

Impact of Rescheduling a Missed Hemodialysis Treatment on Clinical Outcomes

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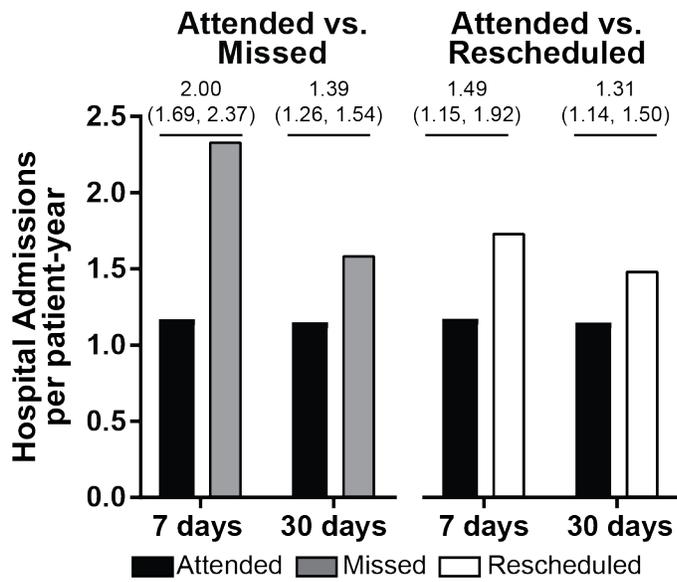
Background: Among patients treated with hemodialysis (HD), a missed treatment is associated with elevated hospitalization risk in the subsequent 30 days. It is not known whether attending a rescheduled treatment on the following day ameliorates this risk.

Methods: This retrospective study used electronic health records and 2014 USRDS claims merged via direct linkage. Eligible patients were adults receiving HD on a Monday/Wednesday/Friday schedule who, as of index, had dialysis vintage ≥ 90 days, available Medicare A & B claims, and had not missed a treatment for any reason in the 30 days prior to index. For each of 12 index dates, patients were classified based on attending treatment; those who did not were classified as “rescheduled” or “missed” based on whether or not they dialyzed the following day. In separate analyses, “rescheduled” and “missed” patients were each matched (1:5) to patients who attended based on index day of week and propensity score. Hospitalization was considered over the subsequent 7 and 30 days, or until censoring, and compared using generalized linear models.

Results: Prior to matching, patients who missed or rescheduled treatment were of younger age and dialysis vintage than those who attended. All characteristics were balanced after matching. Compared to attending (N=20,725), a missed treatment (N=4145) was associated with a 100% higher rate of hospitalization in the subsequent 7 days, and a 39% higher rate over 30 days. Attending a rescheduled treatment on the day after a missed treatment (N=2308) was associated with a 49% higher rate of hospitalization in the subsequent 7 days, and a 31% higher rate over 30 days, versus attending (N=11,540).

Conclusion: Rescheduling treatment attenuated but did not fully mitigate the hospitalization risk imposed by a missed treatment.

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Comparisons represent incidence rate ratios (95% confidence intervals) referent to "Attended"