Health Plans

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Medicare Advantage **X Commercial**

Microprocessor Controlled Knee Prostheses Policy

I. Purpose

Indiana University Health Plans (IU Health Plans) considers clinical indications when making a medical necessity determination for Microprocessor Controlled Knee Prostheses.

II. Scope

All Utilization Management (UM) staff conducting physical and behavioral health UM review.

III. Exceptions

A. The C-leg or Rheo microprocessor knees are **not covered for any of the following** conditions:

1. Members who are not motivated to ambulate or who are not expected to reach or maintain a defined functional state within a reasonable period of time.
2. When the sole purpose of the device is to enhance the member's athletic capabilities for competitive sporting events.

B. In regards to Adjustments, Repairs, and Component Replacements, routine periodic servicing, such as testing, cleaning, and checking of the prosthesis is not covered.

Variations

A. Requests for microprocessor controlled knee prosthesis will be evaluated on a case-by-case basis with special consideration given to the information provided by the prescribing physician in the decision.

B. If the expense for repairs of a Microprocessor Controlled Knee Prostheses exceeds the estimated expense of purchasing another entire prosthesis, no payment can be made for the excess. Maintenance that may be necessitated by manufacturer's recommendations or the construction of the prosthesis and must be performed by the prosthetist is covered as a repair.

IV. Definitions

None

V. Policy Statements

A. IU Health Plans considers a **Microprocessor Controlled Knee Prosthesis** medically necessary for **one of the following** indications:

1. **All of the following**:
    a. The member will reach or maintain a defined functional state within a reasonable period of time.
    b. The member is motivated to ambulate.
    c. The member's weight must be less than 125 kg (275.5 lbs) or be within the recommended weight as determined by product manufacturer.
    d. Have a functional level of 3 or higher.
2. Bilateral Transfemoral Amputees must meet **all of the following**:
    a. Must meet all of the criteria above (Section 1, a. through d.)

b. The member needs to demonstrate unique activity requirements which can only be accomplished with microprocessor knee prostheses.

3. Component Additions to the Prosthesis must meet **all of the following**:
   a. Must meet all of the criteria above (Section 1, a. through d.)
   b. Component (i.e. adaptors allowing for additional leg rotation) additions to the prosthesis are based on the member's potential functional abilities. Potential functional ability is based on the reasonable expectations of the prosthetist, and treating physician, considering factors including **one of the following**:
      1) The member's past history (including prior prosthetic use if applicable) and
      2) The member's current condition including the status of the residual limb and the nature of other medical problems.

4. Adjustments, Repairs, and Component Replacements must meet one of the following:
   a. Adjustments to a prosthesis required by wear or a change in the member's condition are covered under the initial physician's order for the prosthesis for the life of the prosthesis.
   b. Repairs to a prosthesis are covered when necessary to make the prosthesis functional.
   c. Replacement of a prosthesis or prosthesis component is covered if the treating physician orders a replacement device or part because of **any of the following**:
      1) A change in the physiological condition of the member
      2) Irreparable wear of the device or a part of the device
      3) The condition of the device, or part of the device, requires repairs and the cost of such repairs would be more than 60% of the cost of a replacement device, or of the part being replaced.

Note: Medicare – Classification Levels

Level 0: Does not have the ability or potential to ambulate or transfer safely with or without assistance and a prosthesis does not enhance their quality of life or mobility.

Level 1: Has the ability or potential to use a prosthesis for transfers or ambulation on level surfaces at fixed cadence. Typical of the limited and unlimited household ambulator.

Level 2: Has the ability or potential for ambulation with the ability to traverse low-level environmental barriers such as curbs, stairs or uneven surfaces. Typical of the limited community ambulator.

Level 3: Has the ability or potential for ambulation with variable cadence. Typical of the community ambulator who has the ability to traverse most environmental barriers and may have vocational, therapeutic, or exercise activity that demands prosthetic utilization beyond simple locomotion.

Level 4: Has the ability or potential for prosthetic ambulation that exceeds basic ambulation skills, exhibiting high impact, stress, or energy levels. Typical of the prosthetic demands of the child, active adult, or athlete.

See Also:

UMPA 006.1 Durable medical Equipment, Corrective Appliances and Other Devices

Background

The choice of the most appropriate design for a prosthetic knee from the many different devices available depends on the member's underlying activity level.

In general, key elements of a prosthetic design involve providing stability during both the stance and swing phase of the gait. Prosthetic knees also vary in their ability to alter the cadence of the gait, or the ability to walk on rough or uneven surfaces. The mechanical complexity of these devices allows engineers to optimize selected stance and swing phase features.

Microprocessor-controlled prosthetic knees have become available, including the Intelligent Prosthesis (Blatchford, United Kingdom) C-LEG® (Otto Bock Orthopedic Industry, Minneapolis, MN) and Rheo ® (Ossur, Iceland). These devices are equipped with a sensor that detects when the knee is in full extension allowing for early-stance knee flexion and smooth swing phase kinematics.

Relevant outcomes for microprocessor-controlled knee prostheses may include the patient's perceptions of subjective improvement attributable to the prosthesis and level of activity/function. In addition, the energy costs of walking or gait analysis may be a more objective measure of the clinical benefit of the microprocessor-controlled prosthesis.

Codes:

CPT Codes / HCPCS Codes / ICD-10 Codes	
Code	Description
L5856	Addition to lower extremity prosthesis, endoskeletal knee-shin system, microprocessor control feature, swing and stance phase; includes electronic sensor(s), any type
L5857	Addition to lower extremity prosthesis, endoskeletal knee-shin system, microprocessor control feature, swing phase only; includes electronic sensor(s), any type
L5858	Addition to lower extremity prosthesis, endoskeletal knee-shin system, microprocessor control feature, stance phase only; includes electronic sensor(s), any type

VI. Procedures

None

VII. References/Citations

1. Brodtkorb T, Henrksson M, Johannesen-Munk K et al. Cost-Effectiveness of CLeg Compared With Non–Microprocessor-Controlled Knees: A Modeling Approach. Arch Phys Medi Rehabil. 2008 Jan;89(1):24-30. doi: 10.1016/j.apmr.2007.07.049. http://www.sciencedirect.com/science/article/pii/S0003999307015961
2. Center for Medicare and Medicaid (CMS). Local Coverage Determination (LCD) No. L33787 - Lower Limb Prostheses. (Contractor: NHIC, Corp.) Revision Effective Date: 07/01/2016. https://www.cms.gov/medicare-coveragedatabase/details/lcd-details.aspx?LCDId=33787&ver=9&Date=&DocID=L33787&bc=iAAAABAAAAAAAA%3d%3d&
3. Center for Medicare and Medicaid (CMS). Local Coverage Article (A52496). Lower Limb Prostheses – Policy Article – Revision Effective Date: 07/01/2016. https://www.cms.gov/medicare-coverage-database/details/article-details.aspx?articleId=52496&ver=4&Date=&DocID=A52496&bc=hAAAABAAAAAAAA%3d%3d&
4. Dillon M, Ratcliffe Cost-Effectiveness of Microprocessor-Controlled Prosthetic Knees. Arch Phys Med Rehabil. 2010 Apr; 91(4): 663. http://www.sciencedirect.com/science/article/pii/S0003999310000304#
5. Johansson JL, Sherrill DM, Riley PO, et al. A clinical comparison of variabledamping and mechanically passive prosthetic knee devices. Am J Phys Med Rehabil. 2005 Aug; 84(8): 563-75. https://www.ncbi.nlm.nih.gov/pubmed/16034225
6. Kaufman KR, Levine JA, Brey RH, et al. Energy expenditure and activity of transfemoral amputees using mechanical and microprocessor-controlled prosthetic knees. Arch Phys Med Rehabil. 2008 July; 89(7):1380-1385. doi:10.1016/j.apmr.2007.11.053 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2692755/pdf/nihms106832.pdf
7. Otto Bock®: Quality for Life: International C-Leg® Studies, Literature Overview – Third Edition [1998-2009]. Accessed: September 03, 2015. http://www.ottobock.com/cps/rde/xbcr/ob_com_en/646B33-GB-01-1003w.pdf
8. Ottobock: C-Leg® microprocessor prosthetic knee. Accessed September 03, 2015. http://www.ottobockus.com/prosthetics/lower-limb-prosthetics/solutionoverview/c-leg-above-knee-system/
9. Theeven P, Hemmen B, Rings F et al. Functional added value of microprocessor-controlled knee joints in daily life performance of Medicare Functional Classification Level-2 amputees. J Rehabil Med. 2011 Oct;43(10):906-15. doi: 10.2340/16501977-0861. http://www.medicaljournals.se/jrm/content/?doi=10.2340/16501977-0861

VIII. Forms/Appendices

None

IX. Responsibility

Medical Director

X. Approval Body/Approval Signatures