



TECTUS[®]

EMBRACE THE NEXT STEP

Reference Guide to Documentation

Blatchford has introduced a microprocessor knee joint to be used with a custom KAFO for patients with lower extremity paralysis. This technology allows a person with lower extremity weakness to walk in a more natural walking pattern with increased safety, improved symmetry, and more even loading. The **Tectus®** microprocessor-controlled knee joint provides support during swing and stance while including a spring for additional extension assist. **Tectus®** provides increased safety on uneven terrain, on slopes, and on stairs. **Tectus®** does all this in real-time to create a new level of mobility for patients.

Tectus is for patients with quadriceps weakness or paralysis of the lower extremities, resulting in the patient being unable to keep the knee extended during the stance phase of gait, including common diagnoses such as post-polio, spinal injuries, and strokes with mild tone.

Indications

- Quadriceps weakness
- Flaccid paralysis of the lower limb
- Insufficient knee control

Contraindications

- Total weight above 100Kg
- Hip flexor strength less than 2+ unless they can advance the limb with compensatory movements
- Hip and knee flexion contracture greater than 10 degrees.
- Uncontrolled spasticity of the lower extremity that prevents advancement of the limb
- Genu varus or valgus deformities that cannot be reduced to 10 degrees.
- Leg length discrepancy more than 15 cm (6")
- Compromised trunk control that prevents the individual from standing independently with or without assistive devices.
- Ankle contracture of more than 20 degrees
- Lack of sensory or cognitive ability necessary to operate controls and indicators.



Patient Benefits

Tectus provides adjustable hydraulic resistance to knee flexion, which enables support when descending stairs, walking, and sitting. This support gives the user an increased feeling of control when walking on uneven surfaces and in their daily environment.

Spring Assist – This unique feature of the Blatchford Tectus provides an adjustable control, which assists both heel rise damping and the mid to terminal swing phase knee extension – the user will feel an ease of initiation of walking and security of knowing the leg will fully extend in time for the next step.



Tectus Justification

Documentation for justification of Tectus must come from the prescribing physician. Prescribing entities include the patient's primary care physician, PMR doctors, or other specialists. The information should be documented in the medical record, as many payors do not accept only Letters of Medical Necessity. The physician must evaluate the patient and establish the patient's medical necessity and functional capabilities.

The following items must be included in the physician's evaluation and the patient's medical record.

See *Additional Detail for Medical Necessity Documentation for more details.

History of the Injury, Illness or Condition

- Diagnosis related to medical necessity for the orthosis
- Affected side
- Symptoms
- Clinical course
- Therapeutic interventions and results
- Prognosis



Functional Limitations

Describe activities prior to illness or injury and those activities that the patient wants to get back to, including:

- Description of current activities of daily living and how impacted by deficit(s)
- Diagnosis causing the symptoms.
- Other comorbidities either relating to ambulatory problems or impacting the use of the new orthosis.
- Ambulatory assistive device (cane, walker, wheelchair, caregiver) currently in use in addition to the orthosis
- Describe how Tectus eliminates the need for assistive devices or reduces dependence.

Physical Examination

- Recent physical examination findings that are relevant to functional deficits
- Focus should be on the body systems responsible for the patient's ambulatory difficulties or impact on the patient's functional abilities.
- Include comprehensive manual muscle test results.
- Include spasticity test results demonstrating low spasticity.

Status of current orthosis/ Reason for replacement

- Problem with current orthosis/ component(s) that limit the patient's functional potential.
- Past experiences with an orthosis and other failed treatments.
- Current orthosis does not provide symmetrical ambulation and biomechanically sound gait pattern.

Document motivation to use the Tectus

- Document the patient is motivated to use microprocessor technology.
- Document the patient has the cognitive ability and physical function to operate the microprocessor-controlled orthosis.

Document medical necessity for custom-fabricated KAFO

- Patient is ambulatory.
- Patient has weakness/ deformity of the foot and ankle and requires stabilization for a medical reason.
- Patient requires additional stabilization of the knee.
- Patient had the potential to benefit functionally with the use of Tectus.
- The condition necessitating Tectus is expected to be permanent or at least six months.

Prescription

- Provide a specific prescription for custom fabricated microprocessor-controlled swing and stance knee ankle foot orthosis, Tectus, with a rationale for the prescription.

*Additional Detail for Medical Necessity Documentation

Additional information to consider when documenting Medical Necessity for the Tectus.

Peripheral or central neurological conditions resulting in weakness or paralysis of quadriceps and/or knee extensor muscles.

- (e.g., lesions of the femoral nerve, post-polio syndrome, incomplete spinal cord injury, disc herniation, and others)
- Uncontrolled knee flexion and/or inability to maintain knee in the stance phase.

The patient is ambulatory and desires to remain active and involved in ADLs.

- Previous activity levels and desire to return to full mobility. (Previous employment, hobbies or vocation requiring mobility, daily activities of family care, etc.)

The patient has no cardiovascular conditions or other comorbidities to prevent the use of Tectus.

- No heart, lung, or circulatory issues that may impact the use of Tectus.

The patient has sufficient trunk and hip flexor strength to utilize the Tectus.

- The patient can initiate the swing phase from their hip. Hip flexion power 2+, Oxford scale, or the ability to use compensatory movements to advance the affected limb. The patient can stand independently with or without assistive devices.

The patient has the cognitive ability to learn and use the technology in Tectus.

- Able to perceive and operate the device controls. No impairments that prevent full use of all Tectus features.

The patient's activities include situations requiring stairs, uneven surfaces, or walking for long distances.

- Daily activities involve regular walking across multiple surfaces (going from street to grass;) use of stairs (at home, work, or in the community) and time spent ambulating (home, school, work, community activities)

A statement that a standard KAFO will not provide the mobility assistance or safety features required to help this patient return to activities of daily living and/or work.

A statement that the poor biomechanics resulting from utilizing a standard KAFO will exacerbate co-morbidities and cause long-term problems for the patient.

Find out more here:



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