

Abstract for Oral Presentation at PCSI Conference, Reykjavik 2022

Title

Understanding the Risk of Poor Coordination of Care in a UK Population

Introduction

Population Health Management (PHM) is an approach aimed at improving the physical and mental health outcomes and wellbeing of people. A core part of the approach is to Identify 'at risk' cohorts using methodologies such as segmentation and stratification and in turn, designing and targeting interventions to improve care and support for people to improve outcomes.

This project built upon work undertaken by Dr Klaus Lemke and colleagues at Johns Hopkins University Bloomberg School of Public Health and the introduction of Coordination Markers into the Johns Hopkins Adjusted Clinical Groups (ACG®) System to identify populations that are at risk for poorly coordinated care. The basic premise behind the Coordination Markers is that individuals receiving poorly coordinated care have worse clinical outcomes and have higher medical expenses than individuals who receive coordinated care.

This study's objective was to ascertain whether the same variables that affect risk of poor care coordination in a US population create the same risk in a UK population and whether the weights associated with those variables needed to be adapted to account for differences in the way in which health care is delivered in the two countries.

Method

An anonymised data set combining data from the GP record and hospital activity for approximately 175,000 patients was used in this study. It included a limited clinical profile of the patients including markers such total cost in the prior year, number of hospital visits and admissions and markers from the ACG System describing the morbidity burden, degree of complexity and risk associated with each person and data related to the four variables used to calculate the Coordination Markers, namely; Unique Provider Count, Generalists Seen, Specialty Count and Majority Source of Care. Sensitivity analysis was used to create the cut points for the final categories.

Results

Results will be shared that illustrate how patients are assigned to three Coordination risk categories of Likely Coordination Issues (LCI), Possible Coordination Issues (PCI) and Unlikely Coordination Issues (UCI). The outcomes in terms of cost, hospital activity and risk of future adverse events such as unplanned hospitalisations within each of the three categories will be presented. This includes complexity-adjusted comparisons to determine whether people with similar levels of morbidity burden/complexity had worse outcomes if they had been categorised as having Likely Coordination Issues compared to those that were assigned to the ICI category.

Discussion

The allocation methodology used to assign people to the three Coordination Risk categories appears to differentiate between those with lower costs and levels and activity and those with higher costs and higher levels of activity, with costs and levels of activity in those patients in the LCI & PCI categories are two to three times higher than those in the UCI category in segments with similar levels of complexity.

The Coordination Makers seem to provide a robust way of identifying a smaller percentage of people who have higher costs and levels of activity who should benefit from an intervention that improves the coordination of their care across multiple providers.