

## Uji kesahihan dan keandalan uji jalan lima belas meter sebagai alat ukur kapasitas fungsional osteoarthritis lutut = Validity and reliability of 15 meter walk test to assess the functional capacity in patients with knee osteoarthritis

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Abstrak

**ABSTRAK**

Latar Belakang: Osteoarthritis (OA) merupakan penyakit sendi degeneratif yang berkaitan dengan kerusakan kartilago sendi, paling sering mengenai sendi lutut. Gejala yang dominan adalah nyeri dan kelemahan otot yang menyebabkan penurunan kapasitas fungsional. Kemampuan berjalan merupakan salah satu kapasitas fungsional pada OA lutut yang dapat diukur dengan uji jalan. Penelitian ini bertujuan untuk menilai kesahihan dan keandalan uji jalan 15 meter untuk mengukur kapasitas fungsional pasien OA lutut.

Metode: Desain studi potong lintang. Penelitian dilakukan terhadap 42 pasien OA lutut yang didapat secara konsekutif. Kapasitas fungsional subjektif dinilai dengan kuesioner Indeks Lequesne. Kapasitas fungsional objektif dinilai menggunakan uji jalan 15 meter dengan mengukur kecepatan jalan. Penilaian uji kesahihan menggunakan korelasi Pearson antara kecepatan jalan 15 meter dengan Indeks Lequesne. Penilaian uji keandalan intrarater dan inter-rater menggunakan Intraclass Correlation Coefficient (ICC).

Hasil: Didapatkan korelasi negatif kuat bermakna antara kecepatan jalan 15 meter dengan Indeks Lequesne ( $r = -0,62$ ,  $p = 0,000$ ). Nilai keandalan intrarater ICC 0,990 (Rentang kepercayaan 95% 0,981-0,995,  $p = 0,000$ ). Nilai keandalan inter-rater ICC 0,999 (Rentang kepercayaan 95% 0,998-0,999,  $p = 0,000$ ).

Simpulan: Uji jalan 15 meter terbukti sah dan andal untuk mengukur kapasitas fungsional pasien OA lutut.

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**ABSTRACT**

Background: Osteoarthritis (OA), a degenerative joint disease, is associated with a breakdown of cartilage in the joints, with the knee being the most commonly affected joint. Symptoms include pain and muscle weakness which cause declining functional capacity. Walking ability, one of the functional capacities of patients with knee OA, is measurable using walk test. The aim of the study was to look at the validity and reliability of 15-meter walk test to measure the functional capacity of patients with OA of the knee.

Methods: The study was a cross sectional study which looked at 42 consecutive knee OA patients. Functional capacity of these patients were evaluated subjectively using Lequesne Index questionnaire. In addition, functional capacity

was measured objectively using 15-meter walk test by measuring their walking speed. Validity was evaluated using Pearson correlation coefficient between the 15-meter walk test and Lequesne Index questionnaire. Intrarater and inter-rater reliability was assessed using Intraclass Correlation Coefficient (ICC).

Results: There was a significant negative correlation between 15-meter walk test and Lequesne Index questionnaire ( $r = -0,62$ ,  $p = 0,000$ ). Intrarater ICC reliability score 0,990 (95% confidence interval 0,981-0,995,  $p = 0,000$ ). Inter-rater ICC reliability score 0,999 (95% confidence interval 0,998-0,999,  $p = 0,000$ ).

Conclusions: 15-meter walk test was proven to be valid and reliable to assess the functional capacity of patients with OA of the knee.