

Hemoglobin A1c and 5-Year Survival in 2,798 Chronic Peritoneal Dialysis Patients with Diabetes

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INTRODUCTION

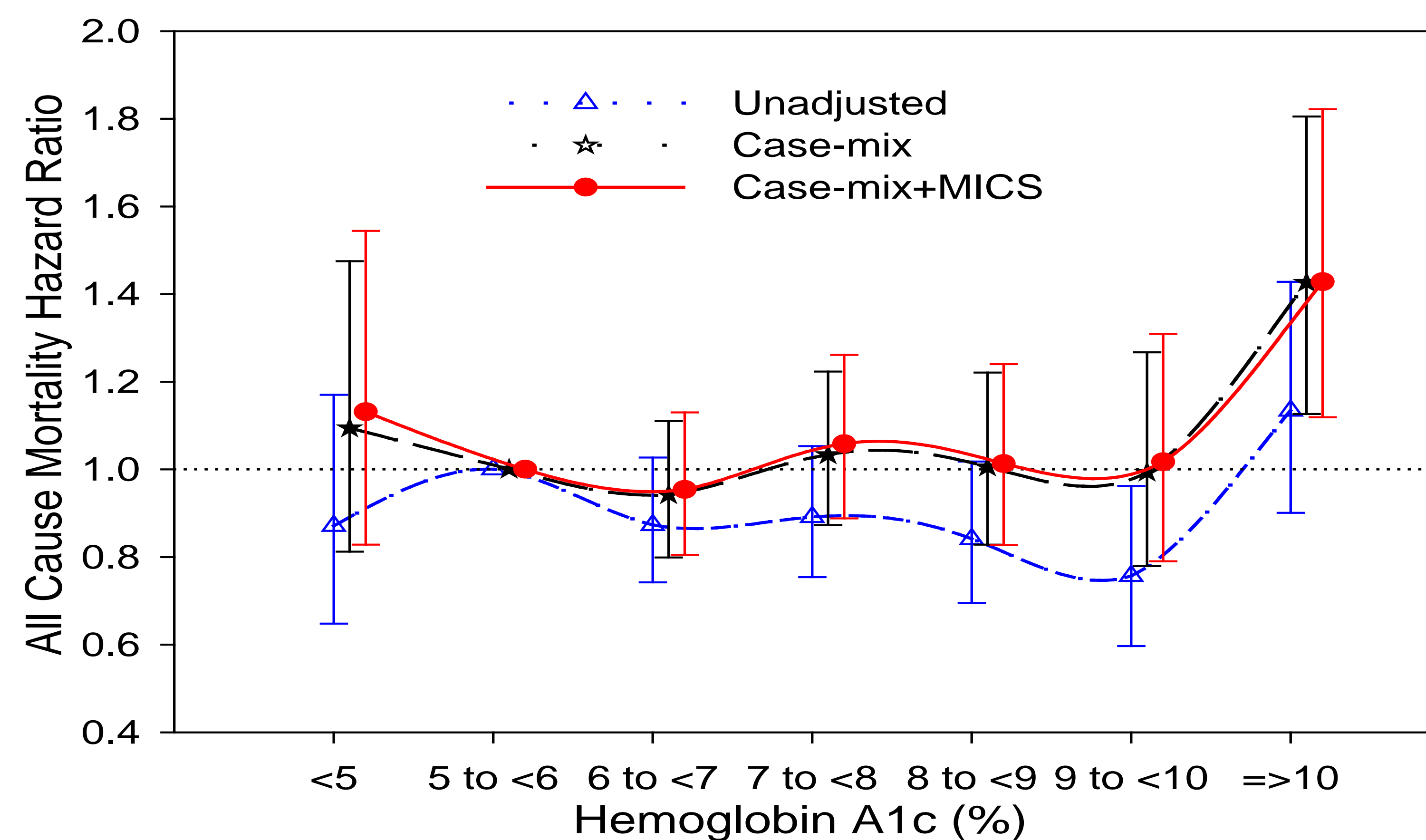
- Poor glycemic control in CKD patients may be associated with negative outcomes.
- In chronic peritoneal dialysis (PD) patients, the association of **hemoglobin A1c** and mortality may be confounded by glucose loading in PD fluid, which may lead to worsened metabolic control in PD patients.

METHODOLOGY

- We examined a large cohort of all diabetic PD patients who underwent PD treatment for at least 45 days in any Legacy DaVita dialysis clinic over 5 years (7/2001-6/2006).
- Survival analyses were performed using Cox regression adjusted for case-mix and surrogates of Malnutrition-Inflammation Complex Syndrome (MICS).

RESULTS

- We identified 2,798 diabetic PD pts who had A1c measures during their base calendar quarter; average age was 57.4 ± 13.0 yrs old and included 44% women, 20% Blacks & 16% Hispanics. A1c was categorized into 7 groups of <5%, ≥10% and 1% increments in-between.
- A J-shaped trend with significant death hazard ratios (HR) was noted. Taking A1c 5-5.9% as reference, A1c ≥10% had a 5-yr death HR (and 95% confidence interval [CI]) of 1.13 (0.90-1.43), 1.43 (1.13-1.81) and 1.43 (1.12-1.82) representing the unadjusted, case-mix and additional malnutrition-inflammation complex syndrome (MICS) adjusted respectively (see figure).



CONCLUSIONS

- In this large national cohort of diabetic PD patients, a hemoglobin A1c >10% appears associated with relative risk of death of 1.43 compared to those pts with a A1c of 5-6%.

KEY LEARNINGS

- ✓ In diabetic PD patients, very poor glycolic control, reflected by A1c >10% appears associated with 43% higher death risk compared to those with a A1c in the 5-to 6% range.
- ✓ Clinical trials to examine the benefit of tighter glyceimic control in PD patients are indicated.

We thank the patients who participated in this study and DaVita Clinical Research® (DCR) for support in preparing this poster. DCR is committed to advancing the knowledge and practice of kidney care.

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