CONFERENCE ABSTRACT

Trends in the Quality of Structured Diabetes Care in Primary Care

17th International Conference on Integrated Care, Dublin, 08-10 May 2017

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Introduction: In Ireland, a diabetes 'cycle of care' funding initiative (2015) will remunerate GPs for management of patients with uncomplicated Type 2 diabetes (T2DM), establishing formal requirements for registering, recording and documenting care processes. However, limited research exists on the long-term performance of structured, primary care-led diabetes management both in Ireland and internationally. The Midlands Diabetes Structured Care Programme (MDSCP) encompasses evidence-based strategies to integrate and coordinate diabetes management within general practice (clinical integration) and with other disciplines (professional integration), including patient registration and recall, regular diabetes review visits, active role of the practice nurse in coordination and ongoing management, multidisciplinary specialist access (e.g. clinical nurse specialists (CNS), dietetics, ophthalmology, chiropody), professional education, and remuneration. We examine the quality of care delivered to patients with T2DM using data from 16 years of the programme.

Methods: At four time points, 1998, 2003, 2008 and 2015, data on the documentation of care processes and outcomes were collected by CNS from patients with T2DM (≥18 years) registered with participating practices. Data were extracted from patient notes using a paper-based data collection form. Using Stata, chi-square tests for trend were used to test differences in processes and outcomes over time, benchmarked against national guidelines(1) and the English National Diabetes Audit (NDA) 2014-2015;(2) a suitable comparator given that structured diabetes care in the UK is supported by existing policy and financial incentives.

Results: Data on 331 patients with T2DM in 1998 (10 practices); 843 in 2003 (20 practices); 989 in 2008 (30 practices), and 1106 (30 practices) in 2015 were available for analysis. Documentation of all processes improved significantly over time (p<0.001). Documentation in 2015 (>97%) was comparable with the NDA with the exception of BMI (69.5%) and smoking (78.9%). The proportion of patients with a blood pressure <130/80mmHg increased from 7.8% in 1998/1999 to 21.1% in 2015 (P<0.001), as did the proportion with a total cholesterol of <4.5mmol/L (22.9% vs.70.4%, p<0.001), and triglycerides <2.0mmol/L (46.4% vs.75.5%, p<0.001). The proportion with HbA1c <48mmol/mol(6.5%) remained similar (37.6% in 1998/1999 vs.34.1% in 2015).

Discussion: The results demonstrate improvements in the quality of care delivered to patients with T2DM in the region over time.

Conclusions: There were improvements in documentation of care processes and patient outcomes over 16 years of the programme. The stable proportion of patients meeting target HbA1c may reflect the increasing age profile. Although BMI and smoking status recording improved, these remained lower than other care processes.

Lessons learned: Improved documentation of care processes suggests the sustainability and feasibility of implementing a structured primary care-led approach to diabetes care. Changes in patient outcomes over the long-term have implications for the 'cycle of care' initiative.

Limitations: Changes in outcomes may reflect improvements in clinical guidance and prescribing over time and may not be directly attributable to the programme.

Suggestions for future research: Future work should examine the variation in process of care recording and outcomes, explore factors influencing the delivery of care within diabetes management programmes, and establish the cost-effectiveness of delivering this type of programme.

References:

1. Irish College of General Practitioners (ICGP) A Practical Guide to Integrated Type 2 Diabetes Care. 2008

2. National Diabetes Audit 2013-2014 and 2014-2015. Report 1: Care Processes and Treatment Targets.