POSTER ABSTRACT

Screening for frailty as part of routine health screening

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Background: Frailty is a clinical syndrome that increases vulnerability to stressors in the elderly population and may lead to functional impairment and adverse health outcomes. World Report on Ageing and Health by WHO defines ‘Healthy Ageing’ as the process of developing and maintaining the functional ability. As healthcare cost and complexity rise, prevention and person-centred care at population level is necessary. Frailty screening and intervention should be added into chronic disease screening. For these patients at risk, a coordinated care approach would be useful in reducing overall healthcare cost, hospitalisation and institutionalisation. The aim of our study is to determine the prevalence of frailty in the community and its association with chronic disease.

Methodology: FRAIL scale was used to identify frailty prevalence in the community. The five frailty parameters include weakness, slowness, exhaustion, 5 or more illnesses and/or unintentional weight loss. Subjects were classified as frail (meeting 3/5 criteria), pre-frail (meeting 1 or 2 criteria) or robust (absence of all 5). Frailty screening was part of a chronic disease screening in an urban Singaporean town.

Results: 45% of those surveyed (n=85) were robust, 41% were pre-frail and 14% were frail. Mean age was 67.8 ± 5.8 years. 65.9% of participants were female. 41.1% of females were assessed to be pre-frail, while 8.9% were frail. On the other hand, 41.4% of males were pre-frail and 24.1% were frail. 44 out of 85 (51.8%) participants had at least 1 chronic disease (including diabetes, hypertension and hyperlipidaemia), 27 out of these 44 (61.4%) complained of exhaustion and only 1 had 5 illnesses or more. Interestingly, pre-frail and frail subjects tended to have at least 1 chronic disease (29 out of 47 total pre-frail/frail, 61.7%), p=0.04.

Discussion: Our study demonstrated a significant relationship between the presence of at least 1 chronic disease and frailty. This highlights the importance of frailty screening in conjunction with chronic disease screening. Once pre-frail and frail subjects are identified, the next step will be to intervene, such as introducing exercise programmes to improve exercise tolerance and decrease the level of exhaustion. This is in the hope that frailty states can be corrected or reversed with appropriate intervention, thereby improving health outcomes and reducing functional impairment.
**Lessons learned:** Chronic disease screening alone may not identify person at risk of functional decline and may not improve overall quality of care and/or reduce healthcare cost. Frailty screening should be considered as part of chronic disease screening, so that appropriate interventions can be introduced with chronic disease management. This study helps to increase awareness amongst various health professionals managing elderly patients with chronic disease on the importance of frailty screening in conjunction with chronic disease screening for a more effective person-centred integrated care approach.

**Limitations:** Small number of participants, skewed towards female gender.

**Suggestions for future research:** Recruit more participants as part of routine health screening for chronic diseases and incorporate frailty and quality of life screening. Perform randomised controlled trials to examine the type of intervention that can improve frailty states.

**Keywords:** frailty; elderly; chronic disease; health screening