Lifting capacity in construction workers with musculoskeletal disorders

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Ethical review	Approved WMO
Status	Pending
Health condition type	Musculoskeletal and connective tissue disorders NEC
Study type	Observational non invasive

Summary

ID

NL-OMON29954

Source
ToetsingOnline

Brief title
Validity of FCE lifting tests

Condition

- Musculoskeletal and connective tissue disorders NEC

Synonym
musculoskeletal disorders

Research involving
Human

Sponsors and support

Primary sponsor: Academisch Medisch Centrum
Source(s) of monetary or material Support: Stichting Arbouw,Stichting Instituut Gak te Hilversum

Intervention

Keyword: Construct validity, Criterion-related validity, Functional Capacity Evaluation

Outcome measures

Primary outcome

The outcomes of the study are the EK lifting tests (kilogram), the IRA (0-100%) and the musculoskeletal disorders related pain intensity and disability (scale 0-100).

From the results of the present study, we will conclude whether the EK lifting tests are valid. These lifting tests, assessed by a certificated rater, can be legitimately used in discriminative and evaluative purposes to assess the functional physical capacity of people with or without musculoskeletal disorders.

Secondary outcome

nvt

Study description

Background summary

After the evaluation of the reproducibility in two previous studies, validity of the Ergo-Kit (EK) tests is the next clinimetric property that has to be evaluated. From the literature, two aspects of validity are particularly relevant for functional assessments: construct (convergent and discriminative) and criterion-related (concurrent and predictive) validity.
In the construction industry, many jobs are characterized by heavy physical work demands, often leading to work-related musculoskeletal disorders. The Academic Medical Center and the Erasmus Medical Center, in collaboration with the construction industry, developed an instrument to identify workers at risk of long-term disability for work, the IRA. The EK tests are used to report the functional physical capacity of workers with or without musculoskeletal disorders. Before it can be legitimately applied in the field for

discriminative or evaluative purposes, the clinimetric properties of the EK must be defined. For functional assessments, reproducibility, validity and responsiveness are the most relevant clinimetric properties.

Study objective

The purpose of this study is the evaluation of the construct and criterion-related validity of the Ergo-Kit lifting tests in construction industry employees on sick leave due to musculoskeletal disorders. The EK lifting tests are: two static lifting tests, the Back-torso lift test (Btlt) and Shoulder lift test (Slt), as well as three dynamic lifting tests, Carrying Lifting Strength Test (Clst), Lower Lifting Strength Test (Llst) and Upper Lifting Strength Test (Ulst).

Study design

After their inclusion in the study, construction industry employees are assessed on the EK lifting tests (at baseline, about 6 weeks after first day of work disability) and asked to fill in a questionnaire to determine the IRA and the musculoskeletal disorders related pain intensity and disability. The same measurements are repeated about 6 and 12 months after the first day of sick leave. Return to work (RTW) is also recorded by the occupational physician.

Study burden and risks

For each subject, the following effort is expected during the EK lifting tests:
- Back-torso lift test and Shoulder lift test: maximal isometric pull capacity / total effort ± 16 seconds (2 x 4 sec per test)
- Carrying Lifting Strength Test, Lower Lifting Strength Test and Upper Lifting Strength Test: maximal safe weight for lifting / total effort ± 90 seconds (4-6 x 8 sec per test)

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

(1) age between 18 and 50 years,
(2) the past minimal 3 and maximal 6 weeks of work absence due to musculoskeletal disorders.

Exclusion criteria

No exclusion criteria formulated

Study design

Design

Study type: Observational non invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Other

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-09-2006
Enrollment:	75
Type:	Anticipated

Ethics review

Approved WMO

Application type:	First submission
Review commission:	METC Amsterdam UMC

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL11404.018.06