Trends in dialysis treatment modalities and patient mortality

The number of patients starting ESRD therapy has been increasing by about 9% per year. The distribution of treatment modalities has remained fairly constant at 84% center HD, 1% home HD, 13% CAPD, and 2% CCPD.

Dialysis versus transplant patient survival

Numerous biases need to be considered in such comparisons. We restricted the analyses to wait-listed dialysis patients and adjusted for the time since wait-listing. The mortality risk was elevated for the first 3 months after transplantation, but the cumulative patient survival was better after 10–12 months post transplantation.

Patient selection and outcomes for CAPD versus haemodialysis

Young, white, male patients were more likely selected for CAPD. Adjusted mortality risk was equal for non-diabetic HD and CAPD patients. Mortality risk was higher for diabetic CAPD than for HD aged >58 years. Hospitalization was higher among prevalent PD than HD patients.

Mortality risk for haemodialysis patients according to dialysis dose ($K/V$)

Adjusted mortality risk was higher with lower $K/V$ or urea reduction ratio. Patients treated with 0.2 higher $K/V$ had a 14% lower risk of dying.

Conclusions

USRDS studies have described the practice of ESRD therapy and contributed to measurable improvements in patient survival. The use of population-based data (census or random sample) allows general applicability of findings to ESRD patients in the US.

References

Quality assurance in renal replacement therapy (RRT)

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For several years the only nationwide source of information regarding RRT in Germany was provided by the EDTA Registry. Beginning with conflicts surrounding a new data protection law in West Germany in 1985, a yearly growing number of physicians withdrew their voluntary cooperation with the EDTA Registry. At the present time, the EDTA Registry has drawn their voluntary cooperation with the EDTA

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Over the years, questions were modified and added to the patient questionnaire and a centre questionnaire was created with the objective of obtaining general demographic data about incidence and prevalence, as well as questions regarding policies and practices in reference to renal replacement therapies.

As the Registry grew, increasing the number of patients and dialysis centres reporting, various problems arose. The EDTA is a scientific society and not an official institution, and the Registry is voluntary. For this reason, the percentage of centres failing to send their data to the Registry has increased over the years. In addition, the scientific temptation to study patients’ problems more in depth gradually complicated the questionnaires, adding a new difficulty for the centres reporting a large number of patients.

Two years ago, changes were introduced in the EDTA–ERA Registry as a consequence of these problems. To increase the response rate, these changes were directed at facilitating the work required of the centres. Rigid quality control of data has also been introduced.

To achieve these objectives, the number of questions on the patient questionnaire was reduced to those relating to age, sex, primary renal disease, type of treatment, comorbidity, and death. The most important advance has been to create a computer software system for data collection, supplied free-of-charge to the centres. The new software, called McPas, allows the centres to introduce the new patients day by day and update existing patients. The centre can also use this software to analyse its own data, produce its own reports and deliver them to the Registry on floppy disk.

Reducing the number of questions could result in a loss of information. To avoid this and, above all, to be able to study certain topics in a strictly scientific manner, the Registry is developing several studies on samples, which in the majority of cases will be prospective. The definition of the patient samples under strict statistical and epidemiological control will allow studies of high scientific quality to be carried out on a relatively small number of patients.