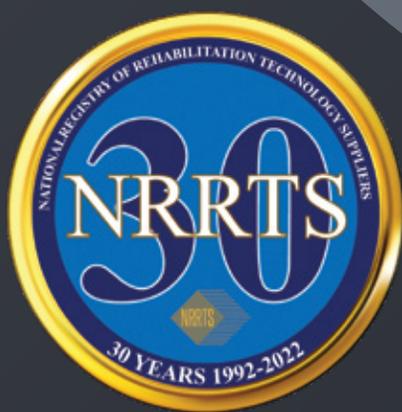
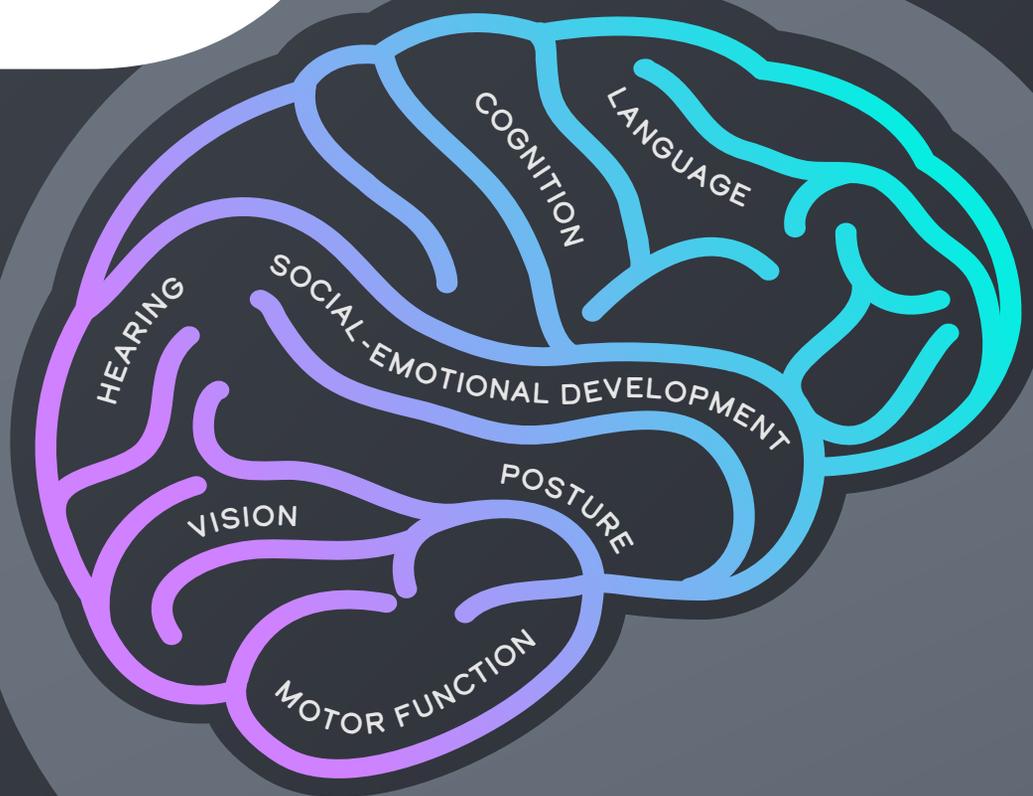


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Written by: **GERRY DICKERSON, ATP, CRTS®**

This "look back" is all about advocacy. There are pictures of past Capitol Hill visits, debriefings, social gatherings and quotes from what many of us still call CELA. But it also contains an important request.

The "important request" is asking you to get involved in advocacy. In gathering pictures, notes and literature from past Capitol Hill visits, I was struck by the passion and commitment of a special group of people. These same advocates commit every year to going to Washington, D.C., to make the case for change. However, it also struck me, while looking at pictures of attendees, that advocacy participation was oddly familiar to the days when I coached youth sports. Pictures I have from those days all have the very same moms and dads doing the lion's share of the work. In our profession, this needs to change. Many of us are nearing the next phase of our lives and will be hanging up our wrenches, screwdrivers, programmers, molding machines and MacGyver skill set. Complex Rehab Technology (CRT) needs you to get involved. You need to participate in change. Your state and federal representatives need to know who you are and what you represent.

Plans are in the works for the 2022 National CRT Conference. As of now, it will probably be in mid-September. You won't need to travel or get a hotel. You can sit in the comfort of your home and be part of this amazing advocacy event.

2013 was the first year, the rookie year, for Spencer Veraldi and his family to come to the conference in Washington. When his family was asked why they made the trip from Colorado to D.C., they responded: "We want to put a face on the issue to influence the government to take action to make sure Spencer and others have access they need to finish school and overcome their limitations."

2013 was also the rookie year, for Kesha Pilot who was injured the year before in an automobile accident. Kesha came to Capitol Hill to say "I think there are a lot of things out there not being utilized that would help in our daily routines. A lot of great inventions come from those in wheelchairs. I'm specifically hoping to talk about things that will give us equal access."

Advocate extraordinaire Jenny Siegle was already a

YOU NEED TO PARTICIPATE IN SYSTEMS CHANGE. YOUR STATE AND FEDERAL REPRESENTATIVES NEED TO KNOW WHO YOU ARE AND WHAT YOU REPRESENT.

veteran of CELA in 2013. Tireless, compassionate and profoundly articulate, Siegle is a constant presence in the world of CRT advocacy. Her message to Congress: "I want to be a taxpayer and contribute to society, but the only way I will be able to is to have complex rehab equipment."

Makes perfect sense, doesn't it? I want to work and pay taxes, but I need technology to help get me there.

Watch your inbox for more information on the 2022 conference. Please, when the notice confirming the date of the conference comes out, join your colleagues in their CRT advocacy efforts! If you have any questions, you can contact me or reach out to the NRRTS office.

Stay safe and healthy,



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Gerry Dickerson, ATP, CRTS®, is a 40-plus year veteran of the Durable Medical Equipment and Complex Rehab Technology industries. Dickerson, president of NRRTS, works for National Seating & Mobility in Plainview, New York. Dickerson is the recipient of the NRRTS Simon Margolis Fellow Award and is also a RESNA fellow. He has presented nationally at the RESNA conference, ISS and the National CRT conference and is a past board member of NCART.



A CONFIDENT, BALANCED APPROACH TO LIFE

Written by: ROSA WALSTON LATIMER



Will Fargas attending a friend's wedding in 2021.

Workdays begin early for Will Fargas. He rises before 5 a.m. in his apartment in the Bronx, and, with the help of home health service, he is ready for a van service pick up at 6:30 a.m. After at least a 45-minute commute, depending on traffic, Fargas begins work at NYU Rusk Rehabilitation in Manhattan. "My shift starts around 9 a.m., and given the fact I live in the Bronx, it does take a bit for me to travel to work each day. I am in the Scheduling Department for one of the outpatient clinics. I help patients schedule appointments for physical therapy, occupational therapy, assistive technology and some wheelchair appointments," Fargas said. Fargas takes public transportation or Uber when weather or a schedule change alters

his usual routine. "I was first involved with Rusk Rehabilitation as a patient in the vocational services department. After a year, I was hired for a permanent, full-time position that I have now held for six years."

Fargas possesses an even-handed, pragmatic approach to his work and personal life. The 33-year-old was born with spinal muscular atrophy, diagnosed at 11 months. Family is important to Fargas, and he credits them for his work ethic. "I was always taught work is important, and I could do anything I wanted," he said. "There are challenges, but I keep moving forward. When someone with a disability works, it can be difficult to get the services you need. You must prove you are still disabled, but you can lose services if you make more money. If I lose services, then I can't work. It is a vicious cycle that needs to be addressed. I would love to be the face of this issue! It is unreasonable to expect people with a disability to work without certain services. Lifelong Medicaid covers the basic needs of a wheelchair and home health aides. With those two things, I can accomplish anything. But the moment I lose those, I can't work anymore, and I can't travel. My life would become very narrow and limited. I think it is appalling to live in the 21st century, in the free world, and we can't have the assurance of the tools to live a productive life."

Fargas recently shared his take-charge, balanced approach to life when participating in a NRRTS CRT Awareness Day panel discussion. (<https://nrrts.org/cadvideos/>) Answering the question of how to effectively connect with a seating team, Fargas explained his process when considering a possible change to his Complex Rehab Technology (CRT). "I believe it is important to take control of decisions as much as possible. I begin with research. Perhaps there is a brand I

want to stick with, and I want to know if they are offering something new. I like to do research before meeting with the supplier and the therapist. After I get the prescription from the doctor, I then present my team with a couple of options that I'm considering. Then I get feedback from them, and together, we decide." Fargas has had the same "team" for many years, and he solidly depends on their experience and knowledge to make informed decisions. "Gerry Dickerson has been my wheelchair guy for 12 years," Fargas said. "He has had a big impact on my life in many ways. Dickerson has taught me to be more forthcoming about my life experiences and the significance of sharing information. The interaction with a group of people with similar, yet different, experiences is very positive for me."

Before Fargas had the positive influence of Dickerson and other team members, he had four brothers to urge him on. "I'm the youngest of four boys, and I am the only one with a disability," Fargas said. "My brothers pushed me to try things that, left on my own, I probably wouldn't have done. I've always felt comfortable hanging out with non-disabled people and, often would be the only person with a disability in a group." Fargas believes these experiences give him a valuable perspective that helps him be effective in his work. "I can relate to a variety of individuals who are looking for help and perhaps I can look 'outside



Will Fargas on vacation in Hawaii.



Will Fargas (front) with (l to r) nephew, Jayden; dad, Jose; brother and sister-in-law, Guillermo and Kathy; and niece, Katalaya.



Will Fargas with niece, Katalaya Fargas.

the box' for solutions." Fargas, who attended graphic design school, also brings a creative aspect to his work and life. "I naturally recognize the need to solve one issue before moving on to another," Fargas said. "I tend to consider both sides of an issue and can approach a solution from both the perspective of someone who uses a wheelchair and someone who doesn't. My circumstances and experiences provide me with a broader perspective."

"When I have time off, I love to travel, and I love sports. I also have a keen interest in tattoo artistry," Fargas said. "I consider movies a mental vacation. I can't travel as much as I would like, but I can always watch a movie and immerse myself in that experience." Fargas is a self-described "big, big Yankee fan" and a huge Giants fan. "One of my eight tattoos is the Yankee logo."

Fargas recently combined his travel experience in Hawaii with two exceptional tattoos. "I have always been drawn to the artistry of tattoos. I like when a tattoo tells a story or represents an individual," Fargas said. "While visiting Hawaii last year, I had the second of two very personal tattoos created. These

tattoos were influenced by the Polynesian culture. I met with an artist who specializes in Polynesian tattoos. After spending time together, the artist suggested symbols he felt best represented my personality." The symbols chosen for Fargas' tattoos were the Polynesian gecko and a shark, both representing strength.

"In Polynesian culture, the gecko represents strength, because it is a small animal yet has the capability of losing a limb and keep moving forward. Losing a limb doesn't stop a gecko. I'm not the biggest person, and I have my disability, yet I have kept moving forward."

Fargas' travel often includes visiting family. His brothers now live in various parts of the United States. "I try to stay connected with family any way I can, especially my 14 nieces and nephews," Fargas said. "I want to be the best uncle to them. I want to be their 'cool' uncle!"

"Travel is something I love, but it can be very difficult," Fargas said. "Air travel for individuals with disabilities should be addressed. We hear about the possibility of a jet that takes you from New York to London in about an hour or so, but we can't get a wheelchair on a plane. Solving this problem for individuals with disabilities should be a no brainer. If the airlines would listen and respond, it isn't a difficult problem to fix. I have ideas of what could be done, but they would have to pay me for those ideas!"

CONTACT

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Will Fargas works in the Scheduling Department of NYU Rusk Rehabilitation clinic. He recently participated in the NRRTS CRT Awareness Day panel discussion, "Connecting With Your Seating Team: Are You in the Driver's Seat?"

SELF-REFLECTION EQUALS SOUND CLINICAL REASONING

Written by: ROSA WALSTON LATIMER

Cheryl Hon, B.A., MOT works at Vancouver Coastal Health’s GF Strong Rehabilitation Centre in British Columbia, Canada. She currently works in the Outpatient Spinal Cord Injury program. “My first job as an occupational therapist was in community-based pediatrics,” Hon said. “I worked with school-aged children for two years before moving to Access Community Therapists where I began practicing in community-based general rehabilitation and complex seating for 10 years.”

Hon has presented numerous times on the topic of wheelchair seating and positioning and pressure injury prevention and management with her colleague, Lindsay Alford, BSc., OT, including a NRRTS Live Webinar on how to assess and manage spinal deformities in wheelchair seating titled “What About the Trunk?” (<https://nrrts.org/courses/1-21-21/>) Among several of her published works, Hon was the first author of an article published in the Journal of Occupational Science titled “Moving from China to Canada: Occupational Transitions of Immigrant Mothers of Children With Special Needs.”



Cheryl Hon at work carving out some foam for a client's seating system.

Hon described the “true aha” moment that fixed the importance of a wheelchair to an individual in her mind. She was in high school and volunteering at a long-term care facility: “The OT (occupational therapist) I was working with told me one day during our usual rounds, carrying out a walking program for



Cheryl Hon, B.A. MOT

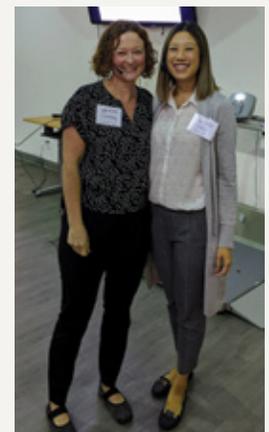
the resident, that ‘wheelchairs are so important to our residents. It isn’t just a piece of equipment; it helps them in every aspect of their daily living.’ At the time, I found this to be a bit of a surprise as I had no experience with wheelchairs, and no one in my life used a wheelchair. Her words stuck with me though; as I began looking for a career that would suit my interests and strengths, I found more and more the world of wheelchair seating seemed to fit what I was looking for.”

WHAT SPECIFICALLY DREW YOU TO A CAREER AS AN OCCUPATIONAL THERAPIST?

Growing up, I knew I wanted a career in health care, but I also enjoyed being creative. My mother enjoyed working with people and practiced as a care aide and ran a day care while my dad was an electrical engineer. From a young age, I knew I would love working directly with people but also loved creating and fixing things. This career has allowed me to do all these things. I once considered a career in social work. I applied and didn’t make it into the program. Rather than re-applying, I decided to pursue occupational therapy (OT) as I thought it would be more suited to my interests and strengths. I think it was probably meant to be, and I probably make a better OT.

WHAT KEEPS YOU ENGAGED IN YOUR WORK?

I enjoy learning from my clients and colleagues. I think we all have so much to offer one another. I believe sharing knowledge and experiences is the best way to improve practice and facilitate self-reflection. My favorite part is working directly with the clients and problem solving through very challenging issues. Prescribing equipment to address not only physical but also psychosocial challenges is a part of my work that I find incredibly rewarding.



Lindsay Alford and Cheryl Hon presenting a workshop for local therapists.



Occupational Therapists and Physiotherapist at GF Strong Rehabilitation.



Cheryl with her client in beautiful Vancouver, British Columbia.

WHAT DO YOU THINK HAS CHANGED THE MOST SINCE YOU BEGAN WORKING AS AN OCCUPATIONAL THERAPIST?

I think time pressure has changed a lot since I began practicing, which has been a conflict for me. Over the years, I've become aware of the importance of a more holistic approach in my practice. I strive to understand clients better by listening more closely to their stories, successes, challenges and context. This takes time, and I've had to become more patient with my practice. Rather than trying to always find a solution, I've tried to nurture the therapeutic process to work more collaboratively with my clients.

IS THERE SOMEONE WHO HAS PARTICULARLY INFLUENCED YOU IN YOUR CAREER?

Jo-Anne Chisholm and Joanne Yip, mentored me into the complex seating world. They generously shared their extensive experience in this field with me. I am incredibly grateful for their support and knowledge. My parents and husband also continue to be my influence and inspiration, and I draw many of my values from them.

WHAT ARE MEANINGFUL VOLUNTEER OPPORTUNITIES OR CHARITIES THAT YOU ARE INVOLVED WITH?

Our family is quite connected to refugee-related services. My husband's parents were refugees, and as a family, we are drawn to supporting causes related to refugee health and social services in our community.

TELL US MORE ABOUT YOUR FAMILY AND WHAT YOU DO FOR FUN.

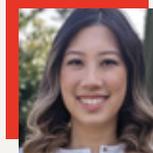
I've been married for 10 years, and we've been together for 22 years. We pretty much grew up together and now have two beautiful children who keep us on our toes. They are the best part of my life. I enjoy cooking and baking and also love doing creative things with my kids. We have a lot of Play-doh, building and craft supplies at home. I've been trying to master the art of Play-doh cake and cookie making.

WHAT ADVICE WOULD YOU GIVE TO SOMEONE JUST BEGINNING IN YOUR FIELD?

When I was a new clinician, I found it difficult to know what I didn't know. I felt I didn't know enough. If I didn't know something, I thought it was a deficit in my education or experience. I think it is incredibly brave to acknowledge when you don't know something and seek out the answers and ask questions.

CONTACT

Cheryl may be reached at CHERYL.HON@VCH.CA



Cheryl Hon, B. A., MOT, is an occupational therapist who works at Access Community Therapists in Vancouver, British Columbia, Canada. Hon works primarily in complex wheelchair seating and positioning prescription for clients with a range of disabilities in the community. She has presented numerous times on the topic of wheelchair seating and positioning and pressure injury prevention and management and is keen to develop new ways of thinking about wheelchair seating prescription and education.

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➤ RAFY IBARRA: SIGNIFICANTLY IMPACTING THE LIVES OF OTHERS

Written by: ROSA WALSTON LATIMER

Rafy Ibarra, ATP, CRTS®, with National Seating & Mobility, brings everything you would expect from an experienced ATP to his work: product knowledge, training, experience, empathy and understanding. However, Ibarra takes the “understanding” part to a much higher level. This exceptional, extroverted ATP with over 30 years of experience in the industry not only serves those who depend on Complex Rehab Technology (CRT) for mobility and independence, but he also shares that life with them. Ibarra has used a wheelchair for almost 40 years.

“I had polio at a young age, and I’ve grown up with my disability,” Ibarra said. “My family was living in Mexico, and I was 1 ½ years old when it hit me. So most of my life, I have walked on crutches and with braces, and I have been around other individuals with disabilities. I learned to adapt early on because I had to.” Ibarra’s family moved to the United States when he was six. “At some time in the late 1970s, I was given a wheelchair, an old E&J. It was heavy and bulky. It was too hard to use, so I kept using my crutches and braces. I didn’t bother with a wheelchair except when I participated in wheelchair sports. At that time, I played basketball and tried a little bit of tennis.”

Ibarra’s friends encouraged him to try wheelchair racing as a young adult. Always the consummate competitor, he eagerly took the challenge. “Of course, wheelchairs had greatly improved,” he said. “They were lighter and more customized. I jumped in one, started practicing and participated in the California games in 1983. I ended up doing quite well in the 100 meters and was hooked! The National Wheelchair Games were going to be in Honolulu the next year, and I said, ‘Sign me up!’ I had a QUICKIE I only used for sports but would still argue I could walk with my crutches and didn’t need a wheelchair for everyday living. As I got to know the guys participating in wheelchair games and became comfortable in that arena, they would give me a hard time about being slow on my crutches. They complained someone else always had to carry my gear and strongly encouraged me to get into my sports chair.”

At this point in his life, Ibarra was like many of the clients he serves today. “I was still resistant to using a wheelchair except for sports,” he said. “No one wakes up one day and says, ‘I can’t wait to get my first wheelchair,’ but life happens. I tell my clients even though I was walking with crutches and braces and falling all the time, I didn’t want to be in a wheelchair. My family didn’t encourage me to use

one. My mom was sad the first time I came home in a wheelchair. She thought I would be dependent on someone to push me and lose my independence; however, she quickly understood the benefit.”

Ibarra shares his story with many of clients when he senses apprehension. “I tell them I didn’t want to be in a chair, but I tried it and soon I was getting from point A to point B more quickly. I wasn’t worried about falling. When it rains, I’m not worried about slipping. I quickly realized how the wheelchair could greatly improve my quality of life.”

While completing his degree at California State University in Fresno, California, Ibarra enjoyed success in wheelchair racing. “My four-year degree took six years because I was traveling and competing,” he said. “During this time, I made the top 10 in the United States in wheelchair racing and was on both the 1984 and 1988 Paralympic teams. These were fun times for me!” Through his success in wheelchair racing, Ibarra worked with some of the industry’s pioneers. “Early mentors of mine were Marilyn Hamilton, Wayne Kunishige and Marty Ball. QUICKIE sponsored me, but that was very limited in those



Rafy Ibarra with his aircross bow. This photo was taken following his “Robin Hood” shot, meaning he split the previous arrow with this shot.



Ibarra on his indoor handcycle.

I DIDN'T WANT TO BE IN A CHAIR, BUT I TRIED IT AND SOON, I WAS GETTING FROM POINT A TO POINT B MORE QUICKLY. I WASN'T WORRIED ABOUT FALLING. WHEN IT RAINS I'M NOT WORRIED ABOUT SLIPPING. I QUICKLY REALIZED HOW THE WHEELCHAIR COULD GREATLY IMPROVE MY QUALITY OF LIFE.

days. They gave me a wheelchair, but I had to pay for everything else." During this time, Ibarra recalls that QUICKIE had fewer than 10 employees, but their wheelchairs had become the "cool" chairs with cool colors. "Oh yes, they gave me a chair, but it came to me in a box, all parts and pieces," Ibarra said. "Kunishige told me if I was going to be working on chairs, I needed to learn how to put them together. That was my introduction to lightweight wheelchairs."

"After I graduated with a business degree, Hamilton hired me to work in marketing and to run the athletic sponsorship programs for QUICKIE," Ibarra said. "I worked alongside Hamilton for three years, and I learned a great deal from her. She taught me to look at things from many different perspectives, and her influence is still present in my work today. Eventually, Ken Yannerella, another pioneer, gave me the opportunity to get into sales with Sunrise." Because Ibarra is an end user, he was often more involved with helping suppliers with fittings than a typical sales representative. "Therapists would ask for my help in talking with a new patient. During the time I was sponsored by QUICKIE, when I traveled I would visit spinal cord injury centers and VA (Veterans Affairs Hospitals) hospitals throughout the U.S. Of course, I would promote the QUICKIE brand, but I've always emphasized fitness and mobility as well."

CONTINUED ON PAGE 14



Ibarra and his son, Evan Ibarra, after the Dodgers won the World Series.



Ibarra giving his dog, Prophet, a bath in the pool.



RAFY IBARRA...
(CONTINUED FROM PAGE 13)



Rafy Ibarra and Mikias at his graduation at Parris Island. "Oorah on becoming a Marine."

As Ibarra moved through his career and began working with suppliers. In 2005, he became a Rehabilitation Technology Supplier (RTS). He has been with National Seating & Mobility in Atlanta, Georgia, for over seven years. "The work I do continues to be very important to me. I take pride in getting it right in every circumstance I face, and I value the team I work with tremendously," Ibarra said. "The dynamics of working with a therapist who has been doing this as long as I have is rewarding. I'm fortunate to work with many good professionals who care, know what they are doing, and understand their work is important to their patients."



"Da Boys" Rafy Ibarra with his extended family (l to r) son, Evan, Rafy, Mikias, and Danny.

As a RTS, Ibarra especially emphasizes the importance of getting a patient's equipment to them as soon as possible following the evaluation process. "Once we talk about the possibilities, a patient needs to have the equipment so we can get on with the mobility skills and their lives. This priority seems lost on the insurance companies and appears there are more barriers each year. We're not

selling widgets. We're providing mobility and independence. We are significantly impacting the lives of others."

"I am concerned, as those of us who specialize in complex rehab begin to 'age out,' there aren't enough young ones coming along to keep up with the demand. We are an aging population, and we are going to need more to help us through that journey. As a consumer and an end user, this troubles me," Ibarra said. "NRRTS has been considering this for some time and has developed a CRT Supplier Certificate Program to help address (<https://nrrts.org/crt-supplier-certificate-program/>). I love NRRTS for their pro-active leadership."

"Because I have the perspective of using a wheelchair and have experienced the progress in available equipment, I can bring a different perspective to the table. I've gotten married and had a son. I work and play hard," Ibarra said. "My close friendships with others who use wheelchairs has taught me the uniqueness of their

I TAKE PRIDE
IN GETTING IT
RIGHT IN EVERY
CIRCUMSTANCE
I FACE, AND I
VALUE THE TEAM
I WORK WITH
TREMENDOUSLY

viewpoint and their approach to the issues they face. I can honestly and confidently assure someone life is not over just because you are in a wheelchair."

And although Ibarra might not be racing at the Paralympic level, he's still competing. "I enjoy handcycling very much. I have met a group of vintage racing buddies in Las Vegas the last couple of years. We raced off-road, e-powered handcycles and had a great time!"

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Rafael (Rafy) Ibarra, ATP, CRTS®, is with National Seating and Mobility in Atlanta, Georgia. Ibarra has been a NRRTS Registrant since 2010. He was a member of the 1984 and 1988 U.S. Paralympic Teams earning four medals: a gold, silver and two bronze.

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INDEPENDENCE AND MOBILITY ARE FUNDAMENTAL HUMAN RIGHTS

Written by: ROSA WALSTON LATIMER

In hindsight, what might seem an improbable path into the Complex Rehab Technology (CRT) industry for Pooja Viswanathan makes total sense once we know the entire story. Compelled by observation during a summer research internship, the 39 year old is now the CEO of Braze Mobility Inc. The company created the first blind spot sensor system for wheelchairs. The sensor provides multimodal alerts to the user and can be added to any wheelchair, transforming it into "a smart wheelchair."

TELL US ABOUT YOUR JOURNEY FROM ACADEMIA TO THE CRT INDUSTRY.

My interest in assistive technology results from my passion for technology and health care. Soon after my undergraduate degree in computer science at the University of Waterloo, I was invited to complete a summer research internship at the University of Toronto. During this internship, I visited a long-term care facility where I saw many residents slumped over in manual wheelchairs. They didn't have the strength to self-propel, and they were not allowed to use power wheelchairs because of safety concerns. I saw that situation as a violation of human rights in that independence and mobility are fundamental human rights. Unfortunately, the staff at the facility also had the formidable challenge of meeting the balance of autonomy with the safety of the residents. I decided to pursue research on how sensor technology could improve safety and independent navigation.

We had just begun to see sensor technology in the automotive industry at that time, but it was early on, so it was very much pioneering work. I started researching smart wheelchairs during my internship and chose to take this work further by basing my Ph.D. dissertation on it at the University of British Columbia. I completed the research with individuals with cognitive impairment in long-term care, built a system and conducted a great deal of testing. My approach was unique, because much of the other work in smart wheelchairs was not tested with the intended user. The technologies and assistive technologies my research group was building in the lab were being tested with intended users. This was an interesting experience, because I found potential for the technology. Still, there were also many challenges with usability and perception regarding the use of smart wheelchairs. This was between 2006 and 2012; still very early on, and we hadn't seen much of this technology.

PLEASE GIVE US AN OVERVIEW OF THE RESEARCH PROCESS THAT LED YOU SPECIFICALLY TO THE BLIND SPOT SENSOR.

I realized in the research process that focused on quantitative results, the numbers weren't telling the whole story. I needed to gather more qualitative data to understand the user's experience. So, after earning my Ph.D. in Robotics and Assistive Technology, I came back to the University of Toronto and Toronto Rehabilitation Institute to conduct post-doctoral research, where I dug deeper to understand people's experiences with smart wheelchairs – their perceptions and specifically what their attitudes were relating to control.

A lot of the technology of smart wheelchairs at the time was focused on systems that took control of the wheelchair. This was a natural progression because this work typically came out of robotics groups that were building machines to do the work of humans. In contrast, I was interested in understanding what control meant for wheelchair users and found the experience is



Braze Mobility team retreat at Toronto Island, September 2021.



Pooja Viswanathan, Ph.D., CEO and Founder of Braze Mobility Inc.

I FOUNDED BRAZE MOBILITY INC. IN 2016. WE HAD STARTED FROM SCRATCH, TRYING TO PROTOTYPE ALL SORTS OF DIFFERENT SYSTEMS TO SEE WHICH WOULD BE THE MOST APPROPRIATE.

different for them, because a wheelchair is an extension of the user's body.

I learned people were not enthusiastic about having control taken away from them. So, after this long journey of building technology we call semi-autonomous or autonomous wheelchair technology, I made a significant shift and began thinking about whether the safety issue was just a control issue or something else. Then I began to move from long-term care and started talking to wheelchair users in the community. At this point, I reached a fork in the road and decided I wasn't going to stay in academia. I wanted to bring a solution to the real world. What is the point of publishing and research efforts if we can't solve a real problem?

When I first started the company, and my team began talking to more wheelchair users, we found there was a significant and widely experienced problem which was, in some ways, a lot simpler than we initially believed. Across the board for all wheelchair users, regardless of cognition or control issues, the lack of spatial awareness is an overall challenge because of the design of the wheelchair itself. Typically a

wheelchair is bulky and has blind spots. Regardless of your upper body mobility, it is still challenging to see behind. So, we pivoted from the technology I had built in my academic research and began to focus on improving spatial awareness of the wheelchair user. That is how we landed on the blind spot sensor technology. We looked at the best way to improve spatial awareness. And, we realized we wanted to include various modalities of feedback to make the design as accessible as possible. That brought us to the idea of multiple feedback: visual, audio and vibration.

THIS RESEARCH AND EXPERIENCE LED YOU TO ESTABLISH A COMPANY TO ADDRESS THIS PROBLEM. YOU ARE NEW TO THE INDUSTRY. TELL US ABOUT THAT EXPERIENCE.

I founded Braze Mobility Inc. in 2016. We had started from scratch, trying to prototype all sorts of different systems to see which would be the most appropriate. We were at the RESNA 2017 Conference and showed an initial prototype. It wasn't nearly as pretty as the system is now, but we got it out there, and we received incredibly positive feedback. Many therapists we spoke with asked where we had been the last 10 years. That's when we knew we had landed on something significant.

We were beginning to receive some orders in Canada, and our first sale in the U.S. was with the Veterans Affairs (VA). As we continued to

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INDEPENDENCE AND MOBILITY...
(CONTINUED FROM PAGE 17)

collaborate with the VA and work with veterans, we also continued to improve the product and mainly sold to clinics, research groups and wheelchair users in the community. In 2019, we landed on a commercially ready product. A year later (just before the pandemic hit), we started selling through Numotion and National Seating & Mobility. Despite many of the challenges Braze and the industry as a whole faced during the pandemic, we were able to take advantage of our tech-savviness and were among the first to conduct virtual in-services. As a result, we were able to keep growing and expanding our reach and sales. More recently, we have begun to have more conversations with manufacturers. We're very enthusiastic about the response, and we are hopeful you'll soon see this product as more standard on wheelchairs.

WHAT IS ONE OF THE BIGGEST CHALLENGES YOU FACED THROUGH THIS PROCESS?

First, I had to learn everything about running a business, which was truly a big undertaking. I also discovered one of the more considerable challenges of this industry is it is tough for people outside the industry to understand the landscape. The health care industry is already complex, and it is even more so with CRT (Complex Rehab Technology). That speaks to the technology and the industry itself. In addition, it is very challenging to commercialize health technologies and specifically complex rehab technologies.

When I began, I didn't even know what I didn't know! It took several years to understand what complex rehab is, who the key players are and who I needed to talk with to get started in the market. At the first RESNA Conference we attended in 2017, I met Lisa Rotelli and Bryon Guisbert from Adaptive Switch Labs. They educated me about many things and were very inclusive and welcoming. Product success depends on knowing who the key players are. There are many barriers from the "outside" to get in. Often, any innovation happens with people already within the industry. This potentially creates a situation where great products are not recognized and developed. When possible, I take on the role of helping to educate new entrepreneurs in CRT more quickly than what I experienced.

WOULD YOU TELL US MORE ABOUT THE SUCCESSFUL COLLABORATION YOU HAVE WITH THE VA IN THE U.S.?

I believe perhaps the VA is more accepting of a crossover from the academic world, because we both work in the public sector. From the beginning, I found



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Braze Mobility Inc. team makes the leaderboard of a virtual game show.

it easier to navigate through the VA and easier to communicate with their therapists at conferences and share an open dialogue.

Recently, we participated in a competition similar to the reality television show "Shark Tank" through the Veteran Health Administration Innovation Experience. They invited companies outside the VA to pitch a product under development. Several VA hospitals bid on companies they wanted to work with. We were one of the winners and one of the companies with the most bids from the hospitals. Six hospitals wanted to work with us. That was an excellent experience for our company! The competition was centered around making a compelling pitch to the decision-makers and innovation specialists in the participating VA hospitals, where we communicated the problem, strength of the team and the potential impact of the proposed technology. I would love to see more forums in CRT where innovative companies can pitch their products and decisions are based on market validation and strength of the team rather than who they know. The VA was one of our early adopters, and we are having a fantastic time collaborating with them through their Innovation Ecosystem and Greenhouse initiative.

TELL US ABOUT THE LEADERSHIP TEAM AT BRAZE MOBILITY INC. AND THE VALUES FUNDAMENTAL TO YOUR COMPANY'S WORK.

The five individuals who make up our leadership team have, in various ways, personal experience relating to the work we do and expertise in each area of responsibility. We also leverage interns and co-ops. Our startup is based out of the University of Toronto Entrepreneurship Ecosystem, so we are closely linked to the university and have access to a great deal of young talent.

Our core values include transparency and collaboration. Those attributes are at the heart of everything we do. Even within the company, we don't have a hierarchical structure. Our leadership

team has a diversity of ethnicity, background, age and experience. That is a strength and, I believe, why we've been successful at creating a product that, not too long ago, many didn't realize the need. I think the biggest win is we are no longer being asked, "Why are you building this?" That speaks to the recent education in the field.

While my path into the CRT industry may be unusual, I love I've had experience from both sides – as an academic and someone who is contributing to the industry. I believe the opportunity to wear both hats puts me in a position to reflect on where the gaps are in both sectors. I often do presentations, panels and talks in the academic realm where I speak about ways to improve the way we conduct research to accelerate commercialization, knowledge translation and create more real-world impact. I also co-lead an initiative called the FASTER collective with my research colleagues that proposes a new framework to gather clinical evidence in CRT (<https://www.faster-collective.com/>). In the industry, I talk about how we can better incorporate research and clinical evidence into what we do. I believe our industry can work more effectively with academia. There is so much potential, and I want to help make that potential a reality.

CONTACT

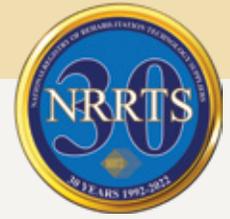
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Pooja Viswanathan, Ph.D., is the founder of Braze Mobility Inc., which is a portfolio company of recognized international and U.S.-based accelerators such as Founder Institute, Techstars, Google for Startups, and AARP Innovation Labs. Braze is also supported by several Canadian accelerators: AGE-WELL NCE, Ontario Bioscience Innovation Organization, Ontario Brain Institute, Centre for Aging and Brain Health Innovation, Innovation Guelph and ventureLAB. Viswanathan was recognized as one of Women's Executive Network Top 100 Most Powerful Women and BMO Financial Group Entrepreneur for 2021.



NRRTS: A FOUNDATION OF VALUES, A COMPELLING VISION



Written by: ROSA WALSTON LATIMER

History prepares us to live more humanely in the present and to meet, rather than foretell, the future. (U.S. Historian Carl Becker) As NRRTS celebrates its 30th anniversary and recognizes individuals who grew an ambitious idea into the dynamic organization it is today, we hope this review of our history empowers us to meet the future needs of our industry.

As a reminder of the accomplishments of NRRTS and its participants during these three decades, keep in mind at the time the organization was incorporated in 1992, there were no standards for the provision of Complex Rehab Technology (CRT), no certification, no supplier qualifications, few equipment options and easier documentation. Anyone could provide wheelchairs and seating. There was no complaint process and no code of ethics.

Hymie Pogir, product manager for Permobil Inc., described his experience of helping establish NRRTS in an interview for a 2019 issue of DIRECTIONS. "I met Simon Margolis in the 1980s, and I was a fan from day one. At the time, I was with Invacare. When he called me and a handful of others to meet to create an organization, I was fully on board. Simon had a vision (for the industry) to stop the 'wild west' behavior and turn it into a respected profession. He would spell out what was needed. We all bought in to the vision and supported Simon as he developed it. He took what was a Neanderthal free-



Hymie Pogir and Judy Rowley, OT at ISS Pittsburgh 2019.

for-all and transformed it into a respected industry. I still remember the enormous pride we felt when the first state required an ATP certification and NRRTS Registration to qualify to be paid by its Medicaid program."

Recently, Bill Noelting, director of marketing for NRRTS, spoke with Pogir to learn more about the roots of NRRTS and the standing of the organization today. "Today, I can talk about the organization with pride knowing if someone is a NRRTS Registrant, they have gone through relevant, thorough education," Pogir

said. "I am confident this is someone who understands the technology and who understands how to marry the technology to an individual so the outcome is independence for that person. So, the result is a family who functions together. It (NRRTS) is significant. It's absolutely significant.

"I first met Simon Margolis when he was at the University of Wisconsin at Madison, and I immediately took to the man. He was smart, warm and friendly," Pogir said. "My first memory is a meeting that Simon organized at a Medtrade in the late '80s or early '90s." Pogir recalls that others attending the meeting were the late Tom O'Donnell of Sunrise Medical and Adrienne Bergen, an ATP at the time. Pogir represented Invacare at the meeting. In an interview in 2019, he remembered that as Margolis's vision unfolded, Pogir sensed Bergen and Margolis had the most clarity in the early meetings. "However, everyone attending bought into the vision. Margolis presented the concept of having an organization that would create quality work and give people professional oversight. With this plan in place, our industry would gain the respect it deserved."

In a tribute to Margolis in 2016, Pogir said, "Margolis had the insight NRRTS had to be a living, breathing organization. If we could have gotten into his head, I think he knew all along to compete with other professions, the organization had to keep upping the game. We all knew it, but Margolis was the one willing to step forward and say 'We can make this happen.'"

In addition to understanding a need for such an organization for professionals in the industry, Margolis knew it would be beneficial to manufacturers as well. "At the time, we (manufacturers) were the catch-all when things went wrong in the field," Pogir said. "I would get telephone calls from end users, from consumers who were very upset about various problems with their products. Many were simple problems that had occurred because of inadequate knowledge between the manufacturer through the process to the end users." The organization Margolis intended would positively impact the industry and those who depended on its services throughout the

BECAUSE I SAW WHAT IT LOOKED LIKE BEFORE NRRTS AND HAVE SEEN WHAT THIS STRONG, VIABLE ORGANIZATION HAS ACCOMPLISHED THROUGH THE WORK AND DEDICATION OF MANY, I CAN APPRECIATE HOW FAR OUR INDUSTRY HAS COME.



(l to r) Lobbying for the industry: Tom Simon ATP, CRTS®, Mike Stine Consumer Activist, Hymie Pogir, Congressman Dr. Michael Burgess, Ken Korth, ATP.

entire experience. "In his calculation, he realized he would need the heft of the two major manufacturers at the time (to launch the organization). He also knew funds were required to sustain it. Of course, manufacturers realized the value of the organization and provided financial support.

"David Miller with The MED Group had done something similar to the organization that Margolis was proposing, but within a small group," Pogir said. "Miller organized a small group of suppliers and an important part of benefits for them was the opportunity to educate frontline people and technicians. The MED Group would present a higher-quality option to the marketplace. But, while their efforts underscored their prevailing mindset, I believe The MED Group was limited in their reach. There is no doubt, historically, David Miller is at the core of the development and the 30 years of success of NRRTS."

NRRTS has grown and deepened its influence on our industry. Still, no one could communicate the essence of the organization better than its founder. *The bottom line is NRRTS has a vision for the future of the rehabilitation technology suppliers. We have the guns to work toward and, eventually, to fulfill that vision. We have a strong set of values set by our board. All of our decisions are made with the interest of the consumer and RTS in mind. We believe we can overcome virtually any obstacle by using these values and vision to help us make the right decision.* (Simon Margolis, NRRTS News, Fall 1995)

"I would like everyone to know before NRRTS, we in the industry were treated like bums," Pogir said. "Wherever we went, we would hear 'You're the wheelchair person' in a 'look-down-at-you' tone of voice.

Yet the complex work we do is essential and significant to the quality of life of those we serve. Day in and day out, we combine technology and science related to seating and mobility and prevention of skin breakdown and provide individuals some level of independence with the most minimal physical function. It is fantastic! Because I saw what it looked like before NRRTS and have seen what this strong, viable organization has accomplished through the work and dedication of many, I can appreciate how far our industry has come. I hope others will also understand how far we've come and how significant our work is. I really love our industry, and I love what we do."

CONTACT

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Hymie Pogir has worked in the Complex Rehab Technology industry for more than 40 years and was on the ground floor of the organization and implementation of the National Registry of Rehabilitation Technology Suppliers (NRRTS). In 2010, Pogir was named one of "the 10 most interesting people in HME" by the readers of HME News.



SPRING CRT UPDATE

Written by: DON CLAYBACK, EXECUTIVE DIRECTOR OF NCART

CONGRESS MUST EXTEND CRT TELEHEALTH OPTION

Thankfully the country is beginning to work its way out of the hold of the COVID-19 pandemic. For the nation's health care system, a significant step in this process will be the ending of the current public health emergency (PHE).

The PHE declaration is in place until mid-April and can be extended in up to 90-day increments by Health and Human Services Secretary Xavier Becerra. The expiration, which is expected to occur this year, will bring with it major national and state changes. These changes include the ending of a variety of "temporary" provisions put in place to address the pandemic's challenges.

One of the provisions expiring, unless Congress takes action, is the expansion of certain covered telehealth services that have significantly benefited people with disabilities who require Complex Rehab Technology (CRT). The unique telehealth flexibilities temporarily in place have allowed timely access for individuals with long-term disabilities such as amyotrophic lateral sclerosis (ALS), spinal cord injury, cerebral palsy, multiple sclerosis, muscular dystrophy and traumatic brain injury who depend on this specialized equipment.

The temporary expanded coverage gives occupational and physical therapists the ability to provide CRT-related telehealth services during the PHE. It allows these licensed professionals to participate remotely for CRT evaluations, fittings and training when an in-person visit is not possible due to medical risks, transportation barriers, lack of experienced clinicians in the community and other factors.

But the availability of these remote services will end when the PHE expires, unless Congress takes action. Congress is currently reviewing various telehealth bills, and we need to ensure whatever legislative language is passed, it retains these CRT telehealth options. Rather than allowing these proven flexibilities to expire, Congress must make these CRT telehealth policies permanent.

Please help get that message to your Members of Congress by taking five minutes and to visit www.protectmymobility.org and sending the prepared email. Thanks for your assistance in protecting access to CRT for people with disabilities.

POWER SEAT ELEVATION AND STANDING COVERAGE

Advocacy work continues urging the Centers for Medicare and Medicaid Services (CMS) to move forward in the process of considering and establishing Medicare coverage for power seat elevation and standing systems for power wheelchairs.

In recent meetings, CMS acknowledged they have been having internal discussions regarding the application for coverage, which was accepted as complete in November 2020. The needed next step in the CMS process is the formal reopening of the National Coverage Determination and the commencement of a 30-day public comment period.

ITEM Coalition members and initiative stakeholders are re-engaging with congressional leadership to ask that this initiative be made a priority in outreach to the White House and CMS. Updated discussions are also being held with national advocacy organizations and others on additional options to highlight the need to get CMS to take long overdue action. More information will be shared as it becomes available.

NCART STATE CRT WORK

As we all know, coverage and funding at the state level plays a key role in the availability and provision of CRT products and supporting services. NCART offers suppliers, state associations and other CRT stakeholders strategic advice and direct advocacy on state issues to protect and improve access to CRT.

When a significant access issue regarding CRT is identified within a state, NCART's Payer Relations Committee and our state workgroups convene to assist in analyzing the problem, identifying needed solutions and implementing the necessary advocacy plans. If you have a state CRT issue, please contact Mickae Lee at mlee@ncart.us.

THE POPULAR
CRT INDUSTRY
WEBINARS ARE
BACK FOR 2022.

CRT INDUSTRY WEBINARS

The popular CRT Industry Webinars are back for 2022, and our first presentation of the year was held on March 3. These no-cost webinars are hosted by NCART, NRRTS, U.S. Rehab and the Clinician Task Force as a way to provide timely information to the CRT community and answer questions about policy and advocacy actions impacting CRT.

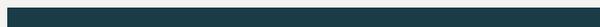
You can visit www.ncart.us for recordings and handouts from prior sessions. Future webinars will be held bi-monthly and are scheduled for 4:00 PM ET on May 5, June 30, August 25, October 20, and December 15. Watch for the alerts to sign up and stay informed on CRT topics.

BECOME AN NCART MEMBER

NCART is the national advocacy association of leading CRT suppliers and manufacturers dedicated to protecting CRT access. To continue our work, we depend on membership support to take on important federal and state initiatives. If you are a CRT supplier or manufacturer and not yet an NCART member, please consider joining. Add your support to that of other industry leaders. For information visit the membership area at www.ncart.us.

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Don Clayback is executive director of the National Coalition for Assistive and Rehab Technology (NCART). NCART is national organization of Complex Rehab Technology (CRT) suppliers 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 more

than 30 years of experience in the CRT and Home Medical Equipment industries as a supplier, consultant and advocate. He is actively involved in industry issues and a frequent speaker at state and national conferences.



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USING COMMUNITY DATA TO UNDERSTAND THE BREAKDOWN AND REPAIR OF WHEELCHAIRS AND IMPACT ON USERS

Written by: JACK FRIED, BS; ANAND MHATRE, PHD; GEDE PRAMANA, PHD; AND MARK SCHMELER, PHD, OTR/L, ATP

The World Health Organization (WHO) estimates 75 million people with spinal cord injury, cerebral palsy and similar diagnoses need mobility devices for their independence and social participation.¹ Despite mobility devices, such as wheelchairs, being pivotal in the lives of people with disabilities, this equipment is known to breakdown frequently. More than 50% of wheelchairs experience a breakdown every six months in resourced settings and every three months in adverse environments typically observed in rural areas and low- and middle-income countries.²⁻⁴ One-third of these breakdowns result in negative consequences for wheelchair users including injuries, being stranded in the street or loss of access to work and/or school.² Without a functional wheelchair, the user may have to stay in the home in a regular chair or bed, increasing risk of pressure injuries and rehospitalization. The downward spiral of health outcomes following breakdowns negatively impacts the user's quality of life and increases the public health burden.^{4,5}

Casters, wheels, brakes, armrests, footplates and electrical components are just some of the wheelchair components that experience frequent breakdown.^{2,5} To address this problem within the community, a team of engineers, clinicians and researchers at the University of Pittsburgh Rehabilitation Engineering Research Center (Pitt RERC) have begun to collect field-generated breakdown and repair data to understand the prevalence of these breakdowns and improve the quality of wheelchair parts using wheelchair standards testing. These trends in equipment part breakdown directly impact the health of the user and are crucial for users, clinicians, manufacturers, suppliers and policymakers to understand. Findings regarding caster quality and battery performance are discussed below to inform suppliers, clinicians, manufacturers, payers and the users themselves of current product quality and best practices for maintenance and repair.

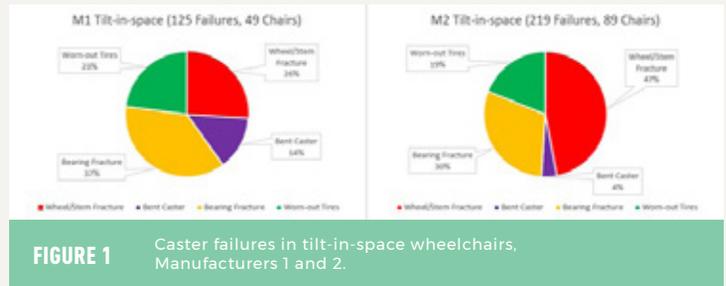


FIGURE 1 Caster failures in tilt-in-space wheelchairs, Manufacturers 1 and 2.

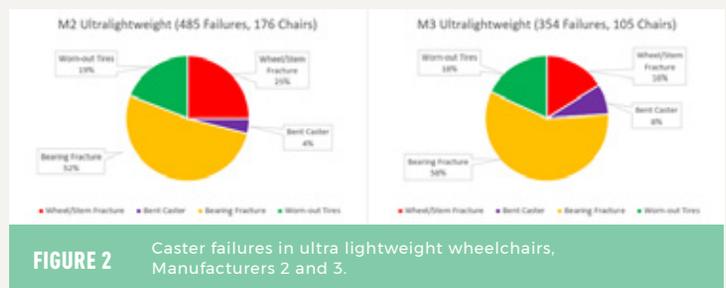


FIGURE 2 Caster failures in ultra lightweight wheelchairs, Manufacturers 2 and 3.

THE WHEELCHAIR REPAIR REGISTRY (WRR)

The WRR is a wheeled mobility device breakdown and repair registry developed by the Pitt RERC from wheelchair repair claims. The claims were reported by repair technicians from a network of wheelchair suppliers using Labor Tracker, a repair data collection software developed by the Van G. Miller Group and U.S. Rehab. The registry currently contains over 60,000 repairs conducted on more than 5,000 wheelchair devices from 25 manufacturers. The devices include 60% power wheelchairs, 35% manual wheelchairs and 5% scooters.⁶

CASTER BREAKDOWN ANALYSIS

A total of 6,470 caster breakdowns and 151 caster-related service repairs were reported and associated with four manufacturers and five wheelchair models. The most prevalent manual wheelchair types were tilt-in-space and ultra lightweight wheelchairs. Figures 1 and 2 illustrate these specific caster failures for each type of wheelchair, respectively, including high-risk breakdowns (e.g., wheel or stem fractures and bent casters) and low-risk breakdowns (e.g., bearing fractures and worn-out tires). Analysis showed tilt-in-space wheelchairs

encounter nearly twice as many high-risk breakdowns compared to ultra lightweight wheelchairs. Figure 3 also shows a higher percentage of preventative maintenance and repair was correlated to a lower percentage of high-risk breakdowns.⁷

Power wheelchair analysis was also divided between high-risk and low-risk breakdowns. Figure 4 shows that as the group number, which indicates rehabilitation and seating complexity, increases, the percentage of high-risk breakdowns increases steadily from 10% to 36%. Further analysis showed the breakdown distributions of Group 3 power wheelchairs do not differ significantly across manufacturers. A survival analysis found that Manufacturer 4's casters fail at a slightly faster rate than Manufacturer 2's, but none of the casters lasts longer than two and a half years.⁷

BATTERY LIFE ANALYSIS

An additional analysis was conducted for power wheelchairs regarding battery life: 1,268 power wheelchairs were collected from the WRR - 307 Group 2 wheelchairs and 961 Group 3 wheelchairs. Of all wheelchairs, 501 (39.51%) had at least one battery replacement. The median battery lifespan was 22 months, though both manufacturers and climate were associated with battery life variability. The majority of batteries (88.24%) needing replacement were not holding a charge (see Figure 5). Table 1 shows the survival probability for batteries of all four manufacturers decreased rapidly by the third year of use.

CLINICAL IMPACT

The caster and battery breakdown analysis presents several key findings useful for clinicians, manufacturers, suppliers and wheelchair users.

Users who require a higher level of seating support and have complex rehabilitation needs are at a greater risk of experiencing caster breakdowns that can cause user injury and other adverse consequences.

Caster breakdowns occur within one to two years of use, which further validates previous community-based studies.^{3,4}

The risk of battery breakdown rapidly increases over a three-year time period. This high-risk breakdown can leave users stranded or potentially injured.

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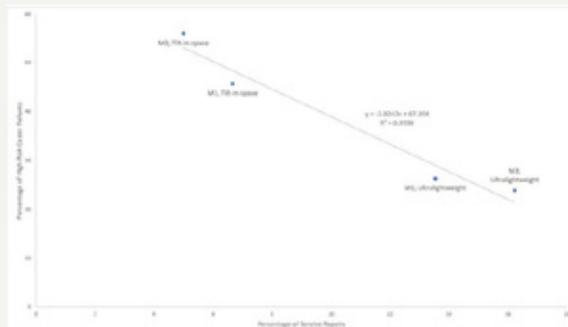


FIGURE 3 A higher percentage of preventative maintenance and repair was correlated to a lower percentage of high-risk breakdowns.

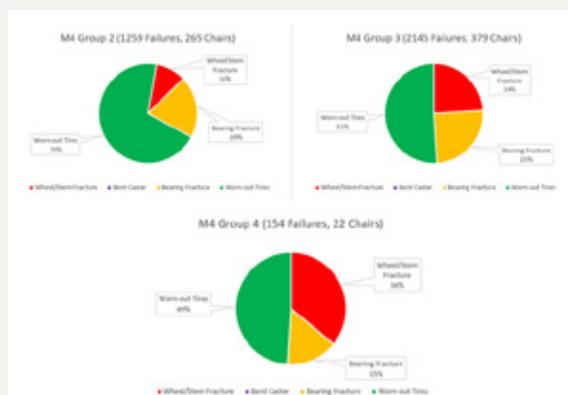


FIGURE 4 As the power wheelchair group number increases, the percentage of high-risk breakdowns increases steadily from 10% to 36%.

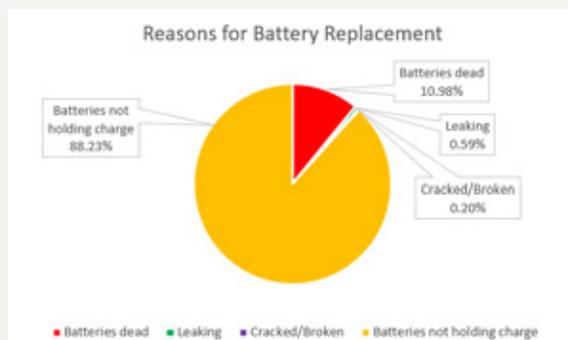


FIGURE 5 Reasons for power wheelchair battery replacement.

USING COMMUNITY DATA...
(CONTINUED FROM PAGE 25)

These findings call for urgent improvements in caster and battery quality from the manufacturers. Stakeholders such as clinicians, suppliers and third-party payers should seek information on standardized testing of products and product performance through reports, publications and manufacturer specification sheets before selecting a wheelchair and/or wheelchair parts.⁶

Preventative maintenance could help reduce breakdowns in the community. Ultra lightweight wheelchairs were serviced more than their tilt-in-space counterparts, which correlated to lower occurrences of high-risk breakdowns. This highlights a need for the inclusion of preventative maintenance practices in wheelchair service provision. Casters and batteries are critical wheelchair parts that need regular servicing to prevent breakdowns. Suppliers could be incentivized by insurance to carry out routine follow-up, maintenance and repairs in collaboration with users, caregivers and clinicians.⁷

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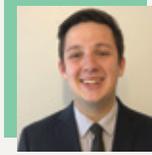
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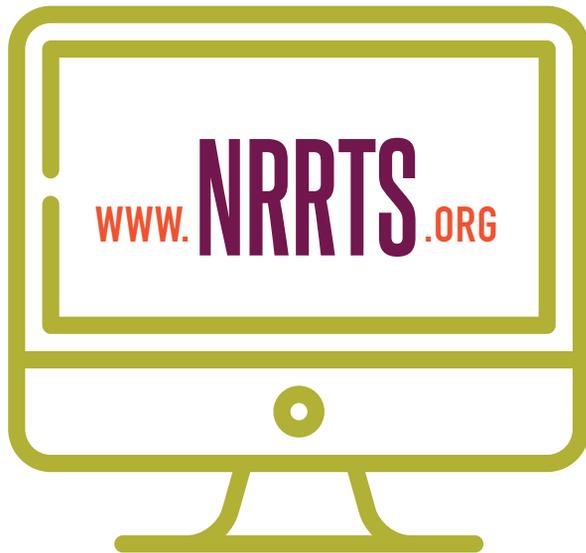
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APRIL 19, 2022, AT 7 PM ET

The Seating and Wheeled Mobility Team

Speaker: Lauren Rosen, PT, MPT, MSMS, ATP/SMS

Beginner Level, Seating and Positioning, ATP/SMS Prep Content

This webinar will discuss the roles, responsibilities and importance of all involved with the equipment provision process in seating and mobility clinic. It will include personal perspectives of a clinician, supplier and an end user/parent. Each will discuss their role and ways to solve conflicts and optimize the equipment provided for best outcomes.

LEARNING OUTCOMES:

- Participants will be able to list the roles of each participant in a seating and mobility clinic.
- Participants will be able to assure best outcomes by optimizing the roles of each member of the seating team.
- Participants will be able to describe how to solve conflicts using the team approach.

For more information, visit the website www.nrrts.org



APRIL 20, 2022, AT 3 PM ET

From the Desk of the Reviewer — Your Chance to See What’s Missing in CRT Documentation

Speaker: Cathy Carver, PT

Best Business Practice, Ethics, All Levels, ATP/SMS Prep Content

After a few seating and wheeled mobility evaluations, it’s easy to get in a routine of using canned language to justify the equipment for the insurance to approve. Tips are provided by the supplier. Each item as a code and qualifications for those codes. Does this insurance require a certain diagnosis code to qualify for Complex Rehab Technology (CRT)? You have heard, “You must paint the picture of your patient ...” Have you ever stepped back to read someone else’s documentation? Have you read your own? This practical webinar will allow you to read real letters of medical necessity, and you will get to see things from the reviewer’s perspective and sharpen your documentation skills.

LEARNING OUTCOMES:

- Participants will be able to list three common mistakes therapists make when doing CRT documentation.
- Participants will read example documentation and be able to identify at least two mistakes made and provide corrections.
- Participants will be able to describe at least one mistake common in their personal practice and how it can be improved.



APRIL 21, 2022, AT 7 PM ET

The Time is Now: Introducing Power Mobility in the Pediatric Population

Speaker: Jennith Bernstein, PT, DPT, ATP/SMS

Sponsored by Permobil

Intermediate, Seating and Positioning/Medical Terminology, ATP/SMS Prep Content

During the Complex Rehab Technology (CRT) decision-making process, there may be challenges from a multitude of directions in determining when and how to initiate power mobility for our youngest clients. Regardless of these potential challenges, historical and current literature both show us that there is no time like the present. This course will discuss what tools are available to guide our decisions, defining terminology surrounding readiness and independence, as well as suggestions for evaluation and recommendation of power mobility interventions in the pediatric population.

LEARNING OUTCOMES:

- Participants will be able to describe two ways to effectively use standardized assessments when completing an evaluation for a pediatric power wheelchair.
- Participants will be able to identify two age-appropriate goals for power mobility utilization and training.
- Participants will be able to list three potential benefits of introducing power mobility as early as possible.



MAY 17, 2022, AT 7 PM ET

The Seated Posture: How Can it Impact the Quality of Life of the Elderly Population?

Speaker: Ana Endsjo

Sponsored by Permobil

Beginner Level, Seating and Positioning, ATP/SMS Prep Content

In this course, we will look at typical abnormal sitting postures that place the elderly client at high risk for multiple medical complications. These medical complications not only increase the risk of compromising major bodily systems such as the respiratory and digestive systems, increase the risk of the development of pressure injuries and impede the healing of existing wounds but also contribute to an overall decreased quality of life. You will learn to quickly identify these postures and link some key recommendations from the NPIAP's 2019 Clinical Practice Guideline to decrease the risk of the dreaded wound among this population.

LEARNING OUTCOMES:

- Participants will be able to identify two abnormal postures that compromise healing of an existing pressure injury.
- Participants will be able to name two medical complications that may result from poor seated posture that could decrease the quality of life of the elderly client.
- Participants will be able to name two reasons poor seated posture may impair wound healing.



MAY 19, 2022, AT 7 PM ET

Alternative Funding Sources for Wheelchairs and Seating Systems Across Canada

Speaker: Rosalie Wang, PhD, OT Reg.(Ont.)

Beginner Level, Funding and Public Policy

This course provides an overview of funding sources for assistive technology across Canada, with an emphasis on wheelchairs and seating systems. Canada's system for accessing funding is complex and uncoordinated. Funding may come from multiple sectors, including government, charity and private insurance programs. We launched a website called AccessATCanada as a resource to assist with system navigation and to support clients, caregivers and others to learn about funding programs that may be available. Suppliers and clinicians are in key positions to support clients to access reliable information so they can make more informed choices and better advocate for their needs.

LEARNING OUTCOMES:

- Participants will be able to identify different potential sources of funding for assistive technologies from multiple sectors in Canada, including government (federal, provincial/territorial/municipal), charity (international, national, regional, local) and private insurance programs.
- Participants will be able to describe the system navigation website AccessATCanada and how such a resource might support suppliers, clinicians and consumers to identify funding sources.
- Participants will be able to discuss opportunities and strategies for suppliers and clinicians to support clients and caregivers to access reliable information related to wheelchairs and seating systems so they can make more informed choices and better advocate for their needs.



JUNE 8, 2022, AT 7 PM ET

Supporting Respiratory Equipment on Mobility Bases

Speaker: Michelle Lange, OTR/L, ABDA, ATP/SMS

Sponsored by Stealth Products

Intermediate Level, Seating and Positioning, SMS Prep Content

Many people who require respiratory equipment, such as oxygen and ventilators, use a wheeled mobility base. This course will address how to support respiratory equipment on an adaptive stroller, manual wheelchair or power wheelchair safely and as a part of a team.

LEARNING OUTCOMES:

- Participants will be able to list three pieces of respiratory equipment that may need to be attached to a wheeled mobility base.
- Participants will be able to list strategies to increase stability of the mobility base.
- Participants will be able to list strategies to prevent loss of connection to the respiratory equipment.



JUNE 15, 2022, AT 3 PM ET

Practicalities for Bridging the Gap: Prioritizing the Individual in a Dynamic World

Speaker: Alexandra Chesney, OTR, ATP/SMS

Sponsored by Quantum Rehab

Beginner Level, Seating and Positioning, ATP Prep Content

This course will focus on some of the gaps that clinicians, providers and consumers face in relation to the identification of customized mobility devices through delivery and utilization. The first steps of information gathering are knowing the options, process and resources to assist in a client-centered approach. Throughout the dynamic state of our world, recently there have been many populations that may have been overlooked when it comes to customized evaluations, many times including those living within institutions or within the Complex Rehab Technology (CRT) population. We will review resources and options to help bridge the gap to complete the continuum of care.

LEARNING OUTCOMES:

- Participants will be able to distinguish a gap in services that they can lend support in completing within their role (OT, PT, ATP, manufacturer, etc.)
- Participants will be able to identify three barriers to the provision of CRT that would benefit the end user.
- Participants will be able to identify three resources to assist with the wheelchair service provision process.



JULY 19, 2022, AT 7 PM ET

Better Clinical Decisions by Knowing the “Why”

Speaker: Allison Baird, OTR/L, ATP

Sponsored by Ki Mobility

Intermediate Level, Seating and Positioning, ATP/SMS Prep Content

As ATPs we routinely evaluate pelvis, spine and trunk posture during our seating evaluations. Are we always connecting our evaluation to the seating prescriptions that will optimize client participation in their preferred activities? In this course, we will review pelvic, spine and trunk posture. We will then explore the connection between body position and participation in various Mobility Related Activities of Daily Living.

LEARNING OUTCOMES:

- Participants will be able to describe the features of the pelvis, spine and trunk that we are evaluating in the mat evaluation.
- Participants will be able to identify the influence of the pelvic position on daily activities.
- Participants will be able to identify the influence of trunk/spine position on daily activities.



In a time of drastic change, it is the learners who inherit the future. We appreciate our learners' willingness to adapt to the ever-changing sphere of Complex Rehab Technology, even before COVID hit our world.

We have over 100 on-demand webinars and CEU articles in our library that cover a variety of topics on seating and positioning, medical terminology, ethics, funding and best business practices.

The education program awarded over 1,356 CEUs from August 2019 to August 2020 — that equals 13,560 hours of education!

The numbers are proof that we are meeting one of our education objectives at NRRTS — to bring you quality education at an affordable price. Registrants receive education at no cost, as a benefit. FONS pay half-price and others only \$45 per course!

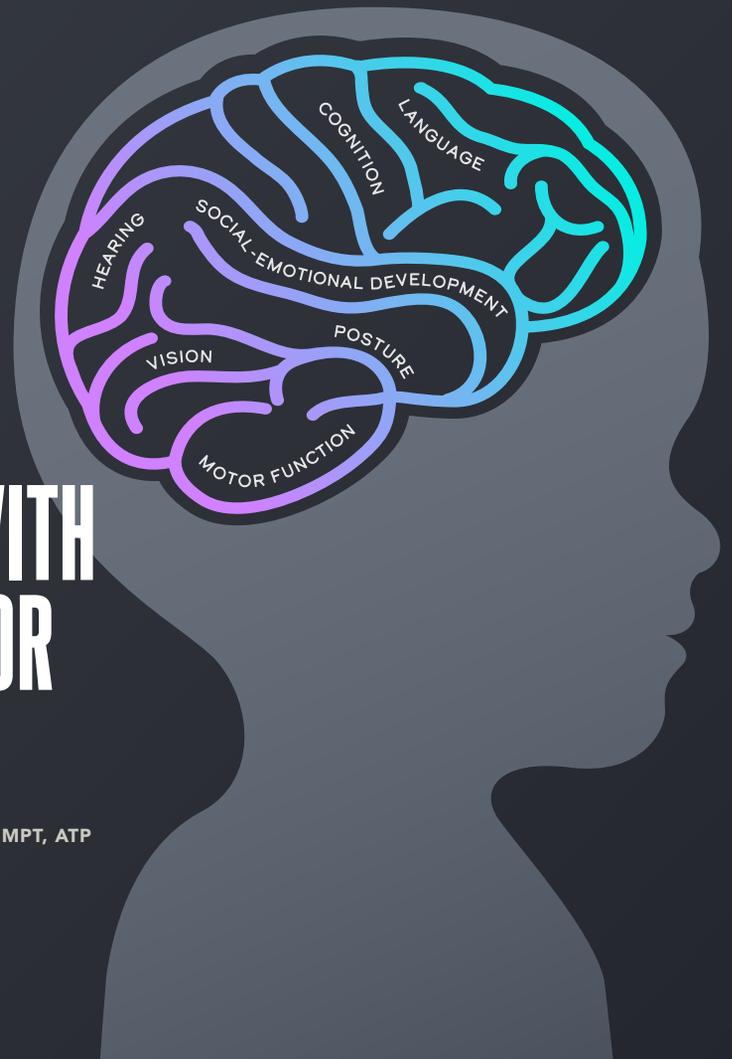
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IACET CEUs are accepted by NRRTS for the RRTS® and CRTS® credentials and by RESNA for the ATP and SMS certification renewal. The National Board for Certification in Occupational Therapy Inc. (NBCOT) accepts the IACET CEUs as PDUs for the American Occupational Therapy Association (AOTA). State occupational and physical therapy associations also accept IACET CEUs for license renewal.

THE IMPORTANCE OF SUPPORTING THE EQUIPMENT NEEDS OF PEDIATRIC CLIENTS WITH COMPLEX NEUROMOTOR DISORDERS

Written by ERIN POPE, PT, MPT, ATP, AND MELISSA TALLY, PT, MPT, ATP



NRRTS is pleased to offer another CEU article. This article is approved by NRRTS, as an accredited provider, for .1 CEU. After reading the article, please visit <http://bit.ly/CEUARTICLE> to order the article. Upon passing the exam, you will be sent a CEU certificate.

INTRODUCTION

Clients with complex neuromotor deficits rely heavily on adapted equipment for functional mobility, access to activities of daily living, self-care and active participation throughout their lifespan. In recent years, there has been increased evidence and support for supplying intervention early in a client's life or diagnosis, including adapted environments and equipment. Key periods occur throughout childhood development when proper access and ability to take part in age-appropriate experiences help to shape an individual's cognition and motor function.¹ Adaptive equipment plays a significant role to support improvements in motor, cognitive and social-emotional development, perhaps even changing future outcomes for children with impaired neuromotor function. The focus of this clinical perspective is to discuss the importance of adapted positioning for pediatric clients as this has been a primary area of specialization for us over the last 15 years. We have seen firsthand how proper equipment recommendation for improved support, access, mobility and participation can lead to positive outcomes for our clients and families now and in the future.

KEY DEFINITIONS AND PRACTICE GUIDELINES

DME VS. CRT

To fully understand the depth of adapted equipment for clients with complex needs, we will quickly review important terms, definitions and current practice guidelines. Durable Medical Equipment (DME) refers to medical devices and equipment suitable for repeated use for the treatment of a medical condition, such as an illness or injury. Examples include wheelchairs, canes, crutches, respiratory therapy devices and hospital beds that are prescribed or recommended to clients for home use. A DME item is generally available for rental, purchase or insurance authorization and often only needed for a limited time due to an injury, illness or age. For example, a client undergoing hip replacement may need a raised toilet seat for an interval of time during post-surgical recovery.² Complex Rehab Technology (CRT) is medically necessary equipment individually configured to meet a client's specific medical and functional needs as result of a chronic condition or disability.³ This equipment is typically recommended or prescribed through an interdisciplinary team assessment consisting of (at least) a physician face-to-face visit, a referral for adapted equipment and a physical therapy or occupational therapy evaluation with a qualified CRT supplier (i.e., ATP, CRTS®, or RRTS®).^{2,3} The client and family are integral team members in the assessment and discussion of equipment selection (see Figure 1).

CODE OF ETHICS AND STANDARDS OF PRACTICE

The NRRTS and RESNA Code of Ethics and Standards of Practice define a clinical model for the interdisciplinary team essential to promote ethical practice for client equipment recommendations, including our pediatric clients. The physician first documents the need for complex rehab equipment and refers the client for an equipment assessment. An occupational therapist or physical therapist along with a qualified CRT supplier complete the



FIGURE 1 Complex Rehab Team evaluation with patient and family



FIGURE 2 Commercial Equipment for positioning and participation

assessment. This should include an open discussion with client and family including medical history, prognosis, environments in which the equipment will be used, desired activity participation and caregivers who will aid the client with the equipment use. A full evaluation should follow with a clinical mat assessment performed by a therapist to assess the supports needed to allow proper postural alignment to meet the goals of the equipment. Comprehensive trials of equipment options are imperative for making final recommendations that will result in successful outcomes and compliance in use.^{3,4} This equipment is expensive and improper consideration or recommendations made without thorough thought will lead to poor outcomes or even client harm. For the youngest pediatric client under age 2, this discussion should include commercial equipment or modified commercial options with basic adaptations and the introduction of CRT. Commercial equipment can often be easily modified for support in these early years, is affordable and easily accessible (see Figures 2 and 3). Complex rehab equipment may still be necessary for these individuals, but it is equally important to rule out the use of commercial equipment for insurance purposes.



FIGURE 3 Commercial Equipment for positioning & participation

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THE IMPORTANCE OF SUPPORTING...
(CONTINUED FROM PAGE 33)

A 24-HOUR APPROACH

Clients presenting with complex neuromotor impairments typically require multiple pieces of CRT equipment to meet their positional and mobility needs throughout their daily tasks and functions. The term 24-hour positioning or 24-hour postural management best describes this need. In 2006, Gericke defined 24-hour positioning as a planned approach encompassing all activities and interventions that affect an individual's posture and function. Twenty-four-hour positioning is a systematic approach to matching the postural needs of individuals with mild to severe disability with equipment or supports to achieve optimal participation throughout the span of a typical day. The equipment recommendations are tailored specifically for each client and may include special seating, nighttime support, standing supports, active exercise, orthotics, surgical interventions and individual therapy sessions. This comprehensive approach has been shown to support function, inhibit asymmetry, offer pain control, increase communication and participation, and improve overall health and wellness.⁶ There is growing support for 24-hour postural management, including evidence supporting the need for complex adaptive equipment at all ages and stages of development, both to promote function and reduce secondary complications. Evidence shows a lack of proper adaptive equipment intervention can result in the development of preferred positions that become destructive — limiting function, participation and decreasing quality of life.⁷⁻¹¹

COMPLEX MEDICAL CONDITIONS

Clients requiring complex adapted equipment for functional positioning and mobility often present with complex medical

conditions. Novak, et al. have discussed the complexity of multisystem complications with neuromotor diagnoses, which include pain, mobility, bone development, feeding, language, seizures, behavior, bowel and bladder, visual processing, sleep, nutrition, hearing and cognition.¹ Adapted equipment and external supports have been shown to assist with improving, maintaining and supporting these areas, though this can result in a complicated plan with multiple pieces of equipment. As clinicians, we have tools such as the Gross Motor Functional Classification System¹² (GMFCS) and International Classification of Functioning, Disability and Health¹³ (ICF) to guide our clinical approach and task-specific focused intervention. When the concepts of 24-hour positioning are applied, we clinically intervene and support age-specific developmental postures for strengthening, range of motion and weight bearing. Upright positioning for daily tasks including feeding, bathing, and access to learning and communication must also be considered. Functional access may be impacted by vision and sensory processing impairments. It is important to know whether the client has a preferred visual field that may affect head posture or a specific position, which can improve visual function. When these impairments exist, it is beneficial to ask many questions at the assessment and trial positioning systems to ensure a good fit for the client (see Figure 4).



CLIENTS REQUIRING COMPLEX ADAPTED EQUIPMENT FOR FUNCTIONAL POSITIONING AND MOBILITY OFTEN PRESENT WITH COMPLEX MEDICAL CONDITIONS.

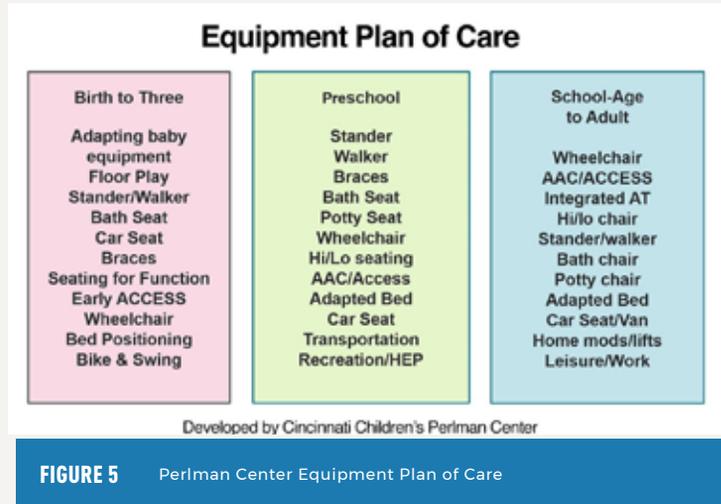
RELATED EQUIPMENT NEEDS

Evidence clearly shows mobility is important at all ages. Early mobility is well supported and becoming increasingly essential as we learn more about the positive effects of early intervention on future prognosis.^{1, 7, 15, 16} We introduce mobility at an age-appropriate developmental level with the use of gait trainers, manual propulsion and power mobility or power-adapted toys. Seating and mobility is usually an early concern for families, but other areas are equally important and may be an afterthought for caregivers who are new to navigating the world of assistive technology. Dependent care needs require a review of safe transfers and transportation and home modifications to consider now and in the future. Preplanning for these needs can improve participation for clients and reduce risk of injury for client and caregivers. Recreation access is another area often overlooked, but many options allow for inclusion – adapted bikes, swings, pool equipment and sports teams. This can be a wonderful addition for a family to fully include their child in all aspects of life.

THE PERLMAN CENTER APPROACH

With so many options, determining how and when to start these interventions can be overwhelming. We have developed an approach to help guide our implementation of positioning equipment, based on current evidence guidelines, our clinical experience and the most important aspect – feedback gained from our own client’s experiences. We have combined this information to implement positioning plans that increase active movement, decrease the effects of abnormal posture and promote cognitive function through active participation in daily life. Medical interventions have provided high quality of life for many individuals with complex physical needs, and, with the use of adaptive positioning, we can support our clients to take full advantage of these medical advances.

At our facility, we apply this approach with our clients and follow them through the lifespan — educating clients and families early and often to assist with considerations and preparation for use of equipment



now and in the future.¹ While each client is an individual and should be addressed as such, we found common needs and experiences to improve support, education, consistency and compliance. Out of this need, we developed the Equipment Plan of Care (see Figure 5). With this plan, we can guide ongoing equipment needs for our clients and prepare parents for future needs.

In our practice, we have seen families of young children benefit from early education on adapting environments and providing positioning to support play and function. Early coaching in this area helps caregivers to accept equipment more readily and view it as a helpful adaptation versus a limitation. This understanding, paired with the development of the Equipment Plan of Care, leads to improved carry-over with equipment use, and increased confidence from caregivers both in the use of equipment and how to care for their child. Caregivers who receive this type of education often show increased self-awareness and participation. Caregivers and clients without this education had less consistent access to developmental experiences that impacted their level of access, skills and participation but, once receiving this support and education, were noted to move toward a more active state of well-being.

APPLICATION OF THE EQUIPMENT PLAN OF CARE

The Equipment Plan of Care is a strategy to direct the use of seating and positioning across the lifespan and can be applied to all areas and stages of intervention, alongside 24-hour postural management. A 24-hour postural management review can occur during a conversation with a parent in early intervention, a review of functional access skills for a young child preparing for school, or the

CONTINUED ON PAGE 36



THE IMPORTANCE OF SUPPORTING... (CONTINUED FROM PAGE 35)

equipment evaluation of any client, at any age. This allows a focus on client and family priorities for today and future needs. Here are some examples:

- An evaluation for a gait trainer may turn into an assessment for a stander with a focus on critical evidence-based research and support for early standing (see Figure 6).
- The parent who states they must hold their child during activities such as feeding and bathing leads to a discussion on proper postural position for in-home activities, adaptive seats, bath seats and a review of options for safe transfers.
- The family with no means to transport the client to medical appointments safely because the car seat does not provide adequate support receives education on adapted home and vehicle modifications and funding and consideration for adapted car seats.

All of this information is critical when assisting a client with proper posture supports and functional participation to allow them to live with their disability. All these activities, and more, are important and require safe functional access for medical, postural and participation needs based on the chronic needs of the client (see Figure 7). Various stages of a client's development must also be considered as the tonal presentation and postural needs are complicated, ongoing, varied and changing.



FIGURE 6 Stander for upright positioning



FIGURE 7 Mobility system with added function for family and future medical needs

POSITIONING THE YOUNG CHILD

Positioning the young child focuses on promoting neutral postures and functional range of motion for development of joints and structures that will aid with early participation and cognitive learning. Equally as important at this stage is allowing the client to experience age-appropriate postural positions to allow participation in key infant/child experiences. We know how important the infant-parent bonding connection is to social, emotional and cognitive development. Adapted 24-hour postural management can assist in stimulating these relationships and experiences, improve parent confidence with caring for their child's needs, and allowing the child to be embedded in family activities with active participation.

Issues to consider at this age are:

1. Parents are coping with a new diagnosis and will need support and education on what this means for their child.
2. The child's tonal patterns are not as strong, so they can be more easily supported and positioned through parent coaching.
3. Commercial equipment often can be utilized, families often already have this equipment, and this may reduce the anxiety of dealing with specialized equipment.
4. External supports should focus on midline postures to promote symmetry.
5. Equipment should support development of joints and motor control in age-appropriate postures for experience, cognition, communication and motor learning.
6. Address lying, sitting, standing and early mobility as this is supported by evidence.

POSITIONING THE PRE-TEEN AND TEENAGER

For adolescents, the focus should include supporting active participation with increased consideration for communication and adaptations for learning as well as Activities of Daily Living (ADLs) (see Figures 8 & 9). If the child has not had exposure to adapted access and communication, a referral should be placed even if low-tech options are the level of skill present. Time restrictions of long school days, along with frequent growth changes, result in longer periods of immobility, less postural changes and increased difficulty with transfers at this stage. Growth spurts and puberty must be considered in equipment recommendations. We continue to

GMFCS LEVEL V:

Children are transported in a manual wheelchair in all settings. Children are limited in their ability to maintain antigravity head and trunk postures and control leg and arm movements.



PATIENT BACKGROUND:

- 33-week preemie, drug exposure.
- Foster family at two months, adoption.
- CVI, optic atrophy, cochlear implant.
- EI, vision therapies, feeding therapy.
- Risk for scoliosis, hip dislocation.
- Equipment includes commercial products (see Figures 4 & 5), stander (see Figure 6), bath seat, seating system and adaptive stroller (see Figure 7), and gait trainer.
- Future planning discussion: Safety bed — in process, adapted car seat, adapted access/AAC, adapted van — saving \$\$, adapted swing set — exploring, ramps, modified bathroom, patient and ceiling lift

PARENT PERSPECTIVE ON EQUIPMENT IMPACT

“Adaptive equipment has made interacting with the community manageable.”

“Typical strollers prevented my son from being a part of the activities around him.”

“Adapted seating and mobility has allowed my son to sit up and be front and center to engage in the world. It’s been wonderful watching adults and his peers come up and talk to him.”

“My son also loves the stander and standing alongside his siblings has allowed him to increase his head control in 4.5 months.”

“We’re looking forward to adding a gait trainer so he can join his siblings when they bike in our driveway and a specialized bed to help prevent the progression of his scoliosis and safely tube feed overnight.”

TABLE 1: Case presentation of 24-hour management and patient/family benefits at an early age

TABLE 2: Parent Perspective on Equipment Impact

promote neutral alignment with more frequent seating adjustments and modifications to accommodate frequent growth. Puberty can greatly impact long-term outcomes and function and must also be considered. A child never presenting issues of asymmetry in the past could begin to show significant changes.

Key considerations to consider:

1. Growth spurts occur between 12 and 17 years of age.
2. Recommend monitoring equipment for growth adjustments every three to six months to maintain functional upright postural control and symmetry and avoid increased pressure points, pain and asymmetry.
3. Consider more aggressive postural supports to improve/maintain hip and spine alignment, allow functional access, and inhibit development of contractures and asymmetry.
4. Surgical intervention may be considered at this stage.
5. If a long-term complex equipment user, all equipment may be ready to be replaced due to maximized growth.
6. If not already in place, safe transfers and home modifications are important to discuss.



FIGURE 8 Pre-Teen



FIGURE 9 Teen

CONTINUED ON PAGE 38



FIGURE 10 Young Adult



FIGURE 11 New Wheelchair Happiness

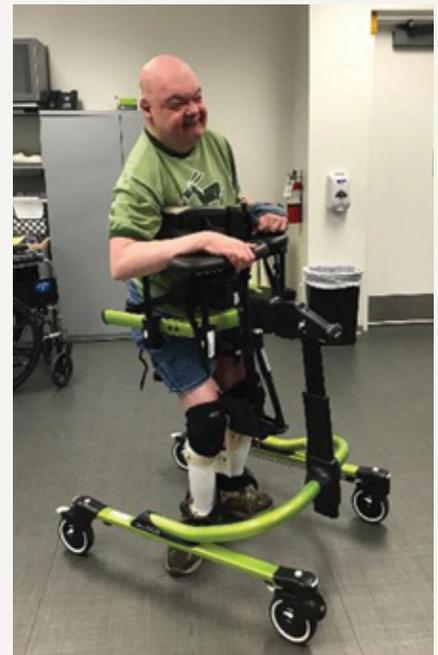


FIGURE 12 Return to Mobility

THE IMPORTANCE OF SUPPORTING...
(CONTINUED FROM PAGE 37)

POSITIONING THE YOUNG ADULT

As the adolescent moves into adulthood (see Figure 10), the focus remains on supporting postures to promote participation, function and comfort. We also want to facilitate access to activities and all environments including home, work and community. Postural asymmetries must be accommodated and additional complications that may impact quality of life must be addressed. It is never too late to provide adaptive equipment for improved access, posture, mobility and function. Clients may lose access to 24-hour postural management as they age, due to declining caregiver ability, home environments and body size. Figures 11 and 12 show two individuals who re-experienced what adapted equipment could do for them as an adult. One woman (see Figure 11) had not sat in a comfortable wheelchair for 10 years as she moved into a group home after a change in caregiver ability. She loved her new tilt-in-space wheelchair with contoured seating, which allowed her to remain up and active with her friends and not spend her days in bed. The other client (see Figure 12) had a walker in his youth but, again, lost access due to aging caregivers. His group home aid described how he used to love to walk. With this new gait trainer, he can independently walk around the community room with little assistance and interact with his friends and increase his active mobility and overall health.

SURGICAL CONSIDERATIONS

Despite adaptive positioning and medical advances, our clients often require surgery including soft tissue procedures, hip and pelvic osteotomies, and spinal fusion. These surgeries result in a physical change to the client's body structure, which affects seating and positioning. For example, it is typical for a client undergoing spinal rod surgery to increase 4 to 6 inches in back height and a hip osteotomy client to increase 2 to 4 inches in seat width to keep the femur seated in the acetabulum. Pre-surgical planning is critical to determine the type of postural or mobility system to support recovery and optimal post-surgical outcomes. The process for seating and equipment authorization can be lengthy, and without preplanning, the client may have no options to adapt to their new structural needs. They will be placed into a seating system or equipment that does not complement the surgical intervention. Sometimes a client is not considered a candidate for surgical intervention, so the seating and mobility equipment must accommodate asymmetries and postural support needs.

IT IS NEVER TOO LATE TO PROVIDE ADAPTIVE EQUIPMENT FOR IMPROVED ACCESS, POSTURE, MOBILITY AND FUNCTION.

Our center has collaborated with the surgical teams within our hospital and implemented the following protocols shown in the Table 3 for the surgical and nonsurgical client. Our local equipment suppliers have had few issues with funding authorization based on justification of a change in medical/functional status, and in most instances, the timing for delivery of the new equipment is just when the client needs it post-surgery.

CONCLUSION:

As we have discussed, seating and positioning is critical for our pediatric clients throughout their development. As clinicians we have clinical tools, practice guidelines and standards of care to prepare us for optimal assessment and recommendation of CRT at any client age. Growing evidence supports the use of adapted equipment early on and for assistance with daily routines and tasks to address the complex neuromotor and medical needs of our clients. In addition to the clinical benefits of postural alignment and strengthening, adapted equipment allows for

CONTINUED ON PAGE 40

RECOMMENDED PROTOCOL FOR OPTIMAL SEATING FOR SURGICAL CLIENT

1. Medical team has recommended client for surgery: Seating modifications will be needed to allow optimal positioning status post-surgery to accommodate physical and functional changes.
2. Preop visit: Medical team alerts Melissa Tally, PT, by email or EPIC in-basket AND refers client to Perlman Center for seating and positioning consult/equipment evaluation (optimal three months prior to surgery date) to allow for assessment of recommendations, justification of medical need by therapist and prior authorization of funding to be initiated. Current equipment does not have to be recommended by Perlman. Perlman will collaborate with current supplier and original clinician as appropriate to allow needs to be met.
3. Inpatient: Perlman therapist and supplier work with inpatient medical team to assist client with loaner wheelchair for transport or modify current wheelchair to accommodate post-surgical restrictions and positioning.
4. Six- to 12-week follow up: (out of casts/bracing and tolerating range of motion and upright positioning) therapist and vendor remeasure client, if necessary, prior to ordering
5. Schedule delivery of new equipment.

RECOMMENDED PROTOCOL FOR OPTIMAL SEATING FOR NON-SURGICAL CLIENT

1. Medical team has determined the client is NOT a candidate for surgical procedure.
2. Medical team refers the client for seating and equipment assessment to determine appropriate 24-hour positioning products to promote functional positioning and access, support asymmetries and contractures, and prevent further impairments.
3. Therapist and supplier perform assessment of recommendations; complete all necessary documentation for therapeutic justification and funding.
4. Schedule delivery of equipment.

TABLE 3:

Recommended Protocol for Optimal Seating for Surgical and Non-Surgical Client
**Protocols were developed and are used by the CCHMC Perlman Center*



OUR CLIENTS AND THEIR FAMILIES RELY ON OUR CLINICAL EXPERTISE AND EXPERIENCE TO GUIDE THEM IN EQUIPMENT SELECTION TO MEET THEIR CHILD’S NEEDS AND PROVIDE THE BEST OUTCOMES FOR POSTURAL MANAGEMENT THROUGHOUT THE PEDIATRIC YEARS AND INTO ADULTHOOD.

THE IMPORTANCE OF SUPPORTING... (CONTINUED FROM PAGE 39)

cognitive learning, building relationships, improved self-identity, access to self-care and mobility, and facilitates optimal participation and wellness. The idea of 24-hour postural management along with the use of an Equipment Plan of Care can aid in navigating the complexity of multiple pieces of equipment and guide the intervention frequency needed to address ongoing equipment needs across the lifespan. This includes the transition of the young child and their family to teenage years and on to adulthood. Our clinical experience, along with feedback from our own client’s experiences, has shown us how the proper recommendation of equipment can support access, mobility and participation and lead to positive outcomes for our clients and families now and in the future. With a growing body of supporting evidence and the introduction of equipment early on following diagnosis, we have begun to see an opportunity to profoundly change the outcomes of our client’s lives. Our clients and their families rely on our clinical expertise and experience to guide them in equipment selection to meet their child’s needs and provide the best outcomes for postural management throughout the pediatric years and into adulthood.

SUPPLEMENTAL VIDEO

This supplemental video consists of clips from an interview with a mother and her young adult son about the impact of intervention, adapted equipment, and an integrated therapy approach and how their experience helped guide them throughout his development. Bradley was born prematurely and is a twin. He was diagnosed with spastic quadriplegic

cerebral palsy in 1999 and presents as GMFCS Level IV (see Table 4). Much of the current level of evidence supporting early identification, intervention and CRT was lacking in 1999. However, Bradley received early intervention services, took part in an integrated multidisciplinary group therapy environment from 3 to 6 years of age, received outpatient occupational and physical therapy and school-based services as well as aquatics, horseback riding and adapted team soccer. He underwent selective dorsal rhizotomy in 2004, SPIDER in 2011 and hip surgery in 2012. He is now very active with his family, friends and community and has had access to 24-hour positioning from an early age. Bradley’s story is one of the many client experiences that led to the development of the above-

GMFCS Level IV:

Youth use wheeled mobility in most settings. Youth require adaptive seating for pelvic and trunk control. Physical assistance from one or two persons is required for transfers. Youth may support weight with their legs to assist with standing transfers. Indoors, youth may walk short distances with physical assistance, use wheeled mobility, or, when positioned, use a body support walker. Youth are physically capable of operating a powered wheelchair. When a powered wheelchair is not feasible or available, youth are transported in a manual wheelchair. Limitations in mobility necessitate adaptations to enable participation in physical activities and sports, including physical assistance and/or powered mobility.



TABLE 4: GMFCS Level IV

mentioned Equipment Plan of Care and our specific perspective on 24-hour postural management and approach to adapted equipment throughout the lifespan. Scan the QR code below or go to <https://b.link/v2epas> to watch this video.**



** Note this video is not intended to be an advertisement for the Cincinnati Children’s Perlman Center but to show the impact of early adapted equipment and support for clients with chronic positioning needs.

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childhood programs and specialize in assistive technology and adapted equipment. The Perlman Center performs comprehensive equipment evaluations and treatment, with a focus on 24-hour positioning, for both children and adults who have significant physical disabilities. In addition to serving patients, they both provide clinical education and patient advocacy for funding and access to Complex Rehab Technology for all ages.

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THE IMPORTANCE OF A TEAM APPROACH DURING THE SEATING AND WHEELED MOBILITY EVALUATION

Written by: **TABATHA JAMES, OTR/L, ATP, SMS**



The whole is greater than the sum of its parts. —Aristotle

THE BEDROCK

Effective teamwork is a recipe required for any successful process or organization. Inclusive by design, teamwork is an organized effort focused on a central mission or goal, with equal opportunities to be the student and the teacher. Teams work best in nonjudgmental environments that nurture trust, innovation and critical thinking. These ingredients set the stage for rich and creative information exchanges where peak performance flows. Strategic teamwork produces a synergy of quality ideas and solutions far greater than any one person could accomplish alone.

TEAMWORK IN A HEALTH CARE SYSTEM

Research supports a multidisciplinary, multimodal team approach to health care – across disciplines, teamwork promotes best practices, ethical decision making and optimizes clinical outcomes (Epstein, 2014).

Applying client-centered, collaborative efforts in each clinical setting creates ripple effects for clinicians and consumers. Clinicians who regularly engage in discourse with their academic and industry colleagues contribute broader perspectives and skills to their practice. In addition to experiencing higher rates of productivity and efficacy, further personal and professional development is gained by absorbing each other's strengths. An integrative team experience allows for discoveries of new concepts, talents and wisdom to guide strong interventions while avoiding past mistakes.

A diverse and dynamic team is more equipped to drive comprehensive, value-driven care. Working to deepen our understanding of the human condition and the lived experiences of another establishes authentic, culturally competent relationships

across the spectrum of age and ability. As a result, clinicians become more adept in the soft skills (see Figure 1) that create psychological safety, a prerequisite for the vulnerability needed to explore and address the various health inequities of individuals and communities.

TEAMWORK IN SEATING AND WHEELED MOBILITY

The seating and wheeled mobility (SWM) team approach is a holistic and interdependent effort grounded in academic rigor, skill and compassion. It is a niche area of practice but no different in clinical intent or integrity than other fields of specialized medicine.

The SWM evaluation is a specialty evaluation layered with multiple complexities, prescribed throughout the lifespan. During the SWM evaluation, expertise must be available to address clinical considerations for disorder/disease management as it relates to product choice, resource utilization and environmental factors (see Figure 2).



FIGURE 1 Soft Skills

A skilled SWM team works with the client and family to align goals for independence and wellness through proper prescription of Complex Rehab Technology (CRT) and/or Durable Medical Equipment (DME). Adept contributions from physiatrists, occupational and physical therapists, assistive technology professionals (ATP) and manufacturer representatives are invaluable throughout the plan of care for each SWM end user.

Collaboration of the SWM team is a powerful tool for goal attainment and reducing health disparities and inequities for the end user. The SWM team engages in a client-centered process of shared decision making (SDM) further ensuring consumers thrive with their prescribed equipment. When employed, the SDM model strives to redistribute the imbalance of knowledge and power that characterizes most health care relationships, inspiring consumers to play a more active role in their outcomes.

TEAMWORK: BARRIERS AND PROGRESS

A mentor once told me a good question is often more valuable than a good answer. While the list of questions I carry with me as I advance in my clinical practice continues to grow, there's one thing I know for sure – if we choose not to participate in the cause, we will inevitably participate in the effect. Health care economists estimate the economic and social costs of poor quality health care to be in the trillions of dollars.

Systemic barriers to quality patient care and the demand placed on clinicians to overcome them and achieve positive results can test our determination. Still, we must choose evidence-based ethical practices and show up as our best selves. We know sustainable change of any kind requires an investment in the long game.

In the CRT industry, SWM teams must navigate low or no reimbursement rates, perceived duplication of services for multidisciplinary care and unsavory denial practices. To add, many clinicians do not exclusively practice in SWM and must also juggle school or outpatient caseloads, creating scenarios where their expertise is needed in two locations at once.

Fortunately, the CRT industry has been in hot pursuit of changes to improve care and logistical challenges like these. To name a few, we have seen the expansion of telehealth access and its infrastructure, and progression toward more equitable policies, diversity and inclusion.

Organizational and political shifts of this magnitude require copious amounts of support from our communities, partners and colleagues. To operationalize change at any level, team members

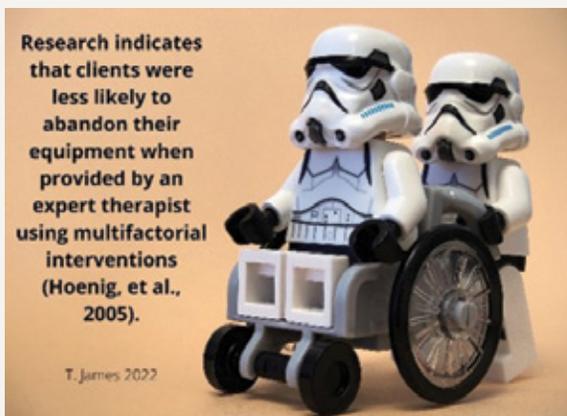


FIGURE 2

must exemplify resolute interdependence and eager co-reliance. To be our best selves on these teams, we must keep an open mind, committing to curiosity and exploring our convictions. Continuing to evolve as individuals allows us to remaster how we show up for others and ultimately strengthens the provision of value-based care.

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BENTLEY: ON TIME-POWERED MOBILITY BECOMES PART OF EVERYDAY FAMILY LIFE

Written by: LINDSEY REA, BS, ATP, AND KENNESSA DALBY (BENTLEY'S MOTHER)

Compiled by: SUSAN JOHNSON TAYLOR, OTR/L

The cumulative experiences of our clients are one of the most valuable resources we have. A case study should be a story. A story we can listen to, read, learn from and share with our clients. This is the story (so far) of Bentley. Bentley is a 4-year-old boy with the diagnosis of arthrogryposis. He lives on a ranch with his parents and older brother outside of Colorado Springs, Colorado. The first part of this story is told by his mom in Bentley's voice.

THE CHILD – BENTLEY AND MOM

Hello! My name is Bentley. I was born in January 2018, but my story starts before that. When my mom was pregnant with me, they found out that I would be born with a condition called arthrogryposis multiplex congenita (AMC). This meant my joints would be contracted at birth, and there would be little to no development of the surrounding tendons, ligaments and muscles from lack of movement in the womb. I am affected in all four limbs including my shoulders, elbows, wrists, fingers, hips, knees, ankles and toes. Before I was born, the doctors were also worried about my lung and jaw development as I would have had trouble breathing if the related muscles were affected. Although these were not affected, my mom had to be monitored every week until I was born.



FIGURE 1 Bentley as a baby.

When my mom was 37 weeks pregnant, the doctors told my parents it was time for me to be born. The next day they went to the hospital, and I was delivered by cesarean section. I came out longer and weighing more than they thought I would! From the minute I was born I

have been proving doctors wrong and making progress!! When I was just a few hours old, I met all my specialty doctors and some therapists, and they started on my care plan. When I was only a few days old, I started physical and occupational therapy. My therapists worked together for an entire year and got more movement in my limbs, got me into clothes and into a regular car seat instead of a modified one!! I still go to therapy one to two times a week with each therapist to work on my range of motion, mobility and independence goals (see Figure 1).



FIGURE 2 Early chair trial

When I was 6 months old, my therapists started working with me on how to drive a power wheelchair and figuring out what modifications I would need (see Figure 2). With my condition, I was unable to crawl, but I could scoot around the floor on my bottom using the backs of my hands for

support. The doctors and therapists hope someday I can walk, and we are working toward that goal. I will only be able to walk short distances before getting worn out and will have to have mobile support of some kind, hence the wheelchair. This started a long process that took my parents, the therapists, doctors and Numotion team more than a year to complete. Everyone took notes, did a lot of research, took lots and lots of pictures, and wrote a bunch of letters to the insurance company. The power wheelchair was denied, because I was too young and would grow too fast. The reasons for denial were endless and repetitive, and we proved every reason they gave wrong, yet they still denied the chair.

Over the course of that same year, I had two corrective surgeries on my feet and ankles. I spent months in full leg casts and then boots and bar braces. My only mode of getting myself around was



FIGURE 3 Bentley in his post-op bracing

scooting on the floor, and I could not do that in a cast or braces. My parents had to carry me around and when they set me down, I was stuck. Boy, Let me tell you, I was MISERABLE (see Figure 3)!

Finally, at the end of 2019, we put in an appeal to go to court with the insurance



FIGURE 4 Helping dad around the yard

SINCE I GOT MY CHAIR, MY LIFE HAS CHANGED SO MUCH! I CAN MOVE AROUND SO MUCH EASIER, AND I CAN MOVE AROUND BY MYSELF AND KEEP UP WITH MY FAMILY AND BE MORE INDEPENDENT!

company. The court date was set for January 7, 2020, and the day after Christmas we got the call that my power chair had been approved!! So finally, after fighting for a year and a half, I got my power chair – just before my second birthday!!!

Since I got my chair, my life has changed so much! I can move around so much easier, and I can move around by myself and keep up with my family and be more independent! I love to be outside, and now instead of sitting in one spot, I can move around and help out! I love having my own chores to do like helping around the house inside and out. Outside I love playing with my brother and chasing him and my cousins around, helping dad in the garage and playing with the tools he needs, helping mom with the gardening and watering the plants, helping take care of the animals and watering them, and just moving things and helping out around the property. Inside I love to help with vacuuming and cleaning, as well as helping mom and dad cook and helping mom bake — but most of all I love tasting everything!

Even now, out in public, I can have my chair instead of having to be carried around, and I can explore more and look at things myself — and maybe even add some things to the shopping cart when mom and dad aren't looking!!!

I love having my chair and the newfound freedom and independence it gives me, and I'm so thankful to my care team and parents for fighting for me and not giving up until we got my chair!! I'm so happy to have the amazing people in my life who care enough to fight!! I hope we can make it easier for other kids like me with limited mobility to get the equipment they need without as much of a battle one day (see Figures 4 through 7)! I also sometimes use my gait trainer (see Figure 8)!

CONTINUED ON PAGE 46



FIGURE 5 Hiking with his family



FIGURE 6 Bentley guiding his pig at a 4H event. His father made a special bracket that allows the guide for the pig to be mounted on the chair.



FIGURE 7 Giving big brother a ride!

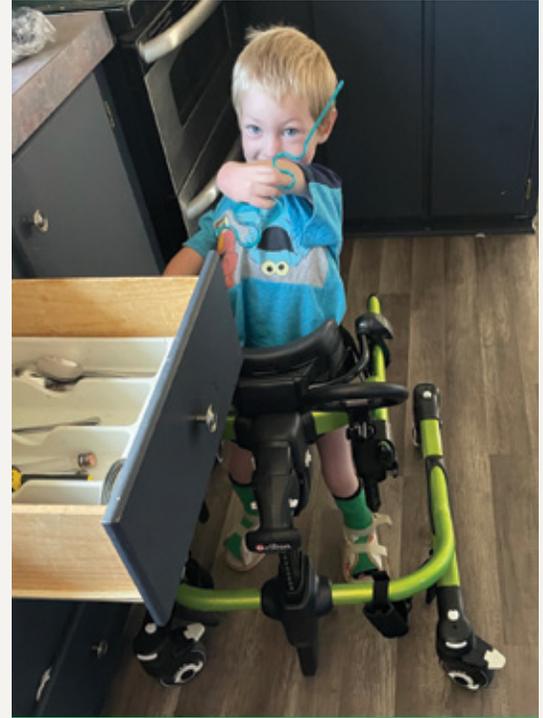


FIGURE 8 Occasionally using the gait trainer

BENTLEY: ON TIME-POWERED...
(CONTINUED FROM PAGE 45)

THE EQUIPMENT — LINDSEY REA, BS, ATP

Bentley and his family have been amazing. I have learned a lot together with the clinical team, including Joanna Prosch, OTR/L, CHT, and Ellen Gaspar, MPT, from Children’s Hospital of Colorado. As noted, Bentley was first exposed to a power wheelchair at 6 months old. After trialing the chair for five months, he was unable to accurately maneuver using a micro-light joystick or maintain contact with the joystick handle for more than a few seconds. He next tried a Stealth Products Eclipse tray and proximity switches mounted under the surface and showed significant improvement in moving the chair. Each driving experience provided more exposure to the idea of moving through space using the chair.

Bentley worked with the power chair again 10 months later, while the power wheelchair request for funding was in process and after multiple appeals. This trial was to show how Bentley’s ability and cognition had continued to develop after the initial evaluation. After having not been in the power wheelchair in some time, Bentley did great. He was able to drive independently using the joystick and did not need assistance for hand placement. He struggled with some upper extremity movements secondary to his condition but compensated with elbow and trunk movement. Remember above when he talked about how awful it was to be immobile after surgeries? The chair allowed him to independently

access and explore his environment, as any kid his age should/would be able to. Additional delays in motor development, and social skills would occur without the ability to independently access his environment.

In January 2019, an order was submitted for Bentley’s first power chair. The Permobil Koala Mini-Flex, a compact lite joystick (on a midline mount with tray cut-out to accommodate this position) and remote stop switch were recommended. The chair was first denied by insurance in March 2019 due to having “features the patient is not currently able to operate independently, and safety is a concern given the need for a power stop.” Bentley had demonstrated the cognitive ability needed to learn, take direction and operate the chair appropriately within age-appropriate parameters.

Even though Bentley showed improved skills and greater need for powered mobility, his claim was once again denied in October 2019 due to “lack of documentation that lesser costly equipment had not been tried,” even though self-propulsion had been ruled out. Clinical notes and pictures were provided

MOBILITY IS ESSENTIAL FOR KIDS TO GROW, EXPLORE, AND FIND INDEPENDENCE THAT WILL CARRY THEM THROUGHOUT LIFE



FIGURE 10 Lindsey and PT, getting his new chair

indicating that a manual wheelchair was tried and found unsuccessful. Additionally, the suppliers listed 16 dates the selected equipment was tried with increasing improvement in skills. A hearing was scheduled for January 2020, though the chair was finally approved in December 2019 after video documentation was provided.

Bentley's chair was finally approved and delivered in early 2020. Bentley's mom reported she is thrilled because "he can do things with his brother and keep up and play with him. He can also do activities with the family when we are outside, and we don't have to leave him behind." Bentley loves to help with chores around the house and ranch. His driving is extremely accurate. He can even back into small spaces without bumping into anything or needing assistance. His mom even jokingly added he is exploring so much they should put a cowbell on him to know where he has gone off to!

Bentley's dad stated "When we are in a store or out in the community, everyone is so amazed at Bentley in his chair. They are patient with him. People will compliment how well we are doing as parents with him and how his brother helps him and interacts with him. People show more patience with his driving and move for him. Everyone is so amazed at his abilities."

Mobility is essential for kids to grow, explore and find independence that will carry them throughout life (see Figures 9 & 10).

THOUGHTS – SUSAN JOHNSON TAYLOR, OTR/L

In helping to facilitate and compile this case study, I had heard so much about Bentley that I needed to meet him and his parents! I was less interested in the

CONTINUED ON PAGE 48



FIGURE 9

Bentley LOVES to try to work with tools. Once out of the chair, he went immediately to Lindsey's tool kit so he could get started!



THERE IS NO WAY FOR PARENTS TO SHEPHERD THEIR CHILD WITH MOBILITY LIMITATIONS THROUGH CHILDHOOD TO INDEPENDENCE, WITHOUT SELF-INITIATED MOBILITY.

BENTLEY: ON TIME POWERED...
(CONTINUED FROM PAGE 47)

“medical and therapy” aspects and much more interested in the child/family aspects of this case. One day, I met Bentley and his parents at the Numotion branch for repairs. After talking with his parents, we made the decision to increase Bentley’s speeds and provide him with access to powered seat elevation.

Dad said they have instilled in Bentley the notion if he wants to do something, there is a way. Sometimes he needs help getting there and sometimes he doesn’t. He stated Bentley helps around the yard with the hitch on the back of the chair. This allows Bentley to pull brush and other things around the yard as it is collected, which Dad says is quite helpful! The family hunts, so the bracket that holds the guide for his pig, also holds a shotgun used for hunting under his dad’s hands-on guidance (see Figure 6). Bentley’s parents also incorporate his gait trainer as an additional way to get around. He may even use the gait trainer at the next 4-H event to show the family pig (see Figure 8)!

As I was commenting on Bentley’s very independent attitude, Mom related a funny story to which many parents can relate. She said Bentley will sometimes refuse to follow through with a request. She asks, “Who is in charge?” Reluctantly Bentley will answer, “You are.” “Then what do you need to do?” replies Mom. “What you said... .” Indeed.

This is a family, like so many we see, who make it happen for their child. There is no way for parents to shepherd their child with mobility limitations through childhood to independence, without self-initiated mobility.



Scan the QR code or go to <https://b.link/v2ags> to watch videos of Bentley using his chair.

CONTACT THE AUTHORS

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Susan may be reached at
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Lindsey Schubert Rea, BS, ATP, works for Numotion in Colorado Springs, Colorado. She has been in the Complex Rehab Technology industry since 2002 and a credentialed ATP since 2004. Rea served several terms on the Board of Directors for the Cerebral Palsy Association as board secretary during 2009-2010 and then for two terms as board president. In 2017, she received the Chuck Wilson Lifetime Achievement Award from Numotion. Rea co-wrote and presented the Numotion webinar “CRT in the Schools: Identification, Collaboration and Incorporation” in 2021. Rea is happily married to her husband, Scott, and they have three boys, Connor, Jackson and Aidan.



Susan Johnson Taylor, OTR/L, is an occupational therapist who has been practicing in the field of seating and wheeled mobility for over 40 years. She has worked primarily in the Chicago area at the Rehabilitation Institute of Chicago Wheelchair and Seating Center (now the Shirley Ryan Ability Lab), the Shepherd Center, and the University of Tennessee Rehab Engineering Center. Susan has published and presented nationally and internationally. Taylor is both a member and fellow with RESNA. She is currently a member of the Clinician Task Force and the RESNA/ANSI Wheelchair Standards Committee. She is a Certified member of the International Society of Wheelchair Professionals. Johnson joined Numotion in 2015 and is the Director of Training and Education. Taylor is also a Friend of NRRTS.



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THE GOOD OLE DAYS

Written by: WEESIE WALKER, ATP/SMS, EXECUTIVE DIRECTOR OF NRRTS

“Partner with a NRRTS Registrant: A qualified professional educated to providing quality, cost-effective outcomes in the application of Rehab and Assistive Technology.”

— NRRTS Leadership Planning Conference

Back in the olden days ...

Remember when your parents talked about the “good ole days?”

It is important to recognize the tremendous progress made to define and support the professional RRTS® and CRTS® over the past 30 years. At the beginning of NRRTS, people involved in seating and mobility understood the need for a professional organization. Most of these people worked for companies that provided Durable Medical Equipment, respiratory services and maybe even party supplies. They were often the only one providing seating and mobility in these businesses. Being part of an organization made up of other like-minded individuals was really a godsend. Any opportunity to get together and share stories and experiences was the best learning event ever. The Registrants were excited to have an opportunity to guide and shape this organization that represents the dedicated men and women providing seating and mobility. Registrants were proud to be part of NRRTS. Manufacturers, clinicians and suppliers were on board with their support and participation.

In 1999, the NRRTS Board hosted an event to bring Registrants and stakeholders together and named it the Leadership Planning Conference. With support from corporate sponsors, the two-day event featured education and development of a mission statement

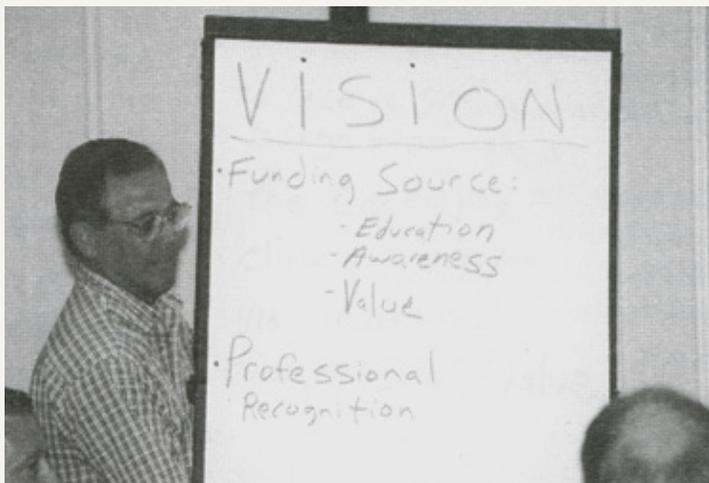
and a marketing tag line. Beyond these tasks, participants networked with their peers. The future leaders were easily identified. Many of the attendees are still active in NRRTS today.

Let's be guided by their enthusiasm to continue the NRRTS' mission. RRTS® and CRTS® represent not only commitment but also an attitude toward being the very best Complex Rehab Technology (CRT) supplier. NRRTS is the only organization dedicated to the individual CRT supplier. NRRTS offers the best continuing education in CRT. Our publication, DIRECTIONS, is the de-facto journal for CRT.

Those were the “good ole days,” but the future of NRRTS holds much promise guided by our board members and supporters who share the same visions and enthusiasm. Because of the many hours of our volunteers' time and effort, NRRTS continues to expand the awareness of best practice for the provision of CRT.

CONTACT THE AUTHOR

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WWALKER@NRRTS.ORG



Weesie Walker, ATP/SMS, is the executive director of NRRTS. She has more than 25 years of experience as a Complex Rehab Technology supplier. She has served on the NRRTS Board of Directors, the 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, International Seating Symposium and the NSM Symposium. Walker is a NRRTS Fellow.



THOSE WERE THE
“GOOD OLE DAYS,”
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RESNA 2022 CONFERENCE: DRIVING THE FUTURE OF AT

Written by: **ANDREA VAN HOOK**, EXECUTIVE DIRECTOR, RESNA

RESNA's 2022 Virtual Conference, "Driving the Future of AT," is coming to a screen near you on July 13-15. This is our third virtual conference, and we are excited about the keynotes, education and networking we will be offering.

The RESNA Conference offers continuing education and IACET CEUs for ATPs working in all areas of assistive technology. Seating and mobility, as well as complex rehab, are always big topics at the conference. In addition, the conference also provides opportunities for AT practitioners to "stretch," explore other areas of practice, and find out about the latest research and technologies.

We're honored to feature international thought leader and disability researcher Tom Shakespeare as a keynote. Shakespeare is a professor of disability research at London School of Hygiene and Tropical Medicine. He was formerly a technical officer at the World Health

Organization, where he was a co-author of the "World Report on Disability" (2011). His books include "Disability Rights and Wrongs," (2006), and he has published approximately 100 academic papers.

In his work and research, Shakespeare argues assistive technology research and funding is hampered by priorities and goals that do not necessarily match the everyday values of people with disabilities. What about assistive technologies that help people with disabilities develop meaningful friendships, enjoy fulfilling sex lives with their partners of choice, cook sociable dinners or engage in their favorite hobbies? In a recent editorial, he states "aspects of life such as friendship, socializing, sexuality, love and play might indeed be more frivolous than practical ones such as education, health, employment and civil rights, but they are inherent to our shared humanity and fundamental to our happiness."

We're also bringing back the very popular 30-minute "buzz sessions." These short sessions are based on the belief of NRRTS founder and former RESNA President Simon Margolis that you should be able to get anything across in under 30 minutes. Buzz sessions include "Optimizing Automated Driving Systems for People with Cognitive Impairments," "Clinician's Perspective on the Permobil Explorer Mini," and a Certification Town Hall.

In addition to three days of continuing education sessions on a wide range of AT topics and keynote lectures from prominent assistive technology leaders, the conference program also includes:

- Interactive scientific paper platform sessions and poster hall.
- Interactive Developer's Showcase, featuring new and emerging technologies.
- The Student Design Challenge and Student Scientific Paper Competition.
- Virtual exhibit hall, with the ability to offer product demonstrations and one-on-one meetings.
- Opportunities to meet, network and exchange information with other like-minded professionals.

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All education sessions will offer IACET CEUs. The full conference program and registration is available on the RESNA website (www.resna.org). Conference registration includes post-conference access to the session recordings on demand and CE.

RESNA RESOURCES

- Looking for great employees? Need a new job? Check out RESNA's Job Board/Career Center. Jobs are featured from across the United States.
- RESNA Position Papers summarize current research and best practice on a variety of assistive technology devices. Check out position papers on dynamic seating, seat elevation and ultralight manual wheelchairs. Very useful for those letters of medical necessity! Look under "Resources" on the RESNA website.

Are there other resources RESNA could provide that would be helpful? Let us know!

RECERTIFICATION: MAKE IT EASY

Please do your part to ensure your recertification paperwork is complete. Send it in at least three weeks prior to your certification expiration date. We strongly recommend you scan and email your paperwork (including all of your CEU certificates) to certification@resna.org. This speeds up your renewal. Keep in mind missing or illegible information will cause delay.

We offer a free webinar, "The Ins and Outs of ATP Recertification" on the website. Just use the search box on the website to find it. It has tips and advice on how to make the process easy and efficient.

CONTACT THE AUTHOR

Andrea may be reached at EXECCOFFICE@RESNA.ORG



Andrea Van Hook is executive director of RESNA. She has over 20 years of experience in nonprofit association management. She lives and works in the Washington, D.C., area.

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BLIND BIDDING IN CANADA

Written by: **STEVE CRANNA**

Within the Complex Rehab Technology (CRT) industry, a practice pervades in varying degrees across Canada that compromises the integrity of a supplier's business practices, and one could argue, their integrity. The NRRTS Canadian Advisory Committee has been meeting with Canadian funders, clinicians and other stakeholders to raise awareness of the pitfalls of blind bidding, and this article is written to provide clarity and consistency based on our conversations.

The practice is Blind Bidding, or the provision of second quotes for CRT equipment, without ever seeing the client, understanding their medical condition or having knowledge of the environment in which they will be using the equipment being prescribed.

There is a significant difference between CRT equipment and Durable Medical Equipment (DME). CRT products include medically necessary, individually configured devices that require evaluation, configuration, fitting, adjustment or programming. These products and services are designed to meet the specific medical, physical and functional needs of individuals with serious diagnoses either from a congenital disorder, progressive or degenerative neuromuscular disease, or from certain types of injury or trauma.

To provide the most appropriate and reasonably priced product, a uniquely qualified team meets, usually at the time of the assessment. The team is comprised of a prescribing therapist, a knowledgeable supplier and the client or family member. Each team member has a role. The prescribing therapist considers a client's current medical condition, the long-term impact of their condition and then based on their knowledge and input from other team members prescribes the most appropriate devices. The knowledgeable supplier recommends a specific product best suited for the client based on their in-depth understanding of the available rehab equipment and their specifications. Finally, the client or the family member then represents their personal wishes.

DME (as defined by Health Quotes Canada) refers to devices that provide therapeutic benefit to people suffering with a medical condition or illness. Common types of DME are wheelchairs, medical beds, crutches, canes and walkers, just to name a few.

Blind Bidding is the practice of funding agencies or prescribers requesting blind quotes of CRT equipment and puts the supplier in a compromising position of having to cost out an item without understanding the exact setup required based on the client's condition and environment. This is contrary to NRRTS requirements, which requires a supplier to assess a client's needs, not just blindly issue a price quote.

A parallel practice is to have a qualified supplier at the assessment and have them provide a proprietary detailed quotation, which is then forwarded without permission to other suppliers for quotation. The majority of these second quotations are requested without any information related to the client's condition or environment, to the quote is again blind.

NRRTS suggests suppliers provide clarity to their prescribers as to the principals under which they operate to protect end users and to limit fiscal and legal liabilities.

Suggested language from NRRTS is as follows:

"The information contained developed by XYZ Medical Inc. is confidential and proprietary to XYZ Medical and is provided to the recipient for the sole purpose of the recipient evaluation XYZ medical's proposal."

The recipient agrees to keep the information confidential and to not disclose the information to others without the expressed written consent of XYZ Medical Inc. Any transmission or reproduction is prohibited."

Should a quote be provided without seeing the client, it is imperative it is qualified as being provided without having assessed the client, and for CRT, it is the company's policy to assess the client prior to the provision of equipment. This protects the client and maintains professional standards for our industry.

CONTACT THE AUTHOR

Steve may be reached at
STEVE.CRANNA@VGM.COM



Steve Cranna is the director of New Business Development and Government Relations at VGM Group Services. Cranna serves on the NRRTS Canadian Advisory Committee and is a Friend of NRRTS.

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NEW NRRTS REGISTRANTS

Congratulations to the newest NRRTS Registrants. NAMES INCLUDED ARE FROM JAN. 25, 2022, THROUGH MARCH 11, 2022.

Anthony Hendricks, ATP, CRTS®

Rehab Medical Inc.
2866 Dauphin St Ste D
Mobile, AL 36606
Telephone: 877-813-0205
Registration Date: 01/26/2022

Anthony Martinelli, ATP, CRTS®

Med World HME Inc
2003 Preisker Ln Ste. F
Santa Maria, CA 93454
Telephone: 805-739-1700
Registration Date: 03/02/2022

Casey Peterson, RRTS®

Redi-Quip Medical Equipment and Supplies, Inc.
16820 Barker Springs Road #500
Houston, TX 77084
Telephone: 281-492-2799
Registration Date: 01/25/2022

Chris Cooke, RRTS®

Family 1st Medical
8995 Commercial St
New Minas, Nova Scotia B4N3E3
Telephone: 902-681-0202
Registration Date: 02/22/2022

Darice Cochrane, RRTS®

Canada Care Medical Inc.
1644 Bank St
Ottawa, Ontario K1V7Y6
Telephone: 613-234-1222
Registration Date: 01/28/2022

David Namehas, ATP, RRTS®

Rehab Support Systems
2008 Metropolitan Pl
Pomona, CA 91767
Telephone: 909-392-7884
Registration Date: 02/21/2022

Erin Cummings, RRTS®

CareLinc Medical
3125 28th St SW Ste 4
Grandville, MI 49418-1199
Telephone: 616-249-2273
Registration Date: 02/08/2022

Gerald Evans, RRTS®

Calgary Coop Home Health Care
9309 Macleod Trail SW
Calgary, Alberta T2J0P6
Telephone: 403-252-2266
Registration Date: 02/24/2022

Jason Eubanks, RRTS®

Brookstone Home Medical
117 Hugh Rd
Leesburg, GA 31763
Telephone: 229-869-3432
Registration Date: 01/28/2022

Jessi Albarado, RRTS®

Endeavor Medical Supply
5552 Cerritos Ave, Ste C
Cypress, CA 90630-4725
Telephone: (714) 522-1500
Registration Date: 03/08/2022

Jonathan Elliott, RRTS®

HME Mobility & Accessibility
2657 Wilfert Rd #101
Victoria, British Columbia V9B5Z3
Telephone: 250-217-4690
Registration Date: 02/14/2022

Joseph Marina, ATP, RRTS®

Browning's Pharmacy & Health Care
13000 W Colonial Dr
Orlando, FL 34787
Telephone: 407-650-9585
Registration Date: 02/25/2022

Kyle Weaver, RRTS®

CareLinc Medical
3125 28th St SW Ste 4
Grandville, MI
49418-1199
Telephone: 989-495-8988
Registration Date: 02/09/2022

Lisa Powell, PT, ATP, CRTS®

National Seating & Mobility, Inc.
2300 Valley View Ln Ste 205
Farmers Branch, TX 75234
Telephone: 214-531-8940
Registration Date: 01/25/2022

Michael Janzen, RRTS®

NSM-Canada
30583 Iron Mills Ct, Unit 150
Abbotsford, British Columbia V2S0C9
Telephone: 236-380-1027
Registration Date: 02/14/2022

Ray Parsons, RRTS®

Tango Medical
385 Rothesay Ave, Ste 701
Saint John, New Brunswick E2J2C4
Telephone: 506-693-3330
Registration Date: 02/08/2022

Shelby Leveille, RRTS®

Motion
463 St. Clair St
Chatham, Ontario N7L3K6
Telephone: 519-784-0006
Registration Date: 01/28/2022

Timothy Andrews, RRTS®

Embracor Medical
121 Ilsley Ave, Unit 101-102
Dartmouth, Nova Scotia B3B1S4
Telephone: 902-482-2438
Registration Date: 02/11/2022

Timothy Shaner, ATP, RRTS®

Rehab Support Systems
2808 Metropolitan Pl
Pomona, CA 91767
Telephone: 909-721-9870
Registration Date: 02/21/2022

Trevor Shaner, RRTS®

Rehab Support Systems
2808 Metropolitan Pl
Pomona, CA 91767
Telephone: 909-392-7884
Registration Date: 03/08/2022

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CRTS®

Congratulations to NRRTS Registrants recently awarded the CRTS® credential. A CRTS® receives a lapel pin signifying CRTS® or Certified Rehabilitation Technology Supplier® status and guidelines about the correct use of the credential. NAMES LISTED ARE FROM JAN. 25, 2022, THROUGH MARCH 11, 2022.

Anthony Hendricks, ATP, CRTS®
Rehab Medical Inc.
Mobile, AL

Lisa Powell, ATP, CRTS®
National Seating & Mobility, Inc.
Farmers Branch, TX

Anthony Martinelli, ATP, CRTS®
Med World HME Inc
Santa Maria, CA

Nicholas Hura, ATP, CRTS®
University of Michigan Health - Wheelchair Seating
Service
Ann Arbor, MI

Jody Jesus, ATP, CRTS®
Phoenix Rehab & Mobility
Ringgold, GA

FORMER NRRTS REGISTRANTS

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

NAMES INCLUDED ARE FROM JAN. 25, 2022, THROUGH MARCH 11, 2022. FOR AN UP-TO-DATE VERIFICATION ON REGISTRANTS, VISIT WWW.NRRTS.ORG, UPDATED DAILY.

Michael Deloach
Valdosta, GA

Steve Ebert, ATP
Nampa, ID

Leah Samaniego
Parma, OH

John Boswell
Huntingdon Valley, PA

Patricia Gilmore, ATP
Columbus, OH



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RENEWED NRRTS REGISTRANTS

The following individuals renewed their registry with NRRTS between Jan. 25, 2022, through March 11, 2022.

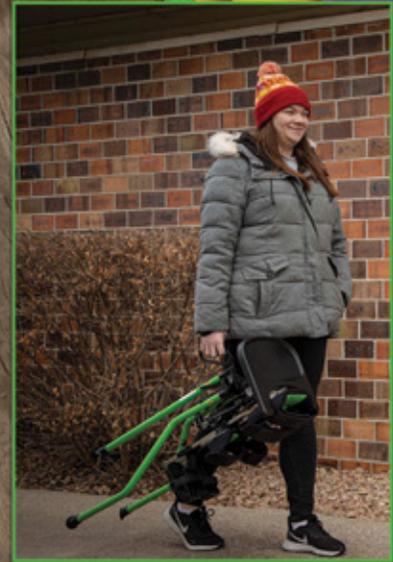
PLEASE NOTE IF YOU RENEWED AFTER MARCH 11, 2022, YOUR NAME WILL APPEAR IN A FUTURE ISSUE OF DIRECTIONS. IF YOU RENEWED PRIOR TO JAN. 25, 2022 YOUR NAME IS IN A PREVIOUS ISSUE OF DIRECTIONS.

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

Adam Majors, ATP, CRTS®	Gerald Tisdale, RRTS®	Nicholas Garber, ATP, RRTS®
Anna Davis, MPA, ATP, CRTS®	Gregory Allan Moorhouse, ATP, CRTS®	Nicholas Hura, ATP, CRTS®
Anthony J. Soria, Jr., RRTS®	James Mallach, RRTS®	Nicole Saxvik, RRTS®
Becky Bertoncino, ATP, CRTS®	James Drechsel, ATP, CRTS®	Omar Rozo, RRTS®
Ben Peters, ATP, CRTS®	James Randall Blackwell, ATP, CRTS®	Pam Yates, ATP, CRTS®
Bradley S. Hannan, ATP/SMS, CRTS®	James Z. Leddy, RRTS®	Peter R. Webb, ATP, CRTS®
Brenda Parker, ATP, CRTS®	Jason Phipps, RRTS®	Phil Wegman, ATP, CRTS®
Brian Gough, ATP, CRTS®	Jeff Cook, RRTS®	Rafael Ibarra, ATP, CRTS®
Brian Perkowski, PT, ATP, CRTS®	Jeff Burns, RRTS®	Randall Keith, RRTS®
Brian McKenzie Shoemaker, ATP, CRTS®	Jill Porter, OTR, ATP, CRTS®	Randall D. White, ATP, CRTS®
Butley J. Mahler, Jr., ATP, CRTS®	Jim Frid, RRTS®	Randy Malcolm, ATP, CRTS®
Carla Carrico, ATP, CRTS®	Jocelyn Fast, RRTS®	Richard Evans, RRTS®
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Chris Misik, RRTS®	Jonathan Hyzak, ATP, CRTS®	Ron Spent, RRTS®
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Dan Nederhood, ATP, CRTS®	Karl Thomas Eklund, ATP, CRTS®	Stephane Robichaud, RRTS®
Danielle Ebel, RRTS®	Keith Doyle, RRTS®	Stephanie Jane Longden, RRTS®
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Darryl Hosmanek, ATP, CRTS®	Kevin Peterson, RRTS®	Steven Francis Bennardo, RRTS®
David Glancy, ATP, CRTS®	Kevin Jackson, ATP, CRTS®	Steven J Carpenter, RRTS®
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Derek Register, ATP, CRTS®	Leslie Benjamin Todd, ATP/SMS, CRTS®	Tina Kriegl, RRTS®
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