Introduction

• Apparently encouraging survival gains continue to accrue in the US dialysis population. It is unknown, however, whether these salutary trends reflect improving survival in the general population or differences in comorbidity in the dialysis population.

• As exclusion of serious ongoing medical issues is a prerequisite for transplant listing, survival comparisons by mode of dialysis in listed patients has the potential to mitigate the confounding effect of non-constant evolution of comorbidity burdens.

• Hence, we compared annual dialysis mortality estimates from the time of first listing for transplantation in the United States between 2000 and 2009 using expected mortality rates from the general population as reference point.

Objectives

• To compare actual/expected (from general population) mortality ratios among dialysis patients placed on the transplant waiting list dialysis in the US between 2000 and 2009.

Methods

• USRDS standard analytical files were used to select dialysis patients, without a previous transplant, first placed on the transplant wait-list in the index years.

• Follow-up began at the day of listing and ended at the earliest occurrence of death, renal transplantation or one year of follow-up.

• To calculate expected mortality rates, general population annual mortality rates from 66 possible subgroups were used. These 66 subgroups consisted of 11 age groups, 2 gender groups and 3 race-ethnicity groups (White, Black, Hispanic).

• Poisson regression was used to calculate actual mortality rates in dialysis patients.

• For reference purposes, all analyses were repeated in the overall prevalent dialysis populations.

Results

• Compared to 2000, patients listed in 2009 were older and more likely to be male, African American, Hispanic, diabetic, hypertensive, on dialysis >1 year and to be on hemodialysis (Table 1).

• Actual/expected mortality ratios in the listed population declined from 6.4 to 4.9 between 2000 and 2009. Ratios declined in all subgroups except those of Hispanic ethnicity (Figure 1).

• Less marked declines were also seen in actual/expected mortality ratios in the overall dialysis population. Ratios declined in all subgroups studied (Figure 2).

Conclusions

• Improvements in mortality in dialysis patients are accruing more rapidly than in the general population, suggesting that general population trends are not responsible.

• The survival improvement is especially marked in dialysis patients placed on the transplant list. As exclusion of serious ongoing medical issues is a pre-requisite for transplant listing, case mix differences are unlikely to be responsible.