The ASN AKINow Initiative: Defining Excellence in the Care and Prevention of Patients with Acute Kidney Injury

By Samir M. Parikh with Michael Heung, Sherry Mansour, Sanjeev Kumar, Anitha Vijayan, Erin Barreto, Jay Koyner, and Bonnie Freshly on behalf of the AKINow Initiative

AKINow was created in the spring of 2019 to address the rising incidence of acute kidney injury (AKI), which is estimated to affect more than 1.3 million hospitalized people every year around the world (1). AKI survivors have a higher risk of death, rehospitalization, recurrent AKI, chronic kidney disease (CKD), and lower quality of life than patients discharged from the hospital without an AKI diagnosis (2). The mission of AKINow is “to promote excellence in the prevention and treatment of [AKI] by building a foundational program that transforms the delivery of AKI care, reduces morbidity and mortality, and improves long-term outcomes.”

Over the past year, AKINow's workgroups have approached this mission through the development of novel educational content and platforms, outreach to the kidney community and engagement with patient advocates, and dissemination of best practice information to both clinicians and individuals affected by AKI.

- The Public Awareness and Education Workgroup has completed a scoping literature review, which revealed a dearth of information regarding education for patients who have experienced and AKI. Subsequently, the workgroup hosted a focus group session with diverse AKI stakeholders, including patients in May 2023, to identify barriers to AKI education for both patients and practitioners. Areas for improvement that emerged from these discussions included communication among practitioners, better information for patients about the kidneys, clarity on whether a patient is being discharged with an AKI versus an end stage kidney disease diagnosis, and improved information at discharge to facilitate the transition to outpatient care for individuals who are affected. In 2024, along with developing new educational material to address these unmet needs, this workgroup will pursue relationships with non-nephrology societies to increase awareness of AKI.

- The Basic Science: AKI-Specific Early Interventions Workgroup is pursuing methods to promote collaborative and inclusive discovery research that translates more effectively to patients. In 2023, the workgroup launched a virtually hosted AKINow Journal Club to foster discussion in the community on emerging, high-impact research. The first Journal Club presented a manuscript, published in *The Journal of Clinical Investigation* (3), on new mechanisms of AKI-to-CKD transitions, and the second discussed a randomized clinical trial of electronic health record alerts to improve AKI prevention and outcomes, published in *Nature Communications* (4). Recordings of the first two Journal Club events are available on the AKINow website (https://epc.asn-online.org/projects/akino/). The workgroup is also developing a proposal for a new curriculum to lower entry barriers for researchers interested in the application of data science to AKI. This unique program would include the basics of conducting research studies, introduce learners to freely available statistical software, and assist participants in performing their own statistical coding. The program will focus on recruiting students from minority groups and community hospitals who are less likely to have access to the tools needed to conduct research.

- The AKI Recovery Workgroup aims to identify challenges and opportunities to improve post-AKI recovery care. In 2023, the workgroup launched a virtually hosted AKINow Journal Club to foster discussion in the community on emerging, high-impact research. The first Journal Club presented a manuscript, published in *The Journal of Clinical Investigation* (3), on new mechanisms of AKI-to-CKD transitions, and the second discussed a randomized clinical trial of electronic health record alerts to improve AKI prevention and outcomes, published in *Nature Communications* (4). Recordings of the first two Journal Club events are available on the AKINow website (https://epc.asn-online.org/projects/akino/). The workgroup is also developing a proposal for a new curriculum to lower entry barriers for researchers interested in the application of data science to AKI. This unique program would include the basics of conducting research studies, introduce learners to freely available statistical software, and assist participants in performing their own statistical coding. The program will focus on recruiting students from minority groups and community hospitals who are less likely to have access to the tools needed to conduct research.

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AKI is common, serious, under-recognized, and strongly associated with increased risk of adverse outcomes. Early recognition is essential. Therapies to prevent or treat AKI are sorely needed. Post-AKI recovery care is essential to improve long-term outcomes for patients with AKI. AKINow is working to develop ways to use electronic health data to predict, prevent, and mitigate the impact of AKI in hospitalized patients. This workgroup has evolved, via the ASN’s Task Force on Augmented Intelligence and Digital Health recommendation, which focuses on coordinating activities across many of ASN’s interest areas beyond AKI to accelerate the integration of digital health into the care of patients with kidney diseases. Prior to establishing ASN’s Task Force on Augmented Intelligence and Digital Health, the AKINow AI Workgroup organized several webinars with leaders in the field (from nephrology and beyond) on the basic concepts of augmented intelligence and clinical decision support. These educational offerings can be found on the AKINow website. The workgroup anticipates continuing its support of the larger nephrology community in this area of AI and AKI.

AKINow Workgroup members

Chair: Samir M. Parikh, MD, FASN

Public Awareness and Education Workgroup: Michael Heung, MD, MS, FASN – Chair; Linda Awolehu, PharmD, FASN; Rajit K. Basu, MD, MS, FCCM; Jorge Cortí, MD, MS, FASN; Patricia Kao, MD, MS, MHPE; Maia Levy; Andrew Lewington, BSc (Hons), MBBS, MEd, MRCGP; Kathleen Liu, MD, PhD, FASN; Rhonda Moore; Daniel Murphy, MD, MS; Marlies Ostermann, MD, PhD; Ashita Tolwani, MD, MS; and Aarthi Vijaykumar, MD, FASN

Basic Science Workgroup: Sanjeev Kumar, MD, PhD – Co-Chair; Sherry Mansour, MD, MS – Co-Chair; Anupam Agarwal, MD, FASN; Amandeep Bajwa, PhD; Leslie Gewin, MD; Mark D. Okusa, MD, FASN; Laura Orucruic, MD; and Samir M. Parikh, MD, FASN

Recovery Workgroup: Erin Barreto, PharmD, MS, FASN – Co-Chair; Anitha Vijayan, MD, FASN; AKINow – Co-Chair; Emaad Abdel-Rahman, MD, PhD, FASN; Leslie Gewin, MD; Diana Kwong, MD; Ian McCoy, MD, FASN; Javier A. Neyra, MD, FASN; Jia Ng, MD; and Samuel Silver, MD, MS, FASN

AI Workgroup: Jay Koyner, MD – Chair; Stuart Goldstein, MD, FASN; Kiansoush Khubani, MD, MS, FASN; Mei Liu, PhD; Shina Menon, MD; Girish Nadkarni, MD, MPH; Javier Neyra, MD, MS, FASN; Neesh Pannu, MD; MS; Karandeep Singh, MD, MMSc; and Danielle Soranno, MD

References


