

Kidney Disease: Improving Global Outcomes (KDIGO): navigating a rapidly changing landscape

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Kidney Disease: Improving Global Outcomes (KDIGO) develops evidence-based clinical practice guidelines to improve care for people with kidney disease worldwide. KDIGO has produced 17 guidelines across kidney care, and 7 of these have been updated comprehensively at least once. Historically, guidelines were revised in their entirety when novel therapies or treatment paradigms emerged—a process requiring years to complete. To respond more dynamically to accelerated clinical trial results and drug approvals, KDIGO recently adopted a modular update approach for some guidelines. For example, the 2021 Glomerular Diseases Guideline is being updated chapter by chapter, with 4 chapters published since 2024. To support guideline development and promote implementation, additional KDIGO initiatives include Controversies Conferences, which convene global experts to synthesize current knowledge and identify research priorities, and implementation activities such as regional presentations and summits. The pace of scientific advances in kidney disease has never been faster, and KDIGO continues to adapt its programmatic approach to meet the need for trusted, timely guidance.

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Kidney disease is increasingly recognized as a “global killer,” affecting at least 1 in 10 people worldwide,¹ with many consequences beyond kidney failure alone. Cardiovascular disease, infection, premature mortality, and poor functional status and quality of life are all far more common among people with kidney disease compared with those without.^{2–4} Fortunately, in the past decade, the landscape of kidney disease management has undergone rapid and welcome transformation. Novel agents targeting chronic kidney disease, diabetic kidney disease, and glomerular disorders and their complications are entering clinical practice at an unmatched pace.^{5,6}

The mission of the nonprofit organization Kidney Disease: Improving Global Outcomes (KDIGO) is to improve the care and outcomes of people with kidney disease worldwide through developing global clinical practice guidelines and promoting their implementation. Based in Brussels, Belgium, the

organization relies on the efforts of volunteers in nephrology or related disciplines, patient partners, and a small team of full-time staff to realize its mission. The goal is to produce a complete library of guideline topics in nephrology that are updated as new evidence emerges. KDIGO also organizes international controversies conferences and develops a variety of implementation and educational activities.

KDIGO's volunteers are experts from all over the world, mirroring the global reach of the organization and the global burden of kidney disease. Each KDIGO activity, including guideline development, controversies conferences, and implementation initiatives, is facilitated by volunteers. Volunteers also serve in advisory roles to the KDIGO Foundation, identifying priority topics for initiatives and helping to develop strategies for addressing them.

The co-chairs of KDIGO (currently, Michel Jadoul and Morgan E. Grams) are also

volunteers, guiding organizational strategy, overseeing programs, and ensuring the quality, relevance, and clinical utility of KDIGO initiatives. Dr. Jadoul is finishing a 6-year term as KDIGO Co-Chair in 2025. He co-led KDIGO's first guideline, Prevention, Diagnosis, Evaluation, and Treatment of Hepatitis C in Chronic Kidney Disease (CKD), which was initiated in 2005.⁷ He later was co-chair of the 2018⁸ and 2022⁹ updated "Hepatitis C in CKD" guidelines. Throughout his service, he has shared KDIGO's commitment to providing the kidney community with guideline recommendations based on high-quality evidence and rigorous evaluation, and he has helped guide KDIGO through many changes within the nephrology landscape. In 2026, KDIGO will welcome Dr. Christoph Wanner (University Hospital of Würzburg, Germany) as the next co-chair, joining Dr. Grams.

Clinical practice guidelines

Evidence-based guidelines, the flagship program of KDIGO, are developed by a multidisciplinary, volunteer Work Group that includes healthcare professionals and patient partners, with diverse international representation. The process is comprehensive and methodologically rigorous, detailed in the living *Methods Manual* (https://kdigo.org/wp-content/uploads/2023/04/KDIGO-Methods-Manual-for-Guideline-Development_Updated-4-23v3.pdf), with a Methods Committee that provides ongoing guidance. Guideline development is never funded by industry, and there are strict policies on disclosure and management of competing interests among the guideline Work Groups.

Guideline recommendations are supported through systematic reviews of the evidence and informed by the Grading of Recommendations Assessment, Development and Evaluation (GRADE) framework to ensure rigor. Guideline practice points are ungraded consensus-based statements representing the expert judgment of a Work Group. Transparency in guideline development is central: both the Scope of Work and the draft guideline undergo a separate public review, with broad input before finalization. KDIGO guidelines have been primarily published in *Kidney International*, which provides global reach and visibility. Guidelines are disseminated in multiple formats, including executive

summaries, ancillary publications in other specialty or local-language journals, presentations at international and regional meetings, and full-text, open-access availability of guideline resources on the KDIGO website (<https://kdigo.org/guidelines/>). The flagship 2024 CKD Guideline¹⁰ has had more than 530,000 full-text downloads since its publication.

From start to finish, KDIGO guidelines can take years to develop, and the end product is an evidence-based foundation of recommendations and practice points that aim to improve outcomes while accommodating diverse healthcare systems and global settings (Table 1). Historically, guidelines have been updated in their entirety when novel effective therapies or treatment paradigms emerge. For example, after publication of the 2008 Hepatitis C in CKD Guideline,⁷ there were major advances in direct-acting antiviral therapy for the treatment of hepatitis C and in diagnostic testing for chronic liver disease. These changes prompted a comprehensive review and update that was published in 2018.⁸ The subsequent 2022 Hepatitis C in CKD Guideline⁹ reflected additional new evidence in several areas, including use of direct-acting antiviral regimens in patients with hepatitis C and CKD G5 or CKD G5 undergoing dialysis or kidney transplant recipients. Of the extant 17 KDIGO guidelines, 7 have been comprehensively updated at least once (Table 1).

Recently, KDIGO has developed a more dynamic modular model of guideline updates to better respond to the accelerated pace of clinical trials, drug approvals, and emerging data. Instead of complete reissuance, some guidelines receive focused chapter updates or consolidated components to reflect emerging practice-changing data or new paradigms. For example, the KDIGO 2021 Clinical Practice Guideline for the Management of Glomerular Diseases¹⁵ is being updated on a chapter-by-chapter basis, including lupus nephritis (2024),¹³ anti-neutrophilic cytoplasmic antibody-associated vasculitis (2024),¹⁴ nephrotic syndrome in children (2025),¹¹ and IgA nephropathy and IgA vasculitis (2025).¹² Decisions to initiate updates are carefully and collaboratively considered by the KDIGO Co-Chairs and Executive Committee as well as the relevant guideline Work Group Co-Chairs. Considerations include emerging evidence, any changes in treatment or diagnosis paradigms, and stakeholder perspectives.

Table 1 | Kidney Disease: Improving Global Outcomes (KDIGO) guidelines^a

Year published	Guideline
2025	Management of Autosomal Dominant Polycystic Kidney Disease (ADPKD)
2025	Management of Nephrotic Syndrome in Children ^{11,b}
2025	Management of Immunoglobulin A Nephropathy (IgAN) and Immunoglobulin A Vasculitis (IgAV) ^{12,b}
2024, 2012	Evaluation and Management of Chronic Kidney Disease ¹⁰
2024	Management of Lupus Nephritis ^{13,b}
2024	Management of Antineutrophil Cytoplasmic Antibody (ANCA)-Associated Vasculitis ^{14,b}
2022, 2018, 2008	Prevention, Diagnosis, Evaluation, and Treatment of Hepatitis C in Chronic Kidney Disease ^{7–9}
2022, 2020	Management of Diabetes in Chronic Kidney Disease
2021, 2012	Management of Glomerular Diseases ¹⁵
2021, 2013	Management of Blood Pressure in Chronic Kidney Disease
2020	Evaluation and Management of Candidates for Kidney Transplantation
2017, 2009	Diagnosis, Evaluation, Prevention, and Treatment of Chronic Kidney Disease–Mineral and Bone Disorder (CKD-MBD)
2017	Evaluation and Care of Living Kidney Donors
2013	Lipid Management in Chronic Kidney Disease
2026, 2012	Anemia in Chronic Kidney Disease ¹⁶
2012	Acute Kidney Injury (AKI) ^c
2009	Care of Kidney Transplant Recipients ^d

^aAll current guidelines can be viewed and downloaded at <https://kdigo.org/guidelines/>.

^bPrevious chapter within the Management of Glomerular Diseases 2012 and 2021 guidelines.

^cAn update encompassing AKI and acute kidney disease is in progress.

^dUpdate is planned.

Controversies Conferences

Although guidelines are the primary focus of the KDIGO Foundation, Controversies Conferences are a complementary activity addressing significant, emerging, and unresolved topics in nephrology and related disciplines (Table 2). These conferences convene up to 80 global invited experts—including healthcare providers, researchers, and patient partners—to discuss, debate, and define what is known and, more importantly, what remains uncertain on a specific topic. Unlike guideline Work Groups, attendees are not tasked with developing recommendations or practice points to guide clinical care. Instead, the outcome of each conference is a set of observations that synthesize current knowledge, identify evidence gaps, and highlight research and policy priorities. The topics discussed at Controversies Conferences frequently focus on rapidly moving fields, or topics of current major interest, as illustrated by the three 2025 conferences, which included Green Dialysis, Therapies Targeting B Cells in Immune-Mediated Kidney Diseases, and Technological Advancements to Support Guideline-Informed Care. Controversies Conferences can help delineate the type of information needed for developing guideline recommendations or prompting updates, and

they can be used to support grant applications by describing areas requiring additional research. Conference reports are published in a peer-reviewed journal, typically *Kidney International*, and freely available. For example, as of November 2025, the 2022 Controversies Conferences on Improving Quality of CKD Care¹⁷ had more than 12,000 full-text downloads, Novel Anemia Therapies¹⁸ had nearly 28,000 downloads, and the Role of Complement in Kidney Disease¹⁹ had more than 28,000.

Implementation and education

To improve care, guideline recommendations must be implemented in clinical settings. KDIGO develops freely available implementation tools—such as guideline digests, slide sets, infographics, webinars, podcasts, interviews of experts, and regional implementation summits—to support clinicians in translating recommendations into action (<https://kdigo.org/>). A new initiative launched in 2025, KDIGO GEMs (Guideline Education Meetings), provides free virtual education on the latest KDIGO guidelines and evidence-based updates. The first KDIGO GEMs focused on lupus nephritis, antineutrophil cytoplasmic antibody-associated vasculitis, IgA nephropathy, and complement-mediated kidney disease.

Table 2 | Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conferences^a

Year	Conference topics
2025	Technological Advancements to Support Guideline-Informed Care Therapies Targeting B Cells in Immune-Mediated Kidney Diseases Green Dialysis: Environmentally Sustainable Care, Growth, and Innovation
2024	The Relationship Between Obesity and Chronic Kidney Disease: Pathophysiology, Prognosis, and Management APOL1 Kidney Disease Kidney Disease and Heart Failure: Recent Advances and Current Challenges
2023	Preventing Chronic Kidney Disease and Maintaining Kidney Health Chronic Kidney Disease–Mineral and Bone Disorder (CKD-MBD): Progress and Knowledge Gaps Towards Personalizing CKD-MBD Care Women and Kidney Health
2022	Role of Complement in Kidney Disease Symptom-Based Complications in Dialysis Improving Quality of Chronic Kidney Disease Care: Trends and Perspectives Challenges in Management of the Kidney Allograft: From Decline to Failure
2021	Home Dialysis Genetics in Chronic Kidney Disease Novel Anemia Therapies in Chronic Kidney Disease
2020	Central and Peripheral Arterial Diseases in Chronic Kidney Disease Harmonizing Acute and Chronic Kidney Disease Definition and Classification
2019	Optimal Anemia Management in Chronic Kidney Disease Early Identification and Intervention in Chronic Kidney Disease Acute Kidney Injury Blood Pressure and Volume Management in Dialysis
2018	Onco-Nephrology Potassium Management Coronary Artery and Valvular Diseases in Chronic Kidney Disease Dialysis Initiation, Modality Choice and Prescription
2017	Glomerular Diseases Blood Pressure in Chronic Kidney Disease Heart Failure in Chronic Kidney Disease HIV-Related Kidney Diseases
2016	Prognosis and Optimal Management of Patients with Advanced Chronic Kidney Disease Chronic Kidney Disease and Arrhythmias Challenges in the Conduct of Clinical Trials in Nephrology Common Elements in Uncommon Kidney Diseases Gitelman Syndrome
2015	Complement-Mediated Kidney Diseases Diagnosis and Management of Patients with Fabry Nephropathy Understanding Needs in Low- and Middle-Income Countries (LMICs) Management of Patients with Diabetes and Chronic Kidney Disease
2014	Nephropathic Cystinosis Autosomal Dominant Tubulointerstitial Kidney Disease (ADTKD) Iron Management in Chronic Kidney Disease Autosomal Dominant Polycystic Kidney Disease (ADPKD)
2013	Chronic Kidney Disease – Mineral and Bone Disorders (CKD-MBD) Supportive Care in Chronic Kidney Disease
2012	Diabetic Kidney Disease
2011	Novel Techniques and Innovation in Blood Purification
2010	Cardiovascular Disease in Chronic Kidney Disease
2010	Drug Prescribing in Chronic Kidney Disease: Initiative for Improved Dosing
2009	Definition, Classification, and Prognosis in Chronic Kidney Disease
2009	Blood Pressure in Chronic Kidney Disease — Stage G5D
2007	Clinical Practice Guidelines: Methodology and Transparency Coordination of Clinical Practice Guidelines for Anemia in Chronic Kidney Disease
2006	Chronic Kidney Disease as a Global Public Health Problem: Approaches and Initiatives Care of the Transplant Recipient
2005	Definition, Evaluation and Classification of Renal Osteodystrophy
2004	Definition and Classification of Chronic Kidney Disease in Adults Worldwide

^aInformation about Controversies Conferences (including upcoming conferences and prior conference plenary presentations and published reports) can be found at <https://kdigo.org/conferences/>.

Additional educational efforts occur through presentations at scientific meetings and congresses. KDIGO volunteers deliver many international, regional, and national talks per year detailing current evidence and recommendations. KDIGO also has multiple memoranda of understanding with international and regional societies, and these partnerships facilitate the integration of KDIGO guidelines into local practice, education, and policy development, often with translation into local languages, while respecting regional resource availability and existing practice. To engage nephrology's next generation, KDIGO recently launched an Early Career Professionals mentoring program and a Methods Committee fellowship. Finally, editorials and perspectives pieces are sometimes published by guideline Co-Chairs or Work Group members to discuss implications of novel data or therapies in the context of existing guideline recommendations.

Building consensus

KDIGO aims to foster global collaboration to improve kidney care. For example, KDIGO led a Consensus Conference on nomenclature, aiming to clarify and harmonize kidney-relevant terminology that is accessible to the broader community, including patients. Similarly, KDIGO actively partners with scientific societies within and outside of nephrology to align guidance. Examples include a consensus report copublished with the American Diabetes Association on managing CKD in people with diabetes and guidance on the optimal measurement of blood pressure, which was copublished with 13 prominent cardiovascular organizations.

Summary

Through guidelines, conferences, education tools, and global partnerships with scientific societies, and bolstered by strong volunteer commitment, KDIGO promotes evidence-based care. With rapid scientific advances, the need for trusted, timely, and globally relevant guidance in kidney disease has never been greater.

Thus, KDIGO has accelerated its programmatic approach while maintaining its commitment to rigor, transparency, equity, and better outcomes for patients worldwide.

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REFERENCES

1. Ferro CJ, Wanner C, Luyckx V, et al. ABCDE to identify and prevent chronic kidney disease: a call to action. *Nephrol Dial Transplant*. 2025;40:1786–1798.
2. Aune D, Sun X, Nie J, et al. Self-reported chronic kidney disease and the risk of all-cause and cause-specific mortality: outcome-wide association study of 54 causes of death in the National Health Interview Survey. *BMC Nephrol*. 2022;23:165.
3. Grams ME, Coresh J, Matsushita K, et al. Estimated glomerular filtration rate, albuminuria, and adverse outcomes: an individual-participant data meta-analysis. *JAMA*. 2023;330:1266–1277.
4. Mehrotra R, Davison SN, Farrington K, et al. Managing the symptom burden associated with maintenance dialysis: conclusions from a Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conference. *Kidney Int*. 2023;104:441–454.
5. Jadoul M, Rossing P. The era of combination of nephroprotective agents in CKD is there. *Nephrol Dial Transplant*. 2025;40:i1–i2.
6. Tarun T, Ghanta SN, Ong V, et al. Updates on new therapies for patients with CKD. *Kidney Int Rep*. 2024;9:16–28.
7. Kidney Disease: Improving Global Outcomes (KDIGO). KDIGO clinical practice guidelines for the prevention, diagnosis, evaluation, and treatment of hepatitis C in chronic kidney disease. *Kidney Int Suppl*. 2008;109:S1–S99.
8. Kidney Disease: Improving Global Outcomes (KDIGO) Hepatitis C Work Group. KDIGO 2018 Clinical Practice Guideline for the Prevention, Diagnosis, Evaluation, and Treatment of Hepatitis C in Chronic Kidney Disease. *Kidney Int Suppl* (2011). 2018;8:91–165.
9. Kidney Disease: Improving Global Outcomes (KDIGO) Hepatitis C Work Group. KDIGO 2022 Clinical Practice Guideline for the Prevention, Diagnosis, Evaluation, and Treatment of Hepatitis C in Chronic Kidney Disease. *Kidney Int*. 2022;102(6S):S129–S205.
10. Kidney Disease: Improving Global Outcomes (KDIGO) CKD Work Group. KDIGO 2024 Clinical Practice Guideline for the Evaluation and Management of

- Chronic Kidney Disease. *Kidney Int.* 2024;105(4S):S117–S314.
11. Kidney Disease: Improving Global Outcomes (KDIGO) Nephrotic Syndrome In Children Work Group. KDIGO 2025 Clinical Practice Guideline for the Management of Nephrotic Syndrome in Children. *Kidney Int.* 2025;107(5S):S241–S289.
 12. Kidney Disease: Improving Global Outcomes (KDIGO) IgAN and IgAV Work Group. KDIGO 2025 Clinical Practice Guideline for the Management of Immunoglobulin A Nephropathy (IgAN) and Immunoglobulin A Vasculitis (IgAV). *Kidney Int.* 2025;108(4S):S1–S71.
 13. Kidney Disease: Improving Global Outcomes (KDIGO) Lupus Nephritis Work Group. KDIGO 2024 Clinical Practice Guideline for the Management of Lupus Nephritis. *Kidney Int.* 2024;105(1S):S1–S69.
 14. Kidney Disease: Improving Global Outcomes (KDIGO) ANCA Vasculitis Work Group. KDIGO 2024 Clinical Practice Guideline for the Management of Antineutrophil Cytoplasmic Antibody (ANCA)-Associated Vasculitis. *Kidney Int.* 2024;105(3S):S71–S116.
 15. Kidney Disease: Improving Global Outcomes (KDIGO) Glomerular Diseases Work Group. KDIGO 2021 Clinical Practice Guideline for the Management of Glomerular Diseases. *Kidney Int.* 2021;100(4S):S1–S276.
 16. Kidney Disease: Improving Global Outcomes (KDIGO) Anemia Work Group. KDIGO 2026 Clinical Practice Guideline for the Management of Anemia in Chronic Kidney Disease (CKD). *Kidney Int.* 2026;109(1S):S1–S99.
 17. Eckardt KU, Delgado C, Heerspink HJL, et al. Trends and perspectives for improving quality of chronic kidney disease care: conclusions from a Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conference. *Kidney Int.* 2023;104:888–903.
 18. Ku E, Del Vecchio L, Eckardt KU, et al. Novel anemia therapies in chronic kidney disease: conclusions from a Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conference. *Kidney Int.* 2023;104:655–680.
 19. Vivarelli M, Barratt J, Beck LH Jr, et al. The role of complement in kidney disease: conclusions from a Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conference. *Kidney Int.* 2024; 106:369–391.