READMISSION RATES IN DIALYSIS PATIENTS ARE ASSOCIATED WITH THE WEEKDAY OF HOSPITAL DISCHARGE

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INTRODUCTION

- The rate of 30-day hospital readmissions in dialysis patients is known to be higher than the general population.
- In the United States, 30-day all-cause hospital readmission rates in dialysis patients have observed to be 18.5% greater than the general public.[1]
- Since the weekday of hospital discharge impacts how many days a patient will go without dialysis treatment, the weekday of hospital discharge may also affect readmission rates in this population.
- In this study, our aim was to investigate whether the weekday of hospital discharge is associated with differences in 30-day hospital readmission rates.

METHODS

- For this investigation, hospital admission data was captured from 01 January 2014 to 31 October 2014 for dialysis patients that were participating in the RightTrac™ transitional care program at clinics in the states of West Virginia, Kentucky and Ohio in the United States.
- Thirty day readmission rates were calculated for dialysis patients based on the weekday of discharge from the hospital.
- All admissions and/or readmissions included in the analysis were characterized as non-observational hospitalizations.
- Comparisons were made for weekday of discharge readmission rates using a logistic regression with patient-specific random effects method.

RESULTS

- Overall, 1,305 dialysis patients were studied with 3,206 index hospitalizations and 1,123 readmissions within 30 days of discharge, yielding a mean readmission rate of 35%.
- Differences in 30-day readmission rates were observed to be dependent upon the weekday of discharge for the prior hospital admission.
  - The highest 30-day readmission rates were associated with prior hospital discharge on the weekdays of Friday and Saturday.
  - The lowest 30-day readmission rates were linked to prior hospital discharge on the weekdays of Sunday and Monday.
- The weekday dependent increases in 30-day readmission rates on Friday and Saturday were significantly greater than all other weekdays with an odds ratio of 1.22 (p=0.049 compared to Sunday through Thursday).

Figure 1. Readmission Rates by the Weekday of Hospital Discharge

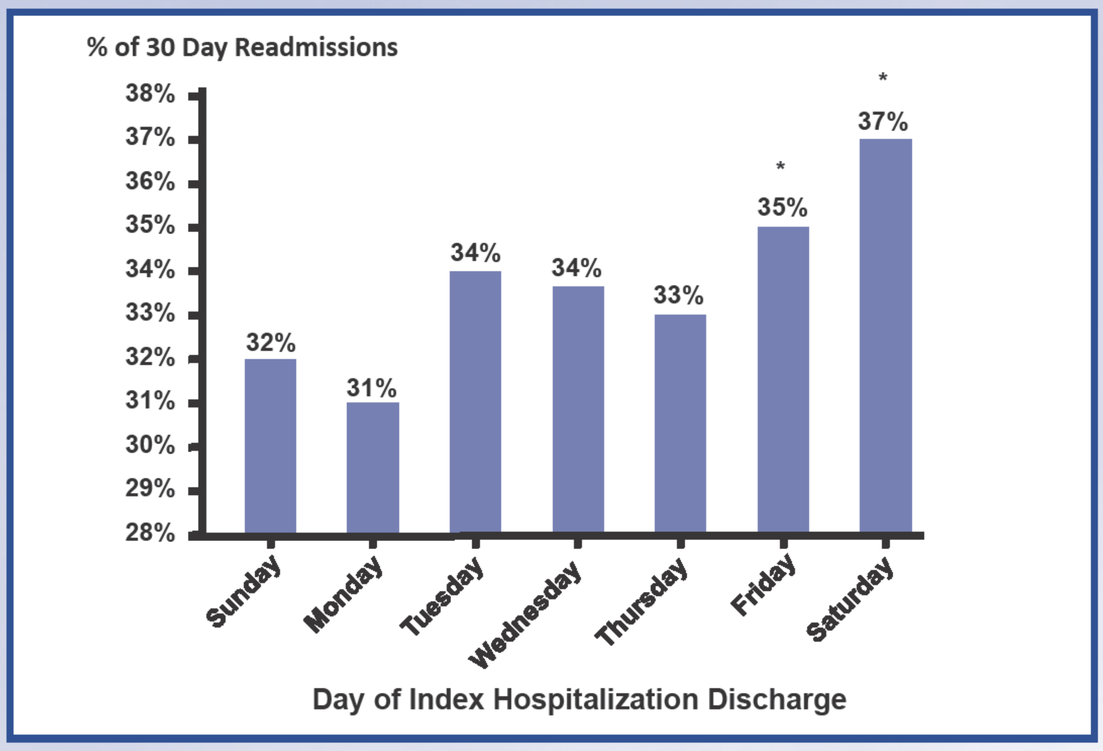

Figure 1. Rates of 30-day hospital readmissions by weekday of discharge. (*, p<0.05 versus Sunday through Thursday)

CONCLUSIONS

- Hospital readmission rates are significantly higher for dialysis patients that have a hospital discharge occurring on the weekdays of Friday and Saturday as compared to all other weekdays.
- These finding suggest that intensified medical attention and monitoring such as expanded weekend coverage by a dialysis specific case manager may be needed for patients discharged on Friday and Saturday.
- In light of the substantial rural nature of this population, further investigations of other geographically distributed populations are warranted to confirm the findings of this study.

REFERENCES

1. United States Renal Data System, 2014 USRDS Annual Data Report: An overview of the epidemiology of kidney disease in the United States. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, 2014.

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