New recommendations from the ASN Task Force on the Future of Nephrology emphasize 2 years of competency-focused training with individualized training in both the second 12 months of fellowship as well as a third year for specialized careers. ASN established the task force in April 2022 in response to requests from the American Board of Internal Medicine (ABIM) and the Accreditation Council for Graduate Medical Education (ACGME) to update nephrology training requirements. The team created five nephrology fellowship-specific recommendations emphasizing competency-based and individualized training and five more general recommendations focusing on topics ranging from improving fellow wellness to combating health inequity. The task force submitted its recommendation to ABIM and ACGME on November 11 and published the report (1) to engage the ASN community on the next step of implementation.

“It is going to take many years to work through the details of this plan,” said Task Force Chair Mark Rosenberg, MD, professor of medicine in the Division of Nephrology and Hypertension at the University of Minnesota in Minneapolis, during a session at Kidney Week 2022 introducing the recommendations. “This is a real opportunity to engage our community and [its] expertise in trying to define these levels of competency.”

Competency-based

The fellowship-specific recommendations call for nephrology to adopt a competency-based training model like that of the American College of Cardiology’s Core Cardiology Training Symposium.

The first recommendation focuses on establishing three levels of competency. The first level of competency would focus on core skills, values, attitudes, and knowledge that every nephrologist needs, similar to the first 12 months of current fellowship training. The second level would focus on experience with advanced procedures and patient care. Fellows could achieve the first two competency levels in a standard 2-year fellowship program. More individualized training to meet fellows’ individual career goals could begin in the second year and potentially stretch into an optional third year. For example, a third-year program may focus on kidney transplant or nephrology procedures, Rosenberg explained.

The second recommendation calls for fellowship pro-
Reimagined Nephrology Fellowship Recommendations

Continued from cover

programs to create more individualized pathways to meet individual career goals. Programs could offer specialized training in subspecialties, such as kidney disease prevention, hypertension management, onconephrology, or palliative care. Programs might also include training in business leadership, medical education, or research. “This recommendation will provide an opportunity for fellowship programs to distinguish themselves and to market themselves as procedurally competent. “The train has left the station already in terms of many fellows do not feel forced into an ethical conundrum of certifying fellows in Medicine and chief of the Division of Nephrology at Washington University School of Medicine in St. Louis, MO, that he initially was against the change. However, he was swayed by learning that many program directors felt forced into an ethical conundrum of certifying fellows as procedurally competent when many fellows do not feel competent.  “The train has left the station already in terms of the reality of our workforce,” Humphreys said. Patricia Carter, another primary consideration, said task force member Sunee Udani, MD, consulting physician at Nephrology Associates of Northern Illinois and (UACR) at baseline had a 73% decrease with coaching compared with a 21% increase among those without coaching.

Patients with diabetes also saw greater benefits from coaching. “Future dietary interventions that incorporate coaching or health education along with healthy food provision may better address kidney health inequities,” Crews said. Asked by attendee Don Wasson, MD, MBA, professor of medicine at Texas A&M College of Medicine in Dallas, how sustainable the intervention was, Crews responded that he was unaware if systems or the supplemental food assistance program might implement the approach to help patients with hypertension and CKD who are food insecure.

Kidney-safe care

Results from the Better Evidence for Selecting Transplant Fluids (BEST-Fluids) trial (2) suggest that a balanced low-chloride crystalloid solution, called Plasma-Lyte 148, may be a better alternative to saline during a kidney transplant. The trial randomized approximately 800 patients undergoing transplant to either saline or Plasma-Lyte 148 intravenous (IV) fluids during and after transplant surgery. Approximately 39% of patients in the saline group needed dialysis after surgery compared with only 30% in the Plasma-Lyte 148 group. The trial’s co-principal investigator Michael Collins, MBChB, PhD, a senior consultant nephrologist at the Royal Adelaide Hospital, Australia, presented the results and said the number needed to treat with Plasma-Lyte 148 and said the number needed to treat with Plasma-Lyte 148 and said the number needed to treat with Plasma-Lyte 148 and said the number needed to treat with Plasma-Lyte 148 and said the number needed to treat with Plasma-Lyte 148 and said the number needed to treat with Plasma-Lyte 148 and said the number needed to treat with Plasma-Lyte 148 and said the number needed to treat with Plasma-Lyte 148 and said the number needed to treat with Plasma-Lyte 148 and said the number needed to treat with Plasma-Lyte 148 and said the number needed to treat with Plasma-Lyte 148 and said the number needed to treat with Plasma-Lyte 148 and said the number needed to treat with Plasma-Lyte 148 and said the number needed to treat with Plasma-Lyte 148.
in the Division of Nephrology at Stanford University, CA, agreed that this would be an easy switch. However, he raised concerns about why the study saw an immediate benefit in the patient’s body temperature or standard temperature dialysate group, a statistically insignificant difference. More patients in the cold dialysate group reported feeling uncomfortably cold, with approximately one-quarter rating it as the worst possible feeling.

“A lack of cardiovascular benefit compounded by the likelihood of patient discomfort provides no justification to adopt cooler dialysate as a center-wide policy,” said Amit Garg, MD, PhD, professor in the Division of Nephrology at Western University and scientist at the Lawson Health Research Institute, both in Ontario, during his presentation. “If I do prescribe cooler dialysate for certain patients, such as those with refractory interstitial hypertention, I plan to do so more carefully and monitor how well it’s tolerated.”

During the question-and-answer session, Maarten Taal, MBChB, MMed, MD, professor of medicine at the University of Nottingham in the United Kingdom, noted the study might be the largest to date in patients undergoing dialysis. However, Taal questioned why the team chose 36.5°C when many dialysis units and most previous clinical trials of cold dialysate used 37°C as the standard temperature. Garg said that 36.5°C is standard in Ontario.

“The separation between our two groups is perhaps smaller than other previous trials,” Garg said, and although he did not refute the results of previous trials that suggested a benefit of cold dialysate, he cautioned that 26 previous trials included 460 patients.

“We have to be quite cautious about our confidence in the previous results,” Garg added.

Targeting IgA nephropathy

There is a desperate need for new therapies to reduce glomerular inflammation and kidney fibrosis in patients with IgA nephropathy, said Jonathan Barratt, PhD, the Mayer Professor of Renal Medicine at the University of Leicester in the United Kingdom. Currently, the standard of care is goal-directed, supportive therapy, but he said that many patients still experience glomerular inflammation and progressive kidney function decline.

Barratt presented the results of a phase 2 study (7) of an investigational therapy called cemdisiran. The drug is an RNA interference therapy that suppresses the production of complement component 5 in the liver. Barratt explained that complement activation is linked with glomerular inflammation and loss of kidney function.

He and colleagues randomized 31 patients with IgA nephropathy at high risk of kidney disease progression despite supportive care in a 2:1 ratio to receive 600 mg of cemdisiran subcutaneously or a placebo once every 4 weeks in addition to standard care. Patients in the cemdisiran group had a 37.4% adjusted geometric mean reduction in a 24-hour urine protein-to-creatinine ratio compared with the placebo group, suggesting reduced kidney damage. The cemdisiran group also had an average reduction of 98.7% in serum levels of complement component 5 between the start of the trial and week 32. The researchers will continue to follow the patients for a 156-week open-label extension.

“This novel RNA interfering therapy cemdisiran is capable of reducing the production of C5 in the liver,” Barratt said. So far, he noted, that is translating into reductions of hematuria and proteinuria, but he cautioned that larger and longer studies are necessary.

Additional trials

Other high-impact trials presented at Kidney Week 2022 followed the:

- The hydrochloric acid binder veverimer did not slow CKD progression or improve physical function in patients with metabolic acidosis in the phase 3 VALOR-CKD trial (8), which enrolled 1,480 patients at 191 sites in 34 countries (abstract FR-OR65, 2022).
- In the 6609-patient EMPA-KIDNEY trial, 10 mg of the sodium glucose co-transporter-2 (SGLT2) inhibitor empagliflozin daily reduced kidney disease progression or cardiovascular death in patients with kidney diseases, with or without diabetes, by 28% compared with placebo (abstract FR-OR60, 2022) (9).
- A meta-analysis of data from 13 SGLT2 inhibitor clinical trials found a 40% reduction in kidney disease progression and approximately one-quarter reduction in AKI with similar benefits for patients with CKD, with and without diabetes. Patients with diabetes did have approximately one event of ketoacidosis or lower-limb amputation per 1000 patient-years compared with none in the non-diabetic group, but presenter Natalie Staplin, associate professor and senior statistician in the Renal Studies Group at the University of Oxford, United Kingdom, concluded that the absolute benefits outweighed the risks (abstract FR-OR69, 2022) (10).

A phase 2 study that randomized 140 patients with type 2 diabetes and CKD to situximab or placebo for 12 weeks found an average 21% reduction in the UACR in the intervention group versus a 2.5% UACR reduction in the placebo group. A larger benefit was seen in patients with very low kidney function (abstract FR-OR62, 2022) (11).

References


