

# CLINICAL OUTCOME MEASURES TO EVALUATE THE EFFECTS OF ORTHOTIC MANAGEMENT POST-STROKE

## KLINIČNE MERE IZIDA ZA OCENJEVANJE OSKRBE Z ORTOZO PO KAPI

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### Izvleček

#### Izhodišča

Učinkovita oskrba z ortozami naj bi smiselno izboljšala izid zdravljenja vsakega pacienta. Merjenje učinkovitosti posameznih intervencij je nujno za vzpostavitev dobre prakse in predstavlja osrednji vidik z dokazi podprte zdravstvene oskrbe (1). Čeprav je bila skozi zgodovino dolgo zanemarjena, je izbira ustreznih mer izida za ocenjevanje kliničnih intervencij bistven korak v procesu optimiziranja oskrbe z ortozami za spodnje ude (2) in odraža operacionalizacijo "uspešnosti" s kliničnega vidika (3).

Velika ovira za uvedbo mer izida v oskrbo z ortozami je odsotnost konsenza glede izbire teh mer. Zato strokovnjaki niso prepričani, katera merilna orodja naj uporabljajo, kdaj naj jih uporabljajo, pri katerih pacientih naj jih uporabljajo in v kakšnem kontekstu. Poleg tega izidi, ki so ustrezni za raziskovalne namene, niso vedno ustrezni za klinično prakso. S sistematičnim pregledom želimo prepoznati klinične mere izida, ki se uporabljajo v raziskavah za ocenjevanje rezultatov oskrbe z ortozami za spodnje ude pri osebah po kapi. Predvidevamo, da bo na podlagi tega pregleda mogoče zasnovati prihodnje študije, namenjene prepoznavanju najprimernejših kliničnih mer izida na tem področju.

#### Metode

Relevantno literaturo smo poiskali v podatkovnih zbirkah Pubmed, Cochrane, Web of Science, Cinahl, Scopus in Embase. Meja glede leta objave nismo postavili. V iskalni niz smo vključili ključne besede, širok nabor sinonimov in po potrebi tudi deskriptorje MeSH, ki se nanašajo na kap, ortoze in spodnje ude.

### Abstract

#### Background

*Effective orthotic management should ultimately improve outcomes for individual patients in a meaningful way. Measuring the effectiveness of specific interventions is essential for good practice, and a core component of evidence-base healthcare (1). While historically neglected, the selection of appropriate outcome measures to evaluate clinical interventions is a critical step in the process of optimising the provision of lower limb orthoses (2) and reflects how the clinician has operationalised "success" (3).*

*A major obstacle to the implementation of outcome measures into orthotic care is the lack of consensus regarding the selection of the measures themselves. As such, there is uncertainty about which tools to use, when to use them, which patient presentations to use them with and in what context. In addition, outcomes used in research settings are not always available or suitable within the clinical setting.*

*This systematic review aimed to identify clinical outcome measures that have been used in research to evaluate the results of lower limb orthotic management in individuals who have had a stroke. It is anticipated that this work will form a foundation for future studies aimed at identifying the most appropriate clinical outcomes measures to apply in orthotic management of this population.*

#### Methods

*A search for relevant literature was conducted in Pubmed, Cochrane, Web of Science, Cinahl, Scopus and Embase databases. No limits were placed on the year of publication. The search string was developed to include key words, a broad range*

Relevantne raziskave smo osenili z vidika metodološke kakovosti na podlagi standardiziranega orodja za kritično presojo, ki ga je razvil Inštitut Joanna Briggs (4). Iz člankov smo izluščili podatke o avtorjih, letu objave, načrtu raziskave, značilnostih vzorca (starost, čas od kapi, velikost vzorca, osip), opisu oskrbe z ortozami, času prilagajanja na ortoza, postopkih testiranja, kliničnih merah izida in in rezultatih raziskave.

### Rezultati

V končno analizo smo vključili 62 člankov; v 44 člankih je šlo za nize primerov, 17 člankov je poročalo o randomiziranih nadzorovanih poskusih in en članek o kohortni študiji.

Najpogosteje uporabljena mera izida za ocenjevanje izida oskrbe z ortoza za spodnji ud je bil test hoje na 10 metrov, ki mu je sledil časovno merjeni test vstani in pojdi. Ti dve meri sta bili tudi pogosto uporabljeni skupaj. Glede na Mednarodno klasifikacijo funkcioniranja (MKF) se je večina mer izida nanašala na telesne funkcije, telesne zgradbe in aktivnosti. Zelo malo mer izida se je nanašalo na sodelovanje ali okoljske dejavnike.

### Zaključek

Zdi se, da je na področju protetike in ortotike ocenjevanje okrevanja po kapi osredotočeno na merjenje funkcijskega statusa in dejavnosti. Z uveljavljanjem bio-psiho-socialnega modela zdravja bi se moralo ocenjevanje oskrbe z ortozami za okrevanje po kapi razširiti na ocenjevanje telesnih funkcij, dejavnosti in sodelovanja.

*of synonyms and, when relevant, MeSH terms related to stroke, orthotic devices and lower extremities.*

*Relevant studies were assessed for methodological quality by both authors using the relevant standardised critical appraisal tool from the Joanna Briggs Institute (4). Data extracted from the articles included citation (author/year), study design, sample characteristics (age, time post stroke, sample size, drop-outs), description of the orthotic intervention, accommodation time, testing procedures, clinical outcome measures used and results of the study.*

### Results

*62 articles were included in the final analysis; 44 case-series studies, 17 randomised control trials and one cohort study.*

*The most commonly applied outcome measure to evaluate lower-limb orthotic interventions was the 10-meter walk test followed by the timed-up-and-go test. These two measures were also the most frequently used combination. When classified according to the ICF, most outcome measures addressed issues related to body structure and function and activities. Very few outcomes related to participation or environmental factors were identified.*

### Conclusion

*Within the field of prosthetics and orthotics, recovery assessment post stroke appears to focus on measuring functional status and activity. With increasing promotion of the biopsychosocial model of health, assessment of orthotic management for stroke recovery should be broadened to include an assessment of body function, activity and participation.*

### References/literatura

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