

## Mobility and Fear of Falls Measuring Tools to Predict Falls Risk Among Malaysian Community Dwelling Older Adults

(Alat Pengukur Tahap Mobiliti dan Ketakutan Jatuh untuk Meramal Risiko Jatuh dalam Kalangan Warga Emas Komuniti Malaysia)

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### ABSTRACT

*Falls is a global health issue among older adults. Identifying measuring tools that can predict falls risk among older adults can assist in early falls risk detection and prevention. Best measuring tools that can predict falls risk among Malaysian community dwelling older adults is not known. The objective of our study was to determine if Timed Up and Go (TUG) test and Activities-Specific Balance Confidence (ABC) scale could be used as a falls risk predictor tools among Malaysian community dwelling older adults. Hundred and six (n = 106) community dwelling older adults who were attending Klinik Kesihatan Cheras participated in this cross sectional study. Falls incidence in the past one year was obtained from the participants. TUG test was performed and ABC scale was administered. Data was analysed using binomial logistic regression and receiver operating curves (ROC). The cut off values identified for TUG test and ABC scale were 9.02 seconds (area under the curve, AUC was 0.711; 95% CI 0.577-0.844) and 82.81% (area under the curve, AUC was 0.682; 95% CI 0.562-0.802) respectively. Hence, older adults with a score of above 9.02 seconds for TUG test and a score of below 82.81% for ABC scale were noted to have a higher risk of falls. Results of this study demonstrated that both TUG test (p < 0.001) and ABC scale (p < 0.01) were significant predictors of falls risk. Our study results indicated that both mobility (TUG test) and fear of falls (ABC scale) measuring tools, with the present cut off values can be used to identify community dwelling older adults who are at a higher risk of falls. Identifying older adults with higher risk of falls can assist the health professionals to optimise falls prevention and management approaches.*

*Keywords: Older adults; community dwelling; measuring tools; falls risk; predictors*

### ABSTRAK

*Jatuh merupakan isu kesihatan global di kalangan warga emas. Mengenal pasti alat pengukur yang boleh meramal risiko jatuh dalam kalangan warga emas boleh membantu dalam pengesanan dan pencegahan risiko jatuh pada peringkat awal. Walau bagaimanapun, alat pengukur risiko jatuh yang terbaik dalam kalangan warga emas di komuniti di Malaysia masih tidak diketahui. Objektif kajian ini adalah untuk menentukan sama ada ujian Timed Up and Go (TUG) dan skala Activities-Specific Balance Confidence (ABC) boleh digunakan untuk meramal risiko jatuh dalam kalangan warga emas komuniti Malaysia. Seramai seratus enam (n = 106) orang warga emas komuniti yang hadir ke Klinik Kesihatan Cheras mengambil bahagian dalam kajian rentas ini. Kekerapan kejadian jatuh yang berlaku dalam setahun yang lalu diperolehi daripada para peserta. Peserta telah menjalani ujian Timed Up and Go (TUG) dan menjawab soal selidik skala Activities-specific Balance Confidence (ABC). Analisa data telah dijalankan dengan regresi logistik binomial dan penerima operasi karakteristik (ROC) kurva. Nilai cut-off untuk ujian TUG dan skala ABC masing masing adalah 9.02 saat (AUC = 0.711; 95% CI 0.577-0.844) dan 82.81% (AUC = 0.682; 95% CI 0.562-0.802). Oleh itu, warga emas yang mendapat skor 9.02 saat dan ke atas bagi ujian TUG dan skor 82.81% dan ke bawah bagi skala ABC mempunyai risiko jatuh yang lebih tinggi. Keputusan kajian ini menunjukkan bahawa kedua-duanya, ujian TUG (p < 0.001) dan skala ABC (p < 0.01) adalah signifikan sebagai peramal kepada risiko jatuh. Kesimpulannya, kedua-dua alat pengukur tahap mobiliti (ujian TUG) dan ketakutan jatuh (skala ABC), dengan nilai cut-off yang ditentukan daripada kajian ini, boleh digunakan sebagai panduan untuk saringan jatuh di kalangan warga emas di komuniti. Mengenal pasti warga emas yang mempunyai risiko jatuh yang tinggi boleh membantu profesional kesihatan mengoptimumkan langkah-langkah pencegahan dan pengurusan masalah jatuh.*

*Kata kunci: warga emas; komuniti; alat pengukur; risiko jatuh; prediktor*

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Received: August 2017  
Accepted for publication: January 2018