pattern: (1) normal at T0 and T1 (N = 10); (2) normal pattern only at T1 (N = 7); (3) acquisition/change in the knee pattern deviation (N = 7); (4) maintenance of the knee pattern deviation (N = 8). Modifications in the normal knee pattern might be developed to reach acceptable levels of functioning performance (p > 0.05, Groups 1/3).

Speed and balance recovery was restricted when an abnormal knee pattern in WT was observed (Group 3 and 4), being worst when this pattern persisted (Group 4).

Conclusions

The knee pattern correction in WT might help establishing stroke recovery. A further understanding of the causes for deviations in the knee pattern in WT will help establishing stroke treatment priorities.

Trial Registration

NCT02746835

Keywords

Weight transfer, Gait, Stroke, Knee patterns.

O53 Reference values of cardiorespiratory fitness field tests for the healthy elderly Portuguese

Patricia Rebelo1,2, Ana Oliveira1,2,3, Alda Marques1,2

1Respiratory Research and Rehabilitation Laboratory, School of Health Sciences, University of Aveiro; 3810-193 Aveiro, Portugal; 2Institute for Research in Biomedicine, University of Aveiro; 3810-193 Aveiro, Portugal; 3Faculty of Sports, University of Porto, 4200-450 Porto, Portugal

Correspondence: Patricia Rebelo (patricarebelo@ua.pt)

BMC Health Services Research 2018, 18(Suppl 2):O53

Background

Cardiorespiratory fitness (CRF) is recognized as an independent predictor of all age morbidity and mortality and is closely related with people’s functional capacity [1]. Recently, CRF has been described as a clinical vital sign, which highlights its role in health promotion and disease prevention [2]. The 6-min-walk test (6MWT), incremental shuttle walk test (ISWT), unsupported upper limb exercise test (UULEX) and the 1-min sit-to-stand test (1STS) are worldwide tests to assess CRF. Reference values of these tests are however, lacking for the Portuguese elderly population. This hinders the interpretability and limits the confidence of clinical decision-making in the field of CRF.

Objective

To contribute for establishing reference values for the 6MWT, ISWT, UULEX and 1STS in the Portuguese elderly population.

Methods

A cross-sectional study was conducted with healthy elderly volunteers [3] recruited from the Centre region of Portugal. Each participant conducted two repetitions of the 6MWT, ISWT, UULEX and 1-min STS. The best repetition was considered for analysis. Descriptive statistics were used to determine reference values by age decade (61-70; 71-80; 81-90) and gender. Two-way ANOVA was used to investigate significant effects for age/gender and their interaction. Values were presented as mean ± standard deviation or median [95%, Confidence Intervals].

Results

262 healthy people were enrolled (61.5% female; 75.0±0.5yrs), 125 completed the 6MWT (66.4% female; 75.1±0.7yrs), 83 the ISWT (57.3% female; 76.1±1.0yrs), 210 the UULEX (63.3% female; 75.7±0.6yrs) and 50 the 1STS (54% female; 72.1±1.0yrs). Values decreased significantly along the decades and were statistically different between male and female (p < 0.05) across all tests. The following values were found for the 1) 6MWT (61-70y: males - 519.7[494.7-554.7]m vs. females - 488.3[458.8-517.7]m; 71-80y: 461.0[383.9-532.5]m vs. 377.1[316.4-437.8]m; 81-90y: 294.0[226.5-361.6]m vs. 254.1[211.6-296.6]m); II) ISWT (61-70y: males - 515.0[304.2-725.8]m vs. 517.7m; 71-80y: 461.0[388.5-532.5]m vs. 377.1[316.4-437.8]m; 81-90y: 294.0[226.5-361.6]m vs. 254.1[211.6-296.6]m); III) UULEX (61-70y: males - 515.0[304.2-725.8]m vs. females - 353.3[212.5-494.2]m; 71-80y: 428.8[299.9-557.6]m vs. 234.6[151.6-317.6]m; 81-90y: 131.8[45.3-218.4]m vs. 161.0[113.2-208.8]m); III) UULEX (61-70y: males - 96.8[85.5-107.9]min vs. females - 83.7[74.2-92.9]min; 71-80y: 85.7[71.9-91.9]min vs. 66.5[47.7-81.8]min; 81-90y: 5.8[4.4-7.1]min vs. 4.7[3.9-5.9]min). Significative interactions between age and gender were only observed in the ISWT.

Conclusions

The population studied presented worse results in the 6MWT, similar results in the ISWT and better results in the 1STS test comparing with international studies [4-6]. No studies were found for the UULEX test. These differences highlight the importance of using population specific reference values in CRF assessment. Further studies with larger and representative sample sizes are needed to confirm results.

References


Keywords

Cardiorespiratory Fitness, Cardiorespiratory field tests, Reference values, Elderly population.

O54 Prevalence and factors associated with frailty in the elderly attended in ambulatory care

Clóris RB Grden1, Luciane PA Cabral1, Carla RB Rodrigues2, Péricles M Reche3, Pollyanna KO Borges1, Everson A Krum4

1Departamento de Enfermagem e Saúde Pública, Universidade Estadual de Ponta Grossa, 4748 Ponta Grossa, Paraná; 2Hospital Universitário Regional dos Campos Gerais, Universidade Estadual de Ponta Grossa, 84031-510 Ponta Grossa, Paraná

Correspondence: Clóris RB Grden (regnabiankis@hotmail.com)

BMC Health Services Research 2018, 18(Suppl 2):O54

Background

The aging process, understood as dynamic and progressive, contributes to the reduction of physical reserves and a higher prevalence of pathological processes, predisposing the elderly to frailty [1]. Canadian researchers define frailty as a multifactor syndrome involving biological, physical, cognitive, and social factors [2], which contribute significantly to disability and hospitalization [3]. Considered a modern geriatric syndrome, it is related to physiological changes, diseases, polypharmacy, malnutrition, social isolation and unfavourable economic situation [4, 5].

Objective

The objective of this study was to identify the prevalence and factors associated with frailty in the elderly attended in outpatient care. A cross-sectional study was carried out with 374 elderly individuals in outpatient care between October 2015 and March 2016. Data collection was applied to the Edmonton Fragility Scale [2]. Data were analysed by Stata software version 12 and described by measures of frequency, mean and standard deviation (SD). Prevalence ratios (PR) were calculated to investigate associations between independent variables and frailty. The adjusted prevalence ratios were obtained by multiple Poisson regression analysis. It was started with a saturated model and the variables that were not statistically relevant were removed, since their exclusion did not modify the results of the