

00222 Effectiveness of Integrated Practice Home Visits for Community-dwelling Frail Elderly to Prevent Hospitalisation: A Systematic Review and Meta-analysis of Randomised Controlled Trials

Lim Shimin Cher¹, Liao Kehua², Hong Yanqi², Huang Zhihua¹, Peng Ya Eileen¹

¹Singapore General Hospital, ²National Cancer Centre Singapore

Aims: Vulnerability in frail community-dwelling elderly often leads to multiple hospitalisations, resulting in debilitating consequences and even death. This increases the burden on both the family and the healthcare system. Integrated practice home visits may be a viable option to reduce hospitalisations among the frail and possibly decrease healthcare burden. This review aims to assemble the best available evidence to evaluate the effectiveness of integrated practice home visits to prevent hospitalisation in community-dwelling frail elderly.

Methodology: The literature search for randomised controlled trials (RCTs) used the following databases: EMBASE, Cochrane Central Register of Controlled Trials, Scopus, Cumulative Index to Nursing and Allied Health Literature and PubMed; trials were conducted from 1975 through 2017. Assessment of study methodology was done using Risk of Bias (ROB) table. Meta-analysis was executed using the RevMan software. Heterogeneity assessment based on Cochran Q and I² tests. Z-statistics at P<0.05 was used to test the overall effect. There were 9382 studies identified, of which, nine RCTs from ten publications were reviewed.

Result: Generally, all selected RCTs showed low-risk of bias. This review included 6068 frail elderly from 6 countries. The meta-analysis showed that integrated home visits did not reduce hospitalisation (Z=1.17, P=0.24). However, further sub-analysis found that frail elderly aged less than 82 years were more likely to benefit from the intervention (Z=2.51, P=0.01). Integrated home visits significantly reduced nursing home admissions (Z=3.47, P=0.0005).

Conclusion: Home visit programs to maintain our frail elderly in community have been developed in many countries around the world. This systematic review did not show significant effects of integrated home visits reducing the use of acute healthcare services and improving functional outcomes in frail elderly. But integrated home visits have shown significant effects in delaying institutionalisation, which can reduce the burden of healthcare in an ageing world.