Clinic Letterhead

RE: Ms. Jane Doe Clinic: # 6-24-811 DOB: 9/13/1989

TO WHOM IT MAY CONCERN:

- *1 Ms. Jane Doe is a 28-year-old woman diagnosed with spinal muscular atrophy. Spinal muscular atrophy is a neuromuscular disease that causes severe muscle weakness. Due to weakness in both upper and lower extremities, Ms. Doe uses a power wheelchair for mobility. She uses her power wheelchair approximately 16 hours a day in her home, workplace, and community. She lives independently in an apartment with eight hours a day of Personal Care Assistance (PCA) services.
- *2 Ms. Doe recently completed a trial with a power wheelchair that has seat elevation. A seat elevator is an electromechanical lift system that raises and lowers a person in a seated position without changing the seated angle relative to the ground. It allows a person using a wheelchair to elevate vertically from a standard seat height and then lower to the standard seat height or even closer to the floor, if needed.

Due to lower extremity weakness, Ms. Doe is having difficulty with stand pivot transfers to and from her wheelchair. She is having difficulty coming to a standing position due to lower extremity weakness and her PCAs are not able to lift her from her wheelchair to a standing position. *5 With the seat elevator, Ms. Doe is able to perform sliding board transfers in a downhill direction as she does not have adequate strength to transfer across a level surface or uphill. *3 She can raise the wheelchair seat just higher than the seat to which she is transferring and use the sliding board to transfer downhill. To transfer back to the wheelchair, she can lower the wheelchair seat height below the surface she is on and again use the sliding board to transfer downhill back to her wheelchair. Transferring in a downward direction requires less upper extremity strength. (Wang et al., 1994.) *5 During the trial, Ms. Doe was able to transfer independently to the toilet, shower chair, and bed and then back to her wheelchair using the seat elevator and transfer board.

*3 Ms. Doe also has severe shoulder weakness (2/5) in both shoulders. This means she is able to actively move the muscle when gravity is eliminated. She is unable to lift her arms 90 degrees, and, as a result, she is unable to reach for high objects, open cupboards or doors, use her stovetop, and reach her sinks in both her kitchen and bathroom. A seat elevator will allow Ms. Doe to raise her seat level, thereby eliminating the effects of gravity and improving her reach. *5 During the trial period, Ms. Doe was able to reach items on countertops and in cabinets, as well as access the stovetop, sinks, light switches, grocery shelves, and service counters. The seat elevator also helped reduce upper extremity pain and will help delay secondary complications to the shoulders. *3 Studies have found the degree of upper arm elevation influences shoulder muscle load. Reaching from an elevated position reduces these loads and prevents pain and secondary complications. (Palmerud et al., 2000; Sigholm et al., 1984.)

*4 Without a seat elevator, Ms. Doe will need an electronic lift to transfer to and from her wheelchair. She will require one lift at home and one lift at her workplace to transfer to and from the toilet. An electronic lift would be more costly than including a seat elevator on her wheelchair. Also, she would not be able to use a lift independently and would require additional PCA care to help with transfers and completing ADLs (Activities of Daily Living) in her home.

*6 Seat elevators are commonly recommended within the rehabilitation community as a way to provide vertical mobility to people who use wheelchairs. A seat elevator is medically necessary and is accepted among the medical community because it provides persons with Spinal Muscular Atrophy (like Ms. Doe) a way to functionally transfer to and from her wheelchair as well as independent living. In order to maximize Ms. Doe's functional independence within her home, work, and community, a seat elevator is medically necessary.

If you have any questions, please do not hesitate to contact me.

Signed, Philip Physician, M.D. Board Certified Physical Medicine and Rehabilitation (651) 444-4444