

DURABLE MEDICAL EQUIPMENT PRESCRIPTION
AND
LETTER OF MEDICAL NECESSITY

Date:
Patient's name:
Diagnosis:
DOB:
Height:
Weight:
Date of Admission:
Date of Discharge:
Insurance Carrier:
Policy #:
Insurance Carrier:
Policy #:

Prescribed Equipment: TiLite [ZR/ZRA/TR/YR/TX/XC] (*select one*)
[List Required Options/Accessories based on medical necessity—e.g., “C” package (tapered seat and front frame)]

This patient presents with a recent diagnosis of _____ with resulting impaired trunk balance, ***[list other physical limitations caused by diagnosis—e.g., decreased sensation, decreased muscle tone, decreased strength, decreased endurance]***. The patient is unable to stand and requires the use of a wheelchair to perform the activities of daily living. For these reasons I am writing to recommend the purchase of a new wheelchair at this time. Mr./Ms. _____ lives in a wheelchair accessible home. The provision of this wheelchair for Mr./Ms. _____ is consistent for patients with his/her medical condition and is in the standards of good medical practice. It is not for his/her convenience.

This wheelchair is highly customized and optimized for performance to maintain independent mobility for the maximum time allowed. Mr./Ms. _____'s diagnosis results in upper [and lower] extremity weakness, decreased range of motion, decreased activity tolerance, pain and/or abnormal tone. This client presents with movement dysfunction that impairs his/her ability to ambulate or use anything other than a highly customized manual wheelchair frame. The only other option for his/her mobility needs would be powered mobility. Due to severe lower extremity spasticity and spasms, the rigid titanium wheelchair frame will absorb shock and vibration during propulsion which frequently set off this

patient's spasticity. Due to the shock-absorbing qualities of titanium, it will transmit less vibration to the patient than an aluminum or steel wheelchair, thus alleviating back pain triggered by vibration. The titanium rigid is the lightest weight and most durable frame option. The patient is able to propel an ultra-lightweight, custom-fitted wheelchair and perform frequent activities that cannot be accomplished in a standard wheelchair, lightweight wheelchair, or even a typical ultra-lightweight wheelchair. The patient requires adjustability in axle plate [and seat angle]¹ to accommodate decreased balance, posture and/or abnormal tone. The adjustable axle will allow adjustment in the center of gravity of the wheelchair which will provide the most efficient hand position for self propulsion. The prescribed wheelchair is appropriate for the patient's size and is necessary for the patient to achieve maximum independence. Since the patient is unable to ambulate in the home or utilize a standard, lightweight, high-strength lightweight, or typical ultra-lightweight wheelchair, the custom-fitted ultra-lightweight wheelchair is necessary to perform the activities of daily living. [The tapered frame of the wheelchair will allow maximum maneuverability of the wheelchair and lower extremity positioning.]² Due to his/her diagnoses of _____, fatigue and history [or high risk] of upper limb pain or disease/damage, he/she requires this frame to be matched and fitted perfectly enabling him/her to utilize the system with maximum efficiency. Energy conservation is paramount to this patient's success with household mobility with a wheelchair. This frame has been evaluated, ordered and prescribed with the direct input of his/her Physical Therapist based upon clinical trial of this system.

The TiLite [ZR/ZRA/TR/TX/XC/YR] (**select one**) represents the current state-of-the-art in rigid manual wheelchair design, whereas the existing manual wheelchair HCPCS codes reflect the state-of-the-art in manual wheelchairs from the 1980's. Being state-of-the-art, the TiLite [ZR/ZRA/TR/TX/XC/YR] (**select one**) is significantly different from E1237 and K0005 wheelchairs. These differences include: (1) functional differences, including lower weight; (2) physical differences; and (3) technological differences. Each of these differences will be addressed below. The long-term use of manual wheelchairs has been proven to result in a significant likelihood that the wheelchair user will experience upper limb pain and/or injuries to the wrist, elbow and/or shoulder. Therefore, while these functional, physical and technological differences are important, more important is the fact that the TiLite [ZR/ZRA/TR/TX/XC/YR] (**select one**) wheelchair presents a significant opportunity to improve patient health outcomes for long-term wheelchair users.

The TiLite [ZR/ZRA/TR/TX/XC/YR] (**select one**) wheelchair achieves as close as possible to ideal patient fit by using advanced computer aided design and flexible manufacturing techniques to enable TiLite to custom build each wheelchair based on measurements of the patient taken by his or her physician, clinician

¹ Not all products (e.g., ZR, TR, YR, TX and XC) allow for adjustable rear seat height and, therefore, rear seat angle. Delete if such product is selected.

² Omit if "C" package not selected.

and/or supplier. Using computer aided design software; TiLite creates full-scale drawings for each chair based on such measurements. Finally, using flexible manufacturing techniques, rather than mass-production assembly lines, the chair is built to the patient's unique specifications.

TiLite [ZR/ZRA/TR/TX/XC/YR] (***select one***) wheelchairs utilize aerospace grade titanium alloys and other advanced materials to construct the wheelchair frame. By contrast, K0005 and E1237 wheelchairs generally utilize 6061-T6 aluminum or 4130 steel alloys. Aerospace grade titanium alloys represent a significant advance in metallurgy as compared with aluminum or steel. Titanium has a significantly higher strength-to-weight ratio, which results in the ability to create far lighter wheelchair frames than frames made with either aluminum or steel. Titanium also will not rust, which is an advantage compared with steel, and it will not corrode, an advantage over aluminum and steel. Titanium will not "work-fatigue", which is a physical process whereby a metal subjected to repeated stress will, over time, become brittle making it prone to crack.

Lastly, titanium acts as a natural shock absorber, meaning that it absorbs vibration to a far greater degree than either aluminum or steel. When used in a wheelchair, this property of titanium has two distinct advantages for wheelchair users.

First, by absorbing more vibration, the wheelchair user will roll more smoothly over rough terrain. As a result, the wheelchair will bounce around less, which means that, with each propulsion stroke, more of the user's energy results in forward movement.

Second, less vibration will be transmitted to the wheelchair user. This is a significant benefit as many wheelchair users, [particularly those with spinal cord injuries,] (***delete if not applicable***) are subject to significant back pain resulting from the vibrations transmitted by aluminum and steel wheelchairs. This advantage presented by titanium is so significant that many leading physicians recommend titanium chairs over suspension chairs (chairs with built-in shock absorbers) for their patients who are subject to such back pain.

By virtue of the weight savings, the TiLite [ZR/ZRA/TR/TX/XC/YR] (***select one***) wheelchair has two key advantages over K0005 and E1237 wheelchairs:

1. It is easier to self-propel because rolling resistance is reduced-which is a function of both the lower weight and the vibration-absorbing properties of the materials used.
2. It is easier for the user to lift into and out of the user's vehicle when transferring to and from the user's vehicle.

[It has been noted that the life expectancy of persons with spinal cord injury is approaching that of the general population, and it is not uncommon for such people to self-propel in a manual wheelchair for 40 or 50 years.]³ Therefore, the impact of the weight savings provided by the TiLite [ZR/ZRA/TR/TX/XC/YR] **(select one)** wheelchair becomes increasingly magnified over time. Over extended periods of time, use of the lightest possible wheelchair will (a) reduce the need for very expensive surgeries to repair upper limb injuries and the associated extended rehabilitation and convalescence, and (b) delay the need to transition long-term manual wheelchair users to more expensive power wheelchairs.

The TiLite [ZR/ZRA/TR/TX/XC/YR] **(select one)** wheelchair presents five distinct advantages over K0005 and E1237 wheelchairs:

1. By utilizing space-age materials with extremely high strength-to-weight ratios, the TiLite [ZR/ZRA/TR/TX/XC/YR] **(select one)** has significantly lower mass (weight) than K0005 and E1237 wheelchairs, which need only weigh less than 30 lbs.
2. Because of the space-age materials that are used, TiLite [ZR/ZRA/TR/TX/XC/YR] **(select one)** is significantly more durable.
3. Because the TiLite [ZR/ZRA/TR/TX/XC/YR] **(select one)** is lighter and more customized than K0005 and E1237 wheelchairs, it will fit Mr./Ms. _____ better resulting in improved ergonomics and increased functionality.
4. Because the TiLite [ZR/ZRA/TR/TX/XC/YR] **(select one)** has improved ergonomics and increased functionality, Mr./Ms. _____ will achieve the maximum degree of independence – he/she will be able to move faster, negotiate rougher terrain, climb inclines and other obstacles (door sills) with greater ease, and travel further.
5. Because the TiLite [ZR/ZRA/TR/TX/XC/YR] **(select one)** has improved ergonomics and functionality, Mr./Ms. _____ will significantly reduce his/her risk of upper limb injury from long term manual wheelchair use.

(Examples of justification provisions for various options/accessories follow. Delete those that do not apply. Add justification for other options/accessories that are required.)

The tapered seat (“C Package”) is required to decrease the weight of the system and to provide a truly custom fit to the client. This will provide him/her with

³ Omit if diagnosis is other than spinal cord injury unless the statement similarly applies to the patient’s diagnosis.

increased stability therefore improving ADL performance including residential mobility.

The titanium folding adjustable backrest is required to provide maximal positioning and adjustability of back height for proper positioning in wheelchair.

Angle adjustable footrest is necessary to properly position the client's feet and allow for total weight bearing to inhibit abnormal tone and decreased the risk for further loss of range of motion.

The scissor brakes allow the client to lock and unlock the wheelchair easily while maintaining the ability to move the brakes out of the way for safe lateral transfers.

The side guards are required to properly position the client's pelvis and lower extremities. The calf strap is necessary to properly position the client's lower extremities and to aid in maintaining the feet on the footrest.

Due to the patient's size, 25" Spinergy wheels are necessary for proper positioning of the upper extremities during self propulsion. The client requires these light weight wheels for efficiency with propulsion and decreased energy expenditure during self propulsion. The reduced rolling resistance is needed: (a) because of decreased strength, range of motion, chronic pain or overuse of the upper extremity; (b) to allow the client to use the wheelchair everyday, all day long; (c) to increase the maneuverability of the wheelchair over carpeted areas within the home; (d) to maintain the lightest system possible--these wheels are the lightest available. These wheels have shock absorbing abilities which reduces the client's pain and spasticity. These wheels require the least amount of effort to propel increasing mobility tolerance.

The 4" casters will allow easier maneuverability and maximum safety. The billet caster wheels are more durable and allow maximum maneuverability.

The Low Profile Quadro Cushion is required for pressure relief and stability. [This is a custom made cushion that will fit the tapered seat of the wheelchair frame.]⁴ A standard cushion will not work in this instance. Due to a loss of motor function, the client is unable to adequately perform weight shifts to relieve pressure over the sitting surfaces. This, combined with the impairment of sensation over the sitting surfaces, makes the client highly susceptible to the development of pressure sores. The pressure equalizing and redistribution effects of the ROHO cushion greatly decrease the likelihood of pressure sore development. The solid wood insert is required to prevent the cushion from slinging, which causes hip internal rotation which would decrease the client's stability in the wheelchair seat and decrease function.

⁴ Omit if tapered seat ("C" package) not selected.

The anti-tip tubes are necessary for safe mobility on inclines, uneven terrain, and door thresholds. The seat pouch will allow for independent transport of the client's personal items, such as cathing equipment and medications. Neoprene Impact Guards are required to protect the patient's lower legs from abrasions against the tubing of the frame. The impact guards help protect and extend the life of the wheelchair frame.

Prognosis: Good

Estimated Duration of Need: Lifetime
