



CARDIOLOGIC CARE OF PATIENTS WITH CHRONIC KIDNEY DISEASE. SELECTED INSIGHTS FROM THE 29TH INTERNATIONAL CONGRESS OF THE POLISH CARDIAC SOCIETY



Pacjent z przewlekłą chorobą nerek u kardiologa.
Wybrane zagadnienia XXIX Międzynarodowego Kongresu
Polskiego Towarzystwa Kardiologicznego

Katarzyna Romejko

Military Institute of Medicine – National Research Institute, Department of Internal Medicine, Nephrology and Dialysis, Poland

Katarzyna Romejko –  0000-0003-1447-2917

Abstract

The 29th International Congress of the Polish Cardiac Society was held in Krakow from 25 to 27 September 2025. During numerous sessions, the challenges associated with diagnosing and treating cardiovascular diseases in patients with chronic kidney disease were discussed. This report summarises the recommendations presented during the Congress regarding the management of cardiovascular complications in this group of patients. Particular attention was devoted to guidelines and diagnostic challenges related to the use of anticoagulant therapy in patients with chronic kidney disease and atrial fibrillation. Recommendations concerning renin-angiotensin system blockade were also presented, along with approaches to managing hyperkalaemia, hypotension, and deterioration of renal function during this treatment. The Congress also summarised guidance on lipid-lowering therapy in chronic kidney disease and addressed issues related to the management of heart failure in these patients. The problem with the diagnosis of chronic kidney disease was also highlighted, as it is associated with intensified progression of renal dysfunction and the development of cardiovascular complications.

Streszczenie

W dniach 25–27 września 2025 roku w Krakowie odbył się XXIX Międzynarodowy Kongres Polskiego Towarzystwa Kardiologicznego. Wśród licznych sesji nie zabrakło zagadnień dotyczących trudności w leczeniu i diagnostyce chorób układu sercowo-naczyniowego u pacjentów z przewlekłą chorobą nerek. W sprawozdaniu podsumowano przedstawione podczas Kongresu zalecenia dotyczące terapii chorób układu sercowo-naczyniowego u pacjentów z przewlekłą chorobą nerek. Omówiono wytyczne oraz trudności diagnostyczne związane ze stosowaniem leczenia przeciwkrzepliwego u pacjentów z przewlekłą chorobą nerek i migotaniem przedsionków. Przedstawiono ponadto zalecenia dotyczące blokady układu renina-angiotensyna oraz postępowanie w przypadku hiperkaliemii, hipotensji lub pogorszenia funkcji nerek podczas stosowania leków blokujących układ renina-angiotensyna. Podsumowano zalecenia dotyczące terapii hipolipemizującej w przewlekłej chorobie nerek oraz problemy związane z leczeniem niewydolności serca w tej grupie pacjentów. Przedstawiono również zagadnienie niedostatecznego rozpoznania przewlekłej choroby nerek, co wiąże się z szybszą progresją dysfunkcji narządu oraz rozwojem i progresją powikłań sercowo-naczyniowych.

Keywords: chronic kidney disease; cardiovascular complications; Congress of the Polish Cardiac Society

Słowa kluczowe: przewlekła choroba nerek; powikłania sercowo-naczyniowe; Kongres Polskiego Towarzystwa Kardiologicznego

DOI 10.53301/lw/215677

Received: 08.12.2025

Accepted: 16.12.2025

Published: 31.03.2026

Corresponding author:

Katarzyna Romejko
Military Institute of Medicine –
National Research Institute,
Department of Internal Medicine,
Nephrology and Dialysis,
128 Szaserów Str., 04-141 Warsaw
e-mail: kromejko@wim.mil.pl

Introduction

Cardiovascular complications – such as atherosclerosis, coronary artery disease, peripheral artery disease, hypertension, and heart failure – begin to develop at early stages of chronic kidney disease (CKD). As renal function declines, these conditions progress and ultimately represent the leading cause of death in this patient population. Currently, CKD affects approximately 10% of the global population, and its prevalence continues to rise. It is estimated that by 2040, CKD will become the fifth cause of death worldwide. Therefore, understanding the specific nature of cardiovascular complications in this group of patients is crucial. In clinical practice, cardiologists encounter individuals with CKD at various stages of the disease and with different cardiovascular disease severity. What matters most is not only implementing appropriate treatment strategies that slow down the progression of cardiovascular complications – and thereby improve survival – but also individualizing treatment, which remains one of the greatest challenges.

During the Congress, key issues related to the management of cardiovascular diseases in patients with CKD were discussed.

Report

Professor Beata Naumnik, MD, PhD (1st Department of Nephrology and Transplantation with Dialysis Centre, University Clinical Hospital in Białystok) presented the challenges associated with anticoagulant therapy in patients with CKD and atrial fibrillation. In this group, as the estimated glomerular filtration rate (eGFR) decreases, the risk of both thromboembolic complications and bleeding increases. Anticoagulant treatment with vitamin K antagonists (VKAs) should give way to direct oral anticoagulants (DOACs) – such as apixaban, rivaroxaban, and dabigatran – because of the numerous limitations of VKA therapy, including lack of efficacy, potential interactions with many drugs used in CKD, the risk of calcification and calciphylaxis, an increased risk of bleeding as well as ischemic complications, and the need for INR monitoring. The only situations in which VKAs must be used are antiphospholipid syndrome, the presence of a mechanical prosthetic heart valve, and moderate-to-severe rheumatic mitral stenosis.

DOAC dosing based on eGFR is as follows:

- eGFR >90 mL/min/1.73 m²: apixaban 2 × 5 mg, rivaroxaban 1 × 20 mg, dabigatran 2 × 150 mg;
- eGFR 50–90 mL/min/1.73 m²: apixaban 2 × 5 mg, rivaroxaban 1 × 20 mg, dabigatran 2 × 150 mg (same as for eGFR >90 mL/min/1.73 m²);
- eGFR 30–49 mL/min/1.73 m²: apixaban 2 × 5 mg, rivaroxaban 1 × 15 mg, dabigatran 2 × 110 mg;
- eGFR 15–29 mL/min/1.73 m²: apixaban 2 × 2.5 mg, rivaroxaban 1 × 15 mg; dabigatran is contraindicated.

Decision-making is particularly challenging in patients undergoing renal replacement therapy, who face an elevated risk of bleeding due to concurrent heparin use, platelet dysfunction, and a heightened risk of falls. Studies presented by Professor Naumnik indicate that apixaban offers greater benefits than warfarin in haemo-

dialysed patients, with a similar risk of thromboembolic events but fewer major bleeding episodes. However, because robust evidence is still lacking, treatment decisions should be made on an individual basis, with patients actively involved in the process. There are currently no studies involving patients undergoing peritoneal dialysis.

The lecture also highlighted the possibility of using the Dialysis Risk Score in haemodialysed patients (previous transient ischaemic attack or ischaemic stroke – 3 points; diabetes – 1 point; age >75 years – 1 point; gastrointestinal bleeding within the past year – minus 1 point) as an alternative to the CHA₂DS₂-VASc score for assessing thromboembolic risk. If the Dialysis Risk Score is below 2 points, DOACs should not be used. Additionally, left atrial appendage closure may be considered. With a score of ≥2 points, apixaban at a dose of 2 × 2.5 mg, rivaroxaban at 1 × 10 mg, or left atrial appendage closure may be used.

During the next lecture, Professor Marcin Adamczak, MD, PhD (Department of Nephrology, Transplantology and Internal Diseases, Medical University of Silesia in Katowice) presented recommendations regarding the use of renin-angiotensin system (RAS) blockade in patients with CKD stages G4/G5. In patients with non-diabetic CKD, RAS inhibitors (angiotensin-converting enzyme inhibitors, ACEIs, or angiotensin receptor blockers, ARBs) should be used at the highest tolerated dose, with benazepril, ramipril, and lisinopril remaining the preferred agents. Continuation of RAS inhibitor therapy is also recommended in patients with an eGFR <30 mL/min/1.73 m², whereas in individuals with diabetes particular caution is advised when eGFR falls below this threshold. It has been demonstrated that RAS inhibitors reduce the risk of CKD progression and prolong the time to initiation of renal replacement therapy (ACEIs and ARBs), decrease all-cause and cardiovascular mortality (ACEIs), and lower the risk of developing cardiovascular complications (ARBs). Therefore, continuation of therapy with these agents is of great importance.

The most common reasons for discontinuing RAS inhibitors in this group of patients are hypotension, hyperkalaemia, and worsening renal function. In the event of hypotension, modification of antihypertensive therapy is recommended, beginning with a reduction in the doses of antihypertensive drugs other than renin-angiotensin system (RAS) inhibitors. In cases of mild or moderate hyperkalaemia (serum potassium concentration 5.0 [5.5]–6.4 mmol/L), potassium supplements taken by the patient should initially be discontinued, and the patient should be advised to stop using potassium-containing salt substitutes. It should also be determined whether the patient is taking medications that increase serum potassium levels – such as non-steroidal anti-inflammatory drugs, heparin, co-trimoxazole, trimethoprim, or ketoconazole – and these drugs should be discontinued if necessary. If the patient has chronic constipation, appropriate treatment should be initiated.

Management of hyperkalaemia should not consist of discontinuing RAS inhibitors. Instead, it should include the use of loop diuretics, thiazide or thiazide-like diuretics, or chlorthalidone in patients with an estimated glomerular filtration rate (eGFR) <30 mL/min/1.73 m², sodium-

glucose co-transporter 2 (SGLT2) inhibitors, sodium bicarbonate in patients with metabolic acidosis, and either calcium patiromer or sodium zirconium cyclosilicate.

Deterioration of renal function after initiation of RAS inhibitor therapy is also a common reason for discontinuing these drugs. Experts suggest measuring serum creatinine 7–14 days after starting treatment or after increasing the dose. If serum creatinine increases by less than 30%, continuation of therapy is recommended. However, if it increases by 30% or more, discontinuation of these drugs is suggested and diagnostic evaluation for other causes of renal function deterioration should be undertaken, including dehydration, hypotension, the use of non-steroidal anti-inflammatory drugs, and the presence of renal artery stenosis.

Professor Marcin Barylski, MD, PhD (Department of Internal Medicine and Cardiac Rehabilitation, Medical University of Lodz) presented recommendations regarding lipid-lowering therapy in patients with CKD. These individuals belong to a high or very high cardiovascular risk group. The goal of lipid-lowering therapy is to reduce low-density lipoprotein cholesterol (LDL-C) concentrations below 55 mg/dL or by at least 50% from baseline. The target that achieves the lower LDL-C concentration should be chosen.

According to the 2019 European Society of Cardiology (ESC) guidelines for the management of dyslipidaemias, patients with CKD stages G3–G4 should be treated with statins or a combination of statins and ezetimibe. Due to reduced efficacy and a less favourable impact of lipid-lowering therapy in dialysis patients, continuation of therapy should be considered for those starting renal replacement therapy, particularly in patients with previously diagnosed atherosclerotic cardiovascular disease (ASCVD). In dialysis patients without diagnosed ASCVD, initiation of statin therapy is not recommended. The lipid-lowering agents recommended in CKD are statins, ezetimibe, and proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitors. Among statins, atorvastatin is the safest option and can also be used in patients with an eGFR below 30 mL/min/1.73 m². Rosuvastatin may impair kidney function and is therefore contraindicated in patients with an eGFR below 30 mL/min/1.73 m², whereas pitavastatin may be used only at a dose of 2 mg.

PCSK9 inhibitors (alirocumab, evolocumab, and inclisiran) should be used with caution in patients with severe renal impairment. In cases of elevated plasma triglyceride levels in CKD, statins and eicosapentaenoic acid are indicated. If there is no improvement, the addition of fenofibrate may be considered. However, fenofibrate is contraindicated in individuals with an eGFR below 30 mL/min/1.73 m².

Professor Agata Bielecka-Dąbrowa, MD, PhD (Department of Cardiology and Adult Congenital Heart Diseases, Polish Mother's Memorial Hospital Research Institute in Łódź and Department of Preventive Cardiology and Lipidology, Medical University of Lodz) discussed the management of heart failure, specifically focusing on patients with CKD. In this population, implementing the full range

of recommended heart failure therapies is not always advised.

Treatment with spironolactone, eplerenone, and sacubitril with valsartan is contraindicated if eGFR is below 30 mL/min/1.73 m². Finerenone, however, may be used with an eGFR value of 25 mL/min/1.73 m². Dapagliflozin is not recommended if eGFR is below 25 mL/min/1.73 m², whereas empagliflozin is contraindicated when eGFR is below 20 mL/min/1.73 m². High oral doses of torsemide (100 mg and 200 mg) are intended for patients with an eGFR below 20 mL/min/1.73 m² or with a plasma creatinine concentration above 6 mg/dL, and treatment should be initiated at a dose of 50 mg per day.

In acute heart failure, CKD may be a factor predisposing to the development of diuretic resistance and, consequently, may lead to the need for renal replacement therapy – even in those who have not yet reached end-stage renal disease.

Renal replacement therapy in patients with acute heart failure is recommended in case of pulmonary oedema, uraemic encephalopathy, uraemic pericarditis, haemorrhagic diathesis, as well as hyperkalaemia and metabolic acidosis resistant to conservative treatment. No beneficial effect were demonstrated for low-dose dopamine or nesiritide added to diuretic therapy in acute heart failure in patients with CKD.

Professor Beata Naumnik, MD, PhD (1st Department of Nephrology and Transplantation with Dialysis Centre, University Clinical Hospital in Białystok) discussed the issue of CKD underdiagnosis. In Poland CKD affects 4.5 million individuals, and approximately 80,000 patients die prematurely each year due to renal impairment.

Because the symptoms of CKD are nonspecific or may be entirely absent, the condition is often not diagnosed until the stage 4 or 5. Since cardiovascular complications occur even at early stages of CKD, the diagnosis of impaired renal function is essential – not only to slow down the progression of kidney function decrease, but also to reduce the risk of cardiovascular complications, which remain the leading cause of death in this population.

During the lecture, it was emphasised that CKD screening, including the assessment of eGFR and the urinary albumin-to-creatinine ratio (ACR), should be performed particularly in the following high-risk groups: patients with diabetes (1 in 3 have CKD), patients with hypertension (1 in 5 have CKD), and patients with cardiovascular disease (2 in 5 have CKD). Kidney function should also be assessed in patients with a history of acute kidney injury and in those with a positive family history of CKD.

Summary

During the 29th International Congress of the Polish Cardiac Society, several sessions were dedicated to present guidelines for the management of cardiovascular complications in CKD. The recommendations for anticoagulant therapy in patients with CKD and atrial fibrillation were discussed. RAS blockade were also presented, together with protocols for managing hyperkalaemia, hypoten-

sion, or declining renal function during the therapy. The indications for initiating and continuing lipid-lowering therapy in CKD were summarised, as well as the specific challenges associated with heart failure treatment in this

patient population. Finally, the issue of CKD underdiagnosis was highlighted, as it contributes to the progression of kidney function decrease and the further development of cardiovascular complications.