

Assessment of the quality of care and financial impact of a virtual renal clinic compared with the traditional outpatient service model

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Summary

Background: Patients with chronic kidney disease (CKD) have better outcomes when they have access to specialist nephrology services early in the course of their disease. However, up to 30% of patients with advanced kidney disease face late referral. Virtual clinics represent a potentially innovative mechanism for early assessment of high patient volumes efficiently and cost effectively while maintaining high standards of care.

Methods: A retrospective observational cohort study was completed over a 4-year period from April 2004 to March 2008 at a regional nephrology centre within Northern Ireland. All new patient attendances at the nephrology clinic were identified and those managed via the virtual renal clinic approach were included in this study. A cost comparison of this innovative modality was made with the traditional outpatient service model.

Results: There were 427 patients (51.3% female, 48.7% male) managed through the virtual renal clinic. Comorbidities included 180 patients (42.1%) with known CKD and 31 patients (7.3%) with newly identified kidney disease. A total of 118 patients (27.6%) had hypertension while 6 (1.4%) and 57 (13.3%) had type I and II diabetes mellitus (DM) respectively. Referral indications included 211 patients (49.4%) with abnormal renal biochemistry, 35 (8.2%) with proteinuria, 12 (2.8%) with haematuria and 87 patients (20.4%) with a combination of issues. A conservative treatment plan consisting of biochemical surveillance was appropriate for 246 patients (57.6%) while medication review was completed for 113 patients (26.5%) and surgical referral was indicated in 20 patients (4.7%). The virtual renal clinic provided a minimum cost saving of £111.56 per patient attendance

compared with traditional outpatient care resulting in 23.3% of patient referrals being managed by the virtual clinic approach in 2009.

Conclusion: Delayed referral to a renal specialist adversely affects patient outcomes. This study suggests that the implementation of a virtual renal clinic for non-complex renal pathologies can offer a cost-effective, rapid referral mechanism for patient assessment combined with readily available specialist advice.

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