

Does quality and accessibility of primary care reduce admissions for Ambulatory Care Sensitive Conditions (ACSCs) in Scotland?

Key Findings

- This research showed that higher achievement in some measures of the clinical quality of primary care and better access to care is associated with reduced admissions for Ambulatory Care Sensitive Conditions (ACSCs). However, the effects were small and inconsistent.
- It was also shown that ACSCs admissions are associated with a range of confounding factors such as composition of the practice population and distance to hospital.
- The results of this research therefore suggest caution in the use of crude ACSCs admission rates as an indicator of primary care quality.

What problem was this research addressing?

Hospital admissions for Ambulatory Care Sensitive Conditions (ACSCs) are those that could potentially be prevented by timely and effective disease management within primary care. ACSCs admissions are increasingly used as primary care performance indicators. However, key questions remain about the validity of these measures. Indicators of primary care quality are integral to the Quality and Outcomes Framework (QOF). The aim of the project was to test the robustness of ACSCs admissions as indicators of the quality of primary care in Scotland against indicators from the QOF. Where appropriate it proposes methods for refining ACSCs measures.

What this research adds

This was the first study to test the robustness of ACSCs admissions as indicators of the quality of primary care in Scotland.

Methods

The relationship between ACSCs admissions and primary care performance was investigated using routinely collected data and multiple regression modelling.

The analysis used hospital admissions data (Scottish Morbidity Records) to identify ACSCs admissions. These data were linked to practice records on attainment in the QOF and with practice level data on access, together with a range of covariates capturing characteristics of GP practices and factors that could be correlated with admissions, quality indicators and access to primary care. The time period analysed was financial years 2005/2006 to 2011/12.

The main variable of interest was the number of emergency admissions at practice level for ACSCs conditions. We selected those which are incentivised within the QOF. These are asthma; chronic obstructive pulmonary disease; diabetes complications; stroke; hypertension; angina; cardiac congestive failure (CCF); and convulsions and epilepsy.

Measures of the quality of disease management were constructed using the practices' performance within the QOF on indicators relating to chronic disease management. Access to primary care was measured using patient reported experience and drive time to nearest GP. Covariates included in the regression models identified the characteristics of GP practices, characteristics of the practice population (age, gender, deprivation, remoteness and rurality), hospital effects and year effects.

Impact of quality and accessibility of primary care on ACSCs admissions

	Asthma	Diabetes complications	Convulsions & epilepsy	Hypertension	Stroke	Angina	CCF & angina
Quality of primary care							
Patient review	-ve						
Blood pressure measured					+ve		
Blood pressure controlled					-ve		
Total cholesterol controlled						-ve	-ve
7.4/7.5 < HbA1c ≤ 10		-ve					
Beta blocker therapy						+ve	+ve
Assessment for newly diagnosed angina		-ve					
Access to primary care							
Drive time to nearest GP			+ve	-ve		+ve	+ve
48 hour GP access	-ve			-ve			
Advance appointment				-ve		-ve	-ve

Research highlights

- ACSCs admissions are increasingly used within Scotland as performance indicators.
- This research suggests that crude rates of ACSCs admissions should be treated with considerable caution when used as a measure of primary care quality.
- ACSCs rates should be refined by adjusting for a range of confounding factors including age, gender, deprivation, and remoteness and rurality of the practice population.

Research Findings

We expected to find that lower achievement on the QOF indicators was associated with higher ACSCs. This was found on at least one indicator for four conditions. We also found the reverse, higher population achievement on the QOF indicator associated with higher ACSCs in the case of stroke, angina and CCF & angina.

We expected better access to be associated with lower ACSCs admissions. This was found on at least one of the access measures from the patient experience surveys for four conditions - asthma, hypertension, angina and CCF & angina. Overall, the effects were small and inconsistent. It was also shown that ACSCs admissions were associated with a range of confounding factors including deprivation and rurality of the practice population and distance to the hospital.

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