

# Outcome Measures for the Clinician

## L-Test of Functional Mobility



Special contributions made by:

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# Introduction

- Outcome measures are clinical tests that are used to evaluate a patient's level of function in certain rehabilitation domains including mobility, ambulatory status, and balance.
- The “Outcome Measures for the Clinician” series is designed to give the average clinician the tools to perform outcome measures in the clinic and use outcome measures to improve clinical evaluation, enhance clinical notes, and improve reimbursement for O & P interventions.
- Outcome measures can be used to show medical necessity for orthotic and prosthetic interventions by showing that a patient can:
  - Achieve a required milestone like variable cadence
  - Surpass a threshold of reduced fall risk
  - Return to a score that is average among a patient's normal peers
  - Improve a score by a clinically significant amount
- \*References and information from this presentation may be copied into clinical notes and letters of medical necessity.
- \*A comprehensive instructional video of the outcome measure will be included as part of this presentation.



# Using Outcome Measures

- Outcome measures should be used in an initial evaluation of a patient to establish a baseline score for future comparison.
- A measure should be repeated after the delivery of an O & P intervention to show improvement in function and to show medical necessity
- Reasoning for use of an outcome measure should also be included in clinical notes including:
  - Validity
    - The ability of an outcome measure to test what it is intended to test
  - Reliability
    - The ability of an outcome measure to be consistently repeated
  - Minimum Detectable Change (MDC)
    - The smallest difference in a test score that can be determined to be significant
  - Normative Data
    - score ranges from normal and pathological populations from which to compare

# Overview – L-Test

- Purpose: To assess basic mobility and balance and the ability of the subject to rise from a chair, walk, and make turns.<sup>1</sup>

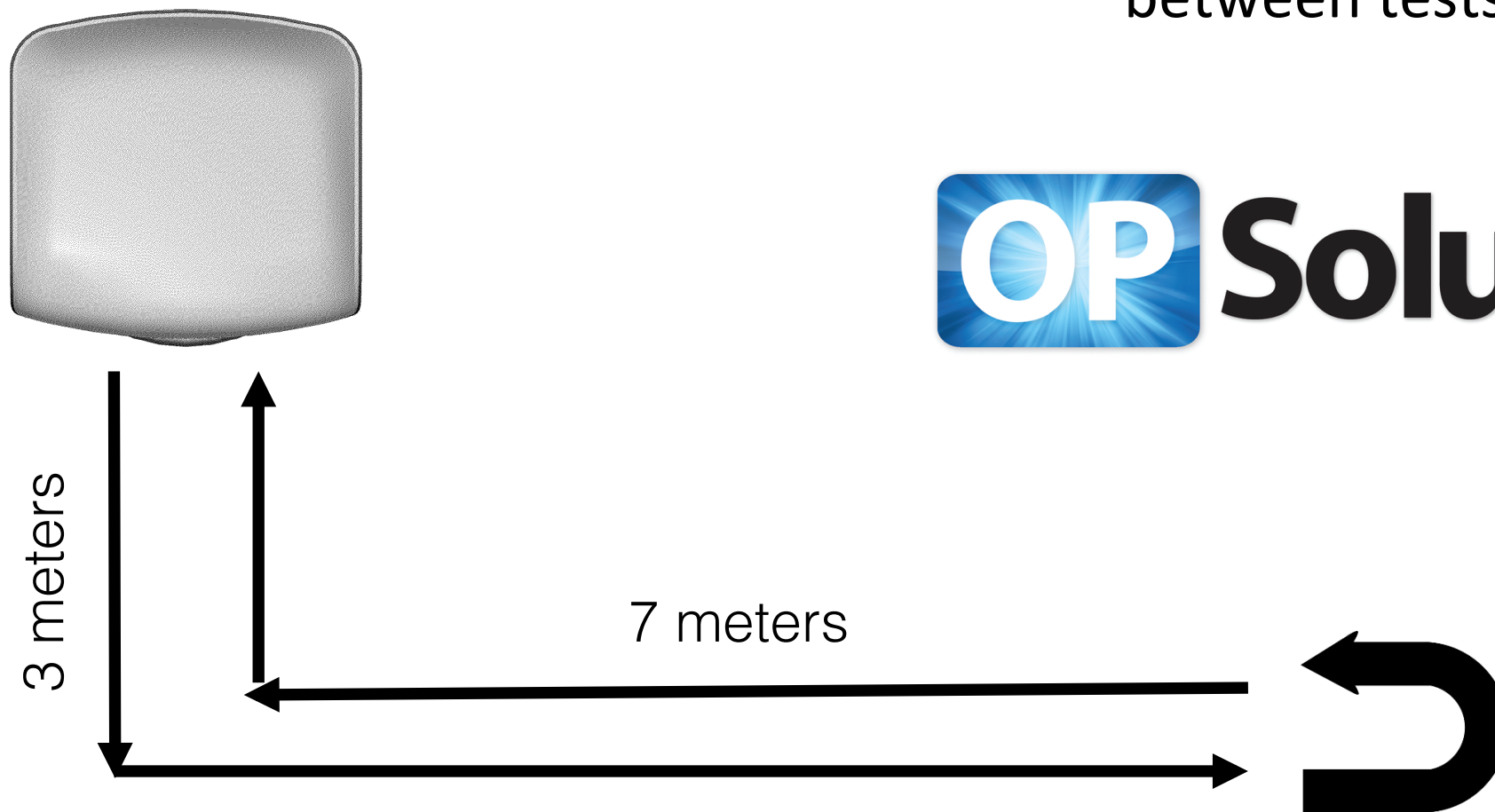
L-Test Psychometrics			
Reliable	Valid	MDC	Normative Data
Excellent <sup>1</sup>		Not Tested	Yes <sup>2</sup>

# Requirements – L-Test

- Time: < 3 minutes
- Equipment
  - Arm-less chair
    - Seat height 44-47cm
  - Stopwatch
- Space
  - 3m and 7m perpendicular halls
    - Most patient rooms and a hallway
- Personnel: 1-2 persons
- Cost: Free

# Procedure – L-Test

- Subject begins seated in the chair
- Command: “Go”
- Subject stands, walks 3 meters to line
- Turns, walks 7 meters to 2<sup>nd</sup> line
- Turns around. follows path back to chair
- Sits back down in chair
- Start time on command “Go”
- Stop time when seated in chair
- 1 untimed practice trial
- Use same assistive device between tests



**OP Solutions**

# Video – L-Test

# Interpretation – L-Test

## Normative Data

L-Test Times for LE Amputees <sup>1,2</sup>	
Cohort	Mean +/- SD (sec)
Transtibial	29.5 +/-12.8
Transfemoral	41.7+/-16.8
Traumatic	26.4 +/- 7.8
Vascular	42.0+/- 17.8
<55 years old	25.4 +/- 6.8
>55 years old	39.7 +/- 17.1

### Validity

- Excellent for LE amputees<sup>1</sup>

### Reliability

- Excellent for LE amputees<sup>1</sup>



# References – L-Test

1. Deathe AB, Miller WC. The I test of functional mobility: measurement properties of a modified version of the timed “up & go” test designed for people with lower-limb amputations. *Phys Ther.* 2005; 85(7): 626-635.
2. Stevens P, Fross N, Kapp S. Clinically Relevant Outcome Measures in Orthotics and Prosthetics. *JPO.* 2009; 5(1). <http://www.oandp.org/academytoday/2009feb/2.asp>.

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