

## 00091 Factors Influencing Functional Recovery of the Elderly Following Hip Fracture Surgery: A Prospective Cohort Study

Chit Lwin Sandi<sup>1</sup>, Goh Kiat Sern<sup>1</sup>, Adrian Lau<sup>1</sup>, Chow Wai Leng<sup>1</sup>, Goh Edward Teck Kheng<sup>2</sup>, Leeana Tay<sup>1</sup>

<sup>1</sup>Changi General Hospital, <sup>2</sup>St. Andrew's Community Hospital

**Aims:** Hip fractures are among the most common causes of disability in the elderly. The magnitude of functional recovery following hip surgery varies widely, with heterogeneity of tools used to measure mobility outcomes. Our study examined the functional recovery and factors associated with regained mobility at 12-month post discharge from Changi General Hospital (CGH) following hip-fracture surgery in the elderly.

**Methodology:** This prospective cohort included 329 consecutive elderly ( $\geq 65$  years old) with a fragility hip-fracture who underwent surgery at CGH from December-2014 to November-2015, with 12-month follow-up period as part of an orthogeriatric hip fracture programme. 30 patients who died within 12 months were excluded. Pre and post-fracture functional mobility was assessed using the Parker's New Mobility Score (NMS). The primary outcome was the proportion of regained pre-fracture NMS at 12-month post discharge. Wilcoxon's rank sum test and multiple logistic regression were performed.

**Result:** The mean age was 80 years (SD-7.3), 72% female, 76% received subacute rehabilitation at the community hospital; 82% were able to get about the house without an aid (pre-fracture NMS  $\geq 3$ ) and 43% were independently mobile (pre-fracture NMS 7-9). Mean NMS at 3, 6 and 12-month follow-up visits (3.5, 4.1 and 4.4 respectively) were statistically significantly lower than mean pre-fracture NMS of 5.9 ( $p < 0.005$ ). 35% of patients regained their pre-fracture NMS at 12-months follow-up. Lower proportion of patients with good pre-fracture NMS (7-9) regained mobility non-statistically significantly at one year compared to those with poor pre-fracture NMS (0-6) (28% vs. 42%,  $p = 0.07$ ). Multivariate regression analyses showed that regained pre-fracture mobility at one year is associated with pre-fracture NMS (OR- 0.57,  $P = 0.000$ ) and NMS at 3-months (OR- 1.62,  $P = 0.000$ )

**Conclusion:** The mobility score at 3 months follow-up predicts better one-year mobility outcomes. This study warrants further research on subsequent utilisation of community rehabilitation services, fear of falling and other psychosocial factors which may influence regained mobility within 3-months post-discharge from the acute hospital to further improve functional recovery.