Schizophrenic mood pervasive in American nephrologists

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Doublethink about the future of American nephrology

George Orwell in his then futuristic novel '1984' coined the term doublethink to define that state of mind in which an individual holds and believes two conflicting views at the same time. While my participation in the 28th Annual Meeting of the American Society of Nephrology (ASN), held on 5–8 November 1995, should have been a joyful renewal of old friendships intermixed with learning recent advances, I found the days of beautiful November weather in peaceful San Diego inordinately disturbing. Numerous corridor conversations with colleagues conveyed their apprehension and despair over the future of Nephrology as a specialty. My mood cycled between futility and confidence.

The sky is falling

Repeatedly at the ASN congress Nephrology's 'movers and shakers' expressed fear over their vision of unavoidable near-term catastrophe resulting from the Republican party's strategy to eliminate our budget deficit by the year 2002. Bench investigators expressed worry over budget slashing for basic research. Clinicians felt doomed and forced to retrench their practices because of declining reimbursement schedules and encroachment by competing specialists and generalists.

Feeding this negative outlook, presentations at the Nephrology Program Directors meeting detailed a worst-case projection, in which nephrology trainees (fellows) would be decreased by 80% while federal payments for dialysis and transplant services would be so diminished that every practicing kidney doctor would have to become a generalist to survive. Addressing the assembled directors, Dr Wadi Suki proffered data showing that radiologists now performed 25% of all kidney biopsies while intensivists refused to permit nephrologists to perform acute dialysis in intensive care units. Suki issued a clarion call for the 'reengineering of the specialty of Nephrology' to include invasive procedures with their ensured income, thereby competing with Cardiology, Gastroenterology, and Pulmonary Medicine for the most talented residents who now exclude Nephrology.

Another means of making Nephrology 'sexy' would be to incorporate sonography within the competence of renal physicians, as is done in some programmes in Europe. Others predicted that as has happened in Obstetrics, Radiologists will object and even obstruct this rational evolutionary change. Comments from the floor included the warning that if expanding managed care conglomerates in concert with the Health Care Finance Administration have their way, all renal 'services' will be encompassed in a single capitation fee, meaning that separate payment for renal sonography or a kidney biopsy will disappear; that is why Nephrology is now unattractive to US residents.

Further casting obscurity on the future of nephrology is the reality that nearly one-half of all current US Nephrology fellows are graduates of foreign medical schools. Should the restrictions on federal funding for foreign physicians and for subspecialty training drop, as outlined in the budget passed by the House of Representatives, renal training programmes as now known will end. If the growth of ESRD patients continues at the current rate of 8–10% per year and the number of Nephrologists declines progressively, the consequence is that dialysis and transplant patients will be managed by generalists, further undermining the scope and responsibilities of the Nephrologist. Indeed there are those in Congress who would propose restricting postgraduate training to primary care for 50% or more of medical graduates. I ended this first day filled with negativism, wondering whether there was any point in going to the rest of the meeting.

The future is bright

Things then began to improve. After breakfast on the second day, within one 30-min coffee break, I met old friends who were leaders of renal medicine in Europe: Mogensen and Parving from Denmark, Klinkmann and Ritz from Germany, Better and Eliahou from Israel, DeSanto from Italy, Krediet from The Netherlands, Bergstrom and Jacobson from Sweden, as well as Sanaka from Japan. Why, if American
Nephrology is depicted as dying, are these world class experts trekking to the US? The answer must be that rumours of Nephrology's impending demise are unfounded.

Consonant with this position was the lifting of despair provided by the opening session in which Peter Morris predicted markedly improved organ transplantation, while ASN President Ramsay S. Cotran foreshadowed a brighter future in which the mysteries of renal disease yield to molecular biology.

By startling contrast to the 'end-of-the-world' mentality pervasive in so many ASN attendees, Cotran described himself as an 'obstinate optimist' who foresees wonderful times ahead for the specialty of Nephrology. Recounting the discovery of the gene protein 'polycystin', thought responsible for adult polycystic kidney disease, Cotran depicted the peak of discovery thus far as minor compared to the Everest now being climbed. Never in the history of investigative medicine have there been so many well-trained researchers on the trail of important discoveries as now labour in US renal labs.

In 1995 biomedical research and education in the US is funded in the amount of $21 billion, with direct federal line item allocations to the NIH and National Science Foundation (NSF) and other agencies accounting for $12 billion, support of graduate medical education accounting for $6 billion, and clinical-practice-derived funds for $3 billion. The NIH-NSF budget, as well as clinically derived funding is secure for the next few years. It is true that support of graduate education through Medicare may be reduced, should the most stringent budget pass. Nevertheless, such a scenario is far from the envisioned destruction of American biomedical research. To alter Congress's posture toward renal research, ASN now identifies and conveys its appreciation to those legislators who act in the interest of science in general, and Nephrologists in specific. This year, ASN conferred its Congressional Award on Marc O. Hatfield, the US Senator from Oregon, who protected the NIH from decreases even when Medicare (the major federal health care source of dollars) is subjected to a diminished growth rate.

Furthermore, as remarked by a decidedly upbeat Cotran: 'No one can treat patients with kidney disease better than Nephrologists, and the outcome is improving.' Validation of Cotran's positive view is evident in the expanding number of meeting attendees and the record number of abstract submissions. To these observations can be added the sustained value of dialysis units purchased on the open market. If things are as terrible as portrayed by the pessimists, how can it be that smart businessmen scurry and compete to purchase every dialysis station that comes on the market? By the end of this plenary session, I was afflicted with a florid case of doublethink about Nephrology's future.

### Transfiguration

The good-news-bad-news messages imparted at ASN stimulated reflection on Charles Dickens' wisdom in the opening of *A Tale of Two Cities* by characterizing an era as both the best of times and the worst of times. In reacting to this apparent 'crisis' in Nephrology, I pondered Karr's observation in 1847 that 'the more things change, the more they remain the same.' Every year that I have managed a renal program 'it' has been filled with fiscal and regulatory threats to its continuing existence. Accordingly, extracting a message from the multiple stimuli left me with the positive resolution that we are far from attending the funeral of Nephrology. Instead, we are active participants in its transformation, as a constituent of evolution in medical practice.

Indeed, since the establishment of the first medical school there has hardly been a time in which the medicine practiced in one era was not supplanted by that of the next. When I was a medical resident, Nephrology didn't exist, neither maintenance haemodialysis nor renal transplantation were treatment options, and the proper management of uraemia included severe protein restriction, magnesium sulphate for seizures, and prayer. My daughter Amy, a liver transplant surgeon, grew up with everyday uraemia therapy in a world unimagined by me in which CT and MRI scans and the specialists who interpreted them were routine. My daughter Sara transplants bone marrow to cure leukaemia and administers recombinant cells of types that were unknown to me or her older sister. I recount this family evolution to underscore my belief in a magnificent future that will routinely employ gene transfection to cure diabetes and glomerulonephritis. Transplant medicine, within a
decade will permit xenografted organs to reverse renal, hepatic, pulmonary, and cardiac failure, while bionics will compete with hybrid implanted organs, including a bioartificial kidney.

We are very much alive and intend to stay so

After perusal of the mixed prognoses—pro and con—on the death of American nephrology as a clinical specialty collected in Table 1, I find that the state of American Nephrology is good and will get better. Certainly, compared with my 1960 entry into a field that didn’t exist, supported with minimal funds and a sense of excitement and adventure, the kidney trainee of 1996 is sustained by multiple journals, national and international societies, and an unravelling human genome. My prophesy is that when today’s renal fellows reminisce over our specialty at the turn of the century, this time will be characterized as ‘the grand old days’ of Nephrology, latent with new discoveries into mechanisms of disease and filled with cures unanticipated even by the most enthusiastic investigators.