
CONFERENCE ABSTRACT

Multi-morbidity as a driver of high cost, high resource utilisation and future risk.

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Introduction: Key health policy imperatives within the National Health Service (NHS) in England over recent years have seen an increase in the use of risk stratification tools and case finding activities, particularly in relation to identifying individuals at risk of unplanned admission to hospital. A common belief is that those at risk of emergency admission are a homogenous group, generally elderly, frail, multi-morbid and have had a high degree of hospital use in the past. This work illustrates that this is not the case and that there is a need to do more than just use a risk stratification algorithm to identify high risk patients - there is a benefit in using integrated data sets and analytical techniques to gain greater insight into what drives risk and identifying the different types of individuals within the high risk category.

Method: An exercise was undertaken within Slough Clinical Commissioning Group (CCG) in Berkshire to profile the whole population (c. 150,000 individuals). A data set combining primary and secondary care records that contained data relating to all diagnoses, degree of morbidity burden, risk of future adverse events (e.g. hospitalisation, high cost) and prior activity and cost was used.

The analysis focused on relationships and correlations between variables such as age, multi-morbidity, frailty and presence of specific diseases and prior cost and future risk of adverse outcomes.

Results: Results will be shared that have provided the CCG and GPs with a new understanding about the key drivers of cost and how the overlap between different at-risk groups is not as large as the CCG first thought. A key finding is that multi-morbidity rather than age is the key driver of prior cost and future risk. The analysis has also revealed new insights for the CCG including:

- Multi-morbidity is the norm – it is more common for people to have multiple chronic conditions than to have just one.
- Multi-morbidity is not distributed evenly across a population - case-mix varies quite significantly between GP practices.

- Multi-morbidity occurs in the whole of the adult population, not just in the elderly.
- Multi-morbidity rather than individual diseases such as diabetes or COPD significantly increase future risk.

Discussion: There has been a focus within the NHS on preventing unplanned admissions to hospital and the principle use of risk stratification tools and case finding techniques has been to identify people at risk of this adverse outcome. However, the analysis undertaken in Slough CCG raises a number of interesting issues which include:

- 40% of high cost patients do not have an emergency admission.
- High cost individuals occur across all of the adult population not just in the elderly.
- Frail elderly patients only represent a small proportion of those who are going to be high cost or are at risk on an emergency admission.
- People with certain diseases are more expensive to treat than others but cost and risk increase significantly in people with certain co-morbidity combinations.

As a result of this, Slough CCG and GPs have begun to focus on patients with multi-morbidity and to think about the management of the totality of patients' morbidity burden rather than managing individual diseases. They are also using this new intelligence to commissioning new services where there are gaps in provision. One example is a GP led service proactively managing 550 patients with certain disease combinations through a 6-month programme of care. Each patient will have an initial review by their GP and then a series of regular consultations aimed at managing them in a holistic way. Input and support will come from community based services, hospital based specialists and from the voluntary sector. This "Complex Case Management Service" is improving quality and reducing hospital use.

Conclusion: Slough CCG will continue to focus on reducing emergency admissions, managing individual diseases and supporting the frail elderly as these will remain key national policy imperatives. However, as a result of this population profiling exercise they have a better appreciation of multi-morbidity as a key driver of cost and are now using this as a locus for their thinking, how services are provided and the case finding techniques to identify cohorts of people who may be amenable to particular care programmes.

Keywords: multi-morbidity; population health; primary care; commissioning; complex case management
