

Creating Future Pediatric Nephrologists: *Progress and Challenges Ahead*

By Victoria Norwood



Training future pediatric nephrologists

In contrast to our internal medicine colleagues, pediatric nephrology fellowship is mandated to be three years in length. Although there are variations among the 38 current ACGME-accredited programs, most fellows spend approximately one year heavily devoted to clinical training and two years dedicated to research or other scholarly activities. This focus on academic pursuits is driven by the fact that pediatric nephrology practice is almost exclusively performed in academic medical centers or children's hospitals in which teaching and research are expected roles.

Recently, the Training and Certification Committee of the American Society of Pediatric Nephrology (ASPN) has been working with the American Board of Pediatrics to track the progress and outcomes of subspecialty trainees in order to assist and address concerns about future pediatric nephrology workforce needs. Current data suggest that approximately 3.7 percent of all pediatric subspecialists are nephrologists (approximately 650 individuals). Unfortunately, the actual efforts and practice patterns of these physicians is not known. Likewise, the number of children with renal disease in the United States is

pediatric nephrology has seen an increase of approximately 100 percent in fellows in training from 1998 to 2008, while internal medicine nephrology trainees have increased by 25 percent. In contrast, the number of internal medicine training programs has grown from 129 in 1998 to 139 currently, but the number of pediatric nephrology training programs has been essentially unchanged since 2001.

A significant concern to pediatric nephrology training program directors is attrition throughout and immediately following training. On the whole, only about 55 percent of first-year trainees complete the board certification process. Fellows appear to be dropping out at all phases of the process, but the reasons are largely unknown. The program directors group of the ASPN, headed by Dr. John Mahan, and pFENa (Pediatric Fellows in Nephrology Association) are working together to begin to assess this important concern.

Changing makeup of pediatric workforce

The changing distribution of American medical graduates and international medical graduates in training for pediatric nephrology and internal medicine is a trend worth watching (see article on IMG workforce, p. 13). About

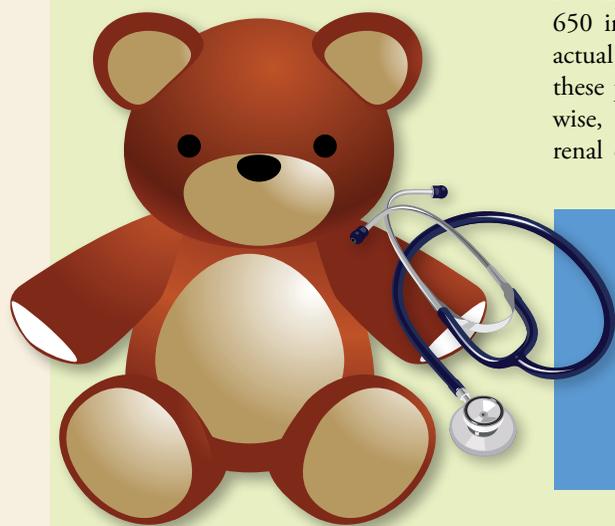
As a whole, pediatric medicine has also seen a shift in its overall workforce to include significantly more female trainees over the past decade. In 1998, women made up approximately 50 percent of the pediatric subspecialty workforce. Pediatric subspecialties now average approximately 60 percent female. Pediatric nephrology is even higher, at approximately 66 percent female. Clearly, the issues of workload, cultural diversity, and work-life balance will become increasingly important to maintaining an effective workforce for the future.

Another issue of importance to the pediatric nephrology workforce is the aging of our current practitioners. The average age of pediatric nephrologists is currently more than 55 years, significantly older than the average age of all other pediatric subspecialists. Importantly, approximately 40 percent of our workforce will turn 65 within the next 10 years, and fewer than 25 percent of nephrologists are less than age 45.

Pediatric nephrology remains a competitive force in the generation of academic pediatric specialists, but we must improve our training outcomes as measured by board certification in order to significantly enhance our workforce potential. Changes in residency education, duty hour restrictions, trainee expectations, and

The work lives of most pediatric nephrologists differ significantly from those of our internal medicine colleagues in all aspects of the career pathway. Changing patient and trainee demographics and expectations have spurred a renewed interest in evaluation of our current training processes with an eye toward the future.

Pediatric nephrology patient volumes are increasing. Improved survival of children with a wide variety of congenital or acquired diseases



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that were routinely fatal in the past is contributing to a higher number of patients with CKD associated with other complex medical needs. At the other end of the spectrum, the nation's obesity crisis is dramatically increasing the incidence of hypertension in the pediatric age range. And many general practice pediatricians have less time to manage children with chronic disease of any form, driving larger numbers of patients with relatively mild disease into ongoing follow-up with pediatric specialists.

not known, making workforce predictions exceedingly complex.

Nephrology has, however, enjoyed an overall increase in the number of trainees entering training over the past several years and is currently at an all-time high of more than 50 incoming fellows yearly with 128 total fellows in training in the 2008–09 year. Nephrology is keeping pace with our sister pediatric subspecialties regarding the increase in trainees but is not gaining ground.

Compared with internal medicine,

half of the current cohort of pediatric nephrology trainees are American medical graduates, and the other half international medical graduates. In 1998, approximately two-thirds of trainees had international medical school backgrounds. In contrast, internal medicine is currently approximately 45 percent American medical graduates, a number that has declined steadily from a recent high of 57 percent back in 2002, according to data provided by Drs. Mark Rosenberg and Donald Kohut.

societal pressures will all impact the outcome. The ASPN, the American Board of Pediatrics, and the ACGME will continue to work together to provide the best training in order to maximize the care of children with renal disease now and in the future. ●

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