



CREATING A CULTURE OF QUALITY

Improving Hemodialysis Adequacy by Decreasing Missed and Shortened Treatments

Heartland Kidney Network began a three year program to reduce missed and shortened treatments. The program began with only 8 facilities and ended with 25 facilities. Lessons learned from the previous year were applied to the next years workgroup. The biggest barrier to missed and shortened treatments is the patients' personal schedule. Many patients make the choice between their treatments and such things as "going to my son's baseball game" or "my share fare always picks me up 10 minutes early." By working individually with the patients on focused education on the consequences of missing or shortening treatments and the facilities on working with their patients' schedules we were able to reduce the missed and shortened treatments by 11 percent.

Organization Name: Heartland Kidney Network (ESRD Network 12)

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Project Objective, purpose and goals: The purpose of this project was to improve hemodialysis adequacy by decreasing the overall missed and shortened treatments. The goal was to make a relative 5% decrease in the missed and shortened treatments. The objective was to determine why patients miss or shorten treatments and to assess the impact of individualized education for the patients.

Setting: The project took place in adult in-center hemodialysis facilities.

Sample/Patients: Facilities were selected based on data from eLab Data Collection from October - December for the respective years of the project. Facilities placed in the project were in the lowest quartile of Kt/V as reported by the eLab project.

Process studied: The process studied was Hemodialysis Adequacy using Kt/V. We used a monthly data collection form to collect the following data:

- number of in-center hemodialysis patients >18 years of age
- number of in-center hemodialysis patients >18 years of age with Kt/V >1.2
- number in-center hemodialysis patients >18 years of age who missed at least one treatment
- number of in-center hemodialysis patients >18 years of age who shortened at least one treatment by at least 15 minutes

Intervention: The approach taken was to understand why the patients were missing or shortening their treatments and to educate the patient on the impact to their overall health. Facilities were chosen to participate in the missing and shortened treatment project based on the self-reported data from lab data collections during the three years of the project. Each facility was chosen based on their adequacy results falling in the last quartile of Kt/V. Each project year had two baselines established using a monthly collection form created by the Network. The first baseline established the % of patients missing at least one treatment during the month. The second baseline established the % of patients shortening at least one treatment at least 15 minutes during the month. Educational materials such as the charts attached to this email were provided to facilities to educate those patients who missed or shortened their treatments.

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Evaluation:

Inclusion Criteria: Facilities selected were in the lowest quartile of Kt/V according to the eLab Data Collection from October – December for their respective years.

Exclusion Criteria: Facilities that were not in the lowest quartile of Kt/V. Facilities not selected by the Network. Facilities that participated but did not provide accurate data were excluded. This dropped the actual facilities used in the data; however, the number of facilities used was still statistically significant. Total number of facilities for statistical analysis was 19.

Barriers & Interventions: Through discussions with facilities during the previous project as well as other contact with facilities and the pre-assessment, root causes for patients missing or shortening treatments include:

- Patients do not recognize the importance of adhering to dialysis prescription
- The facility does not track missing/shortened treatment
- The facility either does not have (or does not enforce) a policy for missing/shortened treatments.

Interventions that were proven successful in the previous project and deemed useful by the participating facilities were utilized for this project:

- Patient education on the importance of adherence to the prescription as well as a educational chart showing the cumulative effect of missed treatments
- Staff education on how to explain the importance of adherence to the patient (via webex)
- Tracking tools to track/trend missed or shortened treatments
- Technical assistance with policy development/enforcement
- Completion of the 5-Diamond “health literacy” module
- Completion of an Action Step Plan

Confidence in the interventions:

These interventions were successful in the previous project and it was anticipated that this success can be replicated in a larger population.

Conclusion: Lessons Learned from the project:

1. While this project addressed the barriers of lack of patient and staff knowledge of the importance of adherence to the dialysis prescription and not missing/shortening treatments, the problem of missed/shortened treatments is multi-factorial including weather, hospitalizations, transportation, lack of time for patient education, staff turnover, family issues/responsibilities, depression in patients, and physical condition of the patient. These barriers need to be addressed by a facility specific or patient specific solution. The Network can provide technical assistance and tools/resources.
2. Some facilities still do not recognize the importance of tracking shortened treatments thus can not evaluate for trends nor address the issue.

Value Proposition: Missing dialysis treatments has been associated with a 13% higher hospitalization rate when only one treatment per month is missed, and a 14-30% increase in ESRD patient mortality rates. If only one patient fulfilled his/her entire treatment time and avoided a hospitalization as a result of this project, it would save the Medicare program \$ 15,9305 in hospitalization costs. Since the reduction was at least 11 shortened treatments >15 minutes or missing treatments during this project the cost savings per 100 patients was \$175,230. The patient population for this project was 1119 pts in March 2010. The savings impact for the entire project was \$1,960,823.00 base on the patient population.