

Optimizing the care and outcomes of patients with CKD: The role of the nephrologist

Chronic kidney disease (CKD) is a major public health problem worldwide. It is estimated that around 70 million Europeans suffer from progressive kidney impairment, and yet many of them are unaware of this condition. In 2021 the European Renal Association (ERA) initiated the Strong Kidneys for Europe initiative to raise awareness of the essential roles that these organs play within our bodies. To further support this project, the ERA also launched a series of e-seminars addressing the optimization of care for CKD patients. The first e-seminar in this series took the form of a panel discussion broadcast on November 18, 2021. The panellists were nephrologists, Dr. Beatriz Fernandez Fernandez, from Spain and Prof. Patrick Mark from the United Kingdom, endocrinologist Dr. Janaka Karalliedde from the United Kingdom, and family medicine specialist Dr. Ana Cebrián from Spain. The discussion was moderated by Prof. Christoph Wanner, the President of the ERA. The participants discussed all the major issues related to the care and outcomes of CKD patients and addressed numerous questions from the audience.



Panellist:
Ana María Cebrián,
Spain



Panellist:
Beatriz Fernández Fernández,
Spain



Panellist:
Janaka Karalliedde,
UK



Panellist:
Patrick Mark,
UK



Moderator:
Christoph Wanner,
Germany

Should the latest antidiabetic agents, such as sodium-glucose co-transporter-2 inhibitors (SGLT2i), be prescribed even to CKD patients without type 2 diabetes (T2DM)?

The first SGLT2i was introduced on the market for the treatment of T2DM nearly ten years ago. Since then, evidence accumulated to support the use of these medications in other patient groups, even without diabetes. Several large trials reported compelling results of SGLT2i treatment on improving kidney and cardiovascular outcomes in non-diabetic patients with CKD and/or heart failure. Dr. Fernandez-Fernandez asserted that, based on the current knowledge, SGLT2 inhibitors could even be viewed as the drugs to treat CKD which also improve glycaemia. Nevertheless, Prof. Mark, who was the lead UK investigator in the Dapagliflozin and Prevention of Adverse Outcomes in Chronic Kidney Disease (DAPA-CKD) trial, emphasized that their application should not suspend the use of renin-angiotensin system (RAS) inhibitors, which have been the cornerstone of CKD treatment for many years. On the contrary, based on the trial designs, SGLT2i should only be used as an addition to the existing therapy with angiotensin-converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs). Dr. Karalliedde also reminded the audience that other basic interventions to attenuate CKD, such as early recognition of the disease and early start of intervention (e.g. RAS inhibitors), optimal blood pressure control, healthy lifestyle, and diet, should not be forgotten. Dr. Cebrián concurred with this perception, underlining the significant role of the family medicine practitioners in the early recognition of CKD. All panellists agreed on the importance of consistent measurement of albuminuria (microalbuminuria and/or urine albumin to creatinine ratio) as an important indicator of kidney damage. The current recommendations from both the American Diabetes Association and the Kidney Disease Improving Global Outcomes initiative are that all persons with diabetes should have a renal function and albuminuria assessed at diagnosis and annually thereafter in T2DM; whereas in type 1 diabetes mellitus (T1DM), this evaluation can start from 5 years after diagnosis. Dr. Karalliedde shared several UK initiatives to support the fulfilment of these goals, such as offering incentives for general practitioners to pursue the recommendations and simplifying the urine collection procedure for the patients. In conclusion, Dr. Fernandez-Fernandez emphasized that the beneficial effects of SGLT2is are part of their class features and not specific to individual drug members of the class.

What are the most important strategies to optimize the care of CKD patients in primary care setting from a nephrologist's point of view?

Family medicine specialists and general practitioners are the first categories of physicians able to identify CKD early and act to decrease risk factors for the progression of the disease.

Dr. Cebrián, a family medicine specialist, emphasized the importance of raising both the public and the primary care physicians' awareness about the importance of timely diagnosis and adequate registering of CKD patients. It is of vital importance to record the diagnosis of CKD, even in the early stages of the disease. However, according to Dr. Cebrián, this is often neglected in current practice. In her opinion, special attention should be focused on patients with diabetes, hypertension, or other risk factors for CKD, whose estimated glomerular function rate (eGFR) should be timely evaluated and appropriately coded to increase the visibility of the patients with early-stage CKD. To achieve this goal, it is necessary to install repetitive and continuous training and education of family medicine and general practitioners.

Dr. Karalliedde emphasized the importance of continuous patient monitoring and observing the eGFR trend to plan future follow-up. He indicated that diabetic patients with a stable eGFR above 60mL/min should have their eGFR and albuminuria checked at least annually. Patients with eGFR below 60mL/min should be tested two to four times a year, depending on their eGFR trend.

Dr. Fernandez-Fernandez stressed the significance of early identification of patients with rapidly declining eGFR who should be referred to a nephrologist earlier.

Prof. Mark mentioned the automated electronic alerts such as those used to initiate anticoagulation in patients with atrial fibrillation as a useful example that could be translated into the primary care of early-stage CKD patients.

What is the implication of patient-reported outcome measures (PROMs) in optimizing the care of CKD patients?

It is Dr. Karalliedde opinion that in order to use PROMs to improve the assessments of disease burden among patients with CKD it is first necessary to empower the patients with knowledge and understanding of the disease.

Dr. Fernandez-Fernandez shared experience from her practice stating that among her patients exists a broad range in the level of awareness and knowledge about renal disease.

Dr. Cebrián practices an original approach of drawing a parallel between the heart and the kidneys when explaining the effects of CKD

to her patients, while Prof. Mark suggested that another possible reason for the lack of awareness of the CKD lies in the fact that, unlike some other disorders, this condition is largely asymptomatic.

What is the significance of quality of life and mental problems in end-stage kidney disease?

Prof. Mark reminded that CKD affects multiple organ systems and is associated with numerous comorbidities and complications, all of which may affect a patient's quality of life. Both CKD and concomitant conditions can predispose patients to mental problems.

What are the current recommendations for T2DM treatment in patients with CKD stages 3-4?

Dr. Karalliedde specified that the currently recommended drug of choice for the initial treatment of T2DM is metformin, which can be used in full dose at eGFR ≥ 45 mL/min, and in a reduced dose of 500mg b.i.d. in patients with eGFR between 45 and 30 mL/min. The dipeptidyl peptidase (DPP)-4 inhibitors also require no dose adjustment at eGFR ≥ 45 mL/min, but they should be reduced below that level. Dr. Karalliedde emphasized that the previously mentioned SGLT2 inhibitors certainly have multiple beneficial cardiovascular and renal effects (that are independent of glucose lowering), but they lose glucose-lowering power at eGFR below 45 mL/min thus necessitating the addition of another hypoglycaemic agent. He reminded that patients with eGFR < 30 mL/min are often at high risk of hypoglycaemia. Thus, caution is required when prescribing certain glucose-lowering agents, such as sulfonylurea, or dosing insulin in this population.

When is it the right time to refer a patient with diabetes or hypertension or CKD stage 1-3 to a nephrologist?

Dr. Cebrián shared her policy of referring CKD patients with diabetes and/or hypertension to a nephrologist when they have albuminuria > 300 mg/24h and/or eGFR < 30 mL/min. Such practice is supported by Prof. Wanner, who acknowledged the current lack of resources to provide nephrology consultations to patients with higher eGFR.

Dr. Fernandez-Fernandez reminded once again of the importance of observing the eGFR slope when deciding on the follow-up and referral.

Prof. Mark concluded that electronic alerts could assist primary care physicians in these situations as well.

What is the place of finerenone in the treatment of CKD?

Dr. Fernandez-Fernandez suggested a stepwise approach when introducing new drugs to treat CKD. In her opinion, ACE inhibitors or ARBs should remain the initial therapy in CKD patients. SGLT2i can be added as the second line, and finerenone, a novel, highly selective mineralocorticoid receptor antagonist, as the third-line treatment.

Dr. Cebrián suggested that an adequate time gap between introducing new drugs should be three months.

Dr. Karalliedde emphasized the importance of potassium monitoring in patients on finerenone, especially in the later stages of CKD.

What would be the optimal strategy to optimize the care for CKD patients in countries with limited resources, such as Sub-Saharan Africa?

Dr. Cebrián again underscored the significance of raising awareness about CKD in the general population, and training medical professionals to timely recognize and adequately care for these patients. Simple and inexpensive measures, such as an adequate diet, physical exercise, and blood pressure control can contribute to attenuating the disease progression.

Written by Jasna Trbojevic-Stankovic.

All the speakers reviewed and approved the content.

KEY POINTS

- 1 Family doctors and general practitioners have an essential role in the timely identification of CKD and in introducing measures to attenuate disease progression. They should be continuously educated to adequately code and record even the early CKD stages.
- 2 Patients with diabetes and/or hypertension should be referred to a nephrologist when they develop albuminuria $>300\text{mg}/24\text{h}$ and/or $\text{eGFR} <30\text{mL}/\text{min}$. Nevertheless, when planning referrals, it is also important to take into account the eGFR trend.
- 3 Several new agents show promising results in attenuating CKD progression and managing morbidity and mortality. Medicines in the SGLT2 inhibitor class are now available for CKD patients regardless of whether they have diabetes. The highly selective non-steroidal mineralocorticoid receptor antagonist, finerenone, is expected to be approved for CKD patients in Europe soon.