Grim projections for American nephrologists

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Judging from record attendance of 8500, the highest number of abstracts (3500, a 7% increase), ever submitted, expansion in the number of overseas participants, exhibitors, and ‘Hospitality Suites,’ the American Society of Nephrology’s (ASN) November 1996 meeting projected the specialty’s robust health. ASN President William Couser announced that: ‘This year’s program is the strongest scientific program we have ever had.’

Beneath this celebratory surface veneer, however, both academic and clinical nephrologists expressed guarded if not fearful view of their future. While reflecting on why my mood was that of apprehension, I communicated my perception of a growing number of clinical nephrologists’ near psychotic anxiety over the sense of impending doom gripping directors of training programs. This foreboding continues, permeating the 1996 meeting of nephrology training program directors who prepared to cope with a series of stresses including:

1. American medical graduates now comprise only 39% of trainees in approved US renal fellowship programs. Nephrology in competition with other internal medicine subspecialties for medical residents is viewed as unattractive. The exact components of renal medicine that prove unappealing are debated. One hypothesis is that the myriad complications of hospitalized dialysis patients make for a housestaff exposure that portrays few victories in rehabilitation amidst long hours of bolstering deteriorating bodies and psyches. Lacking contact with ambulatory outpatients requiring few hospitalizations, the medical resident gains a distorted picture of what nephrologists do. As a consequence, each year for the past decade, the proportion of US graduates appointed to fellowship has decreased.

2. Analysis of how nephrologists partition their time shows only approximately 10% devoted to research. Wadi Suki chaired a group comprising practicing and academic nephrologists that surveyed nephrologists nationally to determine how their time was allocated in practice, administrative, teaching, and research activities. Based on a sample of about 8% of American nephrologists, the major portion of a nephrologist’s time is expended in direct patient care of kidney patients. Investigation is a minor component of the nephrologist’s day amounting to less than 10%.

3. Managed care is encroaching on both the income and joy derived from medical practice. Admittedly not a problem unique to nephrologists, as the proportion of Americans obtaining medical care through a predefined (managed) health plan has grown, physician’s freedom to assign treatment options is increasingly curtailed. Cost of therapy overrides benefit to the patient as the principal determinant of approval by so-called health maintenance organizations (HMO). Some oppressive (HMO) contracts forbid doctors from telling their patients about unapproved expensive alternative treatments such as bone marrow or liver transplantation. In application, this trend means that large corporate health plans compete for services (kidney transplants, cholecystectomies) awarding contracts to the low bidder. Imposition of nonphysician ‘gatekeepers’ to ‘approve’ referral to nephrologists translates into retention of patients who would best be handled by nephrologists by primary care physicians. In several regions of the US, anesthesiologists and other specialists income has decreased by 10–20% due to managed care.

4. Competition by other specialists impinges on nephrology practice. Whether by intensivists delivering continuous dialysis in intensive care units or radiologists performing kidney biopsies, nephrologists are under assault by other specialists disputing the uniqueness of renal medicine. Indeed, the need for nephrologists to manage renal insufficiency or dialytic therapy is now being challenged by primary care physicians. To respond to this contest of authority and turf, Couser implored: ‘Every patient with renal disease and certainly every patient with renal failure has to be under the care of a nephrologist.’

5. Proposed congressional legislation will limit postgraduate training positions to 110% of the size of medical
school graduating classes. If enacted, the loss of fellowship support will further strain nephrology training programs. Limitation of visas for overseas applicants for provision of routine medical services. New York, Chicago, Miami, Detroit, and Los Angeles are among US cities where loss of overseas graduates will devastate present algorithms for health care delivery.

6. **By any projection criteria, a shortage of nephrologists will be critical by the year 2000.** Approximately 275 fellows complete their training annually. Assuming a reduced mortality rate of ESRD patients (now about 22% annually), and a decrease in the rate of growth of ESRD patients (presently about 8% annually), a minimum of 400 new nephrologists will be required to maintain the current nephrologist to dialysis patient ratio at the turn of the century. Nephrologists are thus, while decreasing, bound to an expanding population of patients. But the reality is that too few applicants now apply for available nephrology fellowship positions. Underscoring this point is the fact that one half of National Institute of Health research fellowships in nephrology were unawarded in 1995–1996 because of a lack of qualified aspirants.

### Nephrology now proactive

To cope with these near-term threats to nephrology as we now know it, ASN has become proactive. A Council made up of the Presidents of America’s five main kidney societies has been established: ASN, National Kidney Foundation, American Society of Transplant Physicians, Renal Physicians Association, American Society of Pediatric Nephrologists. By speaking with a unified voice, an undivided kidney lobby should be more effective in making legislators cognizant of the difference between training and research needs in nephrology and other oversupplied medical subspecialties such as gastroenterology. Each ASN member has been asked to participate in a campaign to inform regional politicians of the accomplishments and concerns specific to nephrology at the start of the 21st century.

### Not by any means all negative

There are positive aspects to the future of nephrology. The NIH budget for the present year has enlarged by 7%, the best increase in a decade. The number of ASN supported research fellows increased to 10 in 1996, which together with research scholar and three career enhancement awards has grown to an important source for nephrology’s future. An amazing CD-ROM of meeting abstracts, distributed to attendees as the meeting began, contains irrefutable evidence of the vast reach of nephrology research presented in 1996. By employing an easy to use search engine given free with the data, a true grasp of the vast scope of new information presented has been made possible. Table 1 lists a few examples of abstracts selected by topic.

### Table 1. Topics of abstracts at 1996 ASN meeting

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of abstracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced glycosylation end-products</td>
<td>26</td>
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<tr>
<td>Alport's syndrome</td>
<td>15</td>
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<tr>
<td>Diabetes</td>
<td>218</td>
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<tr>
<td>Erythropoietin</td>
<td>56</td>
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<tr>
<td>Hemodialysis</td>
<td>391</td>
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<tr>
<td>Juxtaglomerular apparatus</td>
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<td>Membranous glomerulopathy</td>
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<td>Urinary infections</td>
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<td>Water channels</td>
<td>7</td>
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</tbody>
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### International Nephrology Training Survey

While preparing this report, I realized that comparative information on renal training programs outside of the US was not available. Therefore I am unable to assess any looming similar constraints on the integrity of nephrology as a specialty in Europe, Asia, Africa, the Middle East, or South America.

Accordingly, I solicit input by INTERNET (or FAX) of answers to the following questions from any ‘informed sources’ on a country-by-country basis:

- Reporting Nation:
- Population as of last census:
- Number of ESRD patients:
- (December 1996 or latest date):
- Number of present active nephrologists:
- Is nephrology a certified or boarded specialty?:
- Number of current nephrology trainees (fellows):
- Are reductions in nephrology training planned?:
- Any comments:
- Reporting Individual and Society Title:

Please send your responses by e-mail to me at elifriedmn@aol.com (note absence of a in last name of address) or by FAX at (718) 270–3327.

I will compile the data received and report back in this column.

For American physicians in general, and nephrologists on center stage, evolutionary and revolutionary changes profoundly are altering daily activities and future expectations. We live in very exciting times.