

ADHERENCE TO NICE GUIDANCE AND MANAGEMENT OF CARDIOVASCULAR RISK FACTORS IN PATIENTS WITH CHRONIC KIDNEY DISEASE IN PRIMARY AND SECONDARY CARE

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AIMS

NICE provides guidance for primary care physicians regarding indications for referral to nephrology clinics.

The aims of this study were to establish:

- If patients referred had the required investigations performed
- The effectiveness of cardiovascular risk factor management
- Whether nephrology follow up had an impact on reducing cardiovascular risk factors.

METHOD

Retrospective audit of all new nephrology referrals from 1st April 2012 to 31st March 2013 collecting data on patient's age, eGFR, stage of CKD, BMI, systolic blood pressure, diastolic blood pressure, cholesterol, HbA1c, smoking history and whether renal imaging had been performed. For patients that remained under nephrology follow up, data was collected 12-18 months from referral to assess changes in cardiovascular risk management.

RESULTS

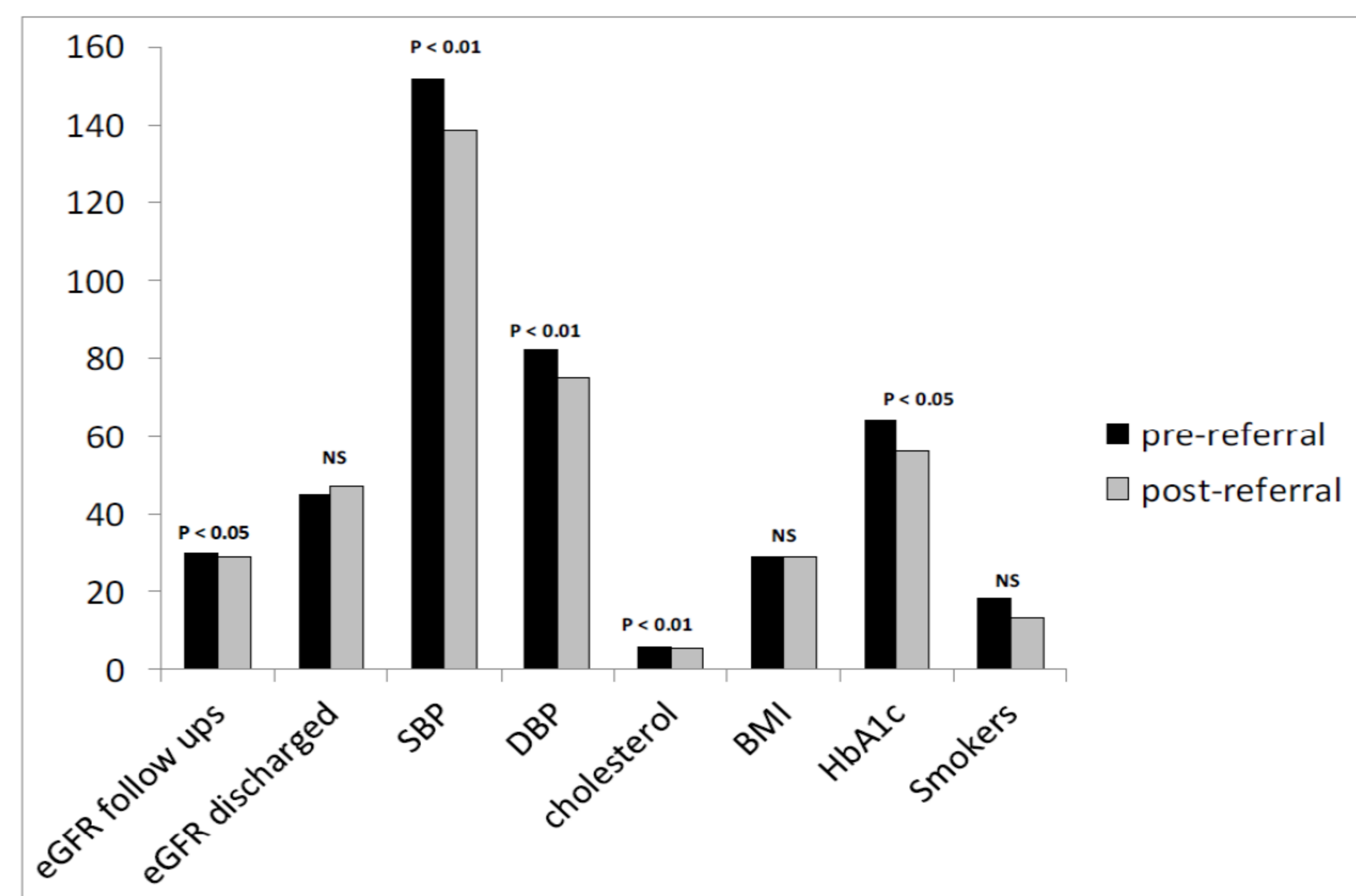
488 new GP referrals were made over the one year period.

- 141 patients (28.9%) were over the age of 80yrs.
- 364 patients (74.6%) had CKD 3, 4, or 5.
- 255 patients (52.3%) had renal imaging pre-referral.
- 170 patients (34.8%) were obese, 135 (27.7%) diabetic, 57 (11.7%) smokers.
- 315 patients (64.5%) had a SBP of greater than 140.
- 144 patients (29.6%) had a high cholesterol (total cholesterol > 5.1mmol/L)
- HbA1c was measured in 189 patients (38.9%)

189 (38.9%) patients were followed up in the nephrology clinic.

- SBP had reduced on average (mean) by 13.2 mmHg (95% CI 9.94 - 16.42, P<0.01), and DBP by 6.9 mmHg (95% CI 4.91 - 8.89, P<0.01).
- Mean cholesterol was reduced by 0.6 mmol/L (P<0.01), for diabetic patients there was a mean reduction in HbA1c of 8 mmol/mol (P<0.05).
- The eGFR in patients followed up in clinic had a mean reduction of 1ml/min/m² (P<0.05)
- BMI and smoking demonstrated no statistically significant change.

RESULTS



	Number of patients (%)
Renal imaging pre-referral	255 (52.3%)
Raised BMI	170 (34.8%)
Diabetes	135 (27.7%)
Smoker – current	57 (11.7%)
Ex-smoker	200 (41.0%)
Total cholesterol > 5.1 mmol/l	144 (29.5%)
SBP > 140 mmHg	315 (64.5%)
DBP > 90 mm Hg	115 (23.6%)

CONCLUSIONS

Management of cardiovascular risk factors in patients with CKD presents a challenging problem for primary care. Referral to nephrology clinic facilitated improved management of blood pressure, cholesterol, and diabetic control. BMI and smoking however were difficult to improve upon.

Nephrologists were able to select the patients that require follow up as demonstrated by the statistically significant decrease in eGFR in the follow up group compared to the discharged group.

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