Letters

Reflections on the XVth ICN meeting: renal and cardiovascular protection in the developing world

Sir,

The XVth International Congress of Nephrology held in Buenos Aires in early May 1999 was an unqualified success [1]. Many countries were represented, with a wide range of renal problems and vastly different levels of resources and services. The continuing education sessions were excellent, and displays and communications emphasized the extraordinary progress in cyberspace technologies, which will globalize information networks and facilitate multinational collaborations.

There were a few epidemiological presentations, a session on renal disease in indigenous populations, and one on the economic implications of ESRD treatment. There was an excellent session on the design, conduct and evaluation of clinical trials. Impressive results of large trials in blood pressure management and renal protection were reported. Mechanisms of progressive renal insufficiency were further illuminated, with some discussion on the prospect that it might not only be delayed, but reversed.

As in the past, however, the programme was dominated by dialysis, transplantation, the chronic renal failure state, animal research, immunology, and molecular biology. There was not a strong focus on population-based patterns of renal disease, risk factor identification, prevention, screening or disease modification, nor on translating epidemiological and therapeutic knowledge into policy, planning and improved outcomes. This is a seriously distorted focus, in view of the current explosion of renal and cardiovascular disease in the developing world, which promises to be a major health crisis of the twenty-first century [1–5].

The scientific literature also reflects this imbalance. Current emphases reflect priorities of academic and clinical centres in affluent countries, which can support sophisticated research and unrationed treatment of persons with renal failure. These themes are entrenched in academic curricula, training, mentorship and granting arrangements, and are sustained in part because treatment of people with
ESRD is the main source of income for practising nephrologists.

Cardiovascular and renal disease share common risk factors and markers, are linked clinically and are susceptible to a similar menu of interventions. Thus a single coherent policy of containment would reduce morbidities of both conditions. Prevention, the ultimate goal, is a long term proposition, which is arguably more a socioeconomic than a health services issue. Secondary prevention, however, has great potential to rapidly improve population health. Early and preterminal renal disease and high cardiovascular risk are both easily diagnosed and can be modified by standard interventions, with dramatic reductions in renal failure, heart attack, heart failure, stroke and premature death over the short and intermediate term [6].

Yet westernized countries have been slow to support secondary prevention programs in the developing world. Instead, support has been largely directed at the treatment of advanced complications, with resource-intensive modalities like dialysis, transplantation, cardiac revascularization and intensive stroke rehabilitation. Most developing countries cannot afford widespread application of these treatments, which have limited ability to prolong individual lives, and do not contain basic morbidity or improve population health at all. This is a serious misallocation of priorities in countries whose public health and primary health care programs are under-resourced.

Screening and treatment programs can be relatively simple. High risk populations are easily identified without advance detailed epidemiologic profiling. Complex multilateral chronic disease strategies are not necessary. Simple, cheap and reliable tests, including measurement of weight or BMI, blood pressure, blood glucose and urinary protein, and a smoking history cover a broad arena of renal disease, hypertension, diabetes and cardiovascular risk. The dipstick supplies important information, and tests for microalbuminuria in at-risk persons can be included for countries/programs that can afford it. These tests can all be performed and interpreted by health workers or trained community members, following existing or adapted algorithms [7,8]. Any amount of targeted treatment is better than none. Lowered blood pressure, even if short of JNC VI goals and without specific renal-protective agents, or good glycaemic or lipid control, retards progression of renal and cardiovascular disease. Widespread treatment is becoming economically more feasible as drug patents expire and prices fall; costs could be lowered further by collaborations with pharmaceutical companies. It is essential, however, that ongoing evaluation be built into all programs, to indicate needs for modification, assess cost-effectiveness, and to justify program continuation or expansion. Such evaluations can be structured around community/regional attitudes and participation, progression of clinical profiles, morbidity and terminal events in treated persons, and trends in morbidity and mortality in the entire targeted region.

Many specialists in the developing world, including China, Malaysia, Indonesia, India, the Pacific, Africa, Latin America, Cuba and Aboriginal Australia, recognize the need for these interventions [1–5]. They face various challenges to implementation. All need resources. Basic health care structures are deficient in some regions, some need education and training of staff, some need support for diagnostic and treatment tools, some need help with epidemiological profiling, design of strategies and evaluation. There is opportunity to help at every level, except where there is war or anarchy, or where no health infrastructure exists at all.

The ISN should make support of such programs central to its international initiatives. Through its Commission for the Global Advancement of Nephrology, (COMGAN), it already conducts fact-finding missions, provides some professional education and training, promotes Cyber communications and advocates for multinational clinical trials and epidemiology [9]. The Allied World Council for Renal Care and the Renal Sister Center Program also provides support to developing countries, but with a strong focus on dialysis. The Acute Renal Failure Commission’s Disaster Task Force has lent relief in several catastrophes. An indigenous renal disease interest group, constituted in 1997, is seeking a wider audience, and beginning to set priorities. Finally, in the year 2000, some groups, many with ISN affiliation but acting independently, have established renal and cardiovascular protective programs, or are exploring their feasibility, in regions including South Africa (Soweto), Bolivia, Cuba and remote Australia. Lacking, however, is an explicit, action- and outcomes-based focus of the ISN on these issues, strategically staffed and adequately resourced, over the long term.

An initial approach might include establishment of local priorities by each of COMGAN’s five regional subcommittees, and formulation of feasibility projects. Coalitions will have to be forged with local government, public health and primary care agencies, with specialties with shared interests (diabetes, hypertension and cardiovascular disease, in particular) and with regional nephrology societies. These coalitions should seek support from government, from companies making pharmaceutical, diagnostic, biotechnology and dialysis supplies, from private foundations, and from international agencies such as the World Health Organization, the World Bank, and the Agency for International Development. This strategic action should be accompanied by a shift of emphasis within the ISN’s academic environment; it should dedicate scientific sessions and journal issues to health policy and population-based themes; the quantity and quality might be a meagre at first, but will improve as they are exposed, legitimized and expanded. The ISN might also help redirect academic curricula, training programs, granting priorities and career development in these areas.

Promotion of epidemiology, screening and early intervention will also benefit westernized countries, where ESRD is increasing as the population ages and is exploding in some minority, migrant, or disadvantaged subgroups. Prevention or postponement of ESRD or cardiovascular death is justified on economic as well as humane grounds. For people regularly served by health systems, screening on opportunistic encounters or, better still, as part of a regular health check up, will cost little and, when combined with treatment, will save much for each case of renal failure or premature death delayed. Schemes to provide health coverage for the uninsured, who are often people at high risk, should also incorporate these principles.

The nephrology community has much to gain by this expanded service/academic agenda, which has the potential for a lasting impact on global health.

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1. The XVth Congress of the International Society of Nephrology, Buenos Aires, Argentina, May 2–6, 1999
2. The Sixth Meeting of the AFRAN (the African Society of Nephrology), in Abidjan, Cote d’Ivoire, September 22–26, 1999
3. The First Meeting of the Asian Pacific Society of Hypertension and Nephrology, Bali, Indonesia, August 19–21, 1999

**Editor’s note**

This paper was received in December 1999; but publication was delayed due to problems with the reviewing process.