

Comparing Demographic Factors as Predictors of the First 90-Day Mortality in Incident Hemodialysis Patients

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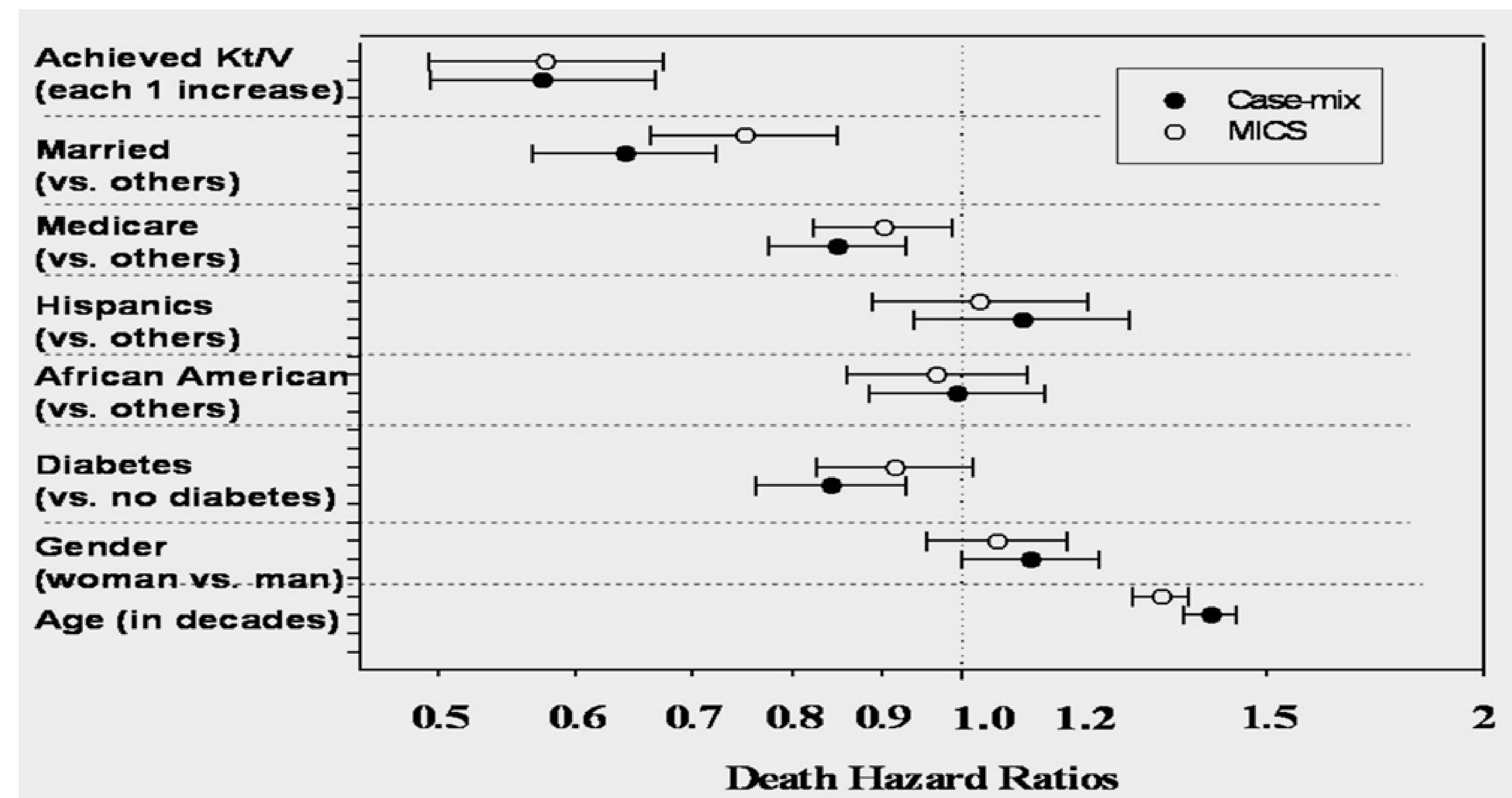
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INTRODUCTION

- Mortality among dialysis patients in the United States is exceptionally high (~20% per year).
- It is even higher during the first year, especially in the first 90 days of initiation of maintenance hemodialysis (MHD) treatment.
- We examined the associations between the first 90-day mortality and several patient demographics and compared and achieved dialysis dose in the first 90 days.
- The demographic characteristics such as age, gender, diabetic status, marital status (married vs. not married) medical insurance (Medicare vs. no Medicare) and dialysis dose were compared.
- We hypothesized the demographic characteristic such as age, gender, marital status, diabetes, medical insurance, and dialysis dose will differ between patients surviving first 90 days after initiation of MHD treatment and those who did not survive the initial 90 day time period.
- We further hypothesized that the above mentioned demographic characteristics could be the important risk factors associated with 90 day survival in hemodialysis patients.

METHODS & RESULTS

- Using data on 20,348 incident MHD patients, who started MHD treatment between 7/2001 and 6/2006, we calculated the hazard ratio (HR) of death (and 95% confidence intervals).
- There were 2,058 deaths (10.1% of the entire population) during the first 90 days.
- The mean age for all MHD patients in cohort (vs. those who died) was 6217 years (vs. 7113 years). Women comprised 45% (vs. 46% who died), African Americans 23% (vs. 18%), Hispanics 13% (vs. 10%).
- Using Case-Mix and Case-Mix MICS Cox models we found that Death HR during the first 90 days was <1.0 for higher achieved Kt/V, married status and diabetes mellitus, whereas it was >1.0 for older age. (see Figure)



CONCLUSIONS

- Risk factors of the first-90-day mortality among incident MHD patients include lower achieved dialysis dose, a surrogate catheter (vs. arteriovenous fistula or graft), non-married status, no diabetes mellitus, and older age. Race, ethnicity and gender did not appear to have substantial associations with the first-90-day mortality.

KEY LEARNINGS

- ✓ There were differences in demographic characteristics between MHD patients that survived 90 days after dialysis initiation comparing to those who did not.
- ✓ Age, lower dialysis dose, absence of diabetes, and non-married status were associated with lower survival among incident dialysis patients.
- ✓ Further studies are needed to examine the associations between the early mortality and demographic characteristics in MHD patients

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