ENHIDE Telehealth primary care support of adults with diabetes and chronic kidney disease - A Pilot Study

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Background

Diabetes (DM) and Chronic Kidney disease commonly co-occur and should be considered a multi-morbid complex disorder that requires a holistic approach recognising the impact of cardiovascular disease, retinopathy, bone health, anaemia, increased hypoglycaemia risk, and foot and eye complications of diabetes[1]. National and international audits have demonstrated failures in achieving standard blood pressure, lipid and glycaemic targets[1].

A pilot project involving 20 general practices was initiated in 2016 to examine the feasibility of comprehensive big data extraction and analysis enabling individualised patient care carried out through telehealth case based discussion and primary care up skilling, along with provision of patient information to enable self management of acute illness and foot health. All patients with eGFR < 60 and/or urine albumin creatinine ratios > 10 were identified.

The 5 core objectives were:

- To examine the feasibility of extraction of comprehensive data sets from primary care diabetes registers
- To examine the feasibility of the individualised data utilisation for patient care
- To evaluate the practicality and acceptability of primary care of telehealth virtual case based reviews
- To evaluate the extent of unmet clinical need
- To create new sources of information to improve self-management

Method

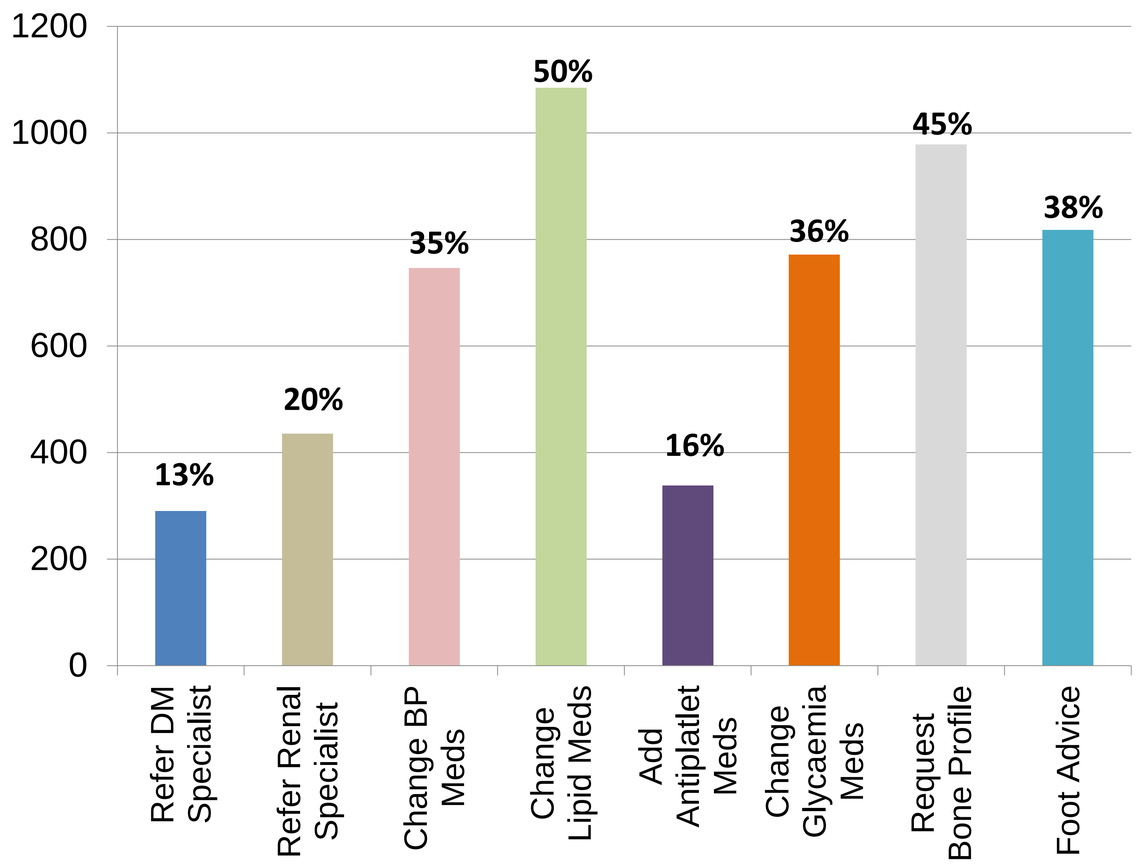
All under the age of 75 had individualised review and in addition those aged over 75 with eGFR < 45 and/or ACR > 10 had individual case review. Those aged >75 with eGFR >45 and ACR < 10 received standard recommendations

Patients aged less than 75yrs with an eGFR <60	44%
Patients aged > 75yrs with an eGFR <45	23%
Patients aged > 75yrs with eGFR >45 & ACR >10	8%
Patients older than 75yrs eGFR >45 and ACR <10	25%

Results

To date 2147 have been clinically evaluated, of whom 44% were aged < 75, reflecting 24% of those on DM practice registers. On average over 80% were solely under primary care. Significant unmet need was identified (see figure 1) Untreated anaemia was present in 13% - more so in those aged > 75.

Figure 1



GP Feedback to Skype session

- Educationally extremely useful. There has always been an issue with these patients and who to send them to/ discuss them with and confusion in primary care which probably results in the issues not being addressed
- Session highlighted importance of good communication in managing these complex patients optimally. It also highlighted the gaps in the data- specifically where the patients are primarily looked after.
- It would be good to have an electronic protocol or template on SystmOne for the patients with recommendations that were suggested

Achievements of the project

- Creating a holistic guidance document on managing those with Diabetes and CKD in primary care (including conservative management of elderly CKD)
- Effective use of the clinical data set available to us, with identification of substantial unmet clinical need.
- Working differently and more efficiently with primary care and community team using Skype.
- Roll out of sick day guidance cards to all people with Diabetes and CKD
- Identification of large number of people at high risk of acute foot problems, leading to production of a high risk foot card enabling more proactive podiatric input.

References; Winocour PH. Diabetic Med. , 2018 ; 35, 300–305 Diabetes and chronic kidney disease: an increasingly common multi-morbid disease in need of a paradigm shift in care