



A meeting of the ESC Cardiovascular Round Table (CRT)

“Implementation of Guidelines at national level”

2 & 3 July 2025



Carminc Zoccali | The experience of the ERA (European Renal Association) on the implementation of the 2024 ESC-ESH Guidelines for the management of elevated blood pressure and hypertension



Volume 45, Issue 38

7 October 2024

Article Contents

[Table of contents](#)

[Tables of Recommendations](#)

[List of tables](#)

[List of figures](#)

JOURNAL ARTICLE

2024 ESC Guidelines for the management of elevated blood pressure and hypertension: Developed by the task force on the management of elevated blood pressure and hypertension of the European Society of Cardiology (ESC) and endorsed by the European Society of Endocrinology (ESE) and the European Stroke Organisation (ESO) FREE

[John William McEvoy](#) ✉, [Cian P McCarthy](#), [Rosa Maria Bruno](#), [Sofie Brouwers](#), [Michelle D Canavan](#), [Claudio Ceconi](#), [Ruxandra Maria Christodorescu](#), [Stella S Daskalopoulou](#), [Charles J Ferro](#), [Eva Gerdtz](#), [Henner Hanssen](#), [Julie Harris](#), [Lucas Lauder](#), [Richard J McManus](#), [Gerard J Molloy](#), [Kazem Rahimi](#), [Vera Regitz-Zagrosek](#), [Gian Paolo Rossi](#), [Else Charlotte Sandset](#), [Bart Scheenaerts](#), [Jan A Staessen](#), [Izabella Uchmanowicz](#), [Maurizio Volterrani](#), [Rhian M Touyz](#) ✉, ESC Scientific Document Group

<60 mL/min/1.73 m² and/or albuminuria of ≥30 mg/g (≥3 mg/mmol).¹⁹ For persons with mild CKD and elevated BP, a CVD risk assessment should be conducted before deciding on BP-lowering treatment.

9.7.2. Blood pressure lowering in chronic kidney disease

BP lowering in patients with CKD is associated with beneficial effect on CVD events and mortality.^{275,763–766} BP lowering reduces progression of CKD and the incidence of end-stage renal disease, but this tends to be only in those with significant proteinuria at baseline.^{766,767}

9.7.3. Managing blood pressure in chronic kidney disease

Patients with CKD should receive lifestyle advice, especially regarding reducing sodium intake. Dietary potassium supplementation recommendations are provided in Section 8, with caution required among persons with moderate-to-severe CKD. While exercise appears to have little effect on BP, it may have beneficial effects on cardiovascular risk reduction, ⁷⁶⁹ the combination against cardiovascular death, and the risk of CKD progression.

ever, ACE inhibitors appear to do so with higher probability than ARBs.^{772,773} Patients with CKD usually require combination therapy, and this should be initiated as a combination of a RAS inhibitor and a CCB or diuretic. In patients with eGFR < 30 mL/min/1.73 m², an adequately up-titrated loop diuretic is necessary to define resistant hypertension. Chlorthalidone, typically added to a loop diuretic, also effectively lowers BP and reduces microalbuminuria in patients with resistant hypertension with stage 4 CKD (eGFR of 15–30 mL/min/1.73 m²).⁷⁷⁴ The combination of an ACE inhibitor and an ARB is not recommended in CKD or any other BP-treatment scenario.

Recommendation Table 26 — Recommendations for managing hypertension in patients with chronic kidney disease

Recommendations	Class ^a	Level ^b
In patients with diabetic or non-diabetic moderate-to-severe CKD and confirmed BP ≥130/80 mmHg, lifestyle optimization and BP-lowering medication are recommended to reduce CVD risk, provided such treatment is well tolerated. ^{275,766}	I	A
In adults with moderate-to-severe CKD who are receiving BP-lowering drugs and who have eGFR >30 mL/min/1.73 m ² , it is recommended to target systolic BP to 120–129 mmHg, if tolerated. Individualized BP targets are recommended for those with lower eGFR or renal transplantation. ^{274,779}	I	A
In patients with moderate-to-severe CKD and confirmed BP ≥130/80 mmHg, treatment with an SGLT2 inhibitor is recommended to reduce CVD risk, provided such treatment is well tolerated. ^{780–782}	I	A
reducing albuminuria than other BP-lowering agents and should be considered as part of the treatment strategy for patients with hypertension and microalbuminuria or proteinuria. ^{780–782}	IIa	B

ACE, angiotensin-converting enzyme; ARB, angiotensin receptor blocker; BP, blood pressure; CKD, chronic kidney disease; eGFR, estimated glomerular filtration rate; SGLT2, sodium–glucose co-transporter 2.

^aClass of recommendation.

^bLevel of evidence.



Actions Needed for Hypertension Guidelines Implementation

Patient Identification and Risk Stratification:

Screening individuals for elevated BP and assessing cardiovascular and renal risk factors.

A SOLIDLY ESTABLISHED PRACTICE IN NEPHROLOGY

Lifestyle Modification Programs: Educating and supporting patients to reduce dietary sodium intake, increase physical activity, manage weight, and limit alcohol consumption

**REDUCING SODIUM INTAKE IS SYSTEMATICALLY APPLIED IN HYPERTENSIVE PATIENTS BY NEPHROLOGISTS.
PHYSICAL ACTIVITY AND WEIGHT LOSS ARE STILL INSUFFICIENTLY APPLIED**

Pharmacological Treatment: Initiating and adjusting antihypertensive medications [diuretics, beta-blockers, angiotensin-converting-enzyme inhibitors (ACEIs), calcium channel blockers, and angiotensin receptor blockers (ARBs)].
SGLT2 INHIBITORS, Finerenone in DKD

GENERALLY APPLIED

Monitoring and Follow-Up: Regularly monitoring blood pressure, assessing adherence to therapy, and identifying side effects or complications.

GENERALLY APPLIED

Quality Improvement and Audit: Tracking outcomes, reviewing protocols, and making adjustments to improve the effectiveness of hypertension management programs .

AUDITS STILL INSUFFICIENTLY APPLIED



Monitoring

eGFR 60-45 ml/min/1.73 m², without albuminuria (Stage 3A) 1 visit every 3-6 months

eGFR 45-30 ml/min/1.73 m², with albuminuria (Stage 3B) 1 visit every 3 months

eGFR 30-15 ml/min/1.73 m² (Stage 4) 1 visit every 1-3 months

eGFR <15 ml/min/1.73 m² (Stage 4) 1 visit every month

Changes in eGFR

A significant change in eGFR (e.g., >20% on subsequent testing) or a >30% reduction in eGFR after initiating certain therapies warrants further evaluation.

More frequent monitoring is recommended for individuals at higher risk of CKD progression, including those with diabetes, hypertension, or other comorbidities, as well as those with significant albuminuria or proteinuria.



EuReCa-M Board

The EuReCa-M Board provides strategic direction to the working group. Board members enhance the exchange of expertise and international cooperation.



José Manuel Valdivielso

Chair
Spain



Patrick Mark

Vice-Chair
United Kingdom

ERBP – European

Collaboration with the NHS for Guidelines implementation (in general)

Yes, ESC BP Guidelines were adopted, with no nephrologist-led implementation studies outside CKD.

Surveys on implementation are sparse, and there is no national coordination.

- Shanmugakumar Chinnappa**, United Kingdom
- Beatriz Fernández-Fernández**, Spain
- Fotini Iatridi**, Greece
- Evangelia Ntounousi**, Greece
- Nejc Piko**, Slovenia – YNP Observer
- Johannes Stegbauer**, Germany
- Claudia Torino**, Italy
- Amaryllis Van Craenenbroeck**, Belgium
- Liffert Vogt**, The Netherlands

Blueprint for implementing guidelines

The current implementation is fragmented, with little national coordination and few nephrologist-led studies outside of CKD.

Formation of a Multidisciplinary Implementation Task Force (with a grain of pragmatism!)

- Representatives from national cardiological societies (NCS), nephrology, endocrinology, primary care, nursing, pharmacy, and patient advocacy groups.
- Task force to oversee guideline adaptation (if any), implementation, and monitoring.

Implementation Actions

- Lifestyle modification programs, particularly reducing sodium intake and promoting physical activity.
- Pharmacological treatment protocols, with regular monitoring and follow-up.
- Promote team-based care and regular audits to ensure quality improvement

Timeline and Checkpoints

- Initial Launch:** Set up task force and define implementation framework (Month 0-2).
- Checkpoint:** Review progress, challenges, and data after 6-8 months; refine strategies as needed.
- Ongoing:** Bi-annual meetings, continuous education, and audit cycles.
- Final Aim:** Hopefully, by year 4-5, establish a harmonized, evidence-based agenda for long-term management and continuous improvement.