

Preventive nephrology has advanced internationally recently, but there is still a long way to go

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INTRODUCTION

All clinicians who treat patients with chronic kidney disease (CKD) must follow clinical practise recommendations for this condition. The primary care environment is the most inclusive at the population level, although nephrology services are more likely to be provided to the subpopulation with advanced renal illnesses. According to the worldwide Kidney Disease: Global Assessment, there is much opportunity for improvement in the treatment of patients with CKD by primary care physicians and nephrologists alike. This CKD outcomes and practise patterns study (CKDopps) reveals poor implementation of 1 recommendation for laboratory monitoring and 4 interventions that slow CKD progression from the Improving Global Outcomes (KDIGO) guideline in the nephrology practise prospective cohorts of Brazil, France, Germany, and the United States. It does this by using clinical data for the CKD population (n = 7204) treated between 2013 and 201. The results are largely affirmatory but novel and significant nonetheless, particularly in light of their consistency—with a few exceptions—for the subpar application of clinical practise guidelines in nephrology across these 4 nations on 3 continents. Using the inclusion criteria of all eligible patients 18 years of age with an estimated glomerular filtration rate (eGFR) of 60 ml/min per 1.73 m² and no history of dialysis or transplant, nephrology clinics were stratified by geographic region within each country and clinic characteristics (size and public vs. private).⁶ Population characteristics (included mean age >65 years in all counties, some variability in the causes of CKD, 96% in France. There was widespread polypharmacy, with an average of 7 drugs in Brazil and 11 in the USA.

One of the important components of the KDIGO cause-GFR-albuminuria CKD definition and classification system is albuminuria. This system uses the well-known heat map diagram for the laboratory tests to conceptually represent the risk stratification. 1 In Brazil

(36%), Germany (36%), and the United States (42%), albuminuria or proteinuria were routinely measured in less than half of the patients, but the health authority's recommendation for albuminuria testing as part of a panel for an annual CKD monitoring with 100% reimbursement is responsible for the 89% measurement in France. According to the tests, the total frequency of CKD stage A3 varied between 36% and 48% in Brazil and the USA, with a higher prevalence in the population with diabetes, as was predicted. In community studies of CKD7 and randomised trials in cardiovascular disease, low or no testing for proteinuria or albuminuria is frequently observed, despite the fact that one would anticipate nephrology practises to do better. The researchers make the assumption that the French urine testing technique cannot be generalised, which may be accurate given the specialised approach. Nevertheless, nationally adopted procedures with financial incentives are more likely to be successful in any nation where the design is adapted to the clinical workflow.

The management of hypertension revealed that the mean systolic blood pressure ranged from 133 to 142 mm Hg. The severity of albuminuria did not correlate with increased use of angiotensin-converting enzyme inhibitors or angiotensin receptor blockers, which were used at rates of 67%, 78%, 81%, and 52%, respectively, in Brazil, France, Germany, and the USA. Albuminuria was a predictor of higher systolic blood pressure. The authors talk about the risks and debates around the use of angiotensin-converting enzyme inhibitors or angiotensin receptor blockers in patients with low eGFR. A minority of nephrologists in all four countries reported having a target blood pressure of less than 130/80 mm Hg, as is currently advised, according to the clinician survey, though it is difficult to determine the current relevance of this given the shifts in the blood pressure target during the study period.

Diabetes was a significant comorbidity and the most common cause

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of CKD as determined by nephrology evaluation or kidney biopsy. Overall, the mean glycemic control was very close to the goal of 7% (53 mmol/mol) glycated haemoglobin. Medication for type 2 diabetes that is very new and cardioprotective was not evaluated. Except for reasonably high reporting of dietary sodium restriction education and low active smoking rates ranging from 5% in Germany to 12% in France, lifestyle adjustments as reflected by patient surveys were poorly implemented in the nations evaluated. Poor lifestyle advice compliance has little effect on the alarmingly high rates of obesity, which are characterised as 30 kg/m² in 33% of Brazil, 36% of France, 40% of Germany, and 52% of the USA.

This finding was closely linked to uneven nephrology service patterns. The vintage after the publication of the guidelines, the level of evidence, the influence of national health policy and reimbursement, and, most importantly, associations with negative outcomes are some guideline implementation variables in nephrology practise that could be further investigated by future CKDopps studies or other investigations. How has compliance with guidelines altered over the years since their publication in January 2013?

For a meaningful chronological assessment, the data from the current study that are now available are probably insufficient. For each statement evaluated, of the study displays the GRADE system level for recommendations, assessment, development, and evaluations (for

each statement, the levels range from 1A (strong recommendation) to 2D) (suggest—very low). What relationship does grade level have to do with adherence to the statements? Clearly, national health policies have an impact on the outcomes. The KDIGO CKD guideline was supported by American guidelines, while French guidelines were different. possible mechanism behind pregnancy-induced GFR reduction. Unfortunately, judgments on vitally essential yet uncommon clinical outcomes, such as allograft failure and allograft rejection, cannot be reached because to the limited sample size. The effects of pregnancy-related hypertension and the emergence of preeclampsia on the histology of allografts are also unknown. There is currently no indication that pregnancy itself significantly accelerates graft loss over time, therefore we should reassure our patients that this is not the case until larger and longer-term studies are completed.

The likelihood for a slight, although statistically significant, GFR reduction after childbirth and possibly persistent vascular alterations in the allograft are added by Clark et al. to our preconception advice. The risk of preeclampsia and preterm birth is still very high in pregnancies that are pursued after a kidney transplant for women with advanced CKD or a working kidney allograft. The best maternity treatment is provided in a multidisciplinary clinic that offers both maternal-fetal medicine and nephrology. To assist lower the risk of preeclampsia, low-dose aspirin should be added to their arsenal of medications and should be started after 12 weeks of pregnancy. In order to diminish negative effects for the mother and foetus as well as