International Journal of Integrated Care

Daha, N et al 2018 Risk stratification and characterisation of subpopulations of frail elderly in the primary care practice using routine healthcare data. *International Journal of Integrated Care*, 18(S2): A395, pp. 1-8, DOI: dx.doi.org/10.5334/ijic.s2395

POSTER ABSTRACT

Risk stratification and characterisation of subpopulations of frail elderly in the primary care practice using routine healthcare data

18th International Conference on Integrated Care, Utrecht, 23-25 May 2018

Nina Daha, Johan Immerzeel, Ida Spelt, Margot de Waal, Monica van Eijck, Mattijs Numans, Marc Bruijnzeels

Leiden University Medical Center, The Netherlands

Background: A major challenge in primary health care today, is the increase of frail elderly individuals in primary care practices. The current reactive approach leads to a rise of unplanned visits to the emergency room and after hours general practitioners consultations. The aim of the current study is to identify and characterise subpopulations of community dwelling elderly as a lead towards a 'needs-tailored' and pro-active care approach.

Methods: This is a retrospective cohort study of 9668 patients with a follow up of 1 year median age: 67 years [interquartile range, 64-74]; 5128 women [53%]. The patients were community dwelling elderly, registered in the general practitioner registration network in the western part of The Netherlands. A frailty index FI score, based on the International Classification of Primary Care ICPC and medication use ATC, was calculated for each patient. This was defined as the proportion of deficits from a predefined and validated list of 50 deficits drubbel et al. 2013. Based on this FI score, five subgroups were formed and characterised on coded diagnosis and symptoms, medication use and social vulnerability as coded in the routine data by the general practitioner.

Results: The median FI score of the total study population was 0.16 interquartile range 0.1-0.24. The quintile of the population with the highest FI scores median 0.32 [0.28-0.62] contained more woman 64% and a higher median age 75 [60-101]. Further characterisation of the subpopulations showed a difference in overall prevalence of deficits, while the distribution of the most prominent deficits does not greatly differ between subpopulations. Both social vulnerability and polypharmacy were highly prevalent in the subpopulation with the highest FI scores 98.8% vs 6.2% and 27% vs 5.2% respectively.

Conclusion: By using primary care routine health data, we can identify subpopulations of frail community dwelling elderly and show differences in the characteristics of these populations. These differences are of importance as a lead towards a more targeted, integrated healthcare approach, which is aimed at the needs of the different subpopulations.

Limitations: Misclassification due to missing data is a risk of the current approach using routine healthcare data. Therefore it is of importance for further research to investigate the needs of the identified subpopulations by qualitative research designs.

Daha; Risk stratification and characterisation of subpopulations of frail elderly in the primary care practice using routine healthcare data

Keywords: frail elderly; risk stratification; primary care