

Child's Name: Tara
Date of Birth: 6-28-88

Date: 8-16-03

Powered Mobility and Positioning Evaluation Medical Justification for Equipment

Identification of Need:

Tara is a 15-year-old female with diagnosis of Ataxic Cerebral Palsy. She is nonverbal and nonambulatory. She is unable to functionally propel her manual wheelchair over thresholds, uneven terrain, and longer distances. Consequently, she also has a power wheelchair. Both are Invacare brand chairs. In the last year, Tara has experienced many days when her powerchair has not been functioning. During this time, her manual wheelchair was used exclusively for her to attend school. Because her power chair is more than 5 years old and no longer reliable, a new chair is being recommended. Specifications for the chair are listed and explained below.

Current Motor Status:

Tara continues to be unable to walk or propel a manual wheelchair effectively for daily mobility tasks. She needs support to maintain a sitting position. She struggles to regulate the force required to perform an activity, frequently over and under targeting. Her accuracy has improved in the last few years, but is limited due to tone interference. She is able to feed herself with setup, but is dependent for transfers, dressing, and bathing.

Current Means of Mobility:

Tara has both an Invacare manual wheelchair (approximately 1 1/2 years old) and an Invacare Ranger X Storm Power wheelchair (approximately 5 years old). Tara's power wheelchair is no longer reliable and a new one is being recommended. Initially, Tara used a head array to simplify the driving process by separating out the directional commands. She transitioned to a joystick and has been using it for the last 2 years, turning her own chair on, selecting through drives, and activating select switch.

Medical Equipment Justification:

Invacare:

Because Tara is familiar with Invacare's electronics, another Invacare chair is being recommended. Invacare has recently introduced the TDX5 power wheelchair. It is a midwheel drive wheelchair with SureStep, Stability Lock, and TrueTrack features. These features in combination with the midwheel drive configuration will improve Tara's functional capabilities. As Tara proceeds over unlevel terrain, each wheel remains in contact with the ground, increasing stability. A "running start" is not necessary—instead, she will be able to proceed cautiously, remaining in control. Because there is constant communication between the electronics and the motors, the chair will track "true" to Tara's commands, despite sloped/inclined or uneven surfaces. It will navigate tight spaces and maneuver around obstacles smoothly.

Motion Concepts:

Because Tara is dependent for transfers and remains in her wheelchair most of her waking hours, she needs a system that will allow ongoing movement and postural adjustments. Tara continues to need power tilt to redistribute pressure, change her visual field orientation, and allow gravity to assist with her positioning. Because Tara experiences diminished circulation distal lower extremities, a power elevating legrest is being recommended. Used in combination with power tilt, Tara will be able to achieve a position with her legs above her heart for facilitating venous return. Power recline will allow Tara to change her pelvic positioning from active to passive. Having recline begin at a closed back angle, she will be adequately supported in a “functional task” position/leaning forward for performing daily activities. Seat elevator will not only allow Tara to reach items unavailable to her from a standard wheelchair height, but will also allow the transfer heights to be “evened” out for improved safety. These power seat functions will improve Tara’s ability to assist with ADL’s and participate in these daily activities with more independence.

Seating and Miscellaneous Components:

This last year, Tara has experienced dramatic physical changes. As she continues to mature, her positioning needs are changing. She is assuming postures with greater degrees of lordosis and maintaining her lower extremities in an extended position. Consequently, due to growth and physical changes, her planar seating systems in both her power and manual are no longer providing Tara with the postural supports/the stability she needs. A system that is specifically made for Tara is needed to provide contact where necessary and contour to Tara’s physical characteristics. Consequently, molded Ottobock seating is being recommended. This particular method involves having Tara surrounded with bags with beads. Once the shape is achieved, air is vacuumed out of the bags. Tara’s physical shape remains. Data is then entered into the computer and cushions are customized to this data.

As Tara becomes more competent in her new power wheelchair, she will expand her repertoire of “comfort zones”. Tara does well in familiar circumstances, but struggles to sequence/motor plan novel situations. During these continued experiences with novel situations, the ancillary input control will provide an overriding stop for safety as she is learning and processing various environments.

Tara is able to switch through drives on her power wheelchair, but has difficulty using the standard toggle. She also needs verbal cues to determine “where” she is in the system. For her new chair, a switch will be used in combination with a programmable voice out and speaker modification. The purpose for each drive will be programmed. For instance, she will be able to hear whether she is in “slow” versus “fast” driving or “indoor” versus “outdoor” driving modes. This will eliminate the confusion to avoid accidental changes into different modes for safety. In order to have this modification, a display is required. As a result, Tara’s electronics will include the Compact Joystick with Display. Tara will need switches to not only access drive select, but also reset, and power seating functions. These need placed where Tara can easily activate them—various switch mounts were included. Tara’s accuracy improves when items are placed close to her trunk, at an angle, and in a consistent location. Only then can she develop effective motor patterns.

The school bus is able to transport the power wheelchair. Because Tara's dad now owns a minivan, a set of lightweight portable ramps have been included for family use.

Equipment Component List:

Invacare

Invacare TDX5 Base with MK 5
Auxiliary Module for 3, 4
Impact Guards and Calf Strap
Compact Joystick with Display—add drive select port
Quad Link Retractable
Wheel Locks
Flat Free Inserts

Ottobock

Custom Molded
Seating System

Motion Concepts

Power Seating Functions, including Tilt, Recline, Seat Elevator, Elevating Legrest (recline to begin closed back angle, tilt to begin anterior, and elevating legrest to begin greater than 90 degrees)
Seating Components

Miscellaneous Components

Switch Mounts with Mini-Surface/Eclipse for Placement
Stealth Hgt. Adjustable Clamps to be used with Gatlin and Quad Link
Dynaform Chest Support
Therafin Tray with Easel and cutout
Bodypoint Pelvic Belt
CF Rehab Portable Ramp
Medcovers Bags
Hardware for Attaching Seating
Stealth Headrest and Hardware
Ancillary Input Control
Protective Cover for Electronics
ASL Voice Out with Speaker Mod

Please note: These components have been specifically chosen to correlate with Tara's individual medical needs and should not be changed. Careful consideration was given to benefits/features and cost effectiveness. When a comparable item existed, the more cost effective item was recommended. However, in most instances, only one company manufactured the components Tara medically needed--and was consequently chosen. For instance, Motion Concepts is the **only company to add power seating functions of tilt, recline, elevating seat, and elevating legrest onto the TDX base. No other option existed. As mentioned previously, Tara has a power wheelchair. Due to her growth and extended use, the chair is no longer reliable and is not supporting her appropriately. The new system will not only position her for adequate respiration, circulation, and postural control for participating in daily activities, but will also provide her a means of proceeding from one location to another and adjusting her postures frequently. Please consider the above requests and contact me if any additional questions. Thank you.

Christina Mayer, PT

Physician Signature
**no substitutions, no deletions unless physician approved

