

Lessons learned from the development and evaluation of a virtual renal clinic.

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Introduction

Evidence from the UK national chronic kidney disease (CKD) audit, identifies deficits in the identification and management of CKD within primary care.(1, 2) Aligning the requirement of GPs for a responsive nephrology service, with the capacity of renal services and the need to prioritise patients with progressive disease requires a re-think of traditional models of care. Utilising the health data in the primary care electronic health record (EHR) to bridge the primary secondary care divide is one way forward. (3)

Methods

We describe the development of a novel community kidney service based in the renal department at a tertiary renal services provider and four clinical commissioning groups (CCGs) in a multi-ethnic population in east London.

A virtual CKD clinic was developed for each participating CCG, using EMIS Web. GPs referred patients electronically, and with patient consent nephrologists can access the entire GP clinical record. Nephrologists document advice in their version of the EMIS Web record, which can be viewed by all clinicians in the practice.

Primary care intervention included a package of IT tools to identify patients requiring diagnostic coding, improvements to blood pressure and cardiovascular management, and monthly practice alerts to identify cases with a falling estimated glomerular filtration rate (eGFR). Regular practice facilitation on clinical data management was provided by the Clinical Effectiveness group (CEG) <https://www.qmul.ac.uk/blizard/ceg/> Additional renal specific clinical facilitation, focussed on CKD management, was offered to practice teams in the lowest decile of CKD coding. Patients were offered group or 1-1 education to facilitate self-management.

A mixed methods evaluation was undertaken using quantitative data from the virtual CKD clinic, and anonymised data on practice coding and primary care management from the GP electronic health record (EHR). Questionnaire survey data from GPs was collected soon after the clinic went live. This was supplemented by a series of interviews with GPs and nephrologists delivering the service before the intervention had become 'work as normal'.

Results

Analysis of the virtual clinic data showed a rapid rise in referrals and a fall in general nephrology face-to-face out patient appointments. (Figure 1) The majority of referrals (>80%) did not require a traditional clinic appointment but could be managed with advice to the referring clinician. The wait for a nephrology opinion fell from 64 to 5 days. Interrogation of the referral data revealed "hidden work" by nephrologists, with 50% of referrals having a further virtual review. (Table 1)

Primary care clinicians expressed positive views including the rapid response to clinical queries, increased confidence in CKD management, and patient satisfaction.

Nephrologists valued seeing the entire clinical record which improved clinical management. Concerns remain about the volume and quality of referrals.

Discussion

It is feasible to develop 'virtual' specialist services by sharing views of the primary care EHR. Such services are best supported by community initiatives which can engage primary care in a continuing process of service improvement to make best use of both specialist and generalist expertise.