS

Falls from the wheelchair are a common concern for end users. Elderly wheelchair users in skilled nursing facilities often fall due to the general environment; the inability of the end user to compensate for environmental barriers; and/or the unavailability of a caregiver at

POWER ANTERIOR TILT ... (CONTINUED FROM PAGE 37)

the time of the fall (Kiely, et al., 1998). Fall circumstances are often multifactorial and can be action related (i.e. transferring), location related (i.e. bathroom); or due to other attributions (i.e. surface conditions), according to Rice, et al. (2017). Therefore, fall prevention strategies must also be multifactorial, including interdisciplinary assessment, transfer and wheelchair driver skill education, seated postural control, and appropriate match of the technology to the need.

Similarly, Nelson, et al. (2010), looking at falls and wheelchair users, identified that the risk assessment should include personal factors (i.e. history of falls, pain, function, Functional Independent Measure [FIM] score; wheelchair characteristics; environmental conditions; and wheelchair skills proficiency.

The Modified Functional Reach Test (mFRT) (Lynch, et al., 1998) is used to determine the limits of stability and balance in clients who are unable to stand. Scores are determined based on the distance between the start and stop position. The client is seated with their arms supported on a table in front of them and the test is performed bilaterally. The client is allotted three trials to complete the test and their best effort is recorded as the final score. The greater the distance reached, the better the client's balance, which decreases risk for falls. For wheelchair end users, this test could be performed with and without anterior tilt to be able to quantify the difference in functional reach and apply this to the end user's individual needs, function and safety.

UPPER LIMB PROTECTION

Upper limb protection is another common concern for wheelchair

users and often a goal when recommending CRT. The Paralyzed Veterans of America (PVA) Clinical Practice Guidelines on Upper Limb Preservation Following Spinal Cord Injury (SCI) (PVA, 2005) describe the increased risk the spinal cord injury population faces for upper extremity repetitive stress injuries, impingement and decreased function due to upper extremity impairments. These Clinical Practice Guidelines, as well as the RESNA Position Paper on the Application of Seat Elevating Devices (Arva, et al., 2009), and the RESNA Position Paper on the Application of Power Wheelchair Standing Devices (Dicianno, et al., 2013), recommend mitigation of these increased risk factors through the use of power seat functions that bring the wheelchair end user closer to the task at hand and provide a better biomechanical advantage. Recommendations include providing power seat elevation or standing to individuals with SCI who use power wheelchairs and have upper extremity function to avoid positions of impingement, completing downhill transfers whenever possible, and ensuring better biomechanics for reaching.

Sabari (2016) and colleagues described the impact of wheelchair seat height on neck and shoulder active range of motion – an elevated seat height directly correlated with significantly decreased demands for shoulder flexion and cervical extension in ambulatory people sitting in a chair. What does this mean for wheelchair users with other neurological impairments, postural limitations, and trunk and upper extremity weakness? It means that the basic principles of good body mechanics, energy conservation and work simplification apply to everyone! And now we have more tools to help people in wheelchairs function better!

PAIN

Pain is another common issue faced by full-time wheelchair users. Sonenblum and Sprigle (2011) reported that participants whose wheelchair power seat function utilization was monitored throughout the day frequently moved for function and comfort but infrequently moved to a therapeutic angle for weight shifts. A healthy sitting posture is a dynamic one with frequent, small postural changes; Wu, et al. (2017) documented that increased power seat function frequency of use is correlated with decreased pain associated with sitting in a wheelchair. Power anterior tilt makes it possible for wheelchair end users to move to more positions independently and functionally with good biomechanics and thus, may help mitigate some of the pain experienced by wheelchair users.

PRESSURE INJURY

Pressure injury is a significant concern for wheelchair users. Much of the evidence around using power seat functions to prevent pressure injury focuses on using significant angles of posterior weight shifting. However, it is interesting to note that the Canadian Best Practice Guidelines for the Prevention and Management of Pressure Ulcers in People with Spinal Cord Injury (2013) state that weight shifting occurring naturally during functional movement also significantly protects the skin and tissue from pressure injury as the individual remains active throughout the day. Thus, any power seat function, including anterior tilt, that can assist with

FIGURE 1 Relationship between Seat Elevation and Anterior Tilt

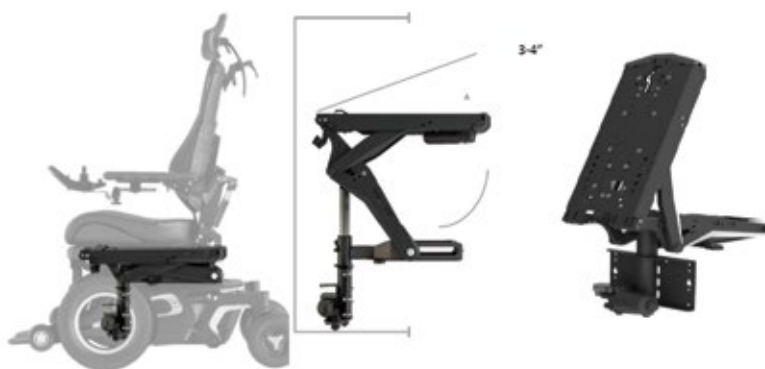


FIGURE 2 Front Wheel Drive Anterior Tilt



functional movement and smaller weight shifts, may be helpful in both its primary and secondary effects.

A Good Match for Function

People who need CRT value devices that help them participate and function better. Boland, et al. (2017) said that “people with stroke appear to rank the value and use of ... equipment more highly when the equipment is explicitly linked to a social interaction or occupational performance goal.” Chaves, et al. (2004) described the wheelchair as the most important device used by persons with SCI and the one that users most associate with barriers. The subjects in this study identified their wheelchair as more limiting to their participation than their impairment. Finally, in an online survey conducted in 2017 by PatientsLikeMe of 121 power wheelchair users with progressive neuromuscular disorders, individuals identified key wheelchair features that were most important to them including, most importantly, being able to get where they were going with confidence and drivability on rough surfaces; followed by improved comfort and support with a good seating position; and also features to improve safe and easy transfers.

FIGURE 3: Mid Wheel Drive Anterior Tilt and Functional Reach

Relationship: Wheelchair Base, Power Seat Elevation and Anterior Tilt

Anterior tilt by itself shifts the entire seating system forward by raising the rear seat to floor height while maintaining front seat to floor height. Power seat elevation is required to allow for the full amount of anterior tilt needed to allow maximal forward positioning of the seating system over the base of the wheelchair. Seat elevation allows the footplates to clear the base and the wheelchair seat to tilt forward (see Figure 1).

A front wheel drive power wheelchair base is able to offer more anterior tilt with unobstructed foot placement than a mid-wheel drive base because of the weight distribution of the wheelbase and the configuration of the front casters. On a front wheel drive wheelbase, there are no front casters in the way of optimal foot placement. In addition, if maximizing functional reach is the goal, front wheel drive power wheelchairs automatically sit the end user in a position closer to what they are reaching for (see Figure 2).

On either a front or mid-wheel drive power wheelchair, the end user will be able to get in better functional proximity to reach, both vertically and horizontally, using a combination of power seat elevation and anterior tilt (see Figure 3).



POWER ANTERIOR TILT ...
(CONTINUED FROM PAGE 39)

When using greater than 20 degrees or more of anterior tilt, a knee abductor block is recommended to assist the wheelchair end user with maintaining safe positioning in the chair. Safety is critical. When the end user is actively elevated and anteriorly tilted, the power seat functions move the seat over the center of gravity of the base to reduce risk of tipping. It is possible to drive the power wheelchair in up to 20 degrees of tilt. The power seat function, again, moves the center of gravity to increase stability along with the activity of the suspension of the chair. Nevertheless, these built-in safety measures do not take the place of proper training during delivery and afterwards in further therapy sessions, if necessary.

Anterior Tilt for Improved Transfers

Anterior tilt, in conjunction with seat elevation and power legrest articulation, can increase stand-pivot transfer independence and safety for the wheelchair user and their caregiver (see Figure 4). Smart actuators monitor position as the seating system moves and can memorize a frequently accessed position of function, like a transfer position for example. A short-cut key can then be assigned to access this position, allowing the end user to always get to the right position using the activation of only one command. These memory seat functions can be programmed at delivery or at a follow up visit.

Anterior Tilt for Functional Accommodation of Hip Flexion Limitations

Power anterior tilt and seat elevation can be used to accommodate for a wheelchair user who has limited hip flexion range-of-motion and requires a more open seat-to-back angle. Typically, the seat to back angle is opened so that the back is more reclined while the seat remains parallel to the floor. This limits the visual field for driving, as well as limiting functional reach. Anterior tilt and seat elevation can mitigate the negative functional effects of the necessary open the seat to back angle, allowing accommodation for the limited hip flexion, by dropping the knees in relation to the hips. This preserves the visual field for driving, as well as functional reach.

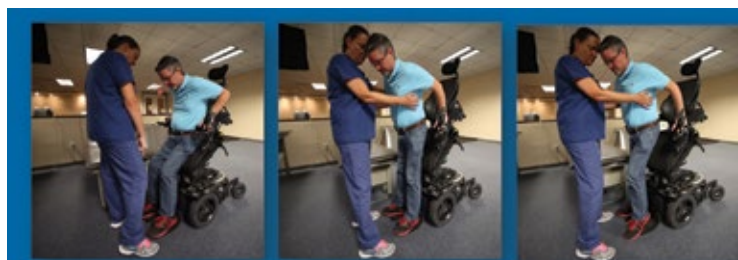


FIGURE 4 Anterior Tilt to Assist with Stand-Pivot Transfers

Anterior Tilt for Functional Reach and Mobility Related Activities of Daily Living (MRADLs)

Power anterior tilt and seat elevation allow the end user to move the seat to a position where visual field is improved for driving and position is optimal for reaching for mobility related activities of daily living (MRADLs) and for transfers. The most common application of anterior tilt is to improve active functional reach for MRADLs (see Figure 5). A pilot study on anterior tilt by Rice (2019) reported that subjects scored significant improvements in meal preparation, grocery shopping, and safety, as well as improvements in overall Functional Mobility Assessment scores. Reaching tasks were cited as the area where anterior tilt was most helpful to the end-users in this study.



FIGURE 5
Anterior Tilt for MRADLs

The wheelchair end user can independently position the wheelchair seat for self-care at a sink, so that they can actually brush their teeth and spit into the sink – rather than have to use a separate bowl or cup. Similarly, the end user can wash their face over the sink and reach the faucet, soap and medicine cabinet better, as well as see in the mirror. For meal prep, the wheelchair end user can face the task at hand at the sink, countertop or stove in the kitchen. This is a much more ergonomically correct

and safe position to perform cooking tasks in, especially if the end user does not have sufficient trunk control to lean sideways out of their wheelchair while parked next to the countertop. Finally, power anterior tilt can assist in dressing by making it easier to retrieve clothes from the closet or on a high shelf – another task where being in the best possible position for reaching is involved.

Wheelchair users who have high tone in their trunk and upper extremities have difficulty with reaching and fine motor tasks because it takes so much effort to stabilize their trunk for the task. The use of inclination of the seat angle to activate trunk musculature and to facilitate reaching is well established in the literature (Watanabe, 2010). A power wheelchair with anterior tilt allows the end-user to position their seat optimally at the work surface. The proximal stability provided by the wheelchair seating system allows for better distal mobility to reach and manage the task at hand. The combination of seat elevation and anterior tilt may make it possible to better manage voiding from the wheelchair, especially for men.

Anterior Tilt for Communication and Participation

We know from the RESNA Position Papers on Power Seat Elevation and on Power Wheelchair Standing Devices that these seat functions have a positive impact on communication and participation, as well as productivity in the workplace (Arva, et al., 2009; Dicianno, et al., 2013). Anterior tilt allows the end-user to engage others at the same vertical height as well as more closely in the frontal plane – across a table top, desk top, white board, pool table, etc. This is critical for more independent engagement and function. The participants in the Rice 2019 pilot study also reported that anterior tilt improved their interactions with peers who were standing. This included social situations (i.e. sitting at a high-top table), as well as work situations (i.e. looking at a co-worker's computer). The participants also reported improved independence in everyday community activities involving reaching, like grocery shopping.

Opportunities for Delivery and Training

SMART ACTUATORS AND MEMORY SEAT FUNCTION POSITIONS

Smart actuators are equipped with position feedback sensors that allow each actuator to know their position, as well as all the other actuators' positions on the chair at all times. This infinite position sensing allows for both position-limiting and memory seat function positioning. Non-smart actuators only allow for binary position sensing for position-limiting only – i.e. to compensate for a range of motion limitation. Memory seat functions provide the opportunity to save frequently accessed positions of function,

involving multiple actuators, to the wheelchair programming. These functions can then be accessed either by 1) shortcut keys on the joystick module, 2) other switches placed where the wheelchair end user can access, or 3) simply scrolling through the seat functions on a display while in seating mode through the driving method.

Several memory positions are commonly used. Utilizing a combination of power seat elevation, anterior tilt and leg rest articulation can create an anterior tilt transfer position. Other positions using anterior tilt might include a position for working at a computer on a desktop, an optimal position for eating or positions for specific self-care tasks. According to the end-user's needs, these memory positions, or specific actuators, can be latched to reach their final position with only a single activation. The actuators can be left un-latched (sometimes called momentary), requiring the end user to continuously push the button to move the seating system.

When a wheelchair is being delivered, the CRT team has an opportunity to empower the wheelchair end user to get the most out of their power seat functions by setting up memory seat function positions, providing short-cut keys and considering latching to access a specific position more efficiently.

TRAINING AND ACTIVITY SIMULATION

In order to ensure that the wheelchair end user can fully leverage their power seat functions, it is important to simulate functional activities. Simulating activities in the kitchen, self-care at a sink, retrieving items from a closet and transfers can improve safety, independence and satisfaction with power seat functions at home. If the client needs more practice than time allows at delivery, therapy sessions can be arranged with the goals of increasing independence and safety with specific activities utilizing the power wheelchair and seat functions. This can certainly increase a client's confidence at the same time and encourage more participation. Sakakibara, et al. (2014) discussed the concept of greater wheelchair self-efficacy leading to improved life-space mobility. That is, the more confident the end user is in

their ability to use the wheelchair, the greater their life-space mobility – environment of function and participation – will be.

Funding, Documentation and Outcomes Measurement

BE ABLE TO DISCUSS FUNDING

Growth in technology has always outpaced funding. Funding seems to lag behind new opportunities offered by technological innovation to empower wheelchair end users with better outcomes in health, function and participation. In order to be compliant with the code of ethics for organizations including APTA (American Physical Therapy Association), AOTA (American Occupational Therapy Association), RESNA (Rehabilitation Engineering and Assistive Technology Society of North America), and NRRTS, CRT providers and clinicians must discuss all options available that may be helpful for their clients and provide them with an opportunity to make educated choices about their CRT solutions. In order to do this successfully and keep their practice up-to-date with today's technology, CRT providers and clinicians must be able to explain the options available, explain limitations of third-party coverage and discuss options for alternative or self-funding to manage the gap between funding limitations and the cost of CRT.

DOCUMENTATION

In order to most successfully justify power seat functions, it's best to document all the various ways each will be used. Often this means justifying the various power seat functions separately, as well as together. Since anterior tilt and

seat elevation have a functional relationship on the wheelchair, as discussed earlier, explaining that both seat functions are necessary in order to meet specific goals is necessary to obtain funding approval. Below is some sample justification language to consider when recommending anterior tilt and seat elevation together.

ANTERIOR TILT DOCUMENTATION LANGUAGE

- Anterior tilt shifts the entire seating system forward by raising the rear seat to floor height while maintaining front seat to floor height. Power seat elevation is required to allow for the full amount of anterior tilt recommended for the client in order to allow forward positioning of the seating system over the base of the wheelchair.

For Functional Reach:

- The power anterior tilt recommended for the client will:
 - Facilitate forward weight shift for reaching for functional activities
 - Promote attention and vision
 - Assist with managing tone/abnormal reflexes
 - Provide improved postural control and allow forward reach activities
- Without the use of anterior tilt, [CLIENT] would need to approach countertops from the side and rotate their trunk to reach items. [CLIENT] does not have the ability to complete reaching/ADL tasks from this position due to impaired trunk and upper extremity function.
- Anterior tilt will improve functional reach of the upper extremity to allow the client to independently perform activities of daily living such as hygiene/grooming (wash hands, brush teeth, etc.), cooking (providing improved access to the kitchen cabinets, refrigerator/freezer, microwave, stovetop, sink, etc.) and other daily reaching tasks.
- Anterior tilt provides a lower seat to floor height for improving access under tables/desks.
- Functional Independent Measure scores identify specific functional improvements for [CLIENT] with this feature, making it a medical necessity.

For Transfers:

- The power adjustable seat height in combination with the anterior tilt function will improve safety and independence in stand-pivot transfers by facilitating forward weight shift for transfers. As [CLIENT] stands from a higher, more forward position, the amount of power and strength required from the lower extremities is significantly reduced.
- Additionally, the seat elevation provides improved safety and independence with lateral transfers by allowing a level transfer or transfer from a higher to lower surface, which is gravity-assisted.
- Because of [CLIENT]'s strength and endurance limitations, these features are necessary to preserve independent transfer ability.

OUTCOME MEASURES

Various outcome measures may be used to help justify anterior tilt at evaluation, as well as document outcomes upon delivery. We have discussed the Modified Functional Reach Test already, as well as the Functional Independence Measure. The Functional Mobility Assessment; the Wheelchair Skills Test – Power; the Wheelchair Outcome Measure, and the Wheelchair Confidence Scale; as well as other outcome measures, may be utilized to show the positive effects a power seat function like anterior tilt can provide for the power wheelchair end user. Photos and videos also go a long way to help paint a picture of why the feature is necessary.

Conclusion

Power anterior tilt is a recent power seat function now available to power wheelchair end users who rely on power seat functions to assist them with their health, function and participation in everyday life. Mobility related activities of daily living that require forward facing functional reach with good trunk support – such as self-care at a sink, cooking and meal prep, and retrieving items from a closet – may be completed with greater independence and confidence. Anterior tilt can increase safety and independence in activities like forward shifting for transfers or in participation at work, school or social events. Memory seat functions and smart actuators improve efficiency of seat function use. Power seat functions have moved forward!

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ACTIVE REACH - BEYOND THE TRANSFER

Written by: **STACEY JOHNSON** OTR/L ATP

NRRTS thanks Permobil for sponsoring this article.

As clinicians we are always saying “nose over your toes” before our clients stand up. The ‘scoot’ is always step one of any weight bearing transfer. While we all can attest that standing up from a high surface is easier than from a low surface, neither is accomplished without a scoot or leaning forward. This is why seat elevation alone is not always enough to facilitate independent transfers. Active Reach combines seat elevation with the ever so important weight shift, assisting to accomplish the “nose over the toes” step one! Therefore, it is no surprise that the leading rationale for prescribing Active Reach is for transfers. It is the other less obvious functional and medical benefits of Active Reach that is the focus of this case study.

Active Reach moves the seating system into an anterior tilt. When combined with a power recline, the back angle can be opened so the client is not ‘pushed forward’. Power elevating legrests are used to maintain the desired knee angle during anterior tilt (see Figure 1).

FIGURE 1



FIGURE 1: Permobil M3 with 20 degrees of active reach combining power seat elevation, anterior tilt, recline and leg rests.

Duchenne (DMD) is one out of nine types of muscular dystrophy. DMD is seen most often in boys and diagnosed around age 4. DMD is caused by the lack of a protein that keeps muscular cells intact. It is progressive and affects ones’ proximal muscles first – shoulders, pelvis, hips and thighs – and then progresses down the limbs and trunk including the muscles around the lungs and diaphragm. Upper limb function typically requires a gravity eliminated plane close to the body. This makes common tasks very challenging.

Matt H. was diagnosed with DMD later in life at age 14. As a self-described “wall walker,” he relied on upper limb support to ambulate by leaning into a wall or weight bearing through his arms on furniture. He required a scooter in his early years for community use only. Matt used his scooter to get across campus at the University of Rhode Island where, in 2003, he earned his Bachelor of Science in Electrical Engineering. The scooter allowed him to live the campus lifestyle without mobility limitations interfering with his goals. He would “wall walk” short distances and use the scooter for any longer distances outside the dorm, home or classroom. The scooter remained a friend to Matt during his years of

employment, getting him around the office. Transfers from his scooter to office chair started getting more difficult, as did ambulation. He had to quit work when his weakness got the best of him, and he lost upper extremity function from his office chair.

Finally, at the age of 27, Matt got his first manual wheelchair. He needed a mobility system full time, and he could not use the scooter throughout his living environment due to accessibility issues. Propelling was a struggle, so he added power assist wheels within two years. This certainly afforded him easier mobility, but he still relied on others for the majority of his daily tasks. Matt moved into “Independence House” where he had his own accessible, subsidized apartment. He shared 24-hour staff with three other residents. This allowed him six hours per day of individual assistance, yet on-call help at all times. When it came time to replace Matt’s manual wheelchair due to typical wear and tear, he chose another manual base with power assist wheels. He had a new ride, but his level of functioning remained the same. He required assistance with everything but could function in a small area once set-up exactly as he needed. If something was out of place, he would lose all independence. He utilized the on-call help frequently, as a result. Matt felt he was not ready for a power wheelchair with seating functions. Looking back, Matt may have changed his mind given what he knows today. This new manual wheelchair with the added power wheels preserved Matt’s ability to move from one place to another, but not without significant effort and fatigue.

As a result, Matt's upper extremity function was limited by fatigue once he arrived at a destination. Finally, in 2017, Matt felt the time had come to go to the next step.

With the encouragement of his physiatrist, physical therapist and caregivers, Matt agreed to a home trial of a power wheelchair. A four-function wheelchair was selected to trial to conserve muscular strength he had been applying to propelling, weight shifting, moving his trunk forward and back to find a comfortable place to breath, and more. During the home evaluation, Matt tried power tilt, recline, elevating legrests and seat elevation, but did not think he needed Active Reach. With a lot of encouragement, he decided to give it a try. Matt drove over to the refrigerator and retrieved his first drink in years. He inhaled deeply and exhaled longer than when he was in a seated position. He accessed his table and so much more. It was an immediate game changer and something he had to have.

His Permobil M3 power wheelchair with power tilt, recline, elevating legrests, seat elevation and 20 degrees of Active Reach was delivered in July and not a day goes by that Matt doesn't use each and every function. As previously mentioned, most think of Active Reach for transfers and this is the leading rationale for prescription, but Matt is one who is using it for every benefit except transfers, as he is dependent for transfers and using a lift at this time. Medically, Matt uses BiPap at night due to declining respiratory function. He never felt like he could take a deep breath when he was in upright sitting – he felt as if his diaphragm was compressed. He quickly realized that he breathes deeper while in Active Reach, even just five degrees. When he sits in the chair, he is unable to open up his diaphragm with other power seating functions, only in Active Reach. He is able to extend his trunk more, while keeping his trunk to thigh angle open, reducing the feeling of diaphragm compression (see Figure 2). This is not an option in posterior tilt or recline. As a result, Matt is typically seen in at least five degrees of Active Reach even when driving. It should also be noted that since receiving his power chair, Matt chooses to sleep in his M3. He has a memory position set that combines tilt, recline and power elevating legrests that does not interfere with his respiratory status but, when he feels compromised, he uses his Active Reach memory setting and regains his ease of respiratory function

CONTINUED ON PAGE 46



FIGURE 2: Matt's typical resting position is slight Active Reach to open his seat to back angle which he reports to be his most comfortable for respiratory function.



FIGURE 3: Matt uses a preset position when he sleeps in his chair, but quickly is able to return to an upright preset memory position with a single switch.



FIGURE 4: Lowering Matt's thighs and adjusting his back angle improves forward reach and access for function.

ACTIVE REACH - BEYOND THE TRANSFER (CONTINUED FROM PAGE 45)

(see Figure 3). This allows him full independent mobility and repositioning 24 hours a day – a freedom he has not had in over a decade.

This position was termed Active Reach for a reason. Elevation alone does not allow functional activities as one would have to reach across their lap. Active Reach moves the person closer to the task by manipulating various angles (see Figure 4). This is why Matt couldn't complete desk tasks from an office chair or a wheelchair without an exact set-up. The power seating functions allow the use of Active Reach to elevate the chair to desk height and then tilt the front part of the seat downward while raising the rear seat to floor height, resulting in the position of one's lap in a downward slope. This, combined with the recline actuator bringing his backrest forward, allows Matt to complete tabletop function without issue. He extends his legs enough to hold his hips back in the chair and uses his memory positioning to transition into this exact same position whenever approaching his desk. His aides set-up this large workspace with everything Matt may need during the day including his phone, keyboard, gaming controller, food and drink. It does not matter if something is out of place as he can reach the entire workspace. This results in him needing help far less during the day and allows him constant access to social media, internet, gaming and so much more (see Figure 5).

The combination of the Active Reach and other power actuators has resulted in many unexpected gains that have increased Matt's independence. For the first time ever, Matt is able to reach his light switches, control the temperature in his apartment, wash his hands in the sink versus always using waterless soap, retrieve an item from his refrigerator, and more (see Figure 6). These new abilities are only possible due to the addition of the Active Reach, as his lack of glenohumeral active range of motion does not allow him to reach across his lap for function. Functionally, these new abilities mean that Matt does not have to sleep with the lights on, be cold or hot at night, or call for assistance for the little things that are truly big things!

Today, Matt is 38 years old and, because of his power wheelchair with power seating functions, he has been re-entering the community alone! When using power assist wheels in the past, he always had someone with him when he left his apartment to assist him. The power wheelchair not only gives him efficient mobility

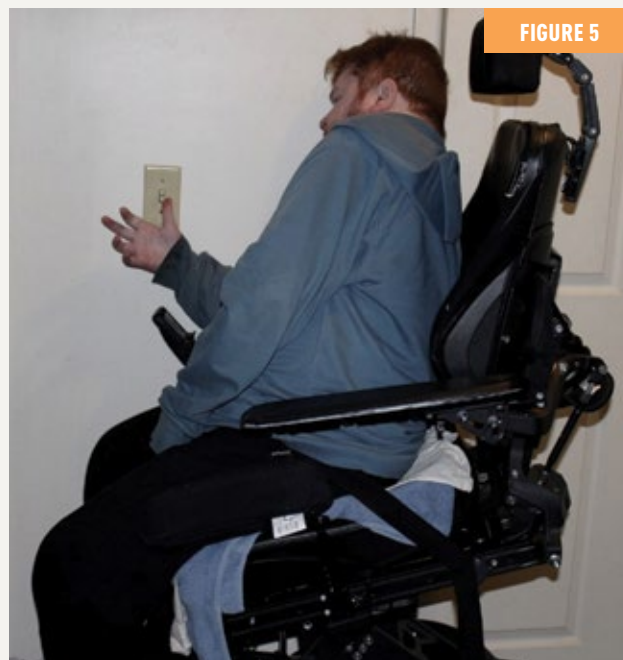


FIGURE 5

FIGURE 5: Due to lack of shoulder strength secondary to DMD, the Active Reach allows him to access light switches and more.



FIGURE 6

FIGURE 6: Active Reach allows Matt access to his functional work surface without strain.

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throughout the community using the accessible city bus or the RIDE van provided by the state, the Active Reach allows him to function in the community once he gets there. This includes retrieving items off shelves, reaching the machine to swipe his own debit card to make a purchase, retrieving cash from an ATM machine negating the need of giving strangers his passcode, and enjoying the true feeling of independence. He is also able to sit at a high-top table in the community and enjoy a beer out with his friends without needing their assistance! Since receiving this power wheelchair, Matt is requesting less assistance beyond his assigned six hours a day and is participating in life more than ever!

Power mobility alone is not always a door opener, but what is customized on the power wheelchair can allow a person to live and function at a more independent level. Active Reach was not something Matt was initially interested in when he watched a demonstration, but once he experienced the 20 degrees of anterior tilt for himself, he noted immediate functional and medical gains. Active Reach is so much more than a transfer assist – Matt is a perfect example of how it can truly enhance one's function both inside and outside the home and allow a person to return to life!

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Stacey Johnson, OTR/L ATP, is a 1996 graduate of Quinnipiac College. She worked as an occupational therapist for 16 years in a seating clinic in Providence, Rhode Island. She joined Permobil in March 2013 as a territory sales manager passionately selling the Permobil product lines in Connecticut and Rhode Island. She currently is an area sales manager and manages all of upstate New York and New England. She lives with her family in Smithfield, Rhode Island.





MEDICARE PRIOR AUTHORIZATION CONTINUES TO EXPAND

Written by: **CLAUDIA AMORTEGUI**

In the last issue I touched on the Medicare Power Wheelchair Prior Authorization program. Since writing that article Medicare made some announcements adding new codes that would require submission through the prior authorization process; these include some missing PWC codes and the addition of some support surface codes. For the Complex Rehab Technology (CRT) industry it affects many of the same clients; those using both CRT Power wheelchairs and support surfaces. The added codes are as follows:

HCPC Code	Code Description
K0857	Power wheelchair, Group 3 standard, single power option, captain's chair, patient weight capacity up to and including 300 pounds
K0858	Power wheelchair, Group 3 heavy duty, single power option, sling/solid seat/back, patient weight 301 to 450 pounds
K0859	Power wheelchair, Group 3 heavy duty, single power option, captain's chair, patient weight capacity 301 to 450 pounds
K0860	Power wheelchair, Group 3 heavy duty, single power option, sling/solid seat/back, patient weight capacity 451 to 600 pounds
K0862	Power wheelchair, Group 3 heavy duty, multiple power option, sling/solid seat/back, patient weight capacity 301 to 450 pounds
K0863	Power wheelchair, Group 3 heavy duty, multiple power option, sling/solid seat/back, patient weight capacity 451 to 600 pounds
K0864	Power wheelchair, Group 3 extra heavy duty, multiple power option, sling/solid seat/back, patient weight capacity 601 pounds or more
E0193	Powered air flotation bed (Low Air Loss Therapy)
E0277	Powered pressure-reducing air mattress
E0371	Non-powered advance pressure reducing overlay for mattress length and width
E0372	Powered air overlay for mattress, standard mattress length and width
E0373	Non-powered advanced pressure reducing mattress

The added power wheelchair codes do fill an unnecessary void for the bariatric clients, which is definitely a benefit for the providers. As for the newly added support surface codes, any prior authorization should be good news as long as Medicare does it right. This is where there were some initial concerns, but Medicare has made some adjustments in order to resolve those issues. We will just have to wait and see if things do run as smoothly once the program starts for these new codes.

For the added support surface codes listed above, there is an initial trial period starting with four states: California, Indiana, New Jersey, and North Carolina. The Medicare DME contractors will start accepting submission for prior authorization review on July 8 for equipment that is delivered on or after July 22, 2019. Prior authorization will start for these codes in all the remaining states for delivery dates (dates of service) on and after October 21, 2019. The Medicare contractors will begin accepting reviews for these orders on October 7.

For the added PMD codes, there is not a trial period, it will go into effect for all states for dates of service on or after July 22. Reviews will start to be accepted on July 8. The power wheelchair prior authorization process is the same as it currently is for all the other PWC codes. Therefore, there should not be any learning curve for the providers.

The prior authorization process for the support surfaces is very similar to that of PMDs, however it does have one critical difference. The turnaround time to obtain a decision will be five business days and not 10. This was not the case when the prior authorization process was first announced for these codes. The industry made it loud and clear to the Centers for Medicare and Medicaid Services that a 10-day turnaround was not acceptable for meeting the needs of the qualifying clients, many who need the support surface at the time of discharge from a facility. Keep in mind that once a product is delivered, submitting for prior authorization is too late. Providers cannot obtain the authorization after delivery; they must wait for an approval.

Providers should know if the client will need a support surface when they are discharged. They should take advantage of the time the client is in the facility. They can collect the required documentation and submit for prior authorization during this period, allowing enough time to obtain a decision prior to the client's discharge.

With all the support surface codes being capped rental items, Medicare only requires that a provider obtain a prior authorization for the initial month — and it is not to be requested for the subsequent months. Providers need to be certain they still meet the coverage criteria during the life of the rental and obtain all required documentation to support continued medical need.

Medicare has found a semblance of success with the current prior authorization program; these additional codes should only help the providers and the end users. The only “fair-warning” I would give to providers is that they need to be certain the documentation they submit for review clearly supports the need of all the options on the power wheelchair. Providers need to remember that

the prior authorization is on the base code and not the options being billed. The exception to this statement are those options that are required for the base code to be used (i.e. power tilt & recline for a Group 3 multiple power option base).

Lastly, providers need to remember that prior authorization is a requirement for all listed codes; it's not an option. In the same breath, they need to be sure they are not just blindly sending in documentation without an initial internal review; it's simply a waste of time. Also, if you, as a provider know that the equipment does not qualify for Medicare coverage, it is suggested that you mention this on the cover sheet. You can state that you are being requested to submit the order but believe it does not qualify. This will alert the reviewer that you have taken the time to review and do understand policy. Medicare will still review the order, but they will understand the reason for the review and hopefully will not think that the provider didn't know what he or she doing.

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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 DME. 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.





POWER CHAIR SAFETY WHEN FLYING

Written by: **WEESIE WALKER**, ATP/SMS

Walking through an exhibit hall to see Complex Rehab Technology (CRT) products is still very engaging to me although I no longer work as a supplier. Manufacturers offer so many more choices, options and improvements. But sometimes, it is the smallest detail that can make a big difference.

Recently, a friend was traveling by air and had an unsettling experience. At departure, the ground crew loading her power chair decided to disconnect the battery cables. When she arrived at her destination, this ground crew had no idea how to reconnect the battery cables. She was left at the gate, sitting in her now unpowered power chair. Imagine her angst in this situation. It was late evening, and she was not in her hometown.

Finally, the airline located a facilities repairman who had tools! He was happy to help and figured out how to access the batteries and reconnect the cables. She considered herself lucky.

As I was visiting the various booths at ISS, I came upon the simple answer to this situation. It is a red lock out plug that when inserted in the charger port, prevents the chair from turning on. Anyone can easily make a power chair safe for air transport. This is another example of manufacturers working to provide solutions. We all know that this type of travel nightmare happens all the time!

This is a true testament to the importance of all CRT stakeholders who continually work to solve problems, increase access and improve the quality of life for people who need this technology starting from even the smallest detail.

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The AirSafe Lock-Out plug is available from
www.ActiveControls.com

Weesie Walker, ATP/SMS, is the executive director of NRRTS. She has more than 25 years of experience as a CRT supplier. She has served on the NRRTS board of directors and GAMES board of directors and the Professional Standards Board of RESNA. Throughout her career, she has worked to advocate for professional suppliers and the consumers they serve. She has presented at the Canadian Seating Symposium, RESNA Conference, AOTA Conference, Medtrade, ISS and the NSM Symposium. Walker is a NRRTS Fellow.



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Northhampton, PA 18067-9031
Telephone: 570-706-6556
Registration Date: 5/21/2019

Cassie Grimes, OTD,OTR/L, ATP, RRTS®

Numotion
4301 Founders Way
Chattanooga, TN 37416
Telephone: 423-664-6069
Fax: 423-468-4874
Registration Date: 6/21/2019

Joshua Hamilton, RRTS®

Murphy Medical Supply LLC
106 Strange Rd
Starkville, MS 39759-2540
Telephone: 662-268-4464
Fax: 662-320-3893
Registration Date: 5/7/2019

Edmund Case Horton, MS, ATP, CRTS®

Tanglewood Medical Supplies Inc.
2445 NW Loop Ste B
Stephenville, TX 76401-1705
Telephone: 254-968-6999
Fax: 254-986-8616 x7
Registration Date: 5/13/2019

Sean McCormack, RRTS®

Access Medical
3266 Grey Hawk Ct
Carlsbad, CA 92010
Telephone: 760-929-2828
Fax: 865-533-3030
Registration Date: 6/4/2019

Kevin Morales, RRTS®

Rehabilitation Equipment Professionals, Inc.
5130 Duke St, Ste 12
Alexandria, VA 22304-2955
Telephone: 703-370-2100 x.4016
Fax: 703-370-7985
Registration Date: 6/13/2019

Nathan Schmidt, RRTS®

National Seating & Mobility, Inc.
1551 Miller St
La Crosse, WI 54601-5219
Telephone: 844-511-3882
Registration Date: 6/11/2019

Eddie Lee Shelton, ATP, CRTS®

National Seating & Mobility, Inc.
9494 Kirby Dr
Houston, TX 77054-2521
Telephone: 713-794-9080
Fax: 713-791-9084
Registration Date: 5/7/2019

FORMER NRRTS REGISTRANTS

The NRRTS Board determined RRTS® and CRTS® should know who has maintained his/her registration in NRRTS, and who has not.

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

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Chris Economon, ATP, Chesterfield, MO

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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 APRIL 24 THROUGH JUNE 21, 2019.

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Joseph Loza, ATP, CRTS®

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Jeffrey C. Ray, ATP, CRTS®

Family Health Care
Valdosta, GA

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Bobbi Mackedanz, COTA/L, ATP/SMS, CRTS®

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ATP

Congratulations to NRRTS Registrants who earned the ATP credential. Depending upon their registration date, they will be awarded CRTS® upon completion and approval of the renewal following fulfillment of required registration. NAMES INCLUDED ARE FROM APRIL 24 THROUGH JUNE 21, 2019.

Jeffrey C. Ray, ATP, CRTS®

Family Health Care
Valdosta, GA

RENEWED NRRTS REGISTRANTS

The following individuals renewed their registry with NRRTS between April 24 through June 21, 2019.

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