

CHRONIC KIDNEY DISEASE; THE ASSOCIATION WITH CARDIOVASCULAR DISEASE IN PRIMARY CARE

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INTRODUCTION: Chronic kidney disease (CKD) affects 10% of the population, with a significant proportion progressing to ESRF and carries a high cardiovascular (CV) mortality. The development and progression of CKD is influenced by CV risk factors. The aim of this study was to identify the number of patients in primary care who suffer from CKD and CVD (hypertension [HTN], diabetes [DM], cerebrovascular disease [CVA], ischaemic heart disease [IHD], heart failure [HF] and peripheral vascular disease [PVD]) and to explore the association between these coexisting pathologies. The adequacy of management of CV risk factors was also evaluated.

METHOD: Data was collected from 2 General Practices using the EMIS database to identify patients with stages 3-5 CKD and patients on the CVD registers. Data were also collected on medication prescribed to treat HTN and dyslipidaemia, alongside a search for the latest; BP, HbA1c, total cholesterol and BMI for evaluation of patient management. These parameters were then compared with the recommended targets.

RESULTS: The two practices served a total of 20,089 patients of which 547 were diagnosed with stages 3-5 CKD comprising 3% of the base population. In the CKD sample (n=547) the following CV co-morbidities were present; HTN 54%, IHD 32%, DM 26%, CVA 17 %, HF 12%, PVD 6%. The prevalence of these (except DM) was found to increase as the stage of CKD progressed and was statistically significant for PVD, HF and CVA ($p \leq 0.05$). Ninety percent of CKD patients were on at least 1 other CVD register. There were several inadequacies in the management of CV risk factors in CKD patients; 19% achieved a BP of $< 130/80$ and 58% $\leq 140/85$. 49% of diabetics had an HbA1c $< 7\%$, 67% had a BMI > 30 , and 69% had a cholesterol of < 5 . Furthermore, 58% and 65% were prescribed statins and ACEi/ARBs respectively.

CONCLUSION: The results suggest significant under-diagnosis of CKD in the community. As 90% of CKD patients have other CV conditions, patients with these co-morbidities could be targeted for future screening initiatives. The number of CV co-morbidities increase with advancing CKD. The management of the CV risk factors was inadequate and need to be improved to slow progression of CKD and reduce CV mortality. This study lends support to introduction of screening for CKD in primary care. Acknowledgement of increased risk of CKD in CVD patients may allow earlier diagnosis and intervention.