Chronic renal failure is a devastating medical, social, and economic problem for patients and their families in India and Pakistan. Reliable data on the true incidence and prevalence of end-stage renal disease (ESRD) in India and Pakistan are lacking because no national registries exist. Among reported cases, chronic glomerulonephritis is the most common cause, accounting for more than one third of patients, while diabetic nephropathy accounts for ≈20% of all patients in India. Delayed diagnosis and failure to institute measures to slow the progression of renal failure have resulted in a predominantly young ESRD population, with a median age of 44 years. Because of financial constraints, less than one third of all patients referred to a tertiary care center receive any kind of renal replacement therapy. Most hemodialysis patients who stop treatment and die do so because of cost constraints within the first three months, and ≈5% of patients are started on ambulatory peritoneal dialysis. Renal transplantation is the cheapest option, but <10% of all patients with ESRD have a transplant. Cyclosporine, azathioprine, and prednisolone continue to be the backbone of post-transplant immunosuppression, but cyclosporine is stopped in a significant proportion of patients at one year post-transplant to cut down costs. Living related donor transplants constitute 70% of all transplants; two thirds of the donors are females, while more than three fourths of all recipients are males. Spouses account for 20% of donors from within families. Almost 30% of transplanted kidneys are donated by living unrelated donors, while cadaver donors account for only 2%. More resources must be mobilized to care for these patients; early detection of renal disease must be facilitated, and measures to delay ESRD must be implemented. (Ethn Dis. 2006;16[suppl 2]:S2-20–S2-23)

Key Words: Chronic Renal Failure, Dialysis, Transplantation, Renal Replacement Therapy

India and Pakistan are together home to more than one sixth of the world’s population. According to the World Bank, both countries fall in the low-income group and are classified as developing countries. Less than 2% of the Indian population earns US ≥$1000 in a year, and >35% survive on an annual income US < $90. India and Pakistan have an annual gross national product (GNP) of US $450 and $470 billion, respectively, which is <1.5% of that of the United States. The annual expenditure on healthcare is 0.6% and 1.5% of total GNP in Pakistan and India, respectively. Most of this amount goes toward meeting the cost of national health priorities like control of infectious diseases, family planning, providing clean drinking water and sanitation, and maintaining basic hospital infrastructure. These economic constraints affect the care provided to patients with end-stage renal disease (ESRD).

Both countries have a dual healthcare delivery system; economically less advantaged patients are cared for by state-run hospitals, and the more affluent population generally receive hospital care in the private sector. The state-run healthcare system has a pyramidal structure, with primary healthcare centers at the bottom followed by block or district hospitals and university hospitals. The top is formed by few tertiary care referral centers, which are the only places where facilities for complete ESRD care are available. State-run hospitals, where consultations are generally free and dialysis and transplant costs are subsidized, are overloaded with patients with long waiting lists for dialysis as well as transplantation. They do not provide maintenance hemodialysis for ESRD, as most dialysis centers are overwhelmed by patients with potentially reversible acute renal failure. As opposed to this situation, privately run centers readily accept patients on maintenance dialysis programs and have a shorter waiting list for transplantation. Furthermore, all state-run hospitals undertake kidney transplants only from genetically related or spousal kidney donors, as opposed to in the private sector where unrelated (and paid) donors may also be accepted.

**INCIDENCE AND CAUSES**

The precise number of ESRD patients in these two countries is not known because no regional or national registries exist. Patients have to travel far from their homes to hospitals where specialized care is available. The estimates are at best approximations based on the experience of individual nephrologists and may not reflect the true situation. Conservative estimates put the annual incidence of ESRD in India and Pakistan at ≈100 per million population, which appears to be lower than the 98–198 per million reported from ESRD registries of developed countries. The incidence of ESRD in India and Pakistan would be expected to be higher since poor socioeconomic status predisposes the population to a number of infection-related glomerulonephritides and the incidence of nephrolithiasis is higher in both countries as they fall in “stone belt.” A higher incidence of ESRD has also been noted in Asians of Indian origin in the United Kingdom. If the incidence of ESRD is indeed 100 patients per million population per year, this would mean ≈100,000 new patients every year for a population of 1 billion in India.