

PROTEOR QUATTRO<sup>®</sup>  
MICROPROCESSOR  
KNEE (MPK)  
SIGNIFICANTLY  
IMPROVES SPECIFIC  
DAILY LIFE ACTIVITIES

## MULTICENTER RCT

EVALUATION OF MPK  
DEVICES: A MULTICENTER,  
RANDOMIZED  
CROSS-OVER-TRIAL

### OBJECTIVES

#### PRIMARY

EVALUATE SUBJECTS ABILITY  
TO ACHIEVE PERSONAL GOALS,  
INCLUDING LEVEL OF DIFFICULTY

#### SECONDARY

EVALUATE SATISFACTION AND  
QUALITY OF LIFE

## METHOD

### PRIMARY

Protocol approved by national  
ethics committee (Protocol  
ID-RCB 2022-A01266-37).  
Each subject compared  
QUATTRO to their typically  
worn MPK on:

### ACTIVITIES OF DAILY LIVING

#### Patient-Specific Functional Scale (PSFS)

Subjects identified two specific activities they  
were unable to do, or were difficult to achieve,  
with their typically worn MPK.

Subjects were asked to rate the level of difficulty  
of their defined activities from 0 (unable to  
achieve) to 10 (able to achieve) on their typically  
worn MPK and QUATTRO.

### SECONDARY



### SATISFACTION

Prosthesis Evaluation  
Questionnaire (PEQ)

### QUALITY OF LIFE

36-Item Short Form  
Survey (SF-36) to evaluate  
physical and mental health  
measures

## KEY FINDINGS



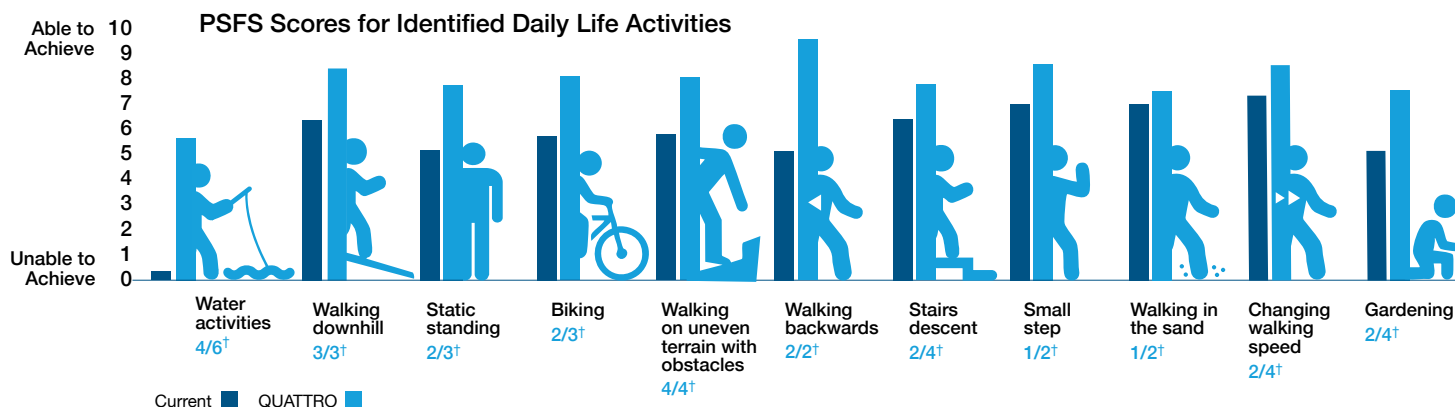
Identified daily life activities improved  
with QUATTRO compared to their typically  
worn MPK\*



Subjects scored the  
**appearance of the QUATTRO**  
significantly higher than their  
typically worn MPK\*



Subjects showed significantly  
**fewer physical limitations**  
with QUATTRO than with their  
typically worn MPK\*



\*RCT, n=17, France, 2023-2024.

<sup>†</sup>Number of users that increased their score with QUATTRO compared to typically worn MPK

## FUNCTIONAL TASKS EASIER TO PERFORM WITH PROTEOR QUATTRO<sup>®</sup> MICROPROCESSOR KNEE (MPK)

### IRB APPROVED STUDY

#### SUMMARY OF THE IRB-APPROVED STUDY:

QUATTRO Microprocessor Knee Allows Users to Complete Functional Tasks With Less Difficulty Than Typically Worn Microprocessor Knees (Montgomery JR, et al)

#### HYPOTHESIS

After 30 days of at-home use of the QUATTRO, subjects with a transfemoral amputation would be able to complete functional tasks with comparable or reduced difficulty with the QUATTRO compared to using their typically worn prosthesis.

### METHOD

Protocol approved by an independent IRB (Advarra IRB Protocol # Pro00048820):

At two timepoints, subjects were given 22 functional tasks to perform, assessing difficulty on a scale of 1 (greatest difficulty) to 9 (greatest ease)<sup>†</sup>

**DAY 1**  
Subjects completed  
**22 functional tasks**  
with their MPK

#### MPK SWITCH

Subjects were fit with QUATTRO and wore it as their daily prosthesis for 30 days

**DAY 30**  
Subjects completed  
**functional tasks** with  
**QUATTRO**

### KEY FINDINGS

Functional tasks rated as **statistically significantly easier** with QUATTRO

**5**  
**EASIER  
FUNCTIONAL  
TASKS**



**Walking  
backwards**  
p=0.038



**Walking  
sideways**  
p=0.047



**Walking over  
an obstacle  
of six inches  
in height**  
p=0.035



**Kneeling on their  
prosthetic knee  
and standing**  
p=0.008



**Swinging  
a golf club**  
p=0.038

\*10 subjects with unilateral or bilateral transfemoral amputations participated in study; 7 subjects completed the full protocol without deviation and were included in analysis.

<sup>†</sup>Change in score (mean and standard deviation) was calculated from subjects' typical MPK to the second office visit with the QUATTRO MPK after 30 days of at-home use. Socket and prosthetic foot remained the same. Paired, independent, two-tailed t-tests were performed on the functional task difficulty ratings. Significance was defined as a critical alpha of p<0.10.