DIRECTIONS

Page 8 | PERSONAL RESPONSIBILITY OR CORPORATE OBLIGATION?

Page 35 *Celebrating* NRRTS 25th anniversary 1992-2017

THE OFFICIAL PUBLICATION OF THE NATIONAL REGISTRY OF REHABILITATION TECHNOLOGY SUPPLIERS | ISSUE 2 OF 2017 | $5.00


STAND OUT even when you're
SITTING DOWN

Coming Soon To a Provider Near You

New From Freedom Designs

Freedom® *P.R.O. CG*™

"Precise Rotational Orientation" Center of Gravity Tilt-in-Space Mobility

"Way Ahead of the Curve"

This lighter weight compact design is so…

- ☑ easy to push and turn
- ☑ easy to tilt and un-tilt
- ☑ easy to adjust
- ☑ easy to use

Its "lighter weight" design (just 34 lbs. in transport configuration) and compact size (base frame is only 21.75" long) and simple adjustments enhance the maneuverability of the ***P.R.O. CG***. This makes it easy to push, turn, tilt and un-tilt so it is less cumbersome in small spaces and more adept in transportation. Simply put, it lends itself nicely to virtually any everyday experience.

FREEDOM™

Our kids are our passion.™

Freedom Designs Incorporated
2241 N. Madera Road, Simi Valley, CA 93065
Phone: 800-331-8551
Fax: 888-582-1509
Email: CustomerService@freedomdesigns.com

FREEDOM DESIGNS SINCE 1981

IN THIS ISSUE

The Official Publication of
The National Registry of
Rehabilitation Technology Suppliers
Volume 2017.2 | $5.00

EDITOR-IN-CHIEF
Amy Odom

CLINICAL EDITOR
Michelle Lange, OTR, ABDA, ATP/SMS

EDITORIAL ADVISORY BOARD
Mike Barner, ATP, CRTS®
Gerald Dickerson, ATP, CRTS®
Weesie Walker, ATP/SMS

DESIGN
Cari Caldwell
HARTSFIELD DESIGN

PRINTER
Craftsman Printers, Inc.

COVER Weesie Walker *concept*

NRRTS OFFICE
5815 82nd Street, Suite 145, Box 317, Lubbock, TX 79424
P 800.976.7787 F 888.251.3234
www.nrrts.org

For all advertising inquiries, contact Amy Odom at aodom@nrrts.org.

ADVERTISERS' INDEX

CLINICIAN TASK FORCE 17
DRIVE MEDICAL 9
EASYSTAND 25
FREEDOM DESIGNS, INC. 1
INVACARE CORPORATION ..... IFC
KI MOBILITY 5
MK BATTERY 46
MOTION CONCEPTS 23
NATIONAL CRT CONFERENCE 13
OTTOBOCK 39
PINDOT 3
PRIME ENGINEERING 37
PRM 41
QUANTUM REHAB 15
R82 CONVAID 34
RIDE DESIGNS/ASPEN SEATING 16
ROHO ..... IBC, OBC
STEALTH PRODUCTS 7
U.S. REHAB 11
UNITED SPINAL ASSOCIATION 45

8 *Feature* Personal Responsibility Or Corporate Obligation?

10 LIFE ON WHEELS
FINDING BRADY'S VOICE

14 NOTES FROM THE FIELD
HERO IN DISGUISE

18 CLINICALLY SPEAKING
THE BEAUTY OF A CAREER IN P.T.: SO MANY OPPORTUNITIES

20 CRT UPDATE
WASHINGTON, D.C., IS BUZZING

22 MEDICAL FOCUS
AGING WITH DISABILITIES: USING AVAILABLE INFORMATION WITH YOUR CLIENTS FOR SUCCESSFUL OUTCOME

24 CLINICAL PERSPECTIVE
CEU ARTICLE
TILT & RECLINE: UNDERSTANING ALL THE ANGLES

31 2017 WEBINARS

32 REHAB CASE STUDY
A PERSONAL VIEW INTO PRESSURE MANAGEMENT

35 Celebrating NRRTS 25th anniversary 1992-2017

36 RESNA
WHAT'S ON THE NEW ATP EXAM?

40 CLINICIAN TASK FORCE
THE CRT CLINICAL VOICE: THE CLINICIAN TASK FORCE 2017 STRATEGIC PLAN

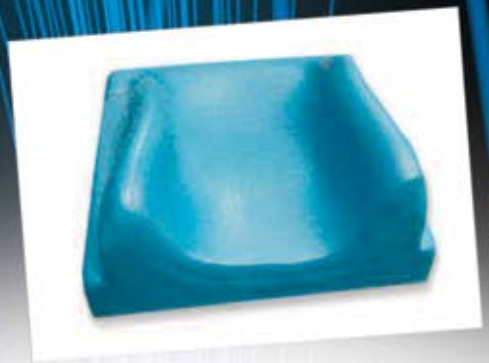
42 REIMBURSEMENT & CLINICAL ISSUES
WHERE DO THINGS STAND NOW THAT THE FIRST QUARTER IS BEHIND US?

44 LAW LIBRARY
A BUSINESS AND LEGAL PERSPECTIVE: THE IMPORTANCE OF BACKGROUND CHECKS FOR NRRTS REGISTRANTS

47 ·NEW CRTS®
·FORMER REGISTRANTS
·CURRENT REGISTRANTS

48 ·CHARTER CORPORATE FRIENDS OF NRRTS
·CORPORATE FRIENDS OF NRRTS
·ASSOCIATION FRIENDS OF NRRTS

Solve your toughest custom seating challenges with PinDot® Products



- Pindot routinely pulls 12" deep laterals and has been able to achieve as much as 15" depth. Aluminum reinforcements can be molded in for maximum support. These processes enable Pindot to produce ultra-thin laterals.
- A wide variety of surface features are available, including (but not limited to): Naked, vacu-formed vinyl, 'Sofspots', visco, and gel overlays. An array of cover materials are also offered including reversible Dartex and breathable mesh.
- All Pindot products are custom-made to meet your requirements and are coded as E2609 or E2617.

Our unique processes enable Pindot to help solve all your seating challenges

pin•dot®
Custom Seating

For more information call our Customer Service Team

at 800.451.3553

IN THIS ISSUE

CLAUDIA AMORTEGUI

Amortegui has a Master of Business Administration and more than 20 years of experience in the DMEPOS industry. Her experience comes from having worked on all sides of the industry, including the DMEPOS Medicare contractor, supplier, manufacturer and consultant. Her experiences enables her to assist ATPs, referrals, reimbursement staff and funding sources in understanding the reimbursement process as it relates to complex rehab.
SEE PAGE 42

KAREN "MISSY" BALL

Ball is a physical therapist, ATP and laboratory scientist with more than 35 years of experience in a private practice specializing in pediatric neurology. She has lectured nationally and internationally on seating and mobility for 20-plus years, served as educational specialist for Freedom Designs for 21 years and presently consults with Convaid and the Texas Department of Aging and Disabilities Services for seating and mobility. SEE PAGES 18 & 24

MIKE BARNER, ATP, CRTS®

Barner is president of NRRTS. Barner works for the University of Michigan Wheelchair Seating Services in Ann Arbor, Michigan.
SEE PAGE 8

LOIS BROWN, MPT, ATP/SMS

Brown is a mobility and seating consultant with GTK in Sydney, Australia. Brown was trained in the U.S. as a physical therapist and has 24 years of experience as a mobility, seating and assistive technology specialist. She has held a variety of roles in the field including prescribing therapist, director of Medicare review, prescribing supplier, manager of clinical education and a channel manager of mobility and seating for wheelchair manufacturers. SEE PAGE 32

DON CLAYBACK

Clayback is executive director of the National Coalition for Assistive and Rehab Technology (NCART). He has more than 25 years of experience in the Complex Rehab Technology and Home Medical Equipment industries as a provider, consultant and advocate, and is actively involved in industry issues and a frequent speaker at state and national conferences.
SEE PAGE 20

LAURA COHEN, PHD, PT, ATP/SMS

Cohen is the principal for Rehabilitation & Technology Consultants in Arlington, Virginia. She is the executive director of the Clinician Task Force (CTF), a national group of seating and mobility clinicians working to influence Medicare and Medicaid coding, coverage and payment policies for complex rehab and assistive technology devices. The CTF provides clinically relevant information about seating and wheeled mobility device assessment and decision making to policymakers to ensure appropriate access for individuals with disabilities. SEE PAGE 40

MICHAEL COLLINS, ATP, CRTS®

Collins works for Numotion in Mokena, Illinois.
SEE PAGE 14

SUSAN JOHNSON TAYLOR, OTR/L

Johnson Taylor is an occupational therapist who has been practicing in the field of seating and wheeled mobility for 35 years. She joined the Numotion clinical education team in 2015 as the manager of training and education speaking on a variety of Complex Rehab Technology topics. SEE PAGE 22

BARBI M. LORENZ

Lorenz is a labor and employment attorney in the K&L Gates LLP Dallas office. In addition, she also practices in complex commercial litigation and disputes. SEE PAGE 44

(CONTINUED ON PAGE 6)

Live Voice is Better.

Better by Design

Not just our tagline, It's in everything we do!
Whether it's our customer service, quality, website or our product – we strive to be better, to make your job easier.

Ki Mobility
Better by Design

www.kimobility.com | 1.800.981.1540

(CONTINUED FROM PAGE 4)

JULIE PIRIANO, PT, ATP/SMS

Piriano has worked in the seating and wheeled mobility industry for the past 33 years. She is vice president of Clinical Education, Rehab Industry Affairs and serves as Pride's compliance officer. She presents nationally on seating and wheeled mobility with a focus on the evaluation, documentation and clinical application of available technologies. She is a Friend of NRRTS. SEE PAGE 36

JOSHUA SKORA

Skora is a health care attorney in the K&L Gates LLP Dallas office where he provides counsel to Complex Rehab Technology clients on complex corporate and regulatory issues. In addition, he advises clients on health care litigation matters. SEE PAGE 44

BRADY THOMAS

Thomas is a consumer based in Colorado. SEE PAGE 10

New FOR 2017

NRRTS is pleased to offer an additional way to earn CEUs!!!! Read the Clinical Perspective Article on page 24 in this issue of DIRECTIONS and visit www.nrrts.org, click on continuing education and choose CEU article. Cost is $40 for non-registrants, $20 for FONs and $0 for NRRTS Registrants.

STEALTH authentic

ACCESSORIES SHOULDN'T BE AN AFTERTHOUGHT

ADA · VCinect · iDrive · fit

WITH STEALTH AUTHENTIC, quality, ingenuity and innovative design come standard. You deserve top-of-the-line products, and Stealth Authentic lets you customize your ride based on your individual needs and preferences. From comfort and durability to safety and intelligence, we have an entire line of products to help maximize your mobility and enhance your daily life. Be sure to check out our products today. Choose Stealth Authentic...truly an original.

Stealth Products
Mobility for Life

stealthproducts.com

Personal Responsibility Or Corporate Obligation?

WRITTEN BY: MIKE BARNER

Where does the coin toss land in your mind of who is responsible for you, the supplier of Complex Rehab Technology (CRT), to pay for your credentials and/or continuing education credit hours required to maintain that credential? Furthermore, where do you stand on meeting minimum requirements versus obtaining the highest possible standard available?

I probably say this to my staff at a nauseating frequency, "If you want to be recognized as part of the clinical staff, then you have to function as a clinician." This means you don't get to act like a used car salesman, set your own schedule, complete documentation however or whenever you feel like it, and you must hold yourself to the highest standards within your profession. Most of the time you pay for your education, credentials and licensing out of your own pocket.

The last item seems to be a point of contention. I'm not sure I understand the logic behind the naysayers. To start, if you are truly serious about your profession, it seems to me one way to indicate that is by carrying the highest level of certification available that demonstrates your knowledge and expertise in your field of practice. I would submit this could help support you if ever involved in litigation by again demonstrating your level of knowledge and expertise. Note: I am not a lawyer, and this is not legal advice. And, I did not stay at a Holiday Inn Express last night …

The way I see it is there are two different levels of credentials currently in our industry: the required ATP and the desired CRTS®, along with SMS. I say desired, as it should be desired not only by the consumers to work with a highly-credentialed provider, but also the payers as this should indicate a greater chance for a positive outcome for their money spent. I have certainly utilized this concept during contract negotiations. You can pay me a little more with a high level of return or take your chances with someone who meets the bare minimum requirement. Some will work and some will not; it's a coin toss. I certainly believe you get what you pay for, bare minimum or highest possible standard.

There are some reasons as to why you would want the highest level. Now the more sensitive question is, who should pay for it? Thus, the title of personal responsibility or corporate obligation. I think either way you point the finger, there are viable arguments to this. Within each is the question of "do I just pay for the minimum required, or should I set myself and my company apart from the minimum/average provider?"

From what I know, and I don't have any big data to support this, most companies do pay for the minimum certification required to provide CRT, but there seems to be a trend that this is all they are willing to pay for. On the other hand, most clinical settings do not pay for credentials but require them. Many clinicians strive for the highest level possible. At least that is my experience within an academic institution.

Do you want to be recognized as part of a high-level clinical team or just the equipment person who meets the minimum requirement? If you choose clinical team, then NRRTS is here to help you with just that. As a NRRTS Registrant, you will have access to some of the industry's leading clinicians providing cutting-edge educational courses via the NRRTS webinar series. If you miss one, not to worry. We have the on-demand library, so you have access to what you want whenever you want it. If that isn't enough, we also have the new DIRECTIONS CEU article program that can help you to earn the valuable CEUs necessary to obtain/maintain your CRTS® certification. All of this for only $200 a year. Yes, you read that correctly.

You also become part of a global family of the top CRT providers. Being part of the NRRTS Registry is a demonstration of commitment to a standard of practice and code of ethics that defines a professional supplier. Don't forget there is no other organization on the planet whose primary mission is supporting, promoting and fighting for the CRT supplier - You!

Set yourself apart as one of the leaders in the industry by obtaining the highest level of credentials possible, adhering to a standard of practice and code of ethics, along with maintaining your clinical knowledge with industry leading CEUs, regardless of who must pay for it. At some point you have to decide is it personal responsibility or corporate obligation?

Don't forget to go to www.Protectmymobility.com and let your voice be heard. We still have some serious issues to fight for that will have a long-lasting impact on our industry. Please read through the many articles in this issue of DIRECTIONS that address these issues and how you can get involved.

As always, please contact your NRRTS office and let us know how we can help you.

With great respect and admiration for what you all do every day,

Michael B.

CONTACT THE AUTHOR

Mike may be reached at mkbarner@med.umich.edu.

FINDING BRADY'S VOICE

WRITTEN BY: ROSA WALSTON LATIMER

When Anne Thomas remembers hearing her 6-year-old son say "Mom, I love you," for the first time she still feels goosebumps. "After spending the first years of his life with no way to communicate, Brady Thomas' ability to use a communication device to express his feelings and wants was a tremendous blessing."

Brady, who is now 17, experienced a traumatic delivery and suffered a seizure soon after he was born. "Brady was officially diagnosed with cerebral palsy when he was a year old. Early on we knew he would have lifelong challenges, but we were unaware to what degree," Anne said. "I have been blessed with a wonderful husband, Blake, who is very supportive and a team player. Our youngest son, Matthew, is 12 years old and a typical healthy kid. We are both committed 100 percent to our sons and their care. Blake and I joke that Matthew keeps us on our toes in different ways." Anne recalled that after being accustomed to Brady not crawling when Matthew started moving about she thought, "Oh, my! What am I getting into?" She further explained how the family handles the responsibilities of their sons. "I didn't return to work after Brady was born due to his care. Blake and I have a divide and conquer approach with our boys. It's a team effort."

Brady Thomas, senior picture, Mountain Vista High School

Life experiences for Brady, who is nonverbal and visually impaired, flourished after a communication device was introduced and he could express his feelings and wants. "This was truly life changing for Brady," Anne said. "We realized when he was younger that he laughed at appropriate times and connected with others. We began searching for a way for him to communicate and through referrals met Michelle Lange, an occupational therapist."

The Thomas family considers Lange and speech pathologist Jill Tullman to be Brady's Dream Team. "Early on Michelle recognized the same spark in Brady that we had seen," Anne said. "She introduced us to all of the equipment options available. It was critical for Brady to be positioned correctly to use a communication device. Because he is visually impaired, he couldn't see the screen of the device as well as he needed to; his hands and his arms are challenged so he couldn't use those the way he wanted to, but he could definitely use his forehead!"

"Lange set him up with a head switch and private speaker on the headrest of his wheelchair. Tullman programmed the device with relevant vocabulary. Once Brady was connected, he immediately let us know he understood what was going on around him."

Brady playing unified soccer for his high school team.

Brady at Disney World. One of his favorite places to visit.

It soon became obvious how much vocabulary he needed and his mother remembers one of Brady's favorite phrases: "What are my choices?" The communication device was empowering to a young boy who, for all of his life, had everyone else making choices for him.

"Brady's motor skills are limited, and he is nonverbal but he's very good with his communication device," said Lange, his occupational therapist for more than ten years. "He listens to his choices that only he can hear, and then he selects sentences. I see Brady in his home and often he has prepared sentences with information or questions before I arrive."

"It can be easy to underestimate a client like Brady, and as his therapist the burden is on me to remember who this young man is."

Lange also emphasized that Brady and his family are a vivid reminder to clinicians and suppliers to remember that beyond equipment, funding hassles, accessibility and other issues, there is a family. A family trying to do life as best they can with school, bills, extended family as well as a child who has very significant needs.

"We are so grateful to have had Michelle and Jill as well as others supporting us in meeting Brady's needs," Anne said. "Our first interaction with a speech therapist was when Brady was in preschool. We had a consultation and although we could see Brady connect cause and effect, he was so physically challenged, he was unable to demonstrate that. We were disappointed the therapist didn't see this connection.

As a parent I am glad for other professionals who had an open mind to possibilities and were willing to look 'outside the box' for solutions. If we had gone with the first opinion, Brady may not have had the powerful opportunity to communicate.

My advice to others who find themselves in a situation similar to ours is: If you believe your child is being

(CONTINUED ON PAGE 12)

FINDING BRADY'S VOICE
(CONTINUED FROM PAGE 11)

underestimated, keep searching for a team who can help you and your child. You know your child best."

Brady will graduate from Mountain Vista High School in Highlands Ranch, Colorado, in May. "The students Brady has gone to school with since kindergarten will be moving on to college or community college. Each taking a step after graduation," Brady's mother said. "Our family has been considering what Brady's next step will be. We are fortunate that our school district offers a program called the Bridge Program for special needs students aged 18 to 21."

Brady and his parents feel this program will be a good fit. The daily program is located close to Brady's home and puts an emphasis on life skills such as job coaching. The students will also make trips into the community three times a week. Different levels of instruction and support are offered based on individual needs.

"Our goal is for Brady to be able to advocate for himself when family isn't around, and we hope this program will help accomplish this."

The extension of appropriate education for individuals with special needs is provided by the Individuals with Disabilities Education Act (IDEA). This federal legislation ensures students with a disability are provided free appropriate public education that is tailored to their individual needs. One component of IDEA is services such as those offered by the Bridge Program to coordinate the transition between school and post school activities, such as secondary education, vocational training, employment and independent living.

Realizing the importance of maintaining balance in their lives, the Thomas family makes time for fun and recreation. "Brady is a huge Denver Broncos fan, and we've been to a few of their games. We are fortunate to have family fairly close and during football season we do a lot of football parties," Anne said. "Brady is a Rockies fan, too, so we also attend some of the Colorado Rockies baseball games. I suppose you could say generally we are big on sports. Matthew plays soccer, Blake is his coach, and Brady likes to go to his brother's games."

However, Brady is more than a spectator when it comes to sports. For the past 10 years he has played for Sports Made Possible, a Denver adaptive baseball league. "This organization has a fabulous field that is rubberized and accessible to kids in wheelchairs or using walkers. The surface is also great for kids who are mobile," Anne explained. "Brady started with this league in the second grade. Participants are paired with a volunteer buddy, and the league has games every Saturday."

Other unified sports teams at Brady's high school are coached by the special education teacher and play competitively against teams from other high schools. "The unified sports program at Mountain Vista pairs team members with peer volunteers," Anne said.

"Our family enjoys vacation time, too," Anne said. "Brady loves all things Disney so we try to make it to a Disney park at least every other year. Our extended family vacations at Cocoa Beach, Florida, almost every summer. Brady likes the beach and spending time with his cousins. The resort has a beach wheelchair that we can use to get close to the water. These visits to the beach as a family have created special memories for all of us."

As family of faith, the Thomases have been touched by a very supportive extended family as well as wonderful friends.

A special individual in many ways, Brady has been described as a hard worker and very involved in life. Clearly the combined support of his extended Dream Team - committed therapists and caregivers; a loving family and friends; his community – has made a positive difference in his life that will extend beyond the milestone of high school graduation. There is no doubt that their investment in this young man is well-placed.

CONTACT

The Thomas family may be reached at anbthomas@gmail.com.

The Thomas Family (from left) Blake, Anne, Brady and Matthew on a vacation at Cocoa Beach, Florida.

Brady with his communication device.

Brady rounding the bases with his brother, Matthew, during a Sports Made Possible adaptive baseball game.

NATIONAL CRT LEADERSHIP & ADVOCACY CONFERENCE

Hyatt Regency Crystal City - Arlington, Virginia
April 26-27, 2017
Presented by NCART and NRRTS

Join CRT Providers, Manufacturers, Consumers, Clinicians, and Others to Protect and Promote Access to CRT!

The National Coalition for Assistive and Rehab Technology (NCART) and the National Registry of Rehabilitation Technology Suppliers (NRRTS) are partnering to hold the annual National CRT Leadership and Advocacy Conference.

With a reduced registration fee and a reformatted schedule, attendees will benefit from industry-driven discussion topics, unique networking opportunities, legislative and regulatory updates, and Capitol Hill appointments with Members of Congress.

Register now at www.ncart.us/crtconf to reserve your place and join others who are invested in the future of CRT. For additional information please contact Don Clayback at dclayback@ncart.us or Weesie Walker at wwalker@nrrts.org. We look forward to seeing you there!

Taking the CRT Message to Capitol Hill!

Registration

$199.00 Per Attendee

Conference Schedule

Leadership Day
Wednesday, April 26

10:00-11:30- Healthcare Reform
1:00-3:00- Industry Update
3:30-5:00- Congressional Prep
6:00-8:00- CRT United Reception

Captiol Hill Day
Thursday, April 27

9:00-4:00- Capitol Hill Visits
6:00-7:30- Debriefing Reception

To Register, Visit:
www.ncart.us/crtconf

NOTES FROM THE FIELD

HERO IN DISGUISE

WRITTEN BY: DANETTE BAKER

Michael Collins' childhood dream was to be a superhero. Some might say that dream is coming to fruition. While he doesn't wear a cape, nor possess any superhuman powers, Collins has fought numerous battles against funding injustice — some he's won, while others provided the insight that's made Collins who he is today.

Collins, an ATP and CRTS®, works in the field for Numotion in Mokena, Illinois. He is part of a team comprised of clinicians and clients all working in tandem to help individuals with disabilities gain greater mobility, independence and access to their world. It's a position, Collins said, that never quite feels like work. His self-defined drive is part of the credit, but more so it's the impact he knows is being made on clients such as Crystal*(not her real name) that really make the difference. Crystal is an elementary-aged child that Collins helped fit with a head array so she could drive her power wheelchair. About two weeks later, he learned that Crystal had been "disappearing" from her classroom only to be found down the hall in the library.

"The grandmother was so frustrated to keep getting calls from the school, and I all I could think of was 'Yes!' By changing the assistive technology for Crystal, I created a whole new realm of parenting for the grandmother, but look how I empowered Crystal. To me, there is no greater compliment."

Collins said his job is one that's part evaluator, part investigator and part mediator. As the technology expert, his responsibility is to identify the best use of equipment based on the clinician's assessment and prescription and the client's adaptability and ability to use, he said. "Each and every evaluation is like a dance; sometimes you lead and sometimes you follow. And sometimes you just stand still and listen. The whole goal is to try and avoid the obstacles and keep everyone moving in the same direction toward the same objectives."

And when that happens, Collins said, there is no greater reward. He has been on both sides of that fence — as a professional and as a parent. His middle child, Rebecca, was diagnosed at age 5 with Batten's disease, which according to the Batten Disease Research and Support Association's website, disrupts the cells' ability to dispose of waste. Cells become unstable with a build-up of proteins and fats, causing damage and progressive neurological impairment.

"Becca" died in 2015; she was 15. It was 10 long years of frustration and fighting the funding process for claim denials," Collins said. "Just one example, after she turned 6, insurance never paid for her gastrostomy tube for feedings.

"As professionals, we hear things like this often. Having been a parent of a child with special needs allows me now to empathize with those I work with. I've been through the roadblocks. I know how frustrating it is, for example, to spend 10 to 15 minutes putting a jacket on a child when there is a wheelchair poncho on the market that takes 10 seconds and will keep them dry and warm, but it's not a covered item."

That's why Collins supports organizations such as NRRTS, NCART

(CONTINUED ON PAGE 16)

The Collins Family

Collins participates in numerous volunteer activities.


QUANTUM® PROVIDES GREATER INDEPENDENCE
Q6 edge 2.0
RANGE UP TO 16.19 MILES PER CHARGE
Q-Logic 3 with advanced Bluetooth for increased access to your environment
iLevel® power seat elevation improves reach and line of sight without sacrificing functional speed
Front and rear LED fender lights help increase visibility
QUANTUM®

HERO IN DISGUISE
(CONTINUED FROM PAGE 14)

and RESNA, which are not only pressing the legislature for coverage of assistive and complex rehab technology, but also setting ethical and competency standards for industry professionals.

"It's important for our industry to have ethical and professional standards, but it's also beneficial for us as professionals," said Collins, who was among the first to test for the ATP certification in the mid-1990s. "Outside of the obvious benefits, (affiliating with professional organizations and earning credentials) you gain by networking and affiliating with ethical peers.

"It's amazing how one bad person or company can negatively influence an industry making it that much more difficult for all of us to do our jobs."

To keep perspective, Collins is active in multiple volunteer opportunities including The Kids Equipment Network http://www.tken.org. The non-profit provides durable medical and adaptive equipment for children with special needs who are underinsured for the needed equipment. Collins volunteers with a group of ATPs monthly who donate their expertise for fitting of the equipment, and he has served on the network's board of directors for four years.

Collins preparing a fitting a wheelchair donated for an underinsured child.

Collins' volunteer work benefits those who need adaptive and rehab technology.

Additionally, Collins was recently elected to his second three-year term on the board of directors for the Batten Disease Support and Research Association BDSRA.org. Later this year, Collins plans to join Bethel Ministries International's Wheelchair Mission Guatemala. Through networking, the ministry accepts donated equipment for a weeklong wheelchair clinic where adults and children with disabilities will be fitted with adaptive and rehab technology.

Collins said participating in these opportunities to give back wouldn't be possible without the example set by Numotion's leadership and support from his incredible family — his wife Dawn who is patient with his long hours at work and volunteering, and their other two children, 20-year-old Natalie and 12-year-old Michael.

"We were so amazed to realize how many lives (Becca) had affected," Collins said. "Now to see our other children serving is amazing. We are on this earth for just a short time. Our job is to make footprints that will last by continuing to pay it forward."

CONTACT

Mike may be reached at michael.collins@numotion.com

CLINICALLY SPEAKING

THE BEAUTY OF A CAREER IN PHYSICAL THERAPY

SO MANY OPPORTUNITIES

WRITTEN BY: ROSA WALSTON LATIMER

The path Missy Ball, PT, MT, ATP, took to a career in physical therapy, although not direct, began early in her life. "I have always loved the sciences, so upon high school graduation went to Louisiana State University in Baton Rouge to study medical technology and diagnostic laboratory medicine." Her fourth year of college involved a year-long internship at Earl K. Long Memorial Charity Hospital. During this internship, she was asked to participate in the Medical Technology Student Bowl competition of 1977. The team consisted of four individuals. Teams were presented with diagnostic medical questions and the first to answer correctly scored. "To our surprise our team won state, regional and national competitions!"

Ball's specialty in lab medicine was hematology/immunology. Hematology involves detecting blood disorders, such as leukemias, anemias and infectious mononucleosis. "I was under the microscope several hours a day and enjoyed the work."

However, after eight years in the laboratory Ball's interests expanded and shifted to be involved more clinically with patients. "I prayed about it and considered going to medical school," she said. "However, I met my husband-to-be during this time and knew if I went to medical school I would rarely see him. So I began to look into other professions that would be more manageable with a personal family life. When I spoke with established physical therapists, many would tell me that the sky was the limit." Missy continued to work 30 hours a week as a medical technologist while she attended physical therapy school, graduating in 1984.

After graduation, Ball took a job at Children's Hospital in New Orleans. "I had a real peace about this," she said. "I love pediatrics and neurology. I was at Children's Hospital for 10 years and during that time moved from staff PT to assistant director and acting director. That's the beauty of this profession. There are so many opportunities! God has blessed me in many ways in this realm of physical therapy."

Missy and Occupational Therapist Diane Patterson became co-directors of the seating clinic at Children's Hospital and worked together to raise the level of services for their clients as well as educate other therapists. "In addition to our regular caseload, we had seating clinic every week. We called the clinic 'Chairs R Us.' We were internally educating young therapists on everything from basic wheelchairs to power chairs. This developed into a regional seating clinic as we also had clients from other states attending.

"The depth of character and drive I see in my clients and their caregivers to overcome the worst obstacles are a constant reminder that these are everyday heroes that aren't often recognized," Ball said. "I am humbled and privileged to work with these individuals. Children are especially positive regardless of their situation.

"During the 10 years, I worked Children's Hospital seating clinic, I was lucky to work with two exceptional Complex Rehab Technology providers, Jim Glaes and Ray Bockover. Their knowledge of seating and mobility equipment coupled with their ability to think out of the box when necessary was a benefit to our clients and educational for the clinicians involved in seating," Ball said. "The extent of my knowledge in seating and mobility is partly due to these two men."

Among the results of this partnership was the development of a 16-page seating protocol that described in detail the seating process, from referral intake to wheelchair delivery and checkout.

During the 1980s and early '90s, the state of Louisiana moved to a bidding system for durable medical equipment. "It proved disastrous," Ball said. "Three bids were required on each wheelchair prescription, but the person bidding was not required to attend or participate in the seating evaluation."

As assistant director at Children's Hospital, Ball performed Quality Assurance reports on different physical therapy programs and tracked the seating program outcomes for three six-month periods directly connecting poor outcomes with the new state bid policy. Physicians in orthopedics and neurology, who were involved with the seating clinic team, presented this information, as well as their own personal observations to Louisiana legislators. This resulted in the removal of the bid program for durable medical equipment as well as established a mandate stating professionals must participate in the seating process to be eligible to procure equipment.

In 1993, Ball left Children's Hospital with the goal of beginning a private practice. At this time, Glaes and Bockover gave her a complimentary registration for a Freedom Designs seminar. When Ball realized there would be no client at the seminar she asked, "How could there be a seating seminar without a client?" Ginny Maloco, owner of Freedom Designs replied, "Have Missy bring the client!"

"I did bring the client and ended up performing the evaluation in the seminar," Ball said. Within a few weeks of this seminar, Maloco called and offered her a job. "I had just left Children's Hospital and had mixed feelings about taking this job. Ginny offered me the position of Clinical Education Specialist and mentioned it would entail traveling nationally and internationally. Being a lab scientist more suited my personality, and I was trying to decide how to decline gracefully and not offend Ginny. A week later she sent me the official offer. My husband and I discussed this and felt God was possibly opening another door."

However, Ball's reason for leaving Children's Hospital to start a private practice was to have more time with her kids, which this job didn't appear to offer.

A compromise was reached allowing Ball to work for Freedom Designs and also have time at home. The agreement endured 21 years. During this time, Missy traveled six to eight days a month, presented more than 20 seminars a year and developed presentations for Medtrade, ISS, ESS, Texas RPC and in international locations. "This is another example of the flexibility available to physical therapists. There are also the added perks in this industry of engaging with many interesting, dynamic people including clinicians, engineers, equipment specialists and marketing/sales individuals," Ball said.

In 2014, Ball, like many others, was laid off by Invacare. "Even then, God was good, providing peace about what was happening, she said. "Actually, that Sunday I bought the paper purposely to look for jobs in the classified section. That's how long it had been since I looked for a job. I didn't realize how much this process had changed."

Fortunately, Invacare provided a company to assist with the transition to another job. Missy continued to work in her private practice. A few months later, Mark Sullivan and Nanneke Dinklo contacted Ball to consult for educational needs and clinical input to the design team, which she accepted.

Missy & Steve at Jazzfest in New Orleans.

Missy and her daughters

Missy walking with Jacie, a client and friend.

The Ball Family (l-r): Sarah, young Aiden, Katie, Missy, Olivia and Steve.

Grandson Aiden

Ball's husband, Steve, a marriage and family therapist, recently retired as director of Kingsley House in New Orleans, but Ball, with a few more years to go before retirement, remains involved and passionate about her work. She established her private practice, Physioball Therapy LLC in 2003, consults regularly with R82/Convaid and intermittently with Texas Department of Aging and Disabilities Services.

Free time is spent with family including 5-year-old grandson, Aiden. "I love being with my grandson. He is pure joy with hilarity. Everything is about dinosaurs!" Yearly vacations, spent in Maine, where her husband is from, or in Florida, include island biking, hiking, swimming or exploring nature. Steve, an athlete, is also pushing Ball to get back into tennis regularly.

"Steve and I married late in life and had our children in my mid-to-late 30s," Ball said. The couple's oldest daughter, Sarah, has just been accepted to veterinary medicine school. Their daughters Katie and Olivia will graduate in May of 2017 with a masters in speech pathology and bachelors in business respectively. "As you can see, Steve and I are at the stage now where we can finally begin to save for our retirement and enjoy more time together."

CONTACT

Missy may be reached at missyballpt@aol.com.

CRT UPDATE

WASHINGTON, D.C. IS BUZZING

WRITTEN BY: DON CLAYBACK

Unless you have been hibernating for the winter, you know that health care reform is a major focus of discussion and activity in Washington. The repeal/replacement of the Affordable Care Act and related potential Medicaid structural changes are in play and have significant implications to national health care policies and programs.

We are closely following these developments and evaluating the impact on access to Complex Rehab Technology (CRT) for people with disabilities, but we also have some immediate issues we need to stay focused on.

From a health care policy perspective, HHS Secretary Tom Price and CMS Administrator Seema Verma have now been confirmed and are beginning their work. We are in the process of meeting with the new leadership and staff to discuss immediate and long-term issues impacting access to CRT.

The good news, as explained below, is legislation has been reintroduced to permanently stop CMS from inappropriately applying Competitive Bid Program rates to accessories used with CRT power and manual wheelchairs. The bad news is Congress is dealing with multiple major policy and political challenges that makes it harder to get their attention.

It will be easy for CRT to get lost in all the broader issues and turmoil in Congress unless CRT stakeholders stay very engaged. We must make sure our voices are heard and work even harder to stay in contact with members of Congress on CRT.

LEGISLATION REINTRODUCED TO STOP PAYMENT CUTS TO CRT WHEELCHAIR ACCESSORIES

Our immediate priority is passing legislation to stop CMS from inappropriately using Medicare competitive bid program information to cut payments for accessories used with CRT manual and power wheelchairs. The current delay in cuts to CRT power wheelchair accessories expires June 30 so a permanent fix is needed to stop July 1 payment reductions.

The CRT Wheelchair Accessories bill has been reintroduced in the Senate and the House. The new bill numbers are S 486 and HR 1361. We thank our CRT champions, Sens. Bob Casey, D-PA, and Rob Portman, R-Ohio, and Reps. Lee Zeldin, R-NY, and John Larson, D-CT, for their continued leadership on this issue.

It's now time to secure co-sponsors for the new bills. A great starting point is resigning last year's 25 Senate and 146 House co-sponsors.

To help in this effort, we've updated the email/call system and the related documents (list of cosponsors signed on, position paper, etc.). You can access these tools at the dedicated website www.protectmymobility.org. The links and materials are also available at www.access2crt.org.

LEGISLATION REINTRODUCED TO CREATE CRT SEPARATE BENEFIT CATEGORY

Reps. Jim Sensenbrenner, R-WI, and Joe Crowley, D-NY, have reintroduced the "Ensuring Access to Quality Complex Rehabilitation Technology Act of 2017" in the House of Representatives. This bill will create a Separate Category for CRT and make other needed coverage and policy improvements. The new bill number is HR 750.

In his announcement, Representative Sensenbrenner stated "As a leader in the fight for the rights of the disabled, I want to ensure all Americans have access to the tools needed to live each day to the fullest. Disabled Americans should not be denied rehabilitation or medical equipment that can enable them to live and work freely and independently."

Representative Crowley joined in saying, "This legislation would guarantee that patients have access to the high-quality products and services they need to lead a more independent life. For those with

THE CRT COMMUNITY IS VERY THANKFUL TO REPRESENTATIVES SENSENBRENNER AND CROWLEY FOR THEIR CONTINUED WORK TO PROTECT ACCESS FOR PEOPLE WITH DISABILITIES.

disabilities and other medical conditions, these complex rehabilitation technology products are necessities."

The CRT Community is very thankful to Representatives Sensenbrenner and Crowley for their continued work to protect access for people with disabilities. Visit www.access2crt.org to reach out to your Representative in the House to get him/her signed on as a cosponsor to HR 750.

MEDICARE CRT POWER WHEELCHAIR PRIOR AUTHORIZATION

The new Medicare Prior Authorization (PA) requirement for two CRT Group 3 Power Wheelchair codes is now in effect for dates of service of March 20 or after in the states of Illinois, Missouri, New York, and West Virginia. The two codes are code K0856 (Group 3 Standard Power Wheelchair with Single Power Option) and code K0861 (Group 3 Standard Power Wheelchair with Multi Power Option).

CMS has published an operational guide and related information that is available at the CMS Prior Authorization website. This PA requirement may be expanded nationwide in July depending on the results of the four-state implementation.

MEDICARE REDUCES UPGRADE OPTIONS

The DME Medicare Administrative Contractors (MACs) have issued a joint publication indicating that titanium wheelchair frames and patient weight capacity upgrades are not separately billable to Medicare. The article indicates these features were included in the initial fee schedules developed for manual wheelchairs.

This is the most recent example of policy changes and re-interpretations over the past few years implemented by CMS and its contractors that eliminate access. This policy announcement prevents Medicare beneficiaries with disabilities from obtaining CRT, even if they are willing to pay for upgrades themselves.

To work to resolve this access problem, we have formed an NCART work group and developed an issue paper to share with policy makers and advocates. We have also reached out to CMS with our concerns and are pursuing other channels in the Congressional and advocacy arenas. We will keep you updated on our progress and next steps that may be required.

TIMELY NATIONAL CRT CONFERENCE

As mentioned above, this is a critical time for CRT in Washington. That's why we need a strong showing at the April 26 to 27 National CRT Leadership and Advocacy Conference in Washington, D.C. This is a great opportunity to take your personal CRT message to your Members of Congress.

To make it easier for more people to attend, we have lowered the program fee to only $199 and condensed the conference to two days. Attendees not only get the benefit of meeting with Congress, but they will hear from experts speaking on national health care policy trends and industry regulatory/legislative topics.

This annual event has been a critical factor in securing Congressional support for CRT. We have seen the significant benefit that comes from stakeholders taking the time to come to Washington to personally meet with their members and staff. You can get more information and sign up at www.ncart.us/crtconf.

KEEP YOUR FOOT ON THE GAS

It will be another busy year for CRT advocacy. We need to keep our foot on the gas pedal and continue to build greater CRT awareness and support in Congress. This is especially true when it comes to stopping the July 1 cuts to CRT wheelchair accessories.

Make use of the updated tools available at www.access2crt.org and www.protectmymobility.org in your pursuits. Thanks for your continued efforts and let us know if you need assistance.

CONTACT

Don may be reached at dclayback@ncart.us or 716.839.9728.

AGING WITH DISABILITIES

USING THE AVAILABLE INFORMATION WITH YOUR CLIENTS FOR A SUCCESSFUL OUTCOME

WRITTEN BY: SUSAN JOHNSON TAYLOR, OTR/L

Just as with any intervention we perform as suppliers and therapists, the more information and experience we have, the more this informs our clinical practices. Understanding the medical, functional and psycho-social effects that may be experienced when a client is aging with a disability can direct intervention. With this information, we can better determine when the client might benefit from new technology or make the right referrals when technology itself is not the answer.

The body of knowledge surrounding aging with a disability is relatively new. Rehabilitation as a field was "born" around the second World War at a time when it was thought that if someone was injured, survived and rehabbed, no further intervention was needed. Fast forward to the 1970s when the first large group of polio survivors began to experience secondary impairments for which they were not prepared. Survivor rates for spinal cord injury rose through the1960s and early 1970s, and studies began to revolve around secondary conditions which developed over time. Research studies on aging with a disability started with these two groups. More recently, since about the mid-1990s, studies have started looking at people aging with cerebral palsy and spina bifida.

Secondary impairments can range from those affecting functional reserves and capacities daily (such as pain, fatigue and new weakness) to medical issues (such as pressure injuries, heart problems, incontinence or diabetes). Some secondary impairments can be addressed in the context of a wheelchair and seating evaluation and may be affected by seating and wheeled mobility selections. Aging with a disability is not age-dependent or an "older age" problem: it is dependent on time since onset of the disability. If you work in the field of complex rehabilitation, you need to be aware of the effects of aging on those with acquired, as well as childhood disabilities, whether you are an adult therapist or a pediatric therapist. Hopefully, as we learn of the effects of aging, we can use that information to modify or change the way we approach children as well.

WE BASICALLY SEE INDIVIDUALS IN ONE OF TWO SITUATIONS: THE PERSON WHO IS NEW TO A CONDITION OR A PERSON WHO HAS BEEN LIVING WITH A CONDITION FOR MANY YEARS.

We basically see individuals in one of two situations: the person who is new to a condition or a person who has been living with a condition for many years. The former is a "blank slate." There is no experience with which to compare information they are being provided with at an evaluation. The latter has a "full slate," with many considerations based on their experiences. We must understand clients' diagnoses and conditions and the effects of aging. As complex rehabilitation evaluators and providers, our role is to understand the studies and information available and how this information can contribute to the evaluation process. Of course, each client assists us in our understanding of specific conditions as well.

Successful outcomes in the field of Complex Rehab Technology can be difficult to achieve. Having the right information helps us to ask the right questions, and combined with input from a knowledgeable medical team, can direct our interventions.

CONTACT

Susan may be reached at susan.taylor@numotion.com.

RESOURCES:

- BARRY & EDGMAN-LEVTAN. SHARED DECISION-MAKING- THE PINNACLE OF PATIENT-CENTERED CARE. NE J MED, 366: 9, MARCH 1, 2012. (LEARNING HOW TO LISTEN AND COME TO MUTUAL CONCLUSIONS)
- KEMP BJ, MOSQUEDA L: AGING WITH A DISABILITY: WHAT THE CLINICIAN NEEDS TO KNOW. BALTIMORE, MD: JOHNS HOPKINS UNIVERSITY PRESS; 2004. (CAN BE FOUND ON AMAZON.COM; EXCELLENT BOOK FROM CLINICIAN AND CONSUMER STANDPOINTS)
- COOK KF, MOLTON IR, JENSEN MP: FATIGUE AND AGING WITH A DISABILITY. ARCH OF PHYS MED REHABIL 2011;92:1126-1133
- TURK, ET AL. AGING WITH PEDIATRIC ONSET DISABILITIES. IN: PEDIATRIC REHABILITATION, PRINCIPLES AND PRACTICE, FIFTH EDITION. ALEXANDER & MATTHEWS, EDS, MURPHY, K, ASSOC ED. DEMOS MEDICAL, 2015.
- KRAUSE, ET AL. SCI LONGITUDINAL AGING STUDY: 40 YEARS OF RESEARCH. TOPICS IN SPINAL CORD INJ REHABIL 2015: 21(3): 189-200.
- THOMPSON AND YAKURA. AGING RELATED FUNCTIONAL CHANGES IN SPINAL CORD INJURY. TOPICS IN SPINAL CORD INJ REHABIL, 6(3) 69-82. 2001. (AMONG OTHER THINGS, DEFINES "FUNCTIONAL IMPAIRMENT SYNDROME" AND HOW CLINICIANS CAN IDENTIFY APPROACHING PROBLEMS)
- WWW.SCIREPROJECT.COM : PDF DOCUMENT OF SUMMARY OF RESEARCH FOR SCI AND AGING.
- KEMP, B. WHAT THE REHABILITATION PROFESSIONAL AND THE CONSUMER NEED TO KNOW. PHYS MED REHABIL CLIN N AM, 16(2005).
- PETERSON HAAK, ET AL. CP AND AGING. DEVELOPMENTAL MEDICINE &CHILD NEUROLOGY 2009,51(SUPPL.4):16–23
- M VERHOEF, ET AL. SECONDARY IMPAIRMENTS IN YOUNG ADULTS WITH SPINA BIFIDA. DEVELOPMENTAL MEDICINE & CHILD NEUROLOGY 2004, 46: 420–427

ROVI X3 maxX

the COMPLETE SOLUTION

ONE CALL DOES IT ALL . . .

- one order form
- one purchase order
- one invoice

Award-winning Invacare Matrx Seating & Positioning Solutions

Motion Concepts' Customer Service!
1-888-433-6818

Motion Concepts' full line of innovative Power Positioning Products

The exceptional X3 Power Base from ROVI

ROVI
ADVANCING MOBILITY.

INVACARE
Yes, you can.

matrx®
SEATING SERIES

Motion Concepts

Toll Free Tel: 1.888.433.6818 ▶ Toll Free Fax: 1.888.433.6834 ▶ www.motionconcepts.com

CEU ARTICLE

TILT & RECLINE

UNDERSTANDING ALL THE ANGLES

WRITTEN BY: KAREN "MISSY" BALL MT, PT, ATP

NRRTS is pleased to offer anther CEU article. The following article is approved by NRRTS, as an accredited IACET provider, for .1 CEU (1 contact hour). After reading this article, please visit www.nrrts.org under continuing education to order the article. Upon passing the exam, you will be sent a CEU certificate.

The tilt-in-space design was first conceived by Hugh Barclay, an orthotist, working with physically challenged children. He observed that skeletal asymmetries, such as scoliosis, could be supported or partially reduced with the client tilted. The first tilt-in-space wheelchair was invented in Kingston, Ontario, Canada, in the early 1980s. Tilt-in-space chairs have been utilized for more than 30 years as a means of shifting weight from the buttock to the back for pressure management.

The tilt-in-space frame allows change in a client's orientation to gravity while maintaining the same seat-to-back angle and relationship between seating components and the client. Tilt-in-space chairs have evolved from a single posterior pivot point design, requiring a longer wheelbase for stability, to the center of mass or rotational design with improved stability and shorter base requirements.

Recline systems produce a change in seat-to-back angle with an angular and linear relationship change between seating components and the client. The back pivots rearward without a change in the seat position to gravity. Basic recline manual and power chairs use a pivot point that is level with the seat rail of the chair. This promotes and increases the tendency for downward migration of the client's center of mass on the seat, as well as the migration of the torso down the back. Minimal shear systems emerged in late 1980s to address this issue using two different methods. The first design involves incorporation of a raised pivot point for the back canes that is in close proximity to the client's hip joint to reduce the shear effect. The second design, initially invented by Greg Peek, allows the back to glide downward on tracks as the seat-to-back angle opens, minimizing the shear effect. So what criteria determines the need for tilt, recline or both?

FUNDING

If the funding source is Medicare, the team must follow the algorithmic process for determining a mobility deficit as of July 2005. Mobility Assistive Equipment (MAE) includes canes, crutches, manual wheelchairs, scooters and power wheelchairs. National coverage determination states MAE is reasonable and necessary for a beneficiary who has a mobility deficit sufficient to impair their participation in mobility-related activities of daily living (MRADLs), which can include toileting, feeding, dressing, grooming and bathing in customary locations in the home.

Does the beneficiary have a limitation that impairs their ability to participate in one or more MRADLs in the home (independently, safely or timely)? In this process, canes, walkers or gait trainers are considered if the use of this device improves independence, safety and timeliness. If not, a manual wheelchair is considered based on specifics such as the beneficiary's ability to self-propel (UE strength/coordination/endurance, as well as cognitive capabilities or safety). Specific client limitations/strengths are used to justify frame specifications as well as each seating component.

A tilt-in-space chair is covered if a client meets one of the following criteria: at risk for developing a pressure injury and is unable to perform a functional weight shift, or has increased or excessive muscle tone or spasticity related to a medical condition that is anticipated to be unchanged for at least one year.

A power seating system (tilt only, recline only, or combination tilt and recline), with or without power elevating leg rests, will be covered if criteria one, two, and three are met and if criterion four, five, or six is met:

1. The individual meets all the criteria for a power wheelchair; and

2. A specialty evaluation of the beneficiary's seating and positioning needs was performed by a licensed/certified medical professional, such as a physical or occupational therapist, or physician who has specific training and experience in rehabilitation wheelchair evaluations. The PT, OT, or physician may have no financial relationship with the supplier; and

3. The wheelchair is provided by a supplier that employs a RESNA-certified Assistive Technology Professional (ATP) who specializes in wheelchairs and who has direct, in-person involvement in the wheelchair selection for the beneficiary.

And:

4. The individual is at high risk for development of a pressure

(CONTINUED ON PAGE 26)

EasyStand Zing MPS

SUPINE TO PRONE IN ONE MOTION

learn more at easystand.com

TILT & RECLINE
(CONTINUED FROM PAGE 24)

injury and is unable to perform a functional weight shift;

5. The individual utilizes intermittent catheterization for bladder management and is unable to independently transfer from the wheelchair to bed; or

6. The power seating system is needed to manage increased tone or spasticity.

If these criteria are not met, the power seating components will be denied.

CLINICAL APPLICATIONS

Before delving into the clinical rationale and distinctions for tilt, recline or both, let us consider the possible impact of changing a client's orientation in space. Arousal, skeletal alignment, soft tissue flexibility (range of motion), skin integrity, reflex activation, tonal changes, compensatory pattern elicitation, functional access for activities or switch use, cardiopulmonary status, ingestion/swallow, digestion/elimination, perceptual orientation, visual field, and bone integrity may be affected.

Clients with a traumatic brain injury in the early stages of rehabilitation may have arousal issues as well as limited head and trunk control. Arousal occurs best in positions closer to vertical. Determining the degree of tilt to assist with postural control without diminishing arousal is crucial to progress, but tricky.

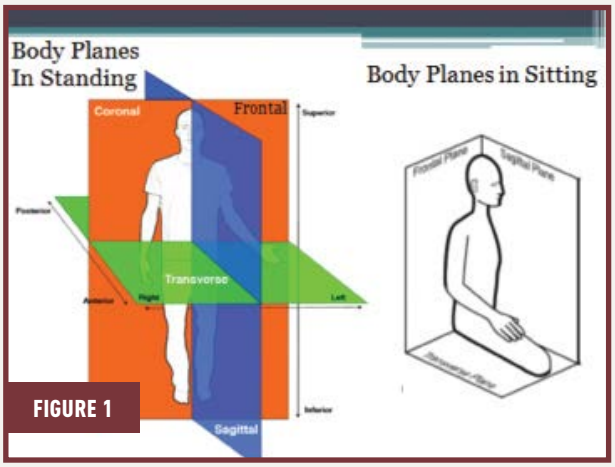
Tilt for effective pressure management has been documented in numerous research studies. In 2011, Giesbrecht, et al. in "Different Models of Dynamic Tilt in Manual Wheelchairs" measured interface pressure with single pivot point tilt and rotational axis tilt. Pressure mapping was completed at various degrees of tilt on 18 people with spinal cord injuries using the same seat cushion and model of tilt-in-space chair with the seat-to-back angle fixed at 100 degrees. The results stated at least 30 degrees of tilt are needed to produce a reduction in pressure at the ischial tuberosities (ITs) of clinical value. Ten percent tilt produced less than 5 percent reduction in IT pressure but increased load at the sacrum. Twenty-degree tilt produced less than 15 percent reduction, 30 to 40-degree tilt produced 20 percent reduction and 40 to 50-degree tilt produced a 25 percent reduction in pressures at the ITs and sacrum. Hence the authors concluded, "small tilt angles are more suitable for postural control than pressure management."

Skeletal alignment, tone and reflexive activity can change with seat-to-back angle adjustments, particularly with neurologically-involved clients. Therefore, it is critical to assess each client to avoid negative repercussions. For example, in a 2-year-old client demonstrating an extensor thrust, increasing hip flexion will overlengthen the hip extensors and reduce force generation, prevent or reduce hip extension, and allow the client to possibly develop more functional movement strategies instead of a mass pattern of extension. Hence, closing the seat-to-back angle to 85 degrees (usually with seat inclined 5 degrees) could be beneficial to promote best posture, in conjunction with variable tilt to allow pressure relief. However, if a client does not have potential for improvement in functional strategies and is using mass extension to improve inhalation (respiration), for dynamic movement or pressure relief, then a dynamic back may be appropriate. A dynamic back can provide the client momentary recline for better respiratory inhalation, while re-seating the pelvis in good alignment after the extensor thrust.

In the recline frame, skeletal alignment changes as seat-to-back angle opens, hence hip and possibly knee joint range (when elevating legrests or ELRs are also used) needs to be adequate for the degree of recline. If using the basic recline design, postural control and positioning, switch access and skin integrity may be impacted due to this skeletal shift.

A change in seating system orientation can impact perceptual orientation. Perceptual orientation is maintaining an awareness of one's position in space and time. Perceptual orientation develops from the vestibular, visual and somatosensory stimuli received through the body. Tilt and recline systems impact all three systems. The vestibular system monitors direction, speed and head placement in space in relation to gravity by way of semicircular canals in the middle ear. Body often follows head, hence providing an awareness of the body's orientation to gravity and movement in space. "Proprioception is the ability to sense stimuli arising within the body regarding position, motion, and equilibrium" (MedicineNet.com, 2016). Proprioception provides information about body schema, timing and speed of movement. Proprioceptive, vestibular, and other tactile input are critical for sensory-motor development. An individual receives sensory information and integrates it with motor systems to manage head, torso and limbs in space against gravity for a specific task – in other words, to learn effective movement strategies.

Sensory processing is the ability to synthesize, organize and process incoming sensory information and use it for purposeful activity. "Sensory Processing Disorders are impairments in detecting, modulating, interpreting or responding to sensory



Body Planes

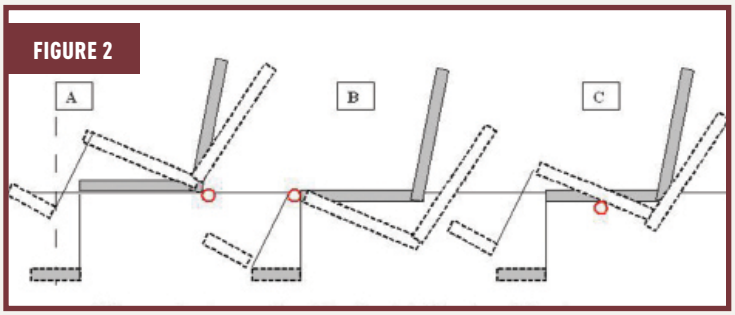
stimuli" (Miller, Coll, Schoen, 2007). "Sensory modulation disorders are impairments in regulating the degree, intensity and nature of the response to sensory input resulting in problems in daily routines." (Miller 2006).

There are three subtypes under sensory modulation including sensory over-responsivity, sensory under-responsivity, and sensory craving. The easiest way to understand this is to consider sensory input with regard to threshold. Sensory input can come in different intensities. Some individuals have a low threshold and receive input earlier than the typical population. Clients with sensory modulation issues, such as low threshold tactile and vestibular, may have difficulty with recline or tilt, secondary to perceiving vestibular and tactile information sooner and with more intensity. Hence, this client may react negatively to this flood of stimuli. Reducing the posterior tilt range from 45 degrees to only 5 degrees of adjustment (through use of a split collar clamp) and gradually increasing the excursion over time may prove more beneficial and easier for the client to adapt to.

Clients with a high threshold may have difficulty knowing where their head or body parts are in space and either shut down (become unresponsive/sleep) or actively crave or seek sensory input for a time. Sensory seeking can present as banging against the back or rocking in the chair. A dynamic back and headrest on a rotational axis tilt frame will allow deep pressure to the back (tactile) and the head excursion (vestibular) needed to arouse, focus and engage this client while maintaining a stable wheelbase.

DESIGN CONSIDERATIONS: TILT

So, let's get into more detail about tilt-in-space frame design. When choosing tilt-in-space for a client, several design features need to be considered, including the plane in which the tilt occurs, the direction and



Tilt Axis Placement on Frame (from "Tilt, Recline and Elevating Legrests for Wheelchairs," 4th International Interdisciplinary Conference, Glasgow, June 2010).

degree of tilt, the location of tilt axis on the frame, single pivot vs. rotational axis, and the need for variable or fixed tilt. The plane of tilt can occur in the sagittal, frontal or oblique plane (a combination of sagittal and frontal) (See Figure 1).

The direction also can be specified – sagittal (anterior or posterior tilt), frontal (lateral tilt left or right), or oblique (multiple diagonals). Fixed tilt can be achieved in the frame design itself through adjustable hardware which attaches the seat and back to frame at a specific angle or through vertical axle adjustment on a lightweight frame.

Adjustable tilt can be incremental or infinite and is achieved within the frame design. Variable tilt frames may allow 30 to 60 degrees of posterior tilt, and possibly 5 to 20 degrees of anterior tilt. The placement of the tilt axis within the frame can be posterior (A), anterior (B), or central or floating (C) (See Figure 2).

Location of tilt axis on the frame may affect visual field, forward reach, access to the wheel for propulsion, knee excursion and frame stability. So, what clinical criteria dictate the use of specific characteristics of tilt?

Posterior tilt is often used for clientele with significant muscle weakness, limited postural control, limited ability to weight shift and manage pressure relief, feeding/swallow issues, progressive muscle disease or paralysis (Spinal Muscular Atrophy, Muscular Dystrophy, Multiple Sclerosis, Amyotrophic Lateral Sclerosis), or an acquired injury (traumatic brain injury (TBI), SCI). Posterior tilt can redistribute weight off the buttock onto the posterior torso, reduce gravity's influence on skeletal alignment, assist in maintaining an upright functional posture, aid feeding, allow pressure relief for clients with extensor spasms or extensor thrust, aid caregivers in dependent transfers, and allow head clearance through a van door.

IN, "HOW POWER TILT IS USED IN DAILY LIFE TO MANAGE SITTING PRESSURE: PERSPECTIVES OF ADULTS WHO USE POWER TILT AND THERAPISTS WHO PRESCRIBE THIS TECHNOLOGY," (L.TITUS, 2013) reviewed the literature and found the following purposes for power tilt as described by research/authors:

1. Comfort/discomfort/pain management (Dewey et al 2004, Dicianno et al 2009, Ding et al 2008, Lacoste et al 2003, Sonenblum & Sprigle 2011).

(CONTINUED ON PAGE 28)

TILT & RECLINE
(CONTINUED FROM PAGE 27)

2. Pressure management (Dewey et al 2004, Dicianno et al 2009, Ding et al 2008, Sonenblum & Sprigle 2011).

3. Management of spasms (Dewey 2004 et al).

4. Increase sitting tolerance (Dewey 2004, Dicianno 2009, Sonenblum & Sprigle 2011).

5. Manage fatigue (Dewey 2004, Dicianno 2009).

6. Maintain postural alignment (Dicianno 2009, Sonenblum 2011).

7. Improve function (Lacoste 2003, Ding 2008, Diacianno 2009, Sonenblum 2011).

8. Address physiological issues (i.e. blood pressure) (Lacoste 2003, Dicianno 2009).

9. Facilitate transfers (Dicianno 2009).

10. Provide rest (Lacoste 2003, Ding 2008, Souza et al 2010).

In this same dissertation, the author states that wheelchair users' purposes for using tilt was first and foremost for comfort/discomfort/pain management, followed by rest and relaxation, as well as function and postural management.

Anterior tilt can facilitate active hip and trunk extension to improve sitting, as well as improve forward upper extremity reach when applied to the appropriate client. Most functional tasks occur in an anterior pelvic tilt position. In the article, "Functional Seating for School-Age Children with Cerebral Palsy" (Costigan & Light, 2011), the authors explain the numerous benefits of this adjustment in the seat, including speech production, intelligibility and feeding. Mac Neela (1987) and Nwaobi & Smith (1986) have shown an anterior tilt improves respiratory function of the school-aged child and improves vital capacity and forced expiratory volume for clients with spastic cerebral palsy. Anterior tilt can also aid certain clients with muscle weakness in hip and knee extension to achieve standing.

Lateral tilt can help manage gastro-esophageal reflux and secretions, facilitate gastric emptying, accommodate severe fixed asymmetries, and aid with positioning and balance in more complex clients (See Figure 3). For example, a 65-plus-year-old male with a non-operable dislocated hip is unable to sit without pain. Using a lateral tilt provides the client opportunity to sit intermittently for social engagement, eating and brushing his teeth without pain.

Oblique tilt, which is a combination of tilt in both the frontal and sagittal planes, can also aid management of gastroesophageal reflux and facilitate gastric emptying, assist with digestive absorption issues related to skeletal malalignment, accommodate severe fixed asymmetries and promote a righting/equilibrium response to strengthen trunk musculature, when possible. Severe skeletal distortion impacts both thoracic and intra-abdominal cavity pressures which, in turn, affect stomach emptying, gastroesophageal reflux, absorption in the small intestine, and peristalsis which can lead to constipation/elimination issues. Both oblique and lateral tilts have been shown to aid with these issues.

Tilt axis placement can be critical when posterior tilt is necessary. If the axis placement is located too posterior on the seat rail, certain situations can displace the client's mass posterior in the frame and potentially reduce stability, even leading to posterior tipping of the frame. These situations include clients who are obese, have extensor spasms, who "bang" against the back canes or even hang heavy backpacks on the push handles. The central axis tilt frame maintains the client's center of mass within the center of the frame, promoting stability even in full rearward tilt (See Figure 4). This configuration produces a smaller footprint for greater accessibility and maneuverability for caregivers. Also, less weight is transferred to the casters when upright, reducing the energy required to push the chair and reducing caster repair issues.

Placing the tilt axis posterior in the frame design causes significant knee elevation during tilt, limits forward reach, lowers the sight line, and shifts center of mass posterior in the frame as discussed above. Placing the axis anterior within the frame design also lowers the sight line and limits forward reach and possible access to the wheel for independent propulsion, but knee height remains fairly constant, which proves beneficial for table and sink accessibility. This approach is frequently used in long-term care facilities to allow clients to access table and sink heights in an institutional setting.

DESIGN CONSIDERATIONS: RECLINE

Seat-to-back angle adjustments refer to changes between the superior aspect of the seat and the anterior aspect of the back. Recline systems provide a change in position by allowing the back to pivot rearward without a change in the orientation of the seat. This pivot point is located lower on the seat rail of the chair rather than in alignment with the client's hip joint. Adding a seat cushion further compounds the problems by adding more distance between the person's pivot point (hip joint) and the frame's pivot point.

Shear results as the back support moves against the person's skin. Standard recline

Lateral Tilt

FIGURE 3

has the potential to reduce perpendicular pressure by redistributing body weight over a larger surface area; however, the movement of the backrest leads to shear. Shear is the parallel or tangential force between the user and the seating surface, caused by two forces acting in opposing directions. Shear deforms tissue, and when present with perpendicular force, can accentuate skin damage. Friction between the client and the back limits movement between these two surfaces, resulting in heat and abrasion. Presently, what frame designs are available to manage shear? In the mid-1980s, several power wheelchair manufacturers were aware of the negative effects of shear and began implementing design changes. The incorporation of the raised pivot point for the back canes was one solution. Displacement of the back support surface against the client, either through the use of a manual sliding back mechanism or power sliding back, also helped to reduce shear. LaBac Systems and Motion Concepts were two of the pioneers in these designs.

So, what are the clinical rationale and ramifications for the use of recline? Modifications to the seat to back angle can affect cardiopulmonary function, skeletal alignment, postural control and function, manual reach, visual field, and transfer capability. Indications for a seat-to-back angle greater than 90 degrees (95 to 180 degrees) include hip flexion limitations, respiratory compromise, skeletal asymmetries, comfort, fatigue, postural hypotension, venous return insufficiency (when used in combination with ELRs), G-tube feedings, diapering, tracheostomy care, pressure concerns, urinary catheterization, bowel care and maintaining range of motion.

Power seat functions, specifically recline, may effectively assist a client with positioning for bowel/bladder care

Central Axis Tilt Frame (Convaid)

FIGURE 4

to increase independence, be it for intermittent catheterization, bowel care or preventing line crimping in an in-dwelling catheter. Using only tilt with indwelling catheters can sometimes lead to urine retention and backflow. History of frequent urinary tract infections or hydronephrosis of the kidneys are risk factors. Hence, a written descriptive of bowel and bladder care would be needed in the justification letter.

One issue at the top of caregiver burnout is bowel and bladder management, as well as transfers for this activity. Effective justification could produce tremendous positives in this situation. Orthostatic or postural hypotension requires the client to quickly recline to normalize blood pressure. Venous return insufficiency can also be an indicator for recline with elevating leg rests. The legs must be 30 cm above the left atrium of the heart to facilitate improved venous return. Contraindications for recline alone may include limited hip and knee extension, obligatory primitive reflexes or tonal changes, skin integrity issues, and loss of functionality in postural control, forward reach and vision.

DESIGN CONSIDERATIONS: COMBINATION TILT AND RECLINE

Tilt and recline are often used together in power mobility for clients with SCI, ALS, MD, MS and cerebral palsy. The benefits of combined tilt and recline include better pressure relief; multiple postural adjustments to increase comfort, decrease pain, increase sitting tolerance and functional position for tasks; aiding physiological systems (cardiac, respiratory, gastrointestinal and renal) for improved respiration, blood pressure and bowel/bladder management; easing caregiver transfers; and management of ROM and spasticity. In 2001, Aiassaoui et al. concluded that tilt and recline combined reduced pressure more than tilt-in-space alone. In 2010, in the "Effect of Wheelchair Tilt-in-Space and Recline Angles on Skin Perfusion over the Ischial Tuberosity in People With Spinal Cord Injury," researchers measured skin perfusion in 11 wheelchair users with C4- T 12 SCI and no pressure injuries. There were six protocols used: 15-degree, 25-degree and 35-degree tilt with 100-degree recline and 15-degree, 25-degree and 35-degree tilt with 120-degree recline. Each protocol consisted of two, five-minute periods: one period of five minutes sitting-induced ischemia

(CONTINUED ON PAGE 30)

TILT & RECLINE
(CONTINUED FROM PAGE 29)

and a second five-minute period of pressure relief through a combination of tilt and recline. A five-minute washout period was allowed between protocols (at 35-degree tilt and 120-degree recline).

Results showed at least 35-degrees of tilt with 100-degrees recline or 25-degree tilt with 120-degrees recline were needed for significant increase in skin perfusion at the IT area. In "Effect of Durations in Wheelchair Tilt-in-space and Recline-on-Skin Perfusion over the Ischial Tuberosity in People with SCI (2013)," Jan, Liao, Jones, Rice and Tisdell found that a three-minute duration weight shift was necessary for best skin perfusion when combining a tilt of 35-degrees and recline of 120-degrees. At one minute, skin perfusion was not adequate with this combination. So, does the present standard for pressure management need to be changed? According to the Consortium for Spinal Cord Medicine (2000), a tilt should be performed every 15-30 minutes for one minute, with tilt angle not yet defined but between 30 to 65 degrees.

Researchers Ding, Leister, Cooper, et al. (2008) in "Usage of Tilt-in-Space, Recline and Elevation Seating Functions in Natural Environment of Wheelchair Users," monitored 11 users (18-70 years of age) with diagnoses of CP, SCI, MS, MD for two weeks in their natural environment and found they used small angles (less than 20-degree tilt and less than 110-degree recline) intermittently throughout the day. Large angles of adjustment were rare. Tilt (64 percent) and recline (76 percent) were used at separate times during the day, as well as in combination (39 percent) with rationale for adjustments being comfort, postural stability, and reducing interfacing pressure. Very little time was spent in a fully upright position (0.6 +/- 1.5 hours per day). The four subjects with SCI and three subjects with MS had limited trunk control, making upright posture both challenging and fatiguing – hence the frequent use of tilt for postural control.

In summary, wheelchair frame design has evolved over many years, particularly regarding recline – from the basic recline model to the minimal shear systems available today. Within a mere 35 years, tilt has evolved from the single pivot point to the rotational axis pivot, as well as other design features which have benefited multiple individuals to aid pressure relief, skeletal alignment, postural control, feeding, stomach emptying, and gastro-esophageal reflux, to name a few.

Research in recent years has demonstrated the importance of combining tilt and recline for clients with such diagnoses as ALS, SCI, MD, and MS for better pressure relief and frequent positional changes for comfort, increased sitting tolerance and functional tasks. Research with wheelchair users in the natural environment showing frequent use of small tilt and recline angles and rare use of 45 to 60 degrees of tilt for pressure relief, is both insightful for equipment manufacturers and clinicians. For clients to benefit from positioning technologies, seating professionals need to understand and remain up to date on the technology themselves, effectively match product to client need and clearly justify the specific product specifications in documentation.

CONTACT

Missy may be reached at missballpt@aol.com.

REFERENCES:

1. DICIANNO, B., LIEBERMAN, J., SCHMELER, M., ET AL. (2015, FEBRUARY 23). RESNA POSITION PAPER ON THE APPLICATION OF TILT, RECLINE, AND ELEVATING LEGRESTS FOR WHEELCHAIRS. LITERATURE UPDATE. APPROVED BY RESNA BOARD OF DIRECTORS

2. SONENBLUM S, & SPRIGLE, S. (2011). THE IMPACT OF TILTING ON BLOOD FLOW AND LOCALIZED TISSUE LOADING. JOURNAL OF TISSUE VIABILITY, 20(1), 3-13

3. TITUS, L. C. (2013). HOW POWER TILT IS USED IN DAILY LIFE TO MANAGE SITTING PRESSURE: PERSPECTIVES OF ADULTS WHO USE POWER TILT AND THERAPISTS WHO PRESCRIBE THIS TECHNOLOGY. UNIVERSITY OF WESTERN ONTARIO ELECTRONIC THESIS AND DISSERTATION REPOSITORY. RETRIEVED FROM HTTP://IR.LIB.UWO.CA/ETD/1321/.ACCESSED JANUARY 16, 2014.

4. EFFECTS OF SEAT SURFACE INCLINATION ON RESPIRATION AND SPEECH PRODUCTION IN CHILDREN WITH SPASTIC CEREBRAL PALSY. J PHYSIOL ANTHROPOL. 2015 APR 24 ; 34:17. DOI: 10.1186/S40101-015-0057-3.

5. COSTIGAN FA, LIGHT J. LANG SPEECH HEAR SERV SCH. (2011). FUNCTIONAL SEATING FOR SCHOOL-AGE CHILDREN WITH CEREBRAL PALSY: AN EVIDENCE-BASED TUTORIAL. EPUB 2010 SEP 15. REVIEW APR; 42(2):223-36. DOI: 10.1044/0161-1461(2010/10-0001).

6. MCNAMARA L & CASEY J. (2007). SEAT INCLINATIONS AFFECT THE FUNCTION OF CHILDREN WITH CEREBRAL PALSY: A REVIEW OF THE EFFECT OF DIFFERENT SEAT INCLINES. DISABILITY & REHABILITATION: ASSISTIVE TECHNOLOGY, 2(6), 309-318.

NRRTS CONTINUING EDUCATION PROGRAM: WORTH THE INVESTMENT

NRRTS WEBINARS

ACCREDITED IACET PROVIDER

In a marketplace cluttered with in-person, on-line and print-based education resources, it is vital to know what programs are worth both your time and money before making a commitment. Continuing education units, or CEUs, are awarded by many education and training providers to signify successful completion of non-credit programs and courses intended to improve the knowledge and skills of working adults.

At NRRTS, you can trust our Continuing Education program's performance and commitment to standards. We seek the most relevant content for your professional needs. Your investment in your own professional and personal development will yield high returns in the future.

Who can participate in NRRTS webinars?

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

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

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

REGISTRATION FEES
NRRTS REGISTRANTS - $0
FRIENDS OF NRRTS - $20
ALL OTHERS - $40

GO ONLINE TO REGISTER
WWW.NRRTS.ORG/WEBINARS

TUESDAY, APRIL 25, 2017
7 -8 PM EASTERN TIME
Wheelchair Seating Assessment: A Step by Step Process
Barbara Crane, PHD, PT, ATP/SMS

THURSDAY, APRIL 27, 2017
7 – 8 PM EASTERN TIME
Transition From Manual to Power Wheelchairs due to Age and Condition
Barbara Crume, PT, ATP

TUESDAY, MAY 16, 2017
7 – 8 PM EASTERN TIME
Power Wheelchairs: Integrating Bluetooth and Alternative Access
Michele Bishop, AT, ATP, BS, Special Education, Graduate Certificate Rehab Engineering

WEDNESDAY, MAY 17, 2017
11 AM – NOON EASTERN TIME
Power Mobility Evaluation: From Documentation to Driving
Jennith Bernstein, PT, DPT, ATP

THURSDAY, MAY 18, 2017
7 – 8 PM EASTERN TIME
Tilt: Understanding All of the Angles
Karen "Missy" Ball, PT, MT, ATP

TUESDAY, JUNE 13, 2017
7 – 8 PM EASTERN TIME
Adaptive Strollers
Delia "Dee Dee" Freney. OTR/L, ATP

THURSDAY, JUNE 15, 2017
7 – 8 PM EASTERN TIME
Funding
Claudia Amortegui, MBA

REHAB CASE STUDY

A PERSONAL VIEW INTO PRESSURE MANAGEMENT

WHAT TO DO WHEN A CLIENT IS NON-COMPLIANT WITH "STANDARD" TILT RECOMMENDATIONS

WRITTEN BY: LOIS BROWN, MPT, ATP/SMS

This case study is unique and personal for me in that I have known Jerry Segal since before he sustained a spinal cord injury and well before I became a physical therapist and mobility and seating specialist. While my training and continuing education has formulated important therapy constructs in my daily practice, Segal's "I won't take no for an answer," approach challenged those constructs and has taught me invaluable lessons in working with the "client" to help them meet their functional and life goals.

Segal has worked hard for all his successes in life. He has never expected anything to be easy or to be handed to him. He has pushed the barriers since he worked his way through law school and started his own law firm. At 48 years of age, Segal had a C1-C4 cervical laminectomy and fusion that resulted in C4 tetraplegia, incomplete. He has lived with partial motor skills and no sensation below the level of the chest for the last 26 years. Despite this, he pushed himself to "memorize" the gait pattern, so he could "walk" his daughter down the aisle at her wedding. I'm not sure if Dad stole the moment, but the guests were in awe.

From day one, Segal was committed to daily exercise in some form, sometimes up to three hours, whether it be supported treadmill training or water therapy (See Pictures 1 and 2). This was in addition to working full-time, fundraising and serving on multiple boards. He maintained consistent physical therapy to work on his gait and balance and maintain muscle mass. Functionally, he maintained his gait with two Loftstrand crutches for short distance ambulation and used a manual wheelchair and scooter as his primary means of mobility. He would often transfer from his scooter or manual wheelchair to his office chair without skin protection mediums, but with dynamic reach and his exercise regimen, he had no history of pressure injuries. There is no question that aging with a spinal injury took its toll, but Segal adapted and used his multiple means of mobility options based on his activity requirements that day.

In December of 2014, Segal had an anoxic event while exercising in his pool. He had a significant decline in all his mobility and thus, was unable to ambulate or use his scooter and was dependent for all transfers. He experienced impaired motor planning, initial decrease in short-term memory and reduced insight into his change in status. Segal also had significant pain in his shoulders, kyphosis and high blood pressure.

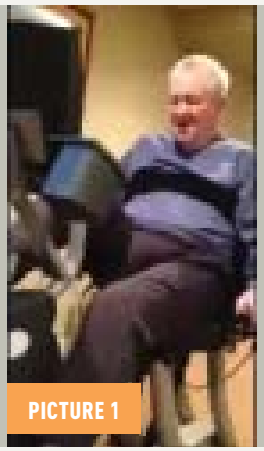
While Segal was an in-patient, a facility power chair with all power seat functions was provided as he was unable to maintain static (independent upright posture) or dynamic sitting balance (shifting or reaching within and out of his base of support) or perform his own weight shifts (See Picture 3). He was given instruction on the use of this wheelchair but could not report the specifics of power tilt for pressure relief. He was far more interested in the fact that he could elevate his seat to speak to family and colleagues at eye level. He did recognize its advantages for antigravity positioning for fatigue.

Segal required constant reminders and encouragement to utilize the power tilt for specific pressure relief by therapists and his wife, but did not initiate this himself. Segal, who had been able to use his scooter and manual wheelchair to meet all his needs for 26 years, saw this mobility device as temporary at best and carryover, required constant reminders, mostly from his wife, during his stay and initial discharge at home. Remember, his activity pattern had included daily water therapy, other exercise, daily transfers and working from a seated position – so his pressure "management" had been addressed in other ways besides the "typical" and "recommended" power tilt for pressure management.

In the ICF Model (International Classification of Functioning, Disability and Health), positioning and pressure goes beyond the wheelchair to the other support surfaces the client has in the home. We know that research supports weight shifting activities including, but not limited to, tilt to help prevent pressure injuries in persons with spinal cord injuries.

PRESSURE RELIEF VS. WEIGHT SHIFT BEHAVIORS?

Therapists generally associate the magnitude and duration of a pressure relief with decreasing occurrence of pressure injury development. However, studies investigating pressure injury prevalence in clients with SCI do not find pressure relief behavior



PICTURE 1

Jerry riding it out on a recumbent bike- manual assist

PICTURE 2

Physical therapy gait training to maintain muscle mass and mobility

PICTURE 3

Surrounded by family, Jerry overcomes an anoxic injury

PICTURE 4

The manual chair...my chariot! Its gets me to dinners out and meetings!

or frequency to be associated with pressure injury occurrence (Sprigle and Sonenbum, 2014). In Jerry's case, this would be true, at least up until his anoxic event and subsequent change in functional status. Protective weight shifting behaviors include activities other than dedicated pressure reliefs, and include many functional movements performed while seated in a wheelchair which also redistribute pressure off high risk areas. This was the key for Segal, as he was extremely active in any of his mobility bases. Working at his desk, transferring, and sitting on other surfaces, though unprotected, required frequent unweighting of his body which maintained the health of his skin.

Segal's functional movements seemed to have the greatest impact on his seated pressure, blood flow and overall tissue health. Specifically, the type and frequency of movement during his everyday activities (e.g. wheelchair usage, weight-shift activities) directed the design and implementation of clinical interventions (e.g. education, training, equipment).

So, is it possible that the influence of small, functional movements on ischial pressure, blood flow, temperature, and humidity are effective in reducing pressure injuries? Segal did not comply with recommended tilt magnitude and duration designed to reduce pressure injury risk. However, his smaller, more frequent movement, activities and use of other mobility and exercise equipment seems to have prevented pressure injury development. Sonenblum suggests it might very well be the case, but further study is necessary (Sonenbum, Vonk, Janssen, Sprigle, 2014).

Segal and I had a serious conversation about the use of the power wheelchair, power tilt and other power positioning options. He did understand initially after his anoxic event that he was unable to roll independently, was dependent for all transfers, and was not able to effectively perform a weight shift. He had been lucky that he had not developed pressure injuries, but he was pushing the limits. He also acknowledged that increased weakness and pain in his shoulder joint was limiting his ability to move himself. So, in good faith, he agreed to a power wheelchair with a power tilt for use after discharge. I was a part of the outpatient therapy team that was treating Segal in his home, and I could see his struggle with operating the joystick. He was used to a scooter tiller and learning to use the joystick was a steep learning curve. Driving frustrated him, and while he understood the need for the power wheelchair tilt, he simply found the "tiller" of his scooter to give him the functional mobility he needed.

This is the moment during his treatment which challenged my own construct. Everyone else had left when I arrived at his home, and Segal seized the moment. He said, "You know, Lois, I can drive my scooter, but no one will give me the chance."

I was a part of a treatment team, so this was not my "decision" to make on my own, but I knew Segal. He was going to initiate the use of his scooter whether I participated or not. So, I had a choice – be a part of the assessment and safety check or not. I chose to go to his garage and retrieve the scooter. We discussed the serious risks of a non-pressure relieving seated surface, the lack of postural support, and his current difficulty with his static and dynamic sitting balance. He agreed that, if he had access to both, that he would choose which mobility base he needed depending on his schedule that day. Of course, the scooter was stored in the garage where he could not get to it. Despite his decrease in trunk strength and balance, he could operate the tiller better than the joystick, as he is used to this motor pattern. I called the team, discussed the situation with his wife (who knew she would not win this one), and I supported Segal's wishes. If I let myself stay within the construct of his diagnosis and status, then Segal would not have been able to maximize his mobility. He agreed he was not safe driving the scooter outside his familiar home environment without supervision and assistance for transfers.

As a sidebar, Segal, with no sensation in his hands and decreased motor planning, had difficulty using a standard joystick configuration and handle. Perhaps if he had tried an

(CONTINUED ON PAGE 34)

A PERSONAL VIEW INTO PRESSURE ...
(CONTINUED FROM PAGE 33)

alternative driving method, he would have been more successful. I introduced Segal to Active Controls, which offers a "tiller" type driving method for power wheelchairs and he will be trialing this in a few months. Segal will do all he can to ensure he has choices in mobility products for as long as possible, but he also knows it is likely he will need the power wheelchair as he continues to age with his spinal cord injury.

Segal recently asked me about a possible upgrade to his current scooter which is quite old, and has a low-profile captain's seat and back. I told him I would consider a new scooter with a solid seat insert and modify the base to attach a more supportive lateral contour backrest. If you can't beat them, join them!

Aging with a spinal injury brings with it many challenges, but if we can find creative ways to help Segal continue for as long as possible using his preferred mobility options functionally, then we have done our job! If we allow our assumptions to influence us, we can further limit the "client" from reaching their maximum functional outcomes. Segal is a "defy the odds" kind of guy. He won't take no for an answer because he insists on trying an option first. Sounds like a smart guy! (See Picture 4).

CONTACT THE AUTHOR

Lois may be reached at
brownlois12@gmail.com

REFERENCES:

1. SPRIGLE, S., & SONENBLUM, S. (2014). PRESSURE RELIEF BEHAVIORS AND WEIGHT-SHIFTING ACTIVITIES TO PREVENT PRESSURE ULCERS IN PERSONS WITH SCI. GEORGIA TECH RESEARCH CORP ATLANTA.

2. SONENBLUM SE, VONK TE, JANSSEN TW, SPRIGLE SH. EFFECTS OF WHEELCHAIR CUSHIONS AND PRESSURE RELIEF MANEUVERS ON ISCHIAL INTERFACE PRESSURE AND BLOOD FLOW IN PEOPLE WITH SPINAL CORD INJURY. ARCH PHYS MED REHABIL. 2014; 95(7):1350-7.

Looking back NRRTS 25th anniversary 1992-2017

Medtrade in Atlanta 1998 - NRRTS always has a lot of fun—out to dinner with Jim Glaes, Carolyn Hamman, Toni Esposito, Denise Harmon, Mike Seidel, Kathy Riley, Weesie Walker, Leslie Rigg, Judy Vance

Medtrade Atlanta 1998 - The NRRTS Booth - Mike Seidel and Robert Garwood

Mike Seidel being himself with Robert Krogh

NRRTS LPC Conference St. Louis, MO - 2002 - How many people can you name?
There was a fire drill in the middle of the meeting. We all had to evacuate to the parking lot. A perfect setting for a group picture.

WHAT'S ON THE NEW ATP EXAM?

WRITTEN BY: JULIE PIRIANO, PT, ATP/SMS

RESNA

Unfortunately, I can't tell you that! What I can tell you is that on March 13, 2017, the updated ATP exam will be available for candidates to be tested on the broad scope of knowledge used in all areas of the Assistive Technology (AT) field. I can also tell you that all questions related to U.S. laws, policies and funding have been removed from the exam outline. The "blueprint" has been fine-tuned, and all new questions have been vetted to produce a quality "generalist" exam that is valid, fair and reliable.

Since the ATP credential is not specific to one type of service delivery model, product or individual the RESNA Professional Standards Board enlisted the assistance of 53 subject matter experts, including NRRTS Registrants, from 2013 to 2016 to ensure the new exam accurately reflects the global field of "Assistive Technology," which may include, but is not limited to:

- AAC (Augmentative and alternative communication)
- Accessible transportation (public and private)
- ADL (aids to daily living/activities of daily living)
- Cognitive aids
- Computer access
- EADL (electronic aids to daily living)
- Environmental aids
- Learning and study aids
- Recreation and leisure
- Seating, positioning and mobility
- Sensory (e.g. hearing, vision, physical) aids and accommodations
- Vocational aids and accommodations

RESNA contracted consulting psychometricians to facilitate the steps of the exam update, in compliance with the standards of the National Commission for Certifying Agencies. These steps include:

1. Job analysis
2. Task analysis
3. Item writing (creating test questions)
4. Field testing
5. Standard setting

JOB ANALYSIS

The first group of SMEs, led by Knapp & Associates, used RESNA's previous job analysis document to update all five major content areas of AT practice. They also identified the job tasks typically performed by ATPs with basic competence in these areas. The panel had to capture the generic tasks (42 total) that define the process of AT service provision regardless of where it happens, the AT being considered or who will be using it. In conducting the Job Analysis Study, the panel also identified 81 knowledge areas relevant to the provision of assistive technology in a "best practices" model of service delivery.

WHILE I CANNOT TELL YOU WHAT IS ON THE EXAM, I CAN TELL YOU THAT AN UNDERSTANDING OF THE 81 KNOWLEDGE SETS AND 42 TASKS USED TO WRITE IT WILL HELP IN PREPARING FOR THE EXAM.

To validate the panel's recommendations a survey was sent to 3520 AT practitioners and 371 (11 percent) responded. A wide variety of AT practitioners, including NRRTS registrants participated in the survey, which finalized the exam outline as follows:

1. Assessment of needs (11 tasks and approximately 30 percent of the exam)
2. Development of intervention strategies (14 tasks and approximately 27 percent of the exam)
3. Implementation of intervention (11 tasks and approximately 25 percent of the exam)
4. Evaluation of intervention (four tasks and approximately 15 percent of the exam)
5. Professional conduct/ethics (two tasks and approximately 3 percent of the exam)

(CONTINUED ON PAGE 38)

KidWalk connections

Like nothing before it – KidWalk encourages key steps through independent hands-free exploration…supporting vital childhood development.

With KidWalk hands free means holding hands…

See where KidWalk can take your child

PRIME ENGINEERING
A Division of Accom Industries

KidWalk™
Dynamic Mobility System

ph. 1.800.827.8263 | fax 1.800.800.3355
www.primeengineering.com | info@primeengineering.com

Visit YouTube and type in KidWalk to see our kids developing, learning and going places.

WHAT'S ON THE NEW ATP EXAM?
(CONTINUED FROM PAGE 36)

TASK ANALYSIS

The exam "blueprint" was further analyzed by a second panel of SMEs working in pairs with trained facilitators at The Ohio State University's Center on Education and Training for Employment (CETE). Each task in the job analysis was broken down to identify the steps necessary to execute it, including the knowledge and skills required to participate in it and the potential mistakes that could result from performing the tasks incorrectly. This resultant, detailed matrix served as a guide for SMEs who later wrote the new exam questions that would test each of the relevant topics. While I cannot tell you what is on the exam, I can tell you that an understanding of the 81 knowledge sets and 42 tasks used to write it will help in preparing for the exam.

THE ATP EXAM IS DESIGNED TO TEST A BASIC UNDERSTANDING AND LEVEL OF COMPETENCE ACROSS THE BROAD SPECTRUM OF AT TO "DO NO HARM." EACH CANDIDATE'S BACKGROUND, LEVEL OF PROFESSIONAL KNOWLEDGE, AT EXPERIENCE, EDUCATION, LEARNING AND TEST-TAKING STYLES VARIES.

ITEM WRITING

Two different panels of SMEs wrote the exam questions during two three-day workshops, also held at The Ohio State University's CETE. The panelists worked in diverse groups of three or four to develop exam questions, guided by trained professionals at CETE, for the first two days of the workshop. The wide range of specialty areas, practice settings, and academic backgrounds represented by the AT practitioners, including NRRTS registrants, helped ensure a balance of perspectives, eliminate overly-specialized questions and maintain the rigor of the exam. On the third day the whole group reviewed each exam question for accuracy. After editing, the questions were separated into two balanced forms and published by Prometric for use during the field test.

HENCE, CANDIDATES ARE ENCOURAGED TO REVIEW THE EXAM OUTLINE AND DEVELOP A PREPARATION AND STUDY STRATEGY FOR THEMSELVES. THE NEW ATP EXAM IS NOT MORE DIFFICULT THAN PREVIOUS VERSIONS.

FIELD TEST

The two beta forms of the exam were field-tested by 270 candidates between July and October 2016 to collect data on the performance of each test question. Psychometricians at OSU's CETE reviewed the statistical performance of each question and then facilitated a cut-score study to "set the standard" or passing score for the new exam.

STANDARD SETTING

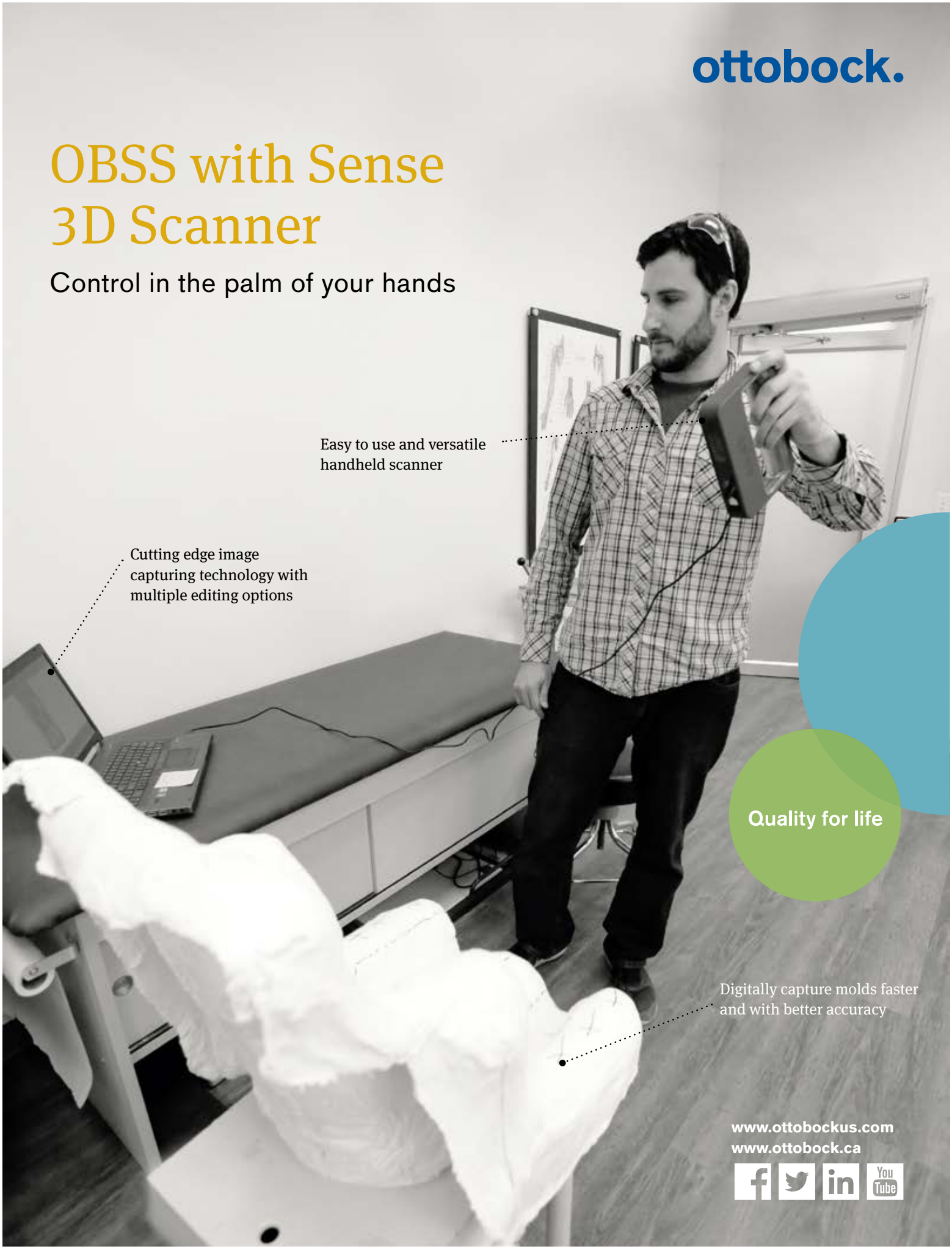
The last panel of SMEs created a definition of "basic competence" against which performance on the exam would be judged. Every panelist individually rated the difficulty level of each test question against the basic competency standard twice during the two-day workshop. Each panelists' ratings were then averaged and a range of statistically acceptable cut-off scores were presented to RESNA's Professional Standards Board by the lead psychometrician from OSU's CETE. The PSB voted on a passing score for the new exam and candidates who field tested it were notified of their results.

WHAT IS ON THE NEW ATP EXAM?

A little bit of everything! The ATP exam is designed to test a basic understanding and level of competence across the broad spectrum of AT to "do no harm." Each candidate's background, level of professional knowledge, AT experience, education, learning and test-taking styles varies. Hence, candidates are encouraged to review the exam outline and develop a preparation and study strategy for themselves. The new ATP exam is not more difficult than previous versions. Hopefully, all current and potential ATPs will have a better understanding of the extensive process used to update the exam and can appreciate its value to the field of AT. As a RESNA certified ATP since 1996 I know I do.

CONTACT THE AUTHOR

Julie may be reached at jpiriano@quantumrehab.com


ottobock.
OBSS with Sense
3D Scanner
Control in the palm of your hands
Easy to use and versatile
handheld scanner
Cutting edge image
capturing technology with
multiple editing options
Quality for life
Digitally capture molds faster
and with better accuracy
www.ottobockus.com
www.ottobock.ca

CLINICIAN TASK FORCE

THE CRT CLINICAL VOICE

THE CLINICIAN TASK FORCE 2017 STRATEGIC PLAN

WRITTEN BY: LAURA COHEN PHD, PT, ATP/SMS

CRT Industry Stakeholders – consumers, advocates, clinicians, rehab technology professionals, CRT companies and manufacturers have been working together for decades to advocate for appropriate coding, coverage and payment policies for CRT. Each stakeholder group plays a key role in our collective success to protect and improve access to CRT for people with disabilities.

The year of 2017 is shaping up to be a year full of constant changes and challenges for CRT stakeholders. CMS and CMS contractors continue to issue and retroactively implement policy changes that negatively impact consumer access to CRT. Just this month, changes were announced that impact prior authorization for Group 3 PWCs, coverage for titanium and heavy duty wheelchairs, laptrays and the methodology for calculating a revised fee schedule. Now more than ever the collaboration and contributions of each CRT stakeholder group are needed to influence the numerous threats that exist to CRT access.

The Clinician Task Force 2017 Strategic Priorities are critical to protecting and promoting consumer access to CRT. In the last edition of DIRECTIONS, we looked at CTF progress and accomplishments in 2016 advancing the CRT industry agenda to ensure individuals with mobility impairments have appropriate access to CRT products and services. At the International Seating Symposium in Nashville, the CTF met and finalized our 2017 Strategic Plan. Below are highlights of our planned activities.

2017 CTF STRATEGIC PLAN

1. Promote, Pass and Enact CRT Legislation and Implement Regulation

CTF members will continue efforts to gain support for key CRT legislation regarding payment for CRT wheelchair options and accessories as well as the Separate Benefit Category (SBC). In addition, the independent voice of clinical stakeholders is critical in development of regulation and policies to implement SBC.

Activities Related to SBC

- Mobilize clinicians to assist in maintaining and increasing Congressional co-sponsors for the legislation and other advocacy steps.
- Participate in CRT steering committee and work groups
- Build relationships with professional clinical organizations to inform reguarding CRT issues and obtain their support in advocating for CRT access (e.g. AAPMR, AAP, NASL AACPDM, ACRM, PACCR)
- Provide clinical information to inform scoring of legislation by Congressional Business Office

Activities Related to Access to CRT Wheelchair Accessories

Testimonials from independent clinical stakeholders, articulating barriers to CRT wheelchair accessories, is needed to gain support for policy and/or legislative fixes to ensure continued consumer access to CRT accessories.

- Participate in CRT Work Groups focused on protecting access to CRT wheelchair accessories
- Provide clinical information to CMS, contractors, policy makers & GAO surrounding clinical and functional distinctions between DME and CRT wheelchair accessories
- Participate in educational initiatives such as CRT Legislative Fairs and meetings with CMS, CMS contractors, and GAO

2. Influence payers in the development of policies that ensure access to CRT

Clinical expertise is critical in interpreting the evidence, communicating best practice, and describing the clinical and consumer impact of proposed policies.

Activities

- Utilize clinical subject matter expertise of CTF members to develop or revise coverage policies for CRT
- Serve as key contributors in formal requests for reconsiderations to DME MACs for local coverage determinations for MWCs, WC seating and WC accessories
- Respond to legislative and regulatory issues at the state and federal level that impact consumer access to CRT items and services
- Provide clinical guidance to HHS, CMS, GAO, OIG, DME MAC, and State Medicaid programs as needed

3. Build capacity of clinician workforce to provide skilled CRT clinical services for seating and wheeled mobility

A critical mass of knowledgeable and skilled clinicians are needed. Given the requirements for specialty evaluations, it is essential to ensure adequate workforce capacity to provide

required CRT clinical services in a timely manner and generate adequate and defensible documentation to ensure consumer access to appropriate CRT.

Activities

- Provide support to dedicated SWM clinics to justify existence
- Provide technical guidance for compliance with new CPT coding and functional reporting requirements
- Create seating and wheeled mobility training materials for pre-and post-service clinical training (PT/PTA, OT/OTA, Physician/PA/NP)
    - o Complete and deploy entry-level wheelchair service training program for utilization by entry level PT and PTA academic programs and others.
    - o Develop dissemination method to reach broadest group of clinicians from diverse settings (e.g. acute care, inpatient rehab, SNF, assistive living, school, veteran's facilities, etc.)
    - o Seek external funding to develop a SWM Certificate program to assist practicing clinicians develop SWM expertise

IN CLOSING

We believe the various initiatives the CTF is focused on are critical to protecting and promoting access to CRT. The new president and administration are already charting a new health care course that has the potential to impact the CRT industry. Now more than ever the CTF is needed to provide leadership and advocacy to engage and mobilize clinicians and consumers to promote CRT within our respective organizations and join CRT industry advocacy activities.

The financial support of our supporters in 2017 is critical to enabling the CTF to continue to present the voice of the clinician on important CRT matters. We are continuing to secure pledges to financially support our activities in 2017. Thank you to the CTF donors who continue to support our work! To join our supporters, please contact me.

CONTACT THE AUTHOR

Laura may be reached at
laura@rehabtechconsultants.com
or 404.370.6172

WRITTEN BY: CLAUDIA AMORTEGUI

WHERE DO THINGS STAND, NOW THAT THE FIRST QUARTER IS BEHIND US?

It seems as if each time I sit down to write an article, I am under the gun with some new announcement by CMS or the DME Medicare Contractors. This time, it is no different. There are two issues to discuss. We can call it good news and bad news. Like most people, I would rather discuss the good news first, but do not skip the bad news (or the unchanged news).

I will break down the two current issues so we can all see where things stand – at least for today.

PMD PRIOR AUTHORIZATION FOR K0856 AND K0861:

Back in mid-December, CMS announced via the Federal Register that a prior authorization (PA) Process would begin for the Complex Rehab Technology (CRT) Group 3 power wheelchair bases with powered seating – K0856 and K0861 – by March 19, 2017. For most of us, this seemed like an extremely fast turnaround, even more so with a new administration in place and many items being placed on hold.

The program was to start with four initial states – one per Jurisdiction: New York (A), Illinois (B), West Virginia (C) and Missouri (D). The announcement states the program will then expand nationally starting July 2017.

From the start, Noridian (Jurisdictions A and D) was very active in attempting to educate and inform their providers. CGS (Jurisdictions B and C) was silent. I was not surprised with CGS's lack of comment due to the known "on hold" placement for differing items.

SIMPLY PUT, NO ONE IS ASKING FOR MEDICARE TO PAY FOR SUCH UPGRADES, THE END-USERS HAVE KNOWINGLY MADE THE CHOICE. THIS CANNOT BE SWEPT UNDER THE RUG.

Per Noridian they were going to be accepting PMD PA requests starting on March 6, 2017, for codes K0856 and K0861 that were to be delivered on or after March 20, 2017. For those of us who have been involved with Medicare reimbursement for even just a short time, it is understood that such a major policy change/addition would be started by both contractors for the required states (as noted in the Federal Register), and not just one. Because of this, I was scratching my head trying to guess which contractor would be correct.

Less than a week from this expected start date, many of us were at the ISS. I was scheduled to present on Medicare updates. Shortly before my presentation some Noridian representatives changed their stance from a March 6 start to "No comment." Again, their response was not a surprise. I expected the process to be placed on hold.

Ironically, four days later we were caught off guard with announcements sent by CGS. Both Jurisdictions B and C published that they were accepting PMD PA submissions that very day, March 6, 2017, for K0856 and K0861 bases to be delivered on March 20 or after. Noridian never actually removed their "start date" information from their website, therefore they moved forward as well.

AT THIS TIME, THIS IS WHAT IS KNOWN:

- Program Name: Condition of Payment PA Program
- K0856 and K0861 Group 3 PWC bases only
- The following states are included – this is based on where the beneficiary lives, not where the provider is located: Illinois, Missouri, New York and West Virginia
- Expected to expand nationally July 2017
- Decision letters to be sent to requesting provider. Will only be sent to beneficiary if requested on each individual submission form. The letters will no longer be sent to the physician.
- Required on all K0856 & K0861 bases delivered on or after March 20, 2017.
- If you had an approved/affirmed ADMC dated Mach 19 or prior, this will take the place of the PMD PA for K0856 and K0861.
- PMD PA is required on these two codes, there is no payment reduction offered as they do in the ongoing PMD PAR DEMO.

• At the writing of this article, providers must deliver these codes within the required 120 days from the face-to-face date on the Seven-Element Order. However, it is rumored that the LCD may be revised to allow up to six-months for delivery (as they have allowed with ADMC approvals). Until this is in writing within the LCD, be sure to stick to the 120-day rule.

• Be sure to use the appropriate coversheet from each contractor – and for the proper jurisdiction. Do not use the coversheet from original PMD PAR Demo program.

At this point, we can only keep our fingers crossed that this program runs smoothly. I believe this will be a very good thing if we get through these first steps.

UPGRADES – SPECIFIC TO TITANIUM:

My last article was informing everyone about the "news" the DME MACs published regarding not allowing an end-user to upgrade to a higher-level base due to the wheelchair base being constructed of a different material, specifically titanium.

I must first make a correction to a statement I made in error. I stated that "Titanium wheelchairs were not in existence at that time." I have come to find out, that there was at least one if not two titanium bases, but they were not very common at all. However, the question of if titanium wheelchair bases were included in the initial fee schedule calculations as stated in the DME MAC article appear to still stand.

An initial FOIA request was made for these calculations and they show that titanium wheelchair bases were not included. Shortly after that response was received, a more in depth request has been made, however I am confident we will be provided with the same findings – that such bases were not included.

I MUST FIRST MAKE A CORRECTION TO A STATEMENT I MADE IN ERROR. I STATED THAT "TITANIUM WHEELCHAIRS WERE NOT IN EXISTENCE AT THAT TIME." I HAVE COME TO FIND OUT, THAT THERE WAS AT LEAST ONE IF NOT TWO TITANIUM BASES, BUT THEY WERE NOT VERY COMMON AT ALL.

At this point, unfortunately people are stuck since the article was written and has not been rescinded. I admit, I am not hearing much from the industry other than from the same people. Sadly, at ISS I also noticed that many clinicians (and providers) were still not aware of the announcement.

The CRT industry cannot quietly let this slide by. People cannot just assume the "normal" group will "handle" the issue. Our entire group is going to have to be involved. At this point, the DME MACs technically cannot make the statement they made when it came to the code definitions and fee schedule calculations, based on the initial FOIA response.

The DME MAC article, just opens the door for funding sources to continue to limit coverage and to eliminate patient choice on not only wheelchair bases but possibly specific options and accessories.

It was recognized by the DME PDAC many years ago that not only did most of the titanium chairs belong in a different code category and did not match the K0005 code definition; but this was true for some other manual wheelchair bases as well.

At this point, if you have a Medicare client who does not have Medicaid secondary, you can provide this equipment on a non-assigned basis. Sadly, your client should pay you in full by the time of delivery and then they will receive the payment directly from Medicare. If everything is filed correctly, your client will then be reimbursed for the wheelchair base at the K0005 allowable – therefore they will only be out of pocket for the difference. I do recognize that this scenario will be very rare, but realize it is possible. Just do not forget to complete the ABN.

Simply put, no one is asking for Medicare to pay for such upgrades, the end-users have knowingly made the choice. This cannot be swept under the rug.

CONTACT THE AUTHOR

Claudia may be reached at info@orionreimbursement.com.

A BUSINESS AND LEGAL PERSPECTIVE

THE IMPORTANCE OF BACKGROUND CHECKS FOR NRRTS REGISTRANTS

WRITTEN BY: JOSHUA I. SKORA AND BARBI M. LORENZ

NRRTS's mission includes the credentialing and registration of Registrants who provide Complex Rehab Technology (CRT) equipment and services to the public. In support of this mission, NRRTS's Application for Registration requires an applicant's employer to conduct a background check on the applicant. If the background check leads to employment restrictions, the applicant must disclose the details of those restrictions. NRRTS included a background check requirement in its application to support its code of ethics and standards of practice. Because Registrants may interface with customers in their homes, confirmation that the applicant meets character and fitness standards is essential. Employers should desire that Registrants pass heightened scrutiny, because Registrants are the face of the employer in the field. However, employers should understand the benefits and legal issues regarding background checks.

DO WHAT YOU CAN TO ENSURE CLIENT SAFETY

In the CRT industry, an employee's criminal history is directly relevant to both your business and your customers' safety. When a company facilitates and requires one-on-one contact between Registrants and customers in a private setting, many times the customer's home, safety should be a top priority. By requiring a pre-or post-employment background check on all prospective Registrants, employers can increase the level of customer safety and reduce the likelihood of adverse events. While background checks are an important safety measure in most industries, the process is even more pertinent for CRT employers because of the nature of the services provided and the customers served. The very nature of the industry brings Registrants in close contact with individuals who are physically vulnerable in private settings. When customers choose a provider, they place a high level of trust in that provider, not only to facilitate the needed services, but to do so in a manner that ensures their safety. Requiring background checks is an easy step an employer can take to increase safety and earn the trust of customers.

PROTECT YOUR BUSINESS

Registrant background checks not only enhance customer safety, but may also provide you with information that could directly impact your bottom line, such as a conviction for embezzlement, assault, or health care fraud. Not only is it important to provide safety measures for customers, but employers can utilize background checks to prevent high risk employment situations. More knowledge is always better and background checks increase the amount of information that employers have when making hiring, promotional, and assignment decisions. In the event, something does go wrong, an employer that conducts background checks will be in a better position to maintain that it performed due diligence in making sure the employee did not have a history that would make him or her unfit for the specific position. If employers utilize the information gained in a background check legally and responsibly, that information can help to create a better fit for employers and employees alike.

SET EXPECTATIONS

Setting expectations with employees up front and applying the same policy across the board is an excellent way to maintain consistency and good employee relations. It is wise to put your background check policy in your employee handbook (or otherwise disseminate this information to all employees), explaining the purpose of the procedures and its frequency. The explanation should be coupled with a statement that the procedure will be consistently applied to all employees. This practice will reassure employees who may otherwise feel uncomfortable about the process, that there are legitimate safety reasons for the policy and that it will be applied fairly and consistently to every employee.

MAKE SURE YOU ARE IN COMPLIANCE WITH FEDERAL AND STATE LAWS

Keep in mind that background checks should never be used as a tool for discrimination. Employers should maintain the same requirements for every employee across the board. Employees should never be treated differently based on race, national origin, color, sex, religion, disability, or age. The Equal Employment Opportunity Commission provides information for employers regarding background checks, including information for how to maintain compliance with federal laws, various procedures you should follow, and proper uses for the information you obtain.

If your background check includes a credit check, it is important to make sure you adhere to the federal Fair

Credit Reporting Act notice requirements. We recommend the use of certified background check vendors. These vendors have authorizations and forms compliant with state and federal laws.

It is also important to note that different states have different laws regarding background investigations. Many states require authorization to run a background report and may restrict the types of information you can utilize in making employment decisions. More specifically, many states have laws regarding what point in the hiring process an employer can ask questions about an applicant's criminal history and when the employer can request permission to run a background check. Therefore, always check your local laws, as well as the federal laws, to make sure you are in complete compliance.

Finally, if the background check reveals information that leads to restricted employment, we recommend obtaining authorization from the employee to disclose to NRRTS any detailed information. If there is any question about compliance or authorizations, it is always wise to consult legal counsel that is familiar with relevant local and federal laws.

CONTACT THE AUTHORS

Josh may be reached at
Joshua.Skora@klgates.com

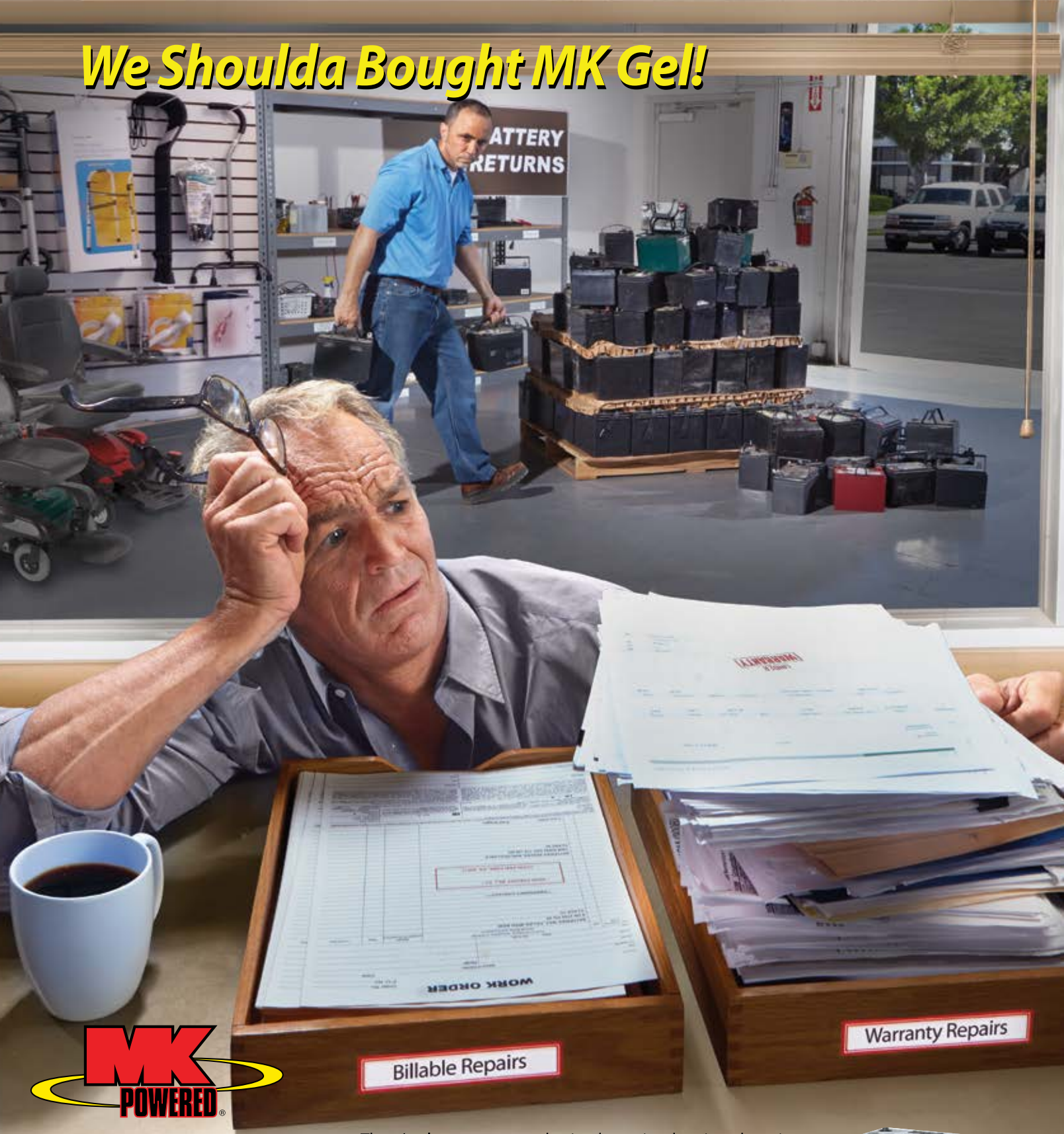
Barbi may be reached at
Barbi.Lorenz@klgates.com.

REFERENCES

1. MANY HEALTH CARE PROVIDERS, INCLUDING HOSPITALS AND REHABILITATION FACILITIES, REQUIRE PRE-EMPLOYMENT BACKGROUND CHECKS FOR ALL JOBS THAT REQUIRE PATIENT INTERFACING. THIS HAS BECOME THE INDUSTRY STANDARD FOR BETTER PATIENT/CUSTOMER SAFETY.

2. BACKGROUND CHECKS WHAT EMPLOYERS NEED TO KNOW, EQUAL OPPORTUNITY COMMISSION, HTTPS://WWW.EEOC.GOV/EEOC/PUBLICATIONS/BACKGROUND_CHECKS_EMPLOYERS.CFM (LAST VISITED FEB. 2, 2017).

We Shoulda Bought MK Gel!



MK POWERED®

MK GEL vs AGM Technology*

Gel Cycle Life and AGM Cycle Life vs Depth of Discharge at +25°C (77°F) based on BCI 2-hour capacity

*When comparing MK Batteries with MK AGM Batteries at 80% depth of discharge

There's a lot more to purchasing batteries than just the price. When you weigh the true cost per cycle and the total cost of premature battery failure, the choice is clear. Only MK Gel Batteries deliver a cost-effective, worry-free power solution that will not compromise vital dependability for your customers.

Why MK Gel?

When consistent quality, reliability, service and reputation matter, accept no imitations.
Depend on the power of MK Battery.

(800) 372-9253 Fax: (714) 937-0818 ***mkbattery.com***

NEW NRRTS REGISTRANTS

Congratulations to the newest NRRTS Registrants. NAMES LISTED ARE FROM JAN. 13 THROUGH MARCH 24, 2017.

Orenthal Brown, RRTS®
Avera Home Medical Equipment
2400 S Minnesota Ave Ste 102
Sioux Falls, SD 57105-3706
Telephone: 605-322-1804
Fax: 605-322-1832
Registration Date: 3/6/2017

Whit Casey, RRTS®
Hometown Healthcare
107 E Washington St
Houston, MS 38851
Telephone: 662-451-4630
Fax: 662-567-4668
Registration Date: 1/25/2017

Sunshine Gutierrez, RRTS®
Access Medical
1440 S State College Blvd Ste 4F
Anaheim, CA 92806-5722
Telephone: 714-988-2474 x.200
Fax: 866-533-3030
Registration Date: 3/8/2017

James Parnell, ATP, RRTS®
Professional Respiratory & Rehab
115 Hayfield Rd
Knoxville, TN 37922
Telephone: 865-560-1205
Fax: 865-560-1204
Registration Date: 3/7/2017

Ben Peters, ATP, RRTS®
Mobility Central
400 Olde Towne Rd
Birmingham, AL 35216-3732
Telephone: 205-916-0670
Fax: 205-940-2534
Registration Date: 1/24/2017

Nancy Rewis, ATP, RRTS®
Family Health Care
385 Connell Rd
Valdosta, GA 31602-1412
Telephone: 229-244-6788
Fax: 229-244-9667
Registration Date: 1/16/2017

David J. Schultz, ATP, RRTS®
Numotion
125 Thunderbird Ln
East Peoria, IL 61611
Telephone: 309-699-0509
Toll Free: 800-500-9150
Fax: 309-698-3361
Registration Date: 3/8/2017

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. 13 THROUGH MARCH 24, 2017.

Matthew Edward Convery, ATP, CRTS®
Rehabilitation Equipment Professionals, Inc.
Alexandria, VA

Scott Grant, ATP, CRTS®
Active Medical, LLC
Hurricane, WV

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 LISTED ARE FROM JAN. 13 THROUGH MARCH 24, 2017.

Lynn Bates, OT, ATP/SMS, Huntsville, AL
Lisa A Bauer, ATP, Altoona, PA
Matt Brumble, ATP, Chandler, AZ
Steven Burton, Carrollton, TX
Cedric Devone, Alexandria, VA
Gary Grote, Largo, FL
Mike Kyzer, Little Rock, AR
Bobbi Mackedanz, COTA/L, ATP/SMS, St Paul, MN
Betsy K. McKone, OTR, ATP, Sunnyvale, CA
Daniel J. Perkins, ATP, Chelmsford, MA
Jarrod Rowles, ATP/SMS, Orlando, FL
John D. Stevens, ATP, Cincinnati, OH

CURRENT NRRTS REGISTRANTS

The NRRTS board determined RRTS® and CRTS® should know who has maintained his/her registration in NRRTS, and who has not. The following individuals elected to maintain his/her registration in NRRTS.

NAMES INCLUDED ARE FROM JAN. 13 THROUGH MARCH 24, 2017.
(Please note if you renewed AFTER MARCH 24, your name will not be listed until the next issue of DIRECTIONS.)

For an up-to-date verification on Registrants, visit www.nrrts.org, updated daily.

Burton B Barmore III, M.D., ATP, CRTS® Augusta GA
Shelby Bass, ATP, RRTS® Evansville IN
Becky Bertoncino, ATP, CRTS® Webb City MO
James Randall Blackwell, ATP/SMS, CRTS® Chattanooga TN
Robert C. Bleil, ATP, CRTS® Washington PA
Christopher Boyd, ATP, RRTS® Chattanooga TN
Jorge Cabrera, RRTS® Houston TX
William Cavender, ATP, CRTS® Midland TX
John Kevin Conley, ATP, CRTS® Tifton GA
Roger Dabbs, ATP, RRTS® Baltimore MD
Peter Eastman, RPTA, ATP/SMS, CRTS® Franklin MA
Michael A. Edney, ATP, CRTS® Asheville NC
Karl Thomas Eklund, ATP, CRTS® Mooresville NC
Gregory M. Fleming, ATP/SMS, CRTS® Flowood MS
Michele A. Froehlich, ATP, CRTS® Grandville MI
Paul Garner, ATP, CRTS® Alexandria VA
Brian Gough, ATP, CRTS® Vicksburg MS
Ken Green, ATP, CRTS® Lexington KY
Johnothan Grimes, RRTS® Houston MS
Richard Gross, RRTS® Aberdeen SD
David Gurganus, ATP, CRTS® Hattiesburg MS
Xavier Harrison, ATP, CRTS® Worcester MA
Moshe Dave Hartman, ATP, CRTS® Lakewood NJ
Ronald D. Hejna, ATP/SMS, CRTS® Sioux Falls SD
Cheryl Henckel, OTR, ATP, CRTS® Green Bay WI
Justin Horn, ATP, CRTS® Springfield MO
Darryl Hosmanek, ATP, CRTS® Wauwatosa WI
Jonathan Hyzak, RRTS® Temple TX
Timothy Jarmuzek, ATP, RRTS® Hutchinson MN
Wayne M. Jones, RRTS® Jefferson LA
Joseph L. Kelley, ATP, CRTS® Ocean Springs MS
Ray Kent, ATP, CRTS® Fresno CA
Prak Kim, RRTS® Downey CA
Barbara L. King, ATP, CRTS® Little Rock AR
Perry Kohorn, ATP, CRTS® West Allis WI
Sarah Kubal, ATP, CRTS® Brooklynn Park MN
James Z. Leddy, RRTS® Abilene TX
Kenneth Livengood, ATP, CRTS® Springfield IL
Justin Look, ATP, CRTS® Bismark ND
Nathan Lyon, ATP, CRTS® Longwood FL
Butley J. Mahler, Jr., ATP, CRTS® Baton Rouge LA
Randy Malcolm, ATP, CRTS® Troy MI
Leigh Ann Matthews, ATP, CRTS® Ft. Payne AL
Rick L. Mayes, ATP, CRTS® Evansville IN
Laura McAliley, ATP/SMS, CRTS® Pooler, GA
Christopher P. McNulty, ATP, CRTS® Troy MI
Brian Metz, ATP, CRTS® Phoenix AZ
Derek Miller, ATP, CRTS® Chattanooga TN
Gregory Allan Moorhouse, ATP, CRTS® Flint MI
David T. Murray, ATP, CRTS® Pleasant Valley NY
Roxann Nasello, ATP, CRTS® Tulare CA
Dan Nederhood, ATP, CRTS® Grandville MI
Charles Edward Nichols, ATP, CRTS® Norcross GA
Dena Paxton, ATP, CRTS® Dunbar WV
Brian Perkowski, PT, ATP, CRTS® Wall Township NJ
Dennis Ponczek, ATP, CRTS® Broadview IL
Sergio Ribeiro, PTA, ATP, CRTS® Plainview NY
Kenneth G. Riffel, ATP, CRTS® Temple TX
Omar Rozo, RRTS® Pembroke Park FL
Eugene Salisbury, PTA, ATP, CRTS® Madison WI
Christopher Savoie, ATP/SMS, CRTS® Ann Arbor MI
Chad Schaffranek, ATP, CRTS® Ebensburg PA
Kurtis L. Schmidt, ATP, CRTS® Bismarck ND
Dewey L. Seagraves, ATP, CRTS® Athens GA
Brian McKenzie Shoemaker, ATP, CRTS® Laurel MS
David J. Simpson, ATP, RRTS® South Burlington VT
George Blaine Singleton, ATP, CRTS® Asheville NC
Daniel L Stephens IV, RRTS® Colton CA
Gerald Tisdale, RRTS® Saint Petersburg FL
Leslie Benjamin Todd, ATP/SMS, CRTS® Apex NC
Randall D. White, ATP, CRTS® Oklahoma City OK
Pam Yates, ATP, CRTS® Chadron NE
John P. Zambotti, ATP, CRTS® Tarentum PA
Frank T. Zugovitz, ATP, CRTS® San Diego CA

FRIENDS OF NRRTS [FONS]

As Corporate Friends of NRRTS, these companies recognize the value of working with NRRTS Registrants and support NRRTS' Mission Statement, Code of Ethics and Standards of Practice.

CHARTER CFONS

FREEDOM — Our kids are our passion.™
INVACARE — Yes, you can.
THE MEDGROUP — Connecting Partners, *Delivering Results*™
MK POWERED
NSM National Seating & Mobility
permobil
R82 Convaid
ROHO
SUNRISE MEDICAL
U.S. REHAB®

CFONS

AEL
alber
merits — With you for life
Avid Rehab — KEEP MOVING
Bodypoint®
COMFORT COMPANY
EasyStand
Inspired by drive
Ki Mobility — Better by Design
METALCRAFT
MOTION COMPOSITES
Motion Concepts
numotion — Mobility starts here.
ottobock
PRIME ENGINEERING
PRM — THE POWER OF PRECISION
QUANTUM
RAZ
Ride Designs
rifton — Products for life from people who care.™
Stealth Products
Therafin Corporation
Thomashilfen — North America
VARILITE

AFONS

Big City AMES
Children's
GAMES — Georgia Association of Medical Equipment Services
Midwest Association for Medical Equipment Services
NCART
NEMED
PAMS
RESNA
TXRPC
United Spinal Association
UCP Wheels for Humanity


CARBON
IS THE
NEW
BACK
MADE TO MOVE YOU
With compression-molded, lightweight carbon fiber construction, AGILITY CARBON™ combines high-strength performance with a streamlined design. The result is a precision-crafted seating system that looks as good as it feels.
INTRODUCING
THE AGILITY CARBON™ FROM ROHO
VISIT ROHO.COM FOR MORE INFORMATION
THE FOLLOWING ARE TRADEMARKS AND REGISTERED TRADEMARKS OF ROHO, INC: AGILITY CARBON™ AND ROHO®.

The National Registry of Rehabilitation Technology Suppliers
5815 82nd Street, Suite 145, Box 317
Lubbock, TX 79424

P > 800.976.7787 or 806.702.8265
F > 888.251.3234

www.nrrts.org

Smart Check™ by ROHO® Means *Confidence* For You and Your Clients.

We listened to what you wanted in the next generation of ROHO cushions, and developed **Smart Check** for maximum skin and soft tissue protection!

With Smart Check, clinicians set and save their recommended inflation setting for their clients' needs. Then clients check their cushion — whenever, where ever and as often as they like.

By recommending ROHO cushions with Smart Check, you'll have the confidence that your clients are following your treatment directions and getting the very most from their ROHO cushion.

Smart Check™ by ROHO®

CONFIDENCE, INDEPENDENCE & PEACE OF MIND:

89% of Smart Check users report they were more confident using their ROHO cushion with the addition of Smart Check.

A ROHO Cushion is so easy to set up with Smart Check, that **93%** of users successfully set up and maintain their cushion without clinical assistance.

88% said they trusted Smart Check to set them at the correct inflation level.

93% of Smart Check users report that they check their cushion more frequently now because checks are so much easier.

Contact ROHO today for more information on Smart Check

800-851-3449 | roho.com/smartcheck