

John

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THE REFERRAL

John, a 68-year-old Medicare recipient with cerebral palsy and spastic quadriplegia, was referred by a Home Medical Equipment (HME) company to the local wheelchair seating clinic to be evaluated for a replacement power wheelchair. Five years ago, the HME company provided John with a Pride Jet 2 standard power wheelchair with a captain's seat. Due to the Medicare-required specialty evaluation, the HME company recognized the need to refer John to the wheelchair seating clinic to obtain the required evaluation and documentation.

John presented to clinic riding in a well-worn Pride Jet 2 power wheelchair. His sitting balance in the chair was poor and to obtain some stability in the captain's seat, he placed his left arm behind his back and propped himself on the right armrest. He tended to slide forward and to the right on the seat and clearly was unstable.

John has been using this chair for more than five years. He has his left arm tucked behind his back to provide the lateral support he needs to stay midline.

Upon arrival it became evident that John had Complex Rehab Technology needs and therefore would require equipment from a certified Assistive Technology Professional (ATP). The HME company had an established relationship with John but did not have a certified professional on staff, so they conceded to refer John to a qualified Complex Rehab Technology company with certified staff to complete the team evaluation and provide John with the equipment that he needed.

Fortunately the ATP was in clinic just prior to John's arrival and was able to stay and complete the team evaluation.

THE EVALUATION BACKGROUND

John has severe spastic quadriplegia with resultant spinal scoliosis and secondary gastrointestinal and respiratory complications. He is a social person and desires to be as independent as possible, doing as much as he is able to on his own. He spends more than 15 hours a day in his power wheelchair and frequently is out in the community visiting with friends, going to stores, banks, etc. He resides with his 87-year-old mother in a fully accessible home. John's mother also uses a power wheelchair and is physically not able to assist John. Therefore John has caregiver assistance four hours per day.

The family owns a Dodge Eurovan equipped with a vehicle ramp and Easy Lock securement and occupant restraint system. When in the van, John and his mother both ride as passengers in their wheelchairs.

FUNCTIONAL STATUS

John is non-ambulatory. He uses a power wheelchair for all mobility inside and outside the home and complains of poor

comfort and posture in his present power wheelchair. His sitting balance in the chair is poor.

His caregivers have rigged a trapeze that he uses to transfer from the wheelchair to and from bed. He uses another trapeze to get from the wheelchair to and from the toilet. Upon observation, the transfer technique does not appear very safe but reportedly has worked for many years without injury. His caregiver is available to provide assistance as needed but John prefers to do as much as he is able to on his own. He does, however, require some assistance with all activities of daily living (ADLs).

PHYSICAL STATUS

A mat evaluation revealed the following findings:

- Active motor control on right side > left side
- Right handed (operates joystick on right)
- Severe pelvic obliquity left side higher than right
- Partially flexible rotoscoliosis with pelvis rotated posteriorly on right with upper trunk and shoulders counter-rotated forward on the right
- Thoracolumbar scoliosis with convexity to the left with ribcage collapsing over the ilium
- Hip flexion 90 degrees R and 100 degrees L

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- With hips flexed knee extension is limited to 110 degrees R and 80 degrees L due to hamstring contractures
- Ankles can attain a neutral position
- Grade 2 pressure ulcers on the right side of his chest from the armrest, and right hip, buttocks and coccyx from asymmetrical sitting postures on captain's seat

EQUIPMENT HISTORY

John's five-year-old Pride Jet 2 power



1. JOHN IN HIS ORIGINAL CHAIR. 2. JOHN IN THE MOLDING FRAME. 3. JOHN TRYING OUT HIS NEW CHAIR.

wheelchair with a captain's seat and foot platform is old and in need of replacement. It does not provide enough postural support or pressure distribution, placing him at risk for injury. There are multiple broken components including motors, which will be costly to replace.

John is evaluated in the Wheelchair Seating Clinic for a new power wheelchair and seating system to improve postural control, comfort and maneuverability within the home and community.

EQUIPMENT TRIAL

John was positioned in short sitting on the mat to simulate seated posture. It was determined that John would benefit from a custom contoured seat and back to accommodate and support his severe orthopedic deformities. It will be a tradeoff between support and function, so it will be important that John have an opportunity to try the custom contour for functional activities. It may be he cannot tolerate a custom contoured seat, since it will interfere with his ability to transfer. We discussed alternatives as far as depth of contour or even moving to a prefabricated seat cushion and custom contoured seat back.

After the seated simulation John was set up in a mid-wheel drive power wheelchair for trial and training. The patient was trialed in a front-drive power wheelchair with a mocked up Versaform contoured seat back for stability and positioning. During the assessment John demonstrated good problem solving, judgment, memory and attention. He was safe driving and maneuvering the power wheelchair in areas with multiple obstacles. He was comfortable with switching from a mid-wheel drive to a front-wheel drive power wheelchair. The front-wheel drive power chair was evaluated for maneuverability and the patient's ability to tolerate a switch from a mid-wheel to a front-wheel power wheelchair. John also had an opportunity to trial power tilt, and seat elevation features since these features facilitate transfers, effective weight relief and gravity-assisted positioning. Anthropometric measurements were taken and recorded by the CRTS®.

The prescription will be based on the evaluation and trial equipment.

EQUIPMENT RECOMMENDATIONS

John decided on the Permobil C300. The chair fit in his van, was easy for him to drive and it offered a seat elevator. A custom molded seat and back were also recommended. When he was in the molding frame, it was determined that a custom molded seat would prevent him from doing his lateral transfers. An alternative is to use a Jay 2 Cushion with an obliquity pad.

FOLLOW UP

John was scheduled for two additional visits at the seating clinic. One visit was to capture a custom contoured back mold to fabricate a custom seating system for the new power wheelchair. The second visit was at the time of equipment fitting and delivery to ensure that the system was working as anticipated and the shape matches the patient as intended without interfering with function.

During the fitting, we were able to simulate how he would transfer in and out of the system. At this point, it was decided that a Jay 2 Cushion would work best for his seat.

John came back to the shop for more tweaking of his new chair. The armrests needed to be adjusted so that he could more easily move them out of the way for transfers. He reported that "he loves his new chair." His transfers are a little more difficult. He now needs minimal assistance to laterally transfer into the chair from his bed due to the contoured back. However, he is much happier and more comfortable with the correct support.

THE UPSIDE TO CMS COVERAGE POLICIES FOR COMPLEX REHAB TECHNOLOGY

Medicare's coverage requirements requiring evaluation and documentation by qualified seating and mobility specialists are beginning to have a positive influence on ensuring people with Complex Rehab Technology needs have access to appropriate services and equipment. Slowly but surely, we are beginning to see increasing consumer referrals to seating clinics. HME companies in need of clinical evaluations are directing consumers to clinics to obtain the required evaluation and documentation. When it is determined at the clinic that a consumer requires complex rehab technology, the consumer is required to be referred and rerouted to a qualified complex rehab supplier. Formerly HME companies did not always recognize when a consumer had complex rehab technology needs as in this case example. CMS policy has indeed resulted in added safeguards to consumers, ensuring they gain access to appropriate technology and services.

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