

Translating chronic disease evidence-based guidelines into practice using an electronic technology based intervention in general practice

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Background

Interrelated chronic vascular diseases, chronic kidney disease (CKD), type 2 diabetes (T2D) and cardiovascular disease, have common cardio-metabolic risk factors and prevention and management strategies. They are currently under-recognised and under-treated in Australian general practice.

Objectives

Chronic Disease IMPACT (early detection and Improved Management in PrimAry Care ProjecT) aims to improve detection and management of people with and at risk of interrelated chronic vascular diseases using a technology and education based intervention in general practice.

Methods

Intervention: Electronic technology audit tool (from Pen CS Pty Ltd), disease education, monitoring and support.

Design: Stepped wedge RCT with qualitative evaluation.

Analysis: Quantitative analysis of disease detection and management used logistic random effects model with practice and time specific intercepts. Thematic qualitative analysis of general practice feedback.

Results

Eight general practices were included in quantitative analysis (9 recruited; 1 excluded due to a practice merger affecting data quality). There were 37,946 active patients (having attended their practice ≥ 3 times within 2 years) at baseline. There were statistically significant increases in testing for CKD (OR 1.3; CI 1.3-1.4) and T2D (1.2; 1.1-1.2) in those at risk, urine albumin:creatinine ratio testing in those with T2D (1.8; 1.6-2) and coded diagnosis of CKD (1.2; 1.1-1.3). There were no statistically significant changes for cardiovascular disease. Qualitative analysis identified enablers and barriers to achieving program goals with time pressures identified as one of the major barriers.

Conclusions

Our intervention improved detection and monitoring of people with chronic disease. Qualitative findings will assist with refining similar interventions.