Patient's Name: Lisa Date of Birth: 7-28-61 Dates of Equipment Trials: 8-23-01 and 9-10-01

Powered Mobility and Positioning Evaluation

Identification of Need:

Lisa is a 40 year old female with diagnosis of Cerebral Palsy. She has used a power wheelchair for several years for mobility. Her current power wheelchair (paid for through "alternative" funding, not by insurance) is 5 ½ years old. Due to extensive use, it can no longer be repaired and modified to meet her individual mobility needs.

Current Means of Mobility and Equipment Trials:

Lisa tried a Permobil power wheelchair with power seat functions on 2 separate occasions. She tried both a "C2K" and an "Entra" Permobil power base. The features and benefits of both were carefully considered. The Entra was the more economical of the 2 and because it met her individual medical needs, was consequently chosen.

When Lisa arrived at the evaluation, her current chair (Invacare Arrow with Mark IVA electronics) was posing safety concerns. Her tires did not have any tread left. Her Tiltmaster power seat elevator is no longer made—therefore, cannot be readily repaired. Her motors were not functioning properly. And her seating needed to be addressed. Because her wheelchair is over 5 years old, a new one is necessary and being recommended. Lisa relies on her power wheelchair for all daily activities. Without it, Lisa would lose a large portion of her independence.

Lisa's current Invacare wheelchair is rear wheel drive. Because of this, the front casters interfere with proper foot placement. In order to customize and place her feet under her, her seating system had to be placed forward on the wheelchair frame. As a result, most of her weight is over the front casters, making the chair nonfunctional on many uneven surfaces. Because Permobil is front wheel drive, no front casters exist to interfere with foot placement. Negotiating uneven terrain and tight spaces becomes possible.

Lisa currently has seat elevator on her wheelchair (installed on chair approximately 3 ¹/₂ years ago). She uses this feature frequently to assist with transfers and to reach items that would ordinarily be out of reach from a standard wheelchair height. Because of her demonstrated use of the power seat elevator, it will be included on the recommended Permobil.

Because Lisa's seating system is no longer positioning her the way it did originally, Lisa is experiencing shoulder/neck pain and headaches. A new seating system that will provide postural support (laterals, hip guides, feet placed under her, and custom lumber) is required. Adding power tilt, power recline, and power leg functions will also facilitate active movement while supplying her with support in whichever position she chooses.

Itemized List of Medical Components:

Permobil

Entra Base (to include Front Wheel Drive Power Base, Programmable PG Pilot+

Controller, Remote Joystick, Left Mount Joystick, Ergonomic Back Height 21", 17" Seat Width and 18" Seat Depth, 16" Width Between Armrests, Calf Supports, Light Package, Tie-Down Hardware for Strap Systems, Charger, Anti-tippers, and Freight) Power Seat Elevator **Retractable Joystick Mount** Power Tilt and Power Recline (tilt to begin anterior and recline to begin closed back angle) Power Elevating Legrest One Piece Footplate Power Footplate 4" Vertical Movement Ergonomic Back Width 16"wide Armrest Mount Kit Right 4"x 14" Armrest Pad Size Left 4"x 14" Armrest Pad Size Removable Headrest Universal Headrest Adapter Lateral Supports Thigh Supports Transfer Handles **Push Handles** Positioning Belt with Auto Tension-retractable Custom Inflatable Lumbar Programmer

Medical Justification of Components: *Permobil Entra Base:*

The Permobil is a front wheel drive wheelchair. As a result, uneven terrain is more easily navigated. Casters do not interfere with foot placement. In order for Lisa to achieve a neutral or anterior tilt (necessary for upright posture), her hamstrings must be shortened to allow for movement at the pelvis. This would require that her feet be placed at least directly under her, if not further back. With rear wheel drive wheelchairs, casters interfere. In order to achieve foot placement, a custom footplate is needed as well as seating system placement toward the front on the frame, significantly compromising maneuverability. Lisa reports she enjoys the outdoors, but cannot "trust" her current chair. With the Permobil, Lisa will again be able to enjoy going outside.

The Permobil was also chosen because it is the ONLY wheelchair that will accept all the power seat functions that Lisa medically requires including seat elevator, tilt, recline, elevating legrest, and footplate vertical movement.

Power Seat Functions (including seat elevator, tilt, recline, elevating legrest, and footplate vertical movement):

As mentioned previously, Lisa relies heavily on her seat elevator to assist her with transfers and reaching items for daily activities. Tilt and recline will allow Lisa to change her position frequently throughout the day and be supported in whichever position she chooses. Having tilt begin anterior and having recline begin at a closed back angle, Lisa will be able to assume a "functional task position", minimizing tone. She will be able to

change the position of her pelvis from anterior (working position) to posterior (resting position) as we all do. Because Lisa experiences lower extremity edema, complaining of "swollen ankles", Lisa will be able to tilt back and elevate her legs for venous return. More postural changes will bring less shoulder and neck pain. She will be able to tilt back for visual field orientation instead of straining her neck to look at someone/ something above her. She will be able to tilt back on uneven terrain and while going down ramps for increased stability as well. Tilt and recline will allow gravity to assist with thoracic expansion, improving respiratory functions. Due to her custom footplate, Lisa struggles to independently transfer into her current wheelchair. With the vertical movement footplate, Lisa will be able to lower the footplate to the ground for her to step on during transfers, improving the ease and speed at which she gets in and out of her wheelchair. Lastly, power tilt/recline/elevating legrest combination is needed for her to clear the opening in her van for transporting. All these power seat functions will reduce the risk of orthopedic dilemmas in the future.

Miscellaneous Items and Positioning Components:

Lisa needs laterals, hip guides, adjustable lumbar, and retractable positioning belt to provide her with adequate support for performing daily tasks. With her feet placed under her and appropriate postural components, Lisa is able to achieve a more upright posture. Transfer handles and longer armrests will further assist Lisa with getting in and out of her wheelchair. The longer armrests will support Lisa's upper extremities, especially her left for driving. The headrest will be used to support her head when she is using the power functions of tilt/recline and for safety during transport.

The programmer will allow the chair to be adjusted to match Lisa's driving needs and adjusted as she gains confidence with driving front wheel versus rear wheel drive.

Lisa is a productive member of the community. She relies on her power wheelchair to actively participate in community, work, and home activities. Her wheelchair is approximately 5 ½ years old and is now a safety risk. Due to extensive use, the repairs exceed its worth. Because Tiltmaster seat elevator is no longer made, safety will become an issue with this product. Lisa is now in need of a chair that will provide her with support as she actively changes positions—promoting adequate respiration, circulation, and orthopedic alignment as she ages. With the recommended wheelchair, her transferring abilities will improve with the recommended seat functions, and maneuverability will also be greatly improved with front wheel drive, translating into greater independence. Please carefully consider the medical request for an Entra Permobil with the above power seat functions and positioning components. Please feel free to contact me if you have any questions or require additional information.

Thank you,

Christina Mayer, PT Physical Therapist Phone: Physician Signature **no substitutions, no deletions of above prescribed equipment