



Patient information

Evaluation Date:

Payor Information:

Insurance ID:

Patient Name:

Date of Birth:

Gender:

Summary of Medical Condition

Primary diagnosis:

Date of onset:

Secondary Diagnosis(s):

Treatment Diagnosis(s):

Prognosis: XXX is significantly delayed with regards to his motor skills as a result of his diagnosis. XXX presents with gross motor skills typically present at 8-12 months of age. Due to lack of postural control and core strength, XXX has significant difficulties with independent functional mobility throughout his environment. XXX's family has consistently implemented gross motor home programs to increase independence with transitions, sitting balance, standing, and pre-gait skills.

Chief complaints/presenting problems: XXX was born full term and was quickly admitted to the NICU, where he stayed for 69 days due to periodic apnea, bradycardia, and lethargy, which prevented him from successfully breastfeeding. He has been on some form of feeding tube since admittance to the NICU. At 2 months of age, XXX was diagnosed with Pura Syndrome. Secondary to Pura Syndrome, XXX presents with developmental delays, hypotonia, seizures, feeding difficulties, and respiratory problems. At this time, XXX is working on sitting unsupported, weight bearing through his extremities in quadruped position, maintaining the quadruped position, reaching in various planes, trunk rotation, transitioning sit to stand, transitioning to stand through ½ kneel, standing balance activities, and gait training. XXX has demonstrated improvements with regards to sitting unsupported and standing tolerance and ability to participate in pre-gait and gait training skills.

While XXX's family provides excellent carry over with an intensive home program and XXX is working on independent stepping in gait trainer he is limited by impairments in endurance and strength of core and lower extremities, as well as body awareness and motor planning deficits. XXX requires additional ways to challenge strength and endurance and to improve feedback in order to gain increased independence navigating his environment. It was determined that using the



Freedom Concepts adaptive tricycle mobility aid would be pivotal in addressing his current impairments to promote independence.

XXX was evaluated for a Freedom Concepts DCP 16 pivot mobility aid and it was determined to be the best option to promote lower extremity strengthening and endurance as well as facilitate trunk control and body awareness to promote improved independent functional mobility. It allowed caregivers to position XXX in appropriate seated posture, and the device gives the necessary support for XXX to independently propel forward with reciprocal pedaling.

The Freedom Concepts DCP 16 mobility aid is extremely versatile making assisted and self-propulsion successful. This mobility aid comes with the option of different handlebars and multi-adjustable steering. Each chosen handlebar is individually adjustable in height, depth, width, and rotation allowing unilateral set-up when indicated due to physical limitations. This adjustment is important because it will enhance trunk stability and upright midline positioning combined with a shoulder girdle resting place. The steering can be placed into either a non-steering or self-steering position. This will help XXX to learn to steer with the assistance of the caregiver in preparation for independence. Initially, having a caregiver be able to control steering will allow XXX to focus on increased independence and endurance with reciprocal pedaling.

The rear steering component is an accessory which no other mobility aid provides. The user is able to steer but an attendant is able to assist without interference. The self-centering spring attached between the frame and steering column will assist to pull the handlebar into a midline position when in a self steering set-up.

A unique bottom bracket attached to the frame assists in placing the direct drive pedals with its low gear ratio in proper alignment to an individual's hip and heel. It is a biomechanical advantage to have this alignment. By positioning the hip, heel and footplate into a vertical plane, an individual is able to maximize the muscle strength necessary to successfully activate this mobility aid. Since XXX has limited ankle motion when in AFOS₂ rigid footplates are necessary. Without this accessory, he would not be able to keep his foot on the pedal.

Given the optional alignment provided by the Freedom Concepts Mobility Aid, XXX's lower extremities can provide the steady reciprocal movement to propel the device. As previously stated, there is a biomechanical advantage for energy efficient movement, and there are also physiological advantages. Some physiological advantages may include, but not be exclusive to, cardio respiratory, increased circulation, and increased bowel motility. In addition, the use of her upper extremities could benefit her eye and hand coordination skills.

It is for the above reasons that it was decided that the Freedom Concepts DCP 16 pivot mobility aid was the only device that would meet the minimum requirements for XXX to be successful.

Clinician Expert Credentials



Name:

Area of Practice: Pediatric Intervention:

Graduate school info:

License info:

Physical Assessment

Strength: Generalized weakness, and decreased endurance to hold positions or initiate movements. Decreased endurance to maintain upright posture with head and trunk at midline. Emerging ability to transition into sitting independently. Demonstrating improving posture and protective responses. Emerging ability to complete sit to stand with min A and able to maintain standing with diminishing support. Additionally has been working on cruising with facilitation and gait training. The Freedom Concepts adaptive tricycle will allow him to strengthen quadriceps, gluteals, hamstrings, as well as ankle and core musculature which will help to decrease his need for physical assistance with transfers and independent mobility. Additionally pedaling the bike will allow him to improve both his muscular and cardiovascular endurance which will also be key in XXX achieving more independent functional mobility.

Functional Status

Communication: XXX is unable to make wants and needs known consistently and is non-verbal at this time. He will laugh when happy and cry when upset. Currently, there is a lack of ability to meaningfully interact with his environment, family, and peers due to inability to independently move and explore his environment. The Freedom Concepts adaptive tricycle will give him the stability to maintain an upright sitting positioning and successfully learn to navigate his outdoor environment and offer a unique way of interacting with family and peers.

Gross motor skills: Currently performing at an 8-12 month age. XXX is able to sit independently for short bouts of time and is showing increased interest in movement. He lacks consistent protective mechanisms to consistently catch himself when he falls. XXX has difficulty maintaining his trunk and head at midline and still tends to lean laterally when he is sitting. XXX is interested in standing and exploring the environment but is dependent on caregivers for mobility. The adaptive tricycle will allow XXX to improve his trunk and head control and promote improved body awareness and motor planning skills in addition to the strengthening benefits.

Fine motor skills: Currently performing at an 8-10 month old level. He retrieves objects using a raking motion and holds them with a gross grasp. Being able to work on strength and endurance with holding onto the handlebars of the tricycle will assist with progressing these skills.



Visual Motor Skills: XXX presents with significant delays in this area as well. Due to the lack of independent mobility XXX has decreased opportunities and exposure to upright tracking and processing of his environment while moving. Being actively involved in propelling the tricycle while having to interpret and track within a moving an unpredictable environment will be extremely helpful in developing the building blocks for these skills.

Self care skills: XXX is dependent for all ADL tasks.

Justification of the Selected Device and Necessary Components:

- **Freedom Concepts DCP 16 pivot tricycle inseam 20"** - This style of bike will allow for XXX to increase balance, body awareness and motor planning. Will promote necessary strengthening of postural support, UE and LE musculature which will be pivotal in gaining independence with functional mobility. Additionally since XXX has limited independent movement, this tricycle will allow him the ability to improve his cardiovascular endurance which is incredibly important particularly given his history of respiratory difficulties. This pivot option is necessary in order for XXX to be able to work on stepping over to climb on the bike. Other models are too high for XXX to successfully navigate.
- **Rear Steering** - Currently XXX is unable to control steering. Rear steer will allow the caregiver to safely guide him on a path while he is able to focus on pedaling the tricycle. Will assist in visual perception.
- **On/Off pin reciprocator option** - this will allow the caregiver to lock the wheels in place if XXX requires a break or is unable to complete a ride. One of the major goals of the bike is to promote improved endurance which will mean going farther distances and working to fatigue. This option is necessary to be able to safely complete longer sessions without over stressing or overloading.
- **EASY Pedal Power** - This item is necessary to accommodate for XXX's current weakness and allow for appropriate progression of difficulty
- **Ratcheting footplate asmy- rigid, small pair with Footplate - front pulley system kit** - Required to properly support foot and ankle alignment and fix pedal position to prevent pushing into plantarflexion. Due to tone and decreased coordinated movement XXX is unable to keep feet on pedals independently. This level of support with secure foot position and ensure that all work and force goes appropriately towards propelling the tricycle. Additionally will help promote neutral lower extremity alignment and increase success in propelling and completing full cycle revolutions.
- **Fork-adjustable tilt, DCP 16 fork kit** - This is necessary in order to allow caregivers to either increase or decrease the amount of work required by postural support muscles depending on the need and focus of the session. By increasing the tilt it allows for XXX to maintain upright



posture with decreased work in order to allow focus on pedaling. It will be necessary to have the adjustments in order to progress strength and independence.

- **Backrest kit - metalcraft laterals child HB** - XXX has decreased trunk control and a tendency to push strongly at times into lateral flexion. Lateral supports will help him maintain midline positioning in order to successfully be able to work on independent propulsion
- **Chest Harness - Med** - With the backrest kit this will ensure XXX is able to maintain safe upright positioning while on the tricycle. He does not currently have the postural strength, endurance or awareness to maintain upright posture on the tricycle without support.
- **FCI Adj/REM Headrest w/ occipital support system** - While XXX is exhibiting improved head control, as he fatigues he struggles to keep head upright. This headrest is the minimum amount of support necessary to ensure safe and proper head and neck alignment while on the tricycle.
- **Gloves, small pair** - XXX has also been demonstrating improved upper extremity strength and functional use. However, due to many reasons he struggles to keep hands holding on to support - often bringing hands to mouth. These Velcro gloves will help to assist him with grip on the handle bars to promote strengthening and improved awareness of upper extremities and eventually will allow us to work on visual perceptual skills and steering.

Please feel free to contact me with any additional questions or concerns regarding this piece of mobility equipment at phone or email

Signed: