Results of a One-Year Assessment of Quality Indicators in an Acute Dialysis Program Operated by a Large Dialysis Provider

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Introduction

- The delivery of acute dialysis has traditionally operated outside the framework of formal clinical quality assessment and improvement programs.
- Little information has been published regarding clinical quality indicators in the provision of acute dialysis treatments.
- Our goal was to collect patient data using an Acute Clinical Outcome Indicators (ACOI) form completed by nurses at multiple acute dialysis treatment facilities within a large dialysis organization (LDO) in an effort to:
  - improve quality of service,
  - enhance communication among patient care teams,
  - understand the provided nursing care, and
  - optimize clinical outcomes for patients.
- ***We present key quality indicators of clinical outcomes and process of care measures using the ACOI form data from each treatment.***

Objective

- The objective of this program was to identify clinical quality indicators and take the first step in developing benchmarks based on the collected data from the acute dialysis program operated by an LDO in order to improve patient outcomes and quality of service.

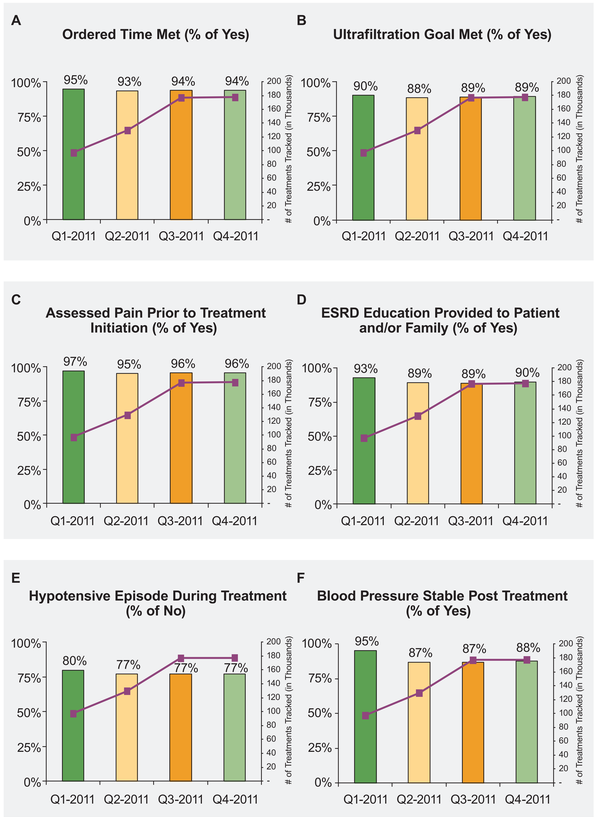
Methods

- Patient data were collected by nurses from participating facilities associated with an LDO for the acute dialysis program using the devised client management tool (Table 1).
  - Quality indicators of care measures were collected and identified using the data generated from each treatment (Figure 1).
- The ACOI form was completed by nurses between January 2011 and December 2011 and consisted of 19 questions related to trends in quality measures.
- The data was initially collected manually (January–April).
- An electronic data collection method was devised and implemented midway through the assessment period (May–December).
  - Data were recorded and assessed monthly.
  - Here, we present data quarterly.

Results

- 236 facilities serving 758 hospitals submitted patient data for the acute dialysis program.
- Participating facilities provided 581,481 treatments in 2011.

Figure 1. Select 2011 Acute Clinical Outcome Indicators



Trend line within each bar chart represents the number of treatments tracked per quarter.

Table 1. Select 2011 Acute Clinical Outcome Indicators from an LDO

Question	Goal (%)	Actual (%)
Vascular access – signs and/or symptoms of infection present (% of No)	95	97
Pre-treatment report from hospital nurse (% of Yes)	100	97
Post-treatment report to hospital nurse (% of Yes)	100	99
Pre-weight completed (% of Yes)	95	74
Post-weight completed (% of Yes)	95	66
Hemoglobin < 9.0 g/dL (% of No)	95	79
Dialyzer and/or system clotted during treatment (% of No)	95	94
Time-Out/Safety process per LDO P&P performed (% of Yes)	100	97

Discussion

- We successfully developed a process to track baseline data of clinical measures in the provision of acute dialysis treatments using the ACOI process.
  - This data will be used as a benchmark to assure patients, payers, and healthcare providers of the value of the prescribed therapy.
  - In addition, this data will be valuable in establishing future safety and patient outcomes quality measures.
- Some of the challenges associated with developing this process included:
  - A steep learning curve: teammates were educated about the process.
  - The transfer from manual data collection to electronic data collection.
  - Flaws in the data collection process included:
    - self-gathered data, and
    - question improvements.
- Of interest were the measures of pre- & post-weights and hypotensive episodes that fell below the benchmark goals.
  - This suggests a need for continued focus by nurses and physicians on appropriate estimation of patient dry weight needs.
- Developing a culture of safety with improved means of communication remains a challenge for all healthcare providers.
  - Additional measures of interest that fell slightly short of their goal were:
    - "time out" for safety, and
    - pre- and post-reports.

Conclusions

- We have successfully developed an ACOI assessment for an acute dialysis program operated by an LDO.
  - The system was enhanced when an electronic data collection process was devised and implemented.
- The ACOI helps:
  - standardize delivery of acute dialysis services,
  - establish baseline data, and
  - serve as an important first step in impacting clinical outcomes.
- This new ACOI tool helps caregivers and administrators better understand the delivered services.
- ACOI is important for developing a culture of safety.
- In order to produce the best ACOI assessment program, we continue to make the following improvements for our 2012 program:
  - refine questions and answers, and
  - educate teammates to ensure that they are selecting the answers that pertain to their patients.

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