Leading Article

Renal failure in Africa

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The papers in this issue of the *Journal* by Dr S.L. Basinda and colleagues from Tanzania¹ and Dr S.O. McLigeyo and colleagues from Kenya² provide a microcosm of the abject difficulties, trials and tribulations of rendering adequate renal services in the continent of Africa. Nearly three-quarters of the world's population lives in developing countries with high birth and death rates, the latter largely due to infectious diseases in hosts compromised by the combined effects of malnutrition and infectious diseases. The impact of the acquired immunodeficiency syndrome will further take its toll in morbidity and mortality. Hypertension is common in the urban black population of Africa. Infectious diseases and hypertension are important causes of end-stage renal failure.

The data regarding renal services in developing countries need to be co-ordinated. Most of the available data are poor and thus meaningful conclusions cannot be made. As an example, in Natal, with a population that is developed and developing, there is restricted selection of patients with end-stage renal failure (ESRF). The population of Natal in 1985 of nearly 6 million comprised 78% blacks, 11% Asians, 9.5% Whites and 1.5% 'mixed' race.³ Restricted selection is illustrated by the fact that of 22 per million population (pmp) in Natal on chronic dialysis there are 2 pmp blacks, 20 pmp 'mixed' race, 55 pmp Indians and 59 pmp Whites. These figures compare with 85 chronic dialysis patients pmp in the United Kingdom and 244 pmp in Israel.⁴ It should be emphasized that the criteria for selection of a patient into an ESRF programme which was made by a multiracial renal team consisting of nephrologists, nursing sisters, social worker, psychologist and psychiatrist were identical. The disparity in the ESRF programme for the races

is likely to be due to divergence of the socioeconomic status of the racial groups. Patient selection remains a contentious issue, especially in developed countries^{5,6} where denial of access to treatment for medically suitable patients for purely financial reasons is becoming 'morally intolerable'.⁷ However, a moral dilemma remains since there can never be sufficient resources to pay for all the health care that is needed. It has been shown that the number of patients with ESRF treated is related to the nation's gross national product, and the countries that do better are those that have an active transplant programme.⁸ Thus, while it is important in developing countries to offer a chronic renal service, resource allocation for primary health care services remains a priority.

Continuous ambulatory peritoneal dialysis (CAPD) may offer a useful alternative to haemodialysis for patients with ESRF. It requires little technology or skilled medical expertise at a tertiary level. Our experiences in Natal have been recorded.⁹ Peritonitis remains a major problem in patients on CAPD. Limitations include poor socioeconomic status, inadequate sanitary conditions, lack of motivation and poor acceptance of prolonged therapy. Tribal customs and belief in the witchdoctor's therapy have also hampered acceptance. Di Bisceglie and Mzamane¹⁰ have recorded their problems at Baragwanath Hospital, Johannesburg, which serves 2 million black patients. The problems included the patients' lack of education, lack of dialysis facilities at peripheral hospitals, the long distances patients have to travel to obtain medical care, poor socio-economic status and poor hygiene in the home, and the relative lack of scientific and technical sophistication of the black population.¹⁰ Better training and education of patients would require more nursing personnel. The advent of CAPD has allowed patients who would otherwise have died because of limited haemodialysis facilities to be accepted into a renal replacement programme.

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Functional status and ability to work has revealed a trend towards the transplant group being the more favourably situated. Transplant recipients perceived themselves as healthier than did dialysis patients. Thus renal transplantation achieves the best quality of life.¹¹ Moreover the cost of dialysis prohibits its widespread usage and renal transplantation remains the 'gold standard' of treatment for patients with ESRF in developed and developing countries. However, renal transplantation is a major problem in Africa because of the lack of cadaver kidneys, skilled expertise regarding surgery, immunology, nephrology and the cost of immuno-suppressive agents like cyclosporine.

The prevention of ESRF by adequate treatment of hypertension, bacterial infections and obstructive uropathy remains a challenge for the future. The world expenditure on armaments in recent years averaged 300,000 million American dollars per year.¹² These figures are a disturbing reflection on the distribution of wealth and resources and on

national and international policies. The story is similar for the continent of Africa. The allocation of more finances towards the preventive aspects of diseases such as 'clean' water, proper sanitation, immunization programmes and eradication of malnutrition will improve the health and welfare of all those who live in Africa. It is well recognized that the gap between the *per capita* income of those living in the developed world and the developing world is becoming wider and thus medical facilities in Africa are becoming poorer. Sophisticated services like the care of ESRF may be considered a luxury in this background. However, the patient profile and the contribution of the person to society should be considered. Developing countries in Africa need aid in the form of haemodialysis machines, useful drugs, medical expertise and training from the developed countries. Political ideology, race, colour, religion or creed should be ignored and medicine should be devoted for only one purpose, namely the care of the patient.

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