

A COMPARISON OF PATIENT SURVIVAL ON CAPD AND HAEMODIALYSIS IN AUSTRALIA AND NEW ZEALAND.

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We compared patient survival on continuous ambulatory peritoneal dialysis with that on haemodialysis for patients entering renal replacement in Australia and New Zealand from October 1991. From this date, comorbid data present at entry were recorded. Patients were censored at transplantation and excluded if they switched dialysis modality. Cox regression analysis was performed with adjustment for age, sex, race, renal diagnosis, diabetes, smoking habit, country of treatment, hypertension and comorbid conditions present at entry (vascular disease or chronic lung disease). Analysis was performed using treatment as a time-dependent variable to detect possible changes in risk with time on treatment. Weight at entry was entered as a surrogate for clearance requirements.

No difference in survival was present in the first 12 months of treatment. After 12 months the risk of death on CAPD exceeded that on haemodialysis by 34% [95% CI. 1.8%, 77%]. After 24 months on therapy weight at entry had a significant effect on death risk on CAPD but not haemodialysis (3.2% increase per kilogram over 70 kg). Other factors predictive of increased risk were age (3.9% per year), diabetic nephropathy (Hazard Ratio 1.78 [CI 1.22, 2.64], Aboriginal race (HR 1.59 [CI 1.13, 2.23]), current smoking (HR 1.29 [CI 1.01, 1.66]) and any comorbid condition at entry (HR 1.76 [CI 1.48, 2.09]).

We conclude that survival on CAPD is worse than on haemodialysis after the first year and that this may reflect loss of residual renal function. The effect of entry weight on survival on CAPD but not haemodialysis suggests that CAPD is inadequate for heavier patients when residual function is lost.