7. Current status of medical care for ESRD in developing countries
—Technical assistance with dialysis therapy—

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Since the International Medical Center of Japan was established in 1994 to provide medical assistance for foreign countries, its hemodialysis (HD) unit has received doctors and nurses from several developing countries for technical training and has been involved in the treatment of various renal diseases, including renal failure.

Particularly in Nepal and Vietnam, we have participated in the Japan International Cooperation Agency (JICA) technical cooperation project to assist in the establishment or improvement of HD facilities. In Nepal, we taught techniques for the conservative management of end stage renal disease (ESRD) and for treatment of acute renal failure (ARF) and in 1994 to Trivuban University Teaching Hospital, the highest level referral hospital in the country. Subsequently, we assisted them to establish a second HD facility in Nepal in 1996. Because we started HD with only two dialysis machines, we mainly treated ARF patients, and chronic renal failure (CRF) patients were limited to those with acute exacerbation or waiting for renal transplantation.

In Vietnam, technical assistance was provided to Cho Ray Hospital (CRH), the highest level referral hospital in the south of the country. We placed emphasis on the qualitative improvement of dialysis therapy and the assisted fields, because a HD unit established at CRH in 1991 was performing maintenance HD for about 100 patients at that time and because there were several institutions offering maintenance dialysis in Ho Chi Minh city.

Based on such experience, the current status and problems of the treatment for ESRD and technical assistance that Japan should offer are summarized below.

1. Among the ESRD patients who visited these referral hospitals and were determined to require renal replacement therapy, only about 25% of Nepalese, and about 10% of Vietnamese could receive HD. The most frequent primary disease in patients requiring dialysis was chronic glomerulonephritis, accounting for about 40% in both countries, followed by urinary tract obstruction and infection, diabetes, and hypertension.

2. Although the cost of HD was reduced to US $300–400 per month by reusing dialyzers for the same patients or through other measures, there were many patients who ceased dialysis due to economic reasons in Nepal where the patients themselves had to obtain the necessary supplies, such as physiological saline, to start HD. In Vietnam, where a health insurance system partially operates, there were not so many economic drop-outs, but there are increasing cost pressures on the hospitals.

Continuous ambulatory peritoneal dialysis (CAPD) was not an alternative to HD because the cost of CAPD was about twice as high, due to the fact that almost all supplies had to be imported. Renal transplantation was not an alternative to HD either because an organ donation system was not established in these countries, although some wealthy patients received renal transplants in foreign countries.

3. Treatment of ESRD is not efficient in developing countries from the viewpoint of cost-effectiveness. To make the best use of limited medical resources, the position of ESRD treatment in each developing country has to be considered, and optimum therapeutic method has to be selected from among those established in developed countries, including methods no longer used in such countries. There will be marked limitations on the treatment of ESRD if technical assistance is only provided for
dialysis therapy. It is necessary to consider the overall situation, including the early detection of renal diseases and conservative treatment of renal failure by the local medical staff.