

increase in SBP translated into a 2% increase in the odds of non-access-related hospitalization or death. Changes in SBP during hemodialysis were more-strongly predictive of outcomes than were SBP, diastolic blood pressure or pulse pressure before or after dialysis.

This study shows that monitoring hemodynamic responses to dialysis could aid identification of patients at risk of short-term clinical events. Determining which factors cause these differing responses could, say the authors, enable targeted intervention.

**Original article** Inrig JK *et al.* (2007) Association of intradialytic blood pressure changes with hospitalization and mortality rates in prevalent ESRD patients. *Kidney Int* 71: 454–461

### Phosphate binder choice affects risk of death in hemodialysis patients

Extensive coronary artery calcification (CAC) is common in people on hemodialysis. Sevelamer, a phosphate binder that does not contain calcium, is associated with slower progression of CAC than are calcium-containing phosphate binders. A recent study has investigated the effect of phosphate binder choice on the risk of death in hemodialysis patients.

All-cause mortality was assessed in 127 patients new to hemodialysis who had been enrolled in a randomized trial comparing CAC progression in patients on sevelamer ( $n=60$ ) with that in patients taking calcium-containing binders ( $n=67$ ).

After a median follow-up of 44 months, 34 patients had died (11 patients in the sevelamer group and 23 patients in the calcium-containing binder group). Mortality rates were higher in patients who received calcium-containing phosphate binders than in sevelamer-treated patients (10.6/100 patient-years vs 5.3/100 patient-years;  $P=0.05$ ). Baseline CAC score was a significant predictor of mortality; patients with no evidence of CAC at baseline had a significantly lower mortality rate than did patients with scores of 1–400 and those with scores  $>400$  (mortality rates 3.3/100 patient-years, 7.0/100 patient-years and 14.7/100 patient-years, respectively;  $P=0.002$ ). Multivariable analysis adjusted for factors such as age, race, gender and baseline CAC score showed that patients treated with calcium-containing binders had a threefold

higher risk of death than did sevelamer-treated patients (hazard ratio 3.1;  $P=0.016$ ).

**Original article** Block GA *et al.* (2007) Mortality effect of coronary calcification and phosphate binder choice in incident hemodialysis patients. *Kidney Int* 71: 438–441

### Weight loss in renal transplant candidates does not improve post-transplantation outcome

The belief that patients whose BMI is outside the normal range at the time of kidney transplantation have a poorer prognosis has led some centers to refuse to transplant obese patients and others to advise extreme pre-transplantation weight loss. As weight loss is a risk factor for death in patients on dialysis, however, Schold *et al.* have investigated whether it should be recommended to patients scheduled to undergo kidney transplantation.

Data from 162,284 adults (aged 18–70 years) waitlisted for a first renal transplant in the US during the period 1990–2003 were analyzed; 124,713 patients received a transplant. Data obtained at time of placement on the waiting list, at time of transplantation, and up to 12 months after transplantation were used.

Underweight (BMI 13–20 kg/m<sup>2</sup>) and normal weight (BMI 20–25 kg/m<sup>2</sup>) kidney transplant candidates were at significantly higher risk of death during waitlisting relative to overweight (BMI 25–30 kg/m<sup>2</sup>) candidates (adjusted hazard ratios 1.42 and 1.11, respectively). Patients who were underweight, obese (BMI 30–35 kg/m<sup>2</sup>) or morbidly obese ( $\geq 35$  kg/m<sup>2</sup>) at transplantation were at higher risk of death following surgery relative to overweight patients (adjusted hazard ratios 1.14, 1.08 and 1.28, respectively). When patients were stratified by baseline BMI, no relationship was found between absolute weight change (from waitlisting to transplantation) and graft loss or patient death after transplantation. In nonobese patients, rapid weight changes (increases or decreases) while awaiting transplantation were associated with higher risks of graft loss than were smaller changes.

The authors conclude there is no basis for indiscriminately encouraging overweight patients waitlisted for kidney transplantation to reduce their BMI.

**Original article** Schold JD *et al.* (2007) A 'weight-listing' paradox for candidates of renal transplantation? *Am J Transplant* 7: 550–559