



Healthcare Utilization at End of Life among ESKD Patients

Eric Weinhandl, PhD, MS^{1,2}; Scott Sibbel, PhD, MPH¹; Francesca Tentori, MD, MS¹

¹DaVita Inc., Denver, Colorado; ²Department of Pharmaceutical Care and Health Systems, University of Minnesota, Minneapolis, Minnesota

Introduction and Objective

- Among patients undergoing maintenance dialysis in the United States during 2022, there were more than 104,000 deaths.¹ Thus, decisions about health care at the end of life (EOL) are commonly encountered.
- Average Medicare per capita spending is more than three times higher for beneficiaries who died compared to the average among all beneficiaries.²
- Relatively little is known about health care utilization in dialysis patients at EOL.

Methods

- We identified a cohort of patients (n=3,368) undergoing maintenance dialysis at the time of death, who had (a) died in 2024 and (b) continuously carried original Medicare coverage during the 12-month interval preceding the date of death.
- For each decedent, we randomly selected one patient who underwent dialysis during the same calendar month, was alive at the end of the month, and continuously carried Medicare coverage during the 12-month interval beforehand.
- We ascertained Medicare Parts A and B claims to estimate monthly rates of hospital admission, hospitalized days, intensive care unit (ICU) admissions, and cumulative Medicare payments during each of the last 12 months of life.
- We used Poisson and normal linear regression to estimate excess rates of outcomes and payments, respectively, among cases during the last 6 months of life, relative to the 6-month interval beforehand, adjusted for age, sex, and case-control status.

Figure 1: Study Schematic

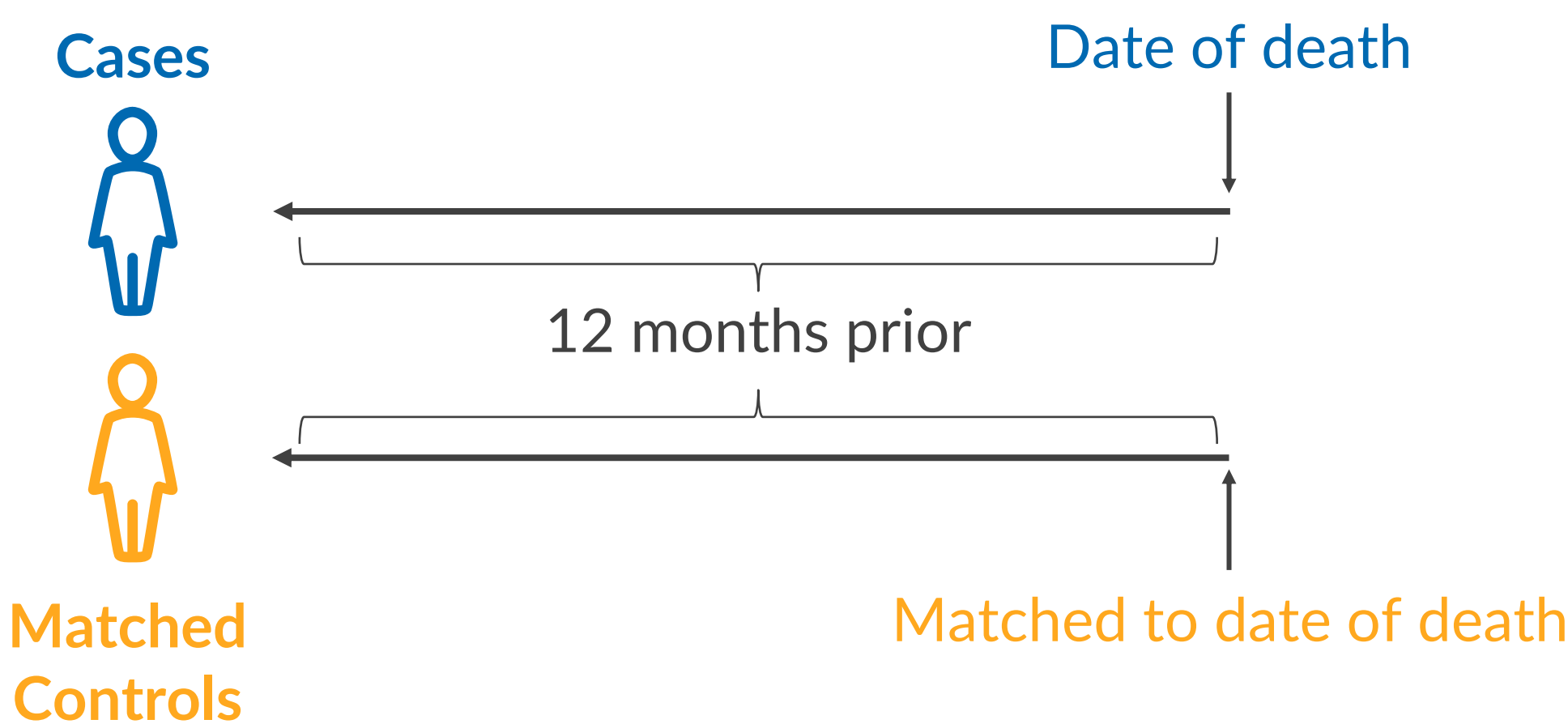


Table 1: Cohort Demographics

	Matched Controls	Cases
Sample size, N	3,368	3,368
Age, years, mean (SD)	67.3 (14.0)	73.0 (12.1)
Sex, N (%)		
Female	1,413 (42.0%)	1,427 (42.4%)
Male	1,950 (58.0%)	1,941 (57.6%)

Results

Figure 2: Clinical outcomes and Medicare payments during the last 12 months of life

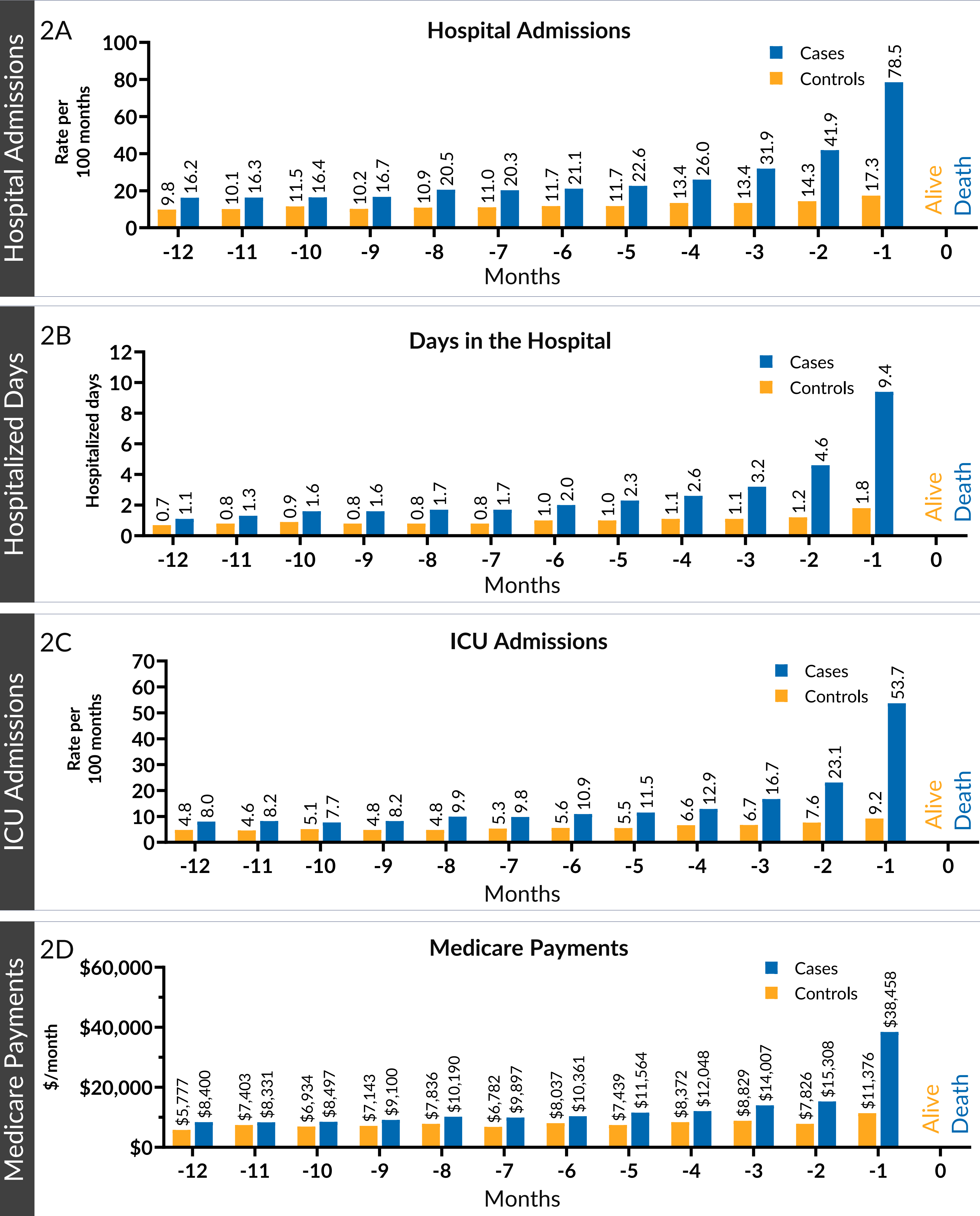
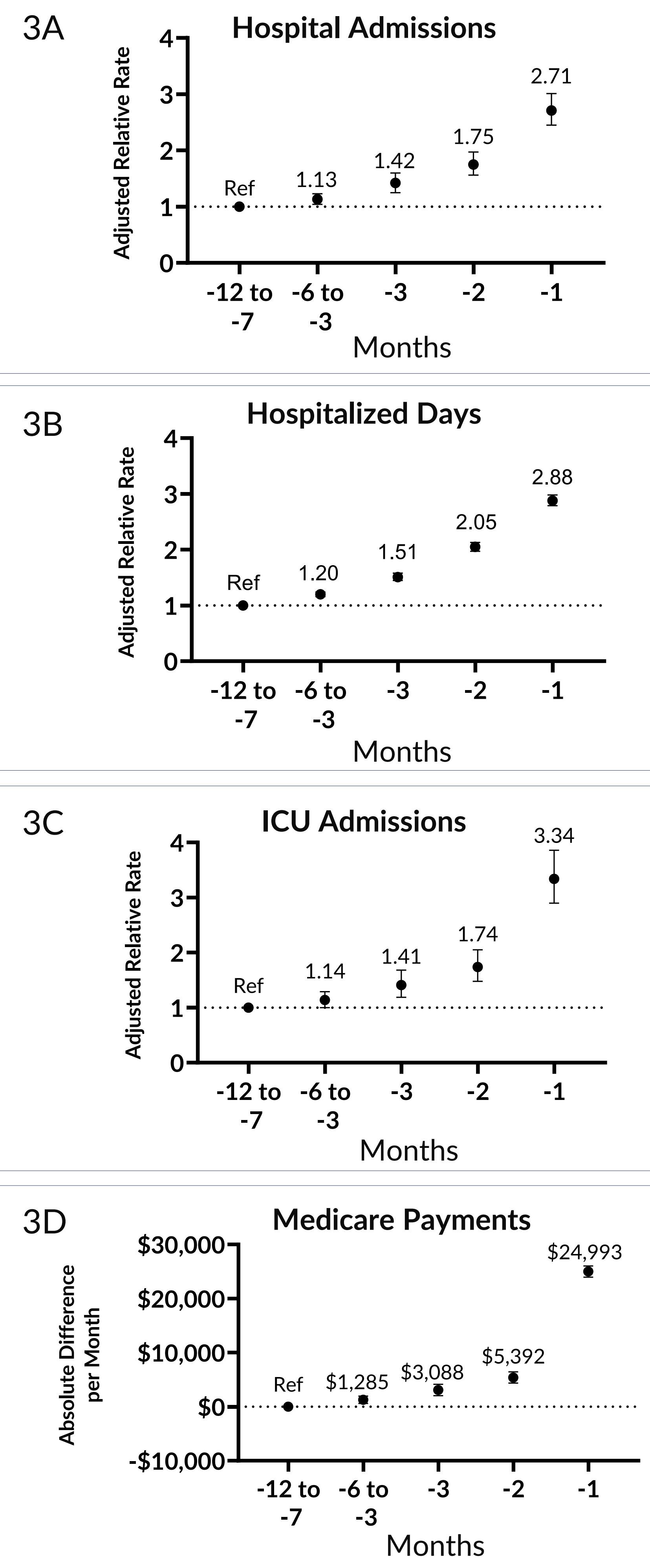


Figure 3: Adjusted relative rates of clinical outcomes and adjusted differences in Medicare payments in cases during last 6 months of life, relative to 6-month interval beforehand



- On average, patients who died (cases) were 5.7 years older than controls.
- During the last 12 months of life, cases consistently exhibited high rates of hospitalization, hospitalized days, ICU admissions, and Medicare payments than did controls.
- During the last 6 months of life, rates of all clinical outcomes and Medicare payments among cases increased monotonically (Figure 2).
- During the last month of life, roughly 30% of patient-days were spent in the hospital, and cumulative Medicare payments exceeded \$38,000 per patient.
- Cases exhibited higher rates of health care utilization than did controls as early as 12 months before death.
- Differences between cases and controls widened significantly during the last 3 months of life, resulting in rates of inpatient care during the last month of life that were approximately 3 times higher than among controls.

Conclusions

- In dialysis patients with original Medicare coverage, utilization of inpatient care and total spending increase sharply at EOL, especially during the last 3 months.
- Improved coordination of care, including referral to palliative care and hospice, may reduce dependence on high-intensity acute care, reduce costs to Medicare, and improve the EOL experiences of dialysis patients and their families.

Acknowledgments & References

- United States Renal Data System. 2024 USRDS Annual Data Report: Epidemiology of kidney disease in the United States. NIH, NIDDK, Bethesda, MD, 2024.
- Cuanski J. et. al., Medicare Spending at the End of Life: A Snapshot of Beneficiaries Who Died in 2014 and the Cost of Their Care. July 2016. Kaiser Family Foundation.

We acknowledge Kathryn Husarek of DaVita, Inc. for editorial contributions in preparing this poster.

Correspondence: Eric.Weinhandl@davita.com.

Presented at ASN Annual Meeting 2025 Kidney Week, Houston, TX

