



## A PROSPECTIVE COMPARATIVE STUDY OF TIMED UP AND GO TEST BETWEEN MALE AND FEMALE ELDERLY PARTICIPANTS ATTENDING GERIATRIC OUTPATIENT CLINIC IN MADRAS MEDICAL COLLEGE, CHENNAI.

### Medicine

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### ABSTRACT

Timed up and Go (TUG) test is a simple test to assess the functional status in elderly in outpatient set up. It is the time taken for an elderly to get up from a chair, walk 3 metres and come back. The more time the person takes the more is the functional impairment.

The aim of this study is to apply Timed up and Go (TUG) test in willing elderly participants attending Geriatric outpatient clinic, Madras Medical College, Chennai and compare it between male and females.

**Materials and Methods, Design:** Hospital based prospective comparative study

204 patients were selected and Timed Up and Go test was applied. Sample size was chosen according to our convenience.

**Results:** The mean TUG score in males was 10.06 seconds.

The mean TUG score in females was 16.68 seconds.

**Conclusion:** There is a statistically significant difference in TUG score between male and females (p value 0.0001)

### KEYWORDS

TUG Score, geriatric, male, female

### INTRODUCTION

Functional status assessment is an important component in Geriatric population. Functional impairment is one among the "Geriatric Giants". Functional status can be viewed as a summary measure of the overall impact of health conditions in the context of a patient's physical and psychosocial environment. Functional impairment is common in elderly and causes are varied – age related physiological and cognitive changes, disuse, disease, social factors and interplay between any of these.

Functional status can be measured using variety of tests. Ability to perform basic activities of daily living like transferring, toileting independently can be assessed. Ability to perform advanced activities like managing finances, shopping can also be assessed. To assess all these is time consuming. A simple bed side test to assess the Functional status is Timed Up and Go (TUG) test. In TUG test the patient is asked to sit in a chair without arm rest, get up and walk a distance of 3 metres and come back. Time taken to perform this task is assessed using a stop clock. Time of 12 or more seconds to complete the task indicates impaired functioning in community dwelling older adults. Patient with impairment in Gait and balance may find it difficult to perform the test. Also patient with cognitive impairment will have difficulty to understand the test and perform.

### Materials and Methods

#### Inclusion criteria

Willing participants above 60 years attending Geriatric outpatient

#### Results

**Table-1 TUG Score and GENDER**

	Gender	n	Mean	Std. Deviation	Group Statistics			P value
					Mean Difference	95% Confidence Interval of the Difference Lower	95% Confidence Interval of the Difference Upper	
TUG Sec	Male	100	10.06	2.242				0.0001
	Female	104	16.68	6.906	-6.623	-8.034	-5.211	

There is a statistically significant higher TUG Score among females when compared with males (p value 0.0001).

### Discussion

Males had a mean TUG score of 10.06 seconds, while females had a mean score of 16.68 seconds. The cause of this statistically significant difference in mean TUG score could not be ascertained from this study though both sexes were comparable in age, BMI etc. Further studies with more appropriately sized sample size maybe required to ascertain the cause of this difference and validate the findings..

### CONCLUSIONS

clinic, Madras Medical College, Chennai

#### Exclusion criteria

Functionally dependent elderly, Dementia, severe visual and hearing impairment About 204 elderly patients (100 males and 104 females) attending Geriatric Outpatient clinic in Madras Medical college, Chennai were selected. Sample size was selected according to convenience. After getting approval from institutional ethics committee informed consent were obtained from the patients. The selected participants were subjected to TUG test by trained physiotherapists. TUG test was performed for 3 times in all willing participants and the best of 3 scores was taken. Data were documented in MS excel sheet. Age of the participants was verified with available government records. If not available approximate age was calculated with the age of first child and their age at marriage. Body Mass index was also calculated and documented.

#### Statistical Analysis:

For continuous data such as age, the descriptive statistics n, Mean, SD, Median, IQR, Minimum and Maximum was presented. For categorical data, the number of patients and percentage was presented. Based on the normality of data, the parametric t test was applied to the data. The Chi-square test was applied to the data. All tests was two-sided at  $\alpha=0.05$  level of significance. All analyses were done using Statistical Package for Social Services (SPSS) software Version 21.0 (Armonk, NY: IBM Corp).

There is a statistically significant higher TUG Score among females when compared with males (p value 0.0001).

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