CKD GP referrals Pre & Post NICE CKD guidance 2014

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Introduction:

Mortality from chronic renal failure (CRF) in increasing Worldwide and is currently ranked 14th commonest cause of death[1]. Most patients die from cardiovascular disease, and management of cardiovascular risk is key to preventing both death and also decline of renal function to the point of end stage renal failure. In the UK 14% of men and 13% women have CRF, the majority being managed in primary care. In 2014, NICE introduced guidance to help GPs manage patients with CRF, focussing on cardiovascular risk and prevention of late referral of patients likely to require renal replacement therapy[2].

Aim:

We assessed management of cardiovascular risk and timeliness of referral in all new GP referrals to the renal clinic in 2012, and again in 2016, 2 years after the introduction of NICE CKD guidance in 2014.

Methods:

All new GP referrals to the Dorset Renal Service in 2012 and 2016 were analysed. Data were collected on patient age, CKD stage and eGFR (at referral), renal imaging pre-referral, BP, smoking, BMI, HbA1C (in diabetic patients), and lipid assessment.

All statistical analyses were performed using IBM SPSS Statistics version 23. Comparison of pre- and post-NICE guidance proportions were compared using a Chi-squared test with a p value of less than 0.05 considered significant.

Results:

486 new GP referrals were received in 2012, and 574 in 2016 (18% increase post NICE CRF guideline).

Data completion was 100% for age; renal imaging pre-referral; BP; BMI; diabetic status at referral; and, lipid assessment at referral. 2 patients in both cohorts did not have eGFR/renal stage assessments due to age (< 18 years), and 1 patient in the 2016 cohort refused blood testing. 1 diabetic patient in the 2012 cohort did not have HbA1c testing.

Change in proportion of:	Pre-NICE (% yes)	Post-NICE (% yes)	Chi square	p-value
stage 4 and 5 patients	33.9	23.5	14.024	< 0.001
eGFR < 20	7.9	6.1	1.206	0.272
Ultrasound pre referral	47.0	47.5	0.025	0.875
SBP > 140	65.6	57.3	7.483	0.006
DBP > 90	26.3	19.0	8.100	0.004
Cholesterol tested	82.7	88.8	8.178	0.004
High BMI	34.8	40.8	4.102	0.043
Diabetic	27.8	30.7	1.094	0.296
Smoker	11.7	12.6	0.172	0.678

Conclusion:

GP referral of new patients to the renal clinic increased post-NICE CKD guidance. Fewer Stage 4 and 5 CKD patients were referred, but the number of patients with eGFR < 20 ml/min/m2 did not change significantly (late CKD referrals). BP control improved post-NICE and more patients had cholesterol levels checked. However, more referred patients were categorised as obese. Smoking cessation and pre-referral renal imaging showed no significant change.

References:

1. Webster AC, Nagler EV, Morton RL et al. Chronic Kidney Disease. Lancet 2017; 389: 1238 – 52.

2. https://www.nice.org.uk/guidance/CG182/