

August 17, 2009

To Whom It May Concern:

Ms. Rosemary is a 38-year old woman with the diagnosis of Cerebral Palsy and Seizure Disorder, who was referred to the Outpatient Occupational Therapy department of the "ABC" hospital for a wheelchair and seating evaluation. A full evaluation reveals the following:

History of Present Illness: Rosemary is severely impaired. She is unable to speak or to follow any directions. She is able to move, but has very limited purposeful movements- she does reach for a stimulus, but is unable to manipulated objects or use any tools. She is unable to sit up on her own or perform any personal care. She does experience some dysphagia, but is able to eat by mouth with specific positioning. She also experiences bowel impaction, which can become painful and problematic. She has full time caregivers who include her parents and home health aides.

Social History: Rosemary lives with her parents, who are her primary caregivers. They live in a private home with elevator access (the elevator is 48" deep).

Current Wheelchair: Rosemary did not arrive to the evaluation in her current wheelchair, which is over 10 years old, as it is no longer safe and is falling apart. This wheelchair has manual tilt and recline, but is a very large and heavy wheelchair. This wheelchair does not fit well into the elevator necessary to have her leave her home in an emergency. In addition, Rosemary has a stroller, which her parents brought her in. this wheelchair does not fit at all into the elevator and, due to her positioning, makes transfers in and out very difficult.

Finally, the seat upholstery on this is held on by snaps, which do not stay secure, making it an unsafe option for Rosemary.

Objective Evaluation:

Height: 48"

Weight: 80 lbs.

Hip to Hip: 11"

Hip to Knee: Right=17"; Left=15"

Knee to Heel: Right=12"; Left=10"

Top of Shoulder: Right=20"; Left=17"

Top of Head: 25"

Chest Width: 10"

Chest Depth: 9"

Across Shoulders: 13"

Axilla Height: Right=16"; Left=14"

Foot Length: 7"

Foot Width: 2.5"

Range of Motion:

Rosemary does not do active range through full range of motion due to a combination of her cognitive and motor impairments. Therefore, all of the ranges of motion relate to active assisted and passive range of motion:

Upper Extremities:

Bilateral Shoulders: <1/2 range

Bilateral Elbows: Rosemary maintains her bilateral upper extremities in a flexed position, but is able to actively extend to approximately 1/2-3/4 range.

Hands: Rosemary is able to actively extend fingers on both hands, but tends to keep the positioned in flexion. In addition, her thumbs are adducted across her palms without flexibility.

Left Lower Extremity:

Hip Flexion: 100 degrees

Knee: 95-135 degrees

Ankle: range of motion to 90 degrees dorsiflexion

Right Lower Extremity:

Hip Flexion: Within Functional Limits

Knee: 90-150 degrees

Ankle: Within Functional Limits

Sensation: Due to Rosemary's severe cognitive impairment, Rosemary is unable to provide information to fully assess her sensation.

Tone: increased flexor tone noted in Rosemary's bilateral upper and lower extremities. Rosemary presents with decreased tone throughout her trunk.

Spasms: Rosemary's movements are spastic.

Pain: Rosemary is unable to speak, so she cannot indicate pain. Her parents report that she seems to experience abdominal pain due to problems with digestion. Rosemary demonstrates pain via facial grimacing, yelling out, and some gestures.

Skin Integrity: Rosemary has no significant history of skin compromise.

Gross Muscle Strength: Unable to assess her muscle strength due to lack of purposeful movement in combination with impaired cognition and ability to follow directions.

Endurance: Poor

Posture: Rosemary sits in a posterior pelvic tilt, which is fixed. She has a left side pelvic obliquity with her pelvis rotated toward the right. She has an "S" curve in her spine with right side trunk shortening with a spinal kyphosis and very limited spinal flexibility. She has a right side rib cage flare. Her head is forward, and she tends to maintain her head laterally flexed to the left side with her head rotated to the left, but she is able to rotate to

the right. Rosemary's lower extremities are adducted and internally rotated with her knees flexed. Rosemary tends to maintain her upper extremities in a flexed position.

#### Functional Evaluation:

**Mobility:** Rosemary is unable to stand or to ambulate with the use of any ambulatory device. In fact, she is not able to sit unsupported without assistance. Rosemary is not able to self propel any manual wheelchair due to a combination of motor and cognitive deficits.

**Transfers:** Rosemary is dependent for her transfers and is not able to participate or assist in any way.

**Mobility Related Activities of Daily Living:** Rosemary requires the use of a wheelchair for the safe and timely completion of MRADL's within her home. Rosemary is fully dependent for all of her MRADL tasks (dressing, eating, bathing, grooming, and toileting). However, she specifically requires her wheelchair to provide her with the specific positioning necessary for her safe ability to eat. Rosemary is not able to eat in bed, due to unsafe swallowing. She requires the specific upright positioning (slight tilt with an open back angle) of her wheelchair to allow her to be safely fed without risk for choking.

#### Justification:

Rosemary is not able to stand or to ambulate with or without the use of any ambulatory device. In fact, she is unable to sit unsupported. Therefore, Rosemary requires the use of a wheelchair to meet all of her mobility needs including to get out of bed, for pressure relief, and for the safe completion of mealtime activities. Rosemary is not able to sit up without maximal support and therefore, requires the use of manual tilt to provide her with the antigravity positioning for postural control as well as the pressure relief necessary to prevent wounds. Standard wheelchairs (including standard weight, lightweight, high strength lightweight, and ultra lightweight wheelchairs) are all incapable of meeting her postural control needs and pressure relief needs. Therefore, Rosemary requires the use of a manual tilt wheelchair to provide her with the postural control and pressure relief she requires for prevention of further deformity, for positioning necessary for her safe completion of mealtime, for her mobility, and for her pressure relief. Rosemary's elevator at home is only 48" deep and she requires a wheelchair, which is capable of fitting into her home. The Fuze T50 was found to be a wheelchair capable of fitting into her home, to allow for a quick and timely exit in an emergency, while still providing her with the tilt in space feature she needs for positioning and pressure relief. All features come standard on this wheelchair, except for the following:

**BioDynamics Solid seat pan:** This is required to provide Rosemary with a solid base of support necessary for positioning, postural control, and pressure relief. Without this solid base of support, Rosemary would be at increased risk for skin compromise and further postural asymmetry.

BioDynamics Solid Back insert with 1.5" foam and detachable neoprene cover; mount between the posts: This is required to provide Rosemary with the solid back support she requires for optimal postural control. The 1.5" foam is necessary to provide her with the pressure relief and comfort necessary for extended sitting. Without this foam, she would be at risk for skin compromise as well as at risk for inability to tolerate sitting due to discomfort. Since Rosemary is non-verbal, she would not be able to express discomfort, which increases her risk for skin compromise. A standard backrest would not be capable of meeting her positioning and trunk support needs. The Neoprene Cover is necessary to protect her skin from moisture, which can lead to skin compromise.

BioDynamics Detachable lateral trunk supports: Rosemary presents with impaired midline trunk positioning as well as impaired trunk control, which limits her balance and her ability to sit midline. As a result, Rosemary requires the use of lateral supports to provide her with the midline trunk support she needs to prevent falls and further postural asymmetry. Various mounting hardware options were discussed, including fixed, swingaway, and detachable. Fixed laterals would not work as they would interfere with the safe completion of transfers and would inhibit the ability of her caregivers to complete activities of daily living. Swingaway laterals were considered, but were also found to be an unsafe option. When Rosemary experiences pain, her upper extremities can become spastic and there is a risk of her hitting the laterals in a swung out position. In addition, Rosemary's home health aides have a tendency to leave the laterals swung out, which can be a safety issue during mobility through doorways. Detachable lateral supports were identified as the best option as it would allow the laterals to be removed for transfers and activities of daily living, but not create an unsafe situation for Rosemary.

BioDynamics Hip guides 1" foam, adjustable: Rosemary presents with postural asymmetry, which results in rotation positioning of her body. She requires the use of positioning devices to provide her with midline positioning. In addition, Rosemary's shoulders are wider than her hips and increased width is necessary to provide her trunk with the lateral support she needs. Therefore, it is necessary to use hip guides to accommodate for the extra width needed at her upper body, without increasing the risk for loss of midline pelvic positioning. Only hip guides are capable of providing her with this positioning. The adjustable hardware is necessary to accommodate fluctuations in her tone and her clothing, while providing her body with the specific lower body positioning necessary.

Medial knee support, removable: Rosemary presents with lower body tone, which results in hip internal rotation and adduction. She requires the use of a medial knee support to provide her with the lower extremity positioning necessary to prevent loss of range of motion which can prohibit completion of toileting and hygiene tasks as well as further deformity and risk for potential health complication (such as hip dislocation). Without the medial knee support, she would be at risk for all of these problems. The removable hardware is imperative to allow for the safe completion of transfers as well as for the performance of activities of daily living.

19" wide headrest; Bio curved; detachable hardware: Rosemary requires the use of a headrest to provide her head and neck with support during tilt. Without a headrest, she

would be at risk for injury. In addition, Rosemary presents with head positioning asymmetry, including neck lateral flexion and rotation. In order to properly position her head and neck, Rosemary requires a large curved headrest to try to provide her with the asymmetrical positioning and support to try to reorient her head and prevent injury. A standard headrest would not be sufficient. Detachable hardware is necessary to allow the headrest to be removed for the safe completion of transfers.

We urge you to approve this wheelchair and seating system, as they are imperative for Rosemary's mobility, safety (since her 10+ year old wheelchair is in such bad shape), positioning and postural control, and pressure relief. Rosemary is not able to speak for herself to identify her needs. Therefore, her needs were carefully assessed via evaluation and reports from her parents, to identify the best wheelchair and seating system to meet her needs. Without it, her health, safety, and mobility will be at risk for compromise. If you have any questions, feel free to contact us.

Sincerely,