Improving Interactions with Patients in a Dialysis Facility

A Case Study of a Successful Quality Improvement Intervention

DONNA O. FARLEY, SHELLEY H. WISEMAN, AND DENISE D. QUIGLEY

WR-954-AHRQ
August 2012
Prepared for the Agency for Healthcare Research and Quality
## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF FIGURES AND TABLES</td>
<td>iv</td>
</tr>
<tr>
<td>OVERVIEW</td>
<td>v</td>
</tr>
<tr>
<td>THE SHORT STORY</td>
<td>vii</td>
</tr>
<tr>
<td>THE STEPS</td>
<td></td>
</tr>
<tr>
<td>Step 1: Confirm Suspected Problem with More Information</td>
<td>1</td>
</tr>
<tr>
<td>Step 2: Examine Data from Step 1; Develop any New Measures</td>
<td>3</td>
</tr>
<tr>
<td>Step 3. Set Goals and Formulate Actions for Improvement</td>
<td>4</td>
</tr>
<tr>
<td>Step 4. Implement Actions for Improvement</td>
<td>5</td>
</tr>
<tr>
<td>Step 5. Assess Progress and Refine Actions for Improvement</td>
<td>6</td>
</tr>
<tr>
<td>Step 6. Monitor Improvements for Sustainability</td>
<td>8</td>
</tr>
<tr>
<td>BACKGROUND</td>
<td></td>
</tr>
<tr>
<td>The Dialysis Center</td>
<td>9</td>
</tr>
<tr>
<td>The Performance Indicators</td>
<td>11</td>
</tr>
<tr>
<td>Structure and Staffing of the Dialysis Center</td>
<td>12</td>
</tr>
<tr>
<td>The Quality Improvement Process</td>
<td>13</td>
</tr>
<tr>
<td>The Steps in More Detail</td>
<td>15</td>
</tr>
<tr>
<td>LESSONS LEARNED THAT CAN BE APPLIED MORE BROADLY</td>
<td>27</td>
</tr>
</tbody>
</table>
FIGURES AND TABLES

FIGURES

Figure 1. The Plan-Do-Study-Act (PDSA) Cycle

Figure 2. Changes in CAHPS Scores for Dialysis Center Staff Performance, at Baseline November 2009 and Seven Months Later

Figure 3. Changes in CAHPS Scores for Nephrologists Performance, for Baseline and Seven Months Later

Figure 4. Changes in CAHPS Scores for Dialysis Center Staff Performance

Figure 5. Changes in Practices Regarding Discussion of Aspects of Care for Treatment of Kidney Failure, CAHPS Survey for Baseline and Seven Months Later

Figure 6. Overall CAHPS Ratings for Nephrologists, Center Staff and the Dialysis Center, for Baseline and Seven Months Later

TABLES

Table 1. Staffing of the Dialysis Center for In-Center and Nocturnal Hemodialysis

Table 2. Summary of the Actions Taken in the Quality Improvement Process for the Dialysis Center

Table 3. Percentage of Dialysis Center Patients Responding “Sometimes” or “Never” to questions on the CAHPS Survey

Table 4. Percentage of Dialysis Center Patients Responding “Yes” or “No” to Questions on the CAHPS Survey

Table 5. Average Ratings Given by Dialysis Center Patients on the CAHPS Survey (scored 0 to 10)
OVERVIEW

This report describes the efforts of one dialysis center to improve customer service and access for its patients with end-stage renal disease (ESRD). The practice is affiliated with a national, multi-center corporation that specializes in dialysis services, and it functions under policies and standards established by the parent company. It also works closely with the company’s regional liaison. All but a small percentage of the center’s patients are on in-center hemodialysis, in which they receive four-hour dialysis sessions three days a week. The center operates six days a week, with patients being dialyzed on either a Monday-Wednesday-Friday shift (either morning or afternoon) or a Tuesday-Thursday-Saturday shift (either morning or afternoon).

Performance issues for the dialysis center arose via complaints from the center’s patients to the ESRD Network in whose area the center is located, involving both clinical quality and patient experience of care. The Network reported these complaints to the State Department of Health, and the State conducted a licensure and Medicare survey, which documented several clinical issues, leading the State to issue a Corrective Action Plan for the center. Similarly, patient experience-of-care issues were confirmed in data from the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) survey that the ESRD Network administered following its receipt of patient complaints.

Confirming the problem was the first step in the six-step approach to quality improvement. Figure 1 shows the six steps, which are based on the well-established Plan-Do-Study-Act (PDSA) cycle. The cycle is intended to be iterative; it rarely has a tidy beginning, middle, and end, and often requires circling back to previous steps for additional measuring, planning, and improving. To learn more about the PDSA approach, see the Institute for Healthcare Improvement’s public website at www.QualityHealthCare.org.

Figure 1. The Plan-Do-Study-Act (PDSA) Cycle

1. Confirm suspected problem with more information.
2. Examine data from Step 1; develop any new measures.
3. Set goals and formulate actions for improvement.
4. Implement actions for improvement.
5. Assess progress and refine actions for improvement.
The information presented in this report is based on interviews conducted with staff and management in the dialysis center and in its parent company. On the next two pages we offer a short summary of the six steps in the quality improvement process followed by more detail about the six steps. The fourth section of the case study report provides additional background information about the organization and the steps. Finally, we describe some lessons learned that may be applied in other organizations.
THE SHORT STORY

Who? A dialysis center that provides in-center hemodialysis services to patients with permanent kidney failure, and is owned by a larger organization that owns multiple dialysis centers (called here the parent corporation).

What? The dialysis center implemented a successful quality improvement initiative to provide more responsive services to dialysis patients. The initiative consisted of several clinical quality and safety improvements, staff training and coaching on how to work effectively with patients, and improved interactions with patients via a new patient advisory council.

Why? Problems with clinical quality and safety, customer service, and staff professionalism were revealed when patients filed complaints with the local ESRD Network, an independent entity under contract with Medicare for quality monitoring for dialysis centers in its region. The Network reported the complaints to the State Department of Health, which then conducted a State survey of the dialysis center’s operation. From this survey, the State issued a Corrective Action Plan that delineated several clinical quality problems the center was expected to correct. Performance issues for patient experience of care also were documented in the CAHPS In-center Hemodialysis survey that the ESRD Network administered following receipt of the patient complaints. These issues placed the center at risk of loss of its state license and Medicare certification to operate dialysis services.

When? Problems first emerged in 2008 and early 2009. The parent corporation was establishing this dialysis center by consolidating two centers in the same building that previously had operated separately. Patients began to complain about their experiences with the newly consolidated center. The State survey was conducted in mid-2009, and the CAHPS survey was first administered in November 2009. The center carried out performance improvement actions during the second half of 2009 through 2010, and the CAHPS survey was administered again in mid-2010 to assess improvement progress.

Where? The consolidated dialysis center focused on clinical issues itemized in the State survey, including infection-control procedures for its in-center hemodialysis services and clinical management of the dialysis process, and patient experience-of-care issues verified in the first CAHPS survey, including staff professionalism and communications issues.

How? The center’s parent corporation took the first action, by bringing in a new interim clinical operations manager for the center. Then the dialysis center used an improvement strategy that focused on formal training of staff, which was provided by the ESRD Network staff, followed by ongoing coaching and reinforcement of new clinical and patient communication practices, along with proactive outreach to patients for regular feedback and suggestions.
So What? Staff professionalism and communication with patients improved fairly rapidly, with improvements found in the seven months between the two CAHPS surveys. The center also corrected its clinical issues; as a result, the State lifted its Corrective Action Plan and returned the center to full status in late 2010. Patients confirmed that they were pleased with the changes made, which had improved their experiences with the care and communications provided by the dialysis center. The following lessons were learned during the quality improvement effort:

- Effective leadership that reinforces good practices is essential. It may be necessary to make leadership changes so that new leaders can guide the organization into the future.
- Strong and sensitive skills for managing change are needed to help stakeholders engage in the process and adjust to changes.
- Data that document issues clearly help management identify and understand problems that require attention, and then to track progress in making improvements.
- An organization can benefit from external expertise and support, as exemplified here by information and guidance received from the State survey and the ESRD Network.
- It is important to hire qualified staff and provide them the training and support needed for them to render caring and professional service to patients.
- Standardized training followed by ongoing reinforcement are important for giving staff the tools they need to communicate with patients and provide quality service.
- The patients are an important, yet often overlooked, stakeholder group. A dialysis center can be more effective if it elicits patient views and feedback and makes them feel that they are respected members of their own care processes.
THE STEPS

**Step 1: Confirm Suspected Problem by Gathering More Information**

**What Did the Dialysis Center Management Team Do?**

The dialysis center management team consisted of an interim operations manager, medical director, and director of nursing. The center’s performance problems were first raised by patient complaints in late 2008 and 2009, including both clinical quality and safety issues and patient experience-of-care issues.

The complaints were made to the local ESRD Network, an independent entity under contract with Medicare for quality monitoring for dialysis centers in its region. The Network reported the complaints to the State Department of Health, which performed a licensure and Medicare survey of the dialysis center in late 2009. Based on survey results, the state issued a Corrective Action Plan to the center, as recommended by the Medical Review Board of the ESRD Network. In addition, the Network conducted a CAHPS In-Center Hemodialysis survey in November 2009 to gather experience-of-care data for the center’s patients.

With support from the ESRD Network, the center’s management team confirmed the problems through the following actions:

- Identified clinical quality and safety issues itemized in the Corrective Action Plan issued to the center by the State Department of Health.

- Assessed patient experience-of-care issues documented in the CAHPS In-Center Hemodialysis survey, the results of which the ESRD Network reported to the leadership of the dialysis center and its parent corporation, along with numerous recommendations for action, in January 2010.

- Held group discussions and individual interviews with center staff to gather information on their perspectives and concerns regarding provision of care to dialysis patients.

**What Were the Results?**

Some patient experience issues identified in the patient complaints were:

- Language barriers between staff and patients
- Lack of interactions and communication between staff and patients
- Lack of staff professionalism
- Low staff morale due to stressful patient interactions
- High staff turnover with effects on continuity of care
- Staff gathering and talking and ignoring patients
The CAHPS In-Center Hemodialysis survey contains items regarding nephrologists’ communication and caring; quality of dialysis center care and operations; staff interactions with patients; providing information to patients; and overall ratings of performance of the center, nephrologists, and dialysis center staff. In the CAHPS results, the center received higher scores for communication and caring from the nephrologists (the physicians who manage care for dialysis patients), but lower scores for the quality of dialysis center care and operations, which is where the staff performance issues are addressed.

Some clinical issues identified in patient complaints or the State survey were painful insertion of the needle used for dialysis catheters, patient transfers to other dialysis centers without nephrologists’ consent, errors in dialysis set up, inadequate monitoring of patient weighing and other procedures for dialysis preparation, and catheter lines left open during dialysis.

In addition, environmental and infection-control problems identified included inadequate hand washing and glove changes by staff, problems with cleanliness in the physical facility, and poor facility climate control.

**Take-Away Lessons**

- It is important to listen to feedback from patients and other stakeholders to identify performance problems and act to address them.
- CAHPS patient experience data can be used to establish standardized performance measures, identify problem areas, track progress in improvements, and assess changes over time.
- Independent assessments and support from external organizations (in this case the State and the ESRD Network) can help identify and act on performance issues.
Step 2: Examine Data Gathered in Step 1 and Develop New Measures as Needed

What Did the Dialysis Center Management Team Do?

The existing clinical operations manager was replaced by an experienced interim operations manager designated by the parent organization. The new operations manager worked with the medical director and director of nursing, along with an area manager from the parent corporation, as the dialysis center’s improvement team. The team confirmed the performance issues to be addressed, and it worked with measures from the following sources to assess progress in making improvements on those issues.

- Before-and-after CAHPS measures assessing changes in center and staff performance.
- The State Corrective Action Plan, with the goal of achieving compliance on clinical quality items.
- Feedback obtained directly from patients during the improvement process.

What Were the Results?

The information generated by the State survey and the CAHPS patient survey confirmed performance issues and stimulated motivation by the center’s team to make needed improvements. The team proceeded to develop an action plan for making improvements targeted on these three sets of performance measures. Measurement continued to be performed periodically during the implementation of this plan, to assess progress in improving performance on the measures.

Take-Away Lessons

- An improvement strategy should be grounded in data that provide a full picture of which specific processes need to be improved, which implementers can use to assess how well quality improvement interventions are achieving goals.
- When possible, use more than one source of information on the same topics, such as CAHPS survey data and direct dialogue with patients as sources for patient experience-of-care information.
- Gathering and examining patient experience data is an iterative process.
Step 3: Set Goals and Formulate Actions for Improvement

What Did the Dialysis Center Management Team Do?

After the January 2010 meeting with the ESRD Network, the dialysis center improvement team (the interim operations manager, medical director, and director of nursing) mobilized to develop an action plan, with support from the parent corporation area manager and the ESRD Network staff.

The improvement goals established were driven strongly by the requirements of the Corrective Action Plan established by the State surveyors, as well as the results of the first CAHPS survey done in November 2009 and feedback from the patients. In the action plan, they established the following improvement goals:

- Strengthen the center’s leadership staff
- Improve clinical care processes in the center
- Improve stability of center staffing and the performance and professionalism of staff

To achieve these goals, the action plan defined the following action strategies:

- Restructure, train, and stabilize the management staff of the dialysis center
- Make improvements to infection-control processes, staff management of patients’ dialysis care, and other clinical issues stated in the State Corrective Action Plan
- Provide staff training on patient communication techniques and staff professionalism, to be provided by staff of the ESRD Network
- Perform regular coaching to help staff internalize new skills and methods they were taught, and to help troubleshoot issues that arise
- Establish a patient advisory council for regular dialogue with patients.

What Were the Results?

With clear priorities defined in the action plan, the center staff were able to focus their efforts on actions aimed at achieving their improvement goals. Having external resources available (ESRD Network staff support and nurse monitors assigned by the State) reinforced this work and provided additional expertise.

Take-Away Lessons

- Develop improvement goals and strategies that are based on priorities identified in the performance data collected and analyzed.
- It may be necessary to examine a performance problem from several directions to detect underlying issues that contribute to it.
- Include in the action plan ongoing reinforcement of new skills to ensure that any training provided is internalized by staff.
Step 4: Implement Actions for Improvement

What Did the Dialysis Center Management Team Do?
The dialysis center implemented the set of actions developed in Step 3 (re-stated here as actions taken):

- Restructured, trained, and stabilized management staff of the dialysis center.
- Made improvements to infection-control processes, staff management of patients’ dialysis care, and other clinical issues as specified in the State’s Corrective Action Plan.
- The ESRD Network provided a series of training sessions for the center staff on patient communication techniques and staff professionalism.
- The center team followed the training with provision of regular coaching to help staff internalize the lessons from the training and with support on managing issues.
- Established a patient advisory council for regular dialogue with patients.

What Were the Results?

In general, the staff were receptive to the training, although some staff resisted the changes. As time passed, growing numbers of previously resistant staff became more receptive and began to see the value of the training.

After establishing the patient advisory council, the center team met with this group regularly to learn patients’ perspectives and feedback on how well they felt the center was serving them.

As improvements were achieved, the center leaders shared the good news by reporting successes and changes in outcomes in staff meetings, in patient advisory council meetings, and on bulletin boards. They received positive responses from staff and patients, who were very happy to see the improvements being made. This sharing of progress also provided a stimulus for additional efforts by staff to continue improvement efforts.

Take-Away Lessons

- Don’t assume that staff have the skills and knowledge needed to work with dialysis patients, who are living with a difficult chronic illness. Provide training and follow-up coaching to reinforce appropriate practices for caring for patients.
- Demonstrate responsiveness to patients’ needs and issues by reporting back to patients on actions taken based on their feedback.
- Communicate openly and often with all stakeholders about performance expectations and progress.
- Celebrate successful improvement with staff and patients.
Step 5: Assess Progress and Refine Actions for Improvement

What Did the Dialysis Center Management Team Do?
The center team assessed progress during implementation using four information sources. First, it received monthly reports by the State nurse monitors, who were on-site to observe and document the center’s progress in making the changes specified in the Corrective Action Plan.

Second, the center team obtained feedback from patients in the patient advisory council meetings. The center team had constructive discussions with the patients about performance issues and progress being made.

Third, the ESRD Network conducted a site visit at the dialysis center in May 2010, making observations, talking to patients, and watching the dynamics of the care process.

Finally, in July 2010, the Network again conducted the CAHPS In-Center Hemodialysis survey with the dialysis center patients, replicating methods used for the November 2009 survey, to collect performance data after the center had been implementing improvements for awhile. The ESRD Network discussed these survey results at a meeting with the center’s interim operations manager, medical director, and director of nursing, along with other representatives of the parent corporation.

What Were the Results?

- The State surveyors found that the center had made substantial improvements in clinical performance and formal patient complaints had stopped. As a result, the State released the center from the Corrective Action Plan requirements in November 2010.

- The CAHPS survey results showed substantial improvement by the dialysis center on patient experience-of-care measures. In particular, the performance of the staff improved. For the four staff performance measures shown in Figure 2, the percentage of respondents who gave the lowest scores decreased substantially from the baseline CAHPS survey to the second survey. Similar improvements were found at the most positive end of the distribution, in particular for the measure of how frequently the staff show respect for patients. In the second survey, 65 percent of respondents said the staff always showed respect, compared to only 25 percent in the first survey.

- During the monitoring activities, patients offered feedback that they were glad the improvement process was happening. The center staff felt that these improvements in patient perceptions were a result of the center’s focus on patients in its improvement plan as well as the visibility of the ESRD Network’s engagement with the center.

- The dialysis center staff also reported that they appreciated getting support for what they were doing and the issues they faced. With the training provided and management support, the staff were making progress in how they interacted with patients.
Take-Away Lessons

- With a focused action strategy and the perseverance to reinforce changes being made, a dialysis center can achieve improvements in experience of care for its patients.

- The effective engagement of all important stakeholders is central to success in achieving improvements in patient experience of care because all of them are affected by the care processes involved.

- Accountability related to monitoring by external entities can be helpful to reinforce efforts required to implement needed changes in practices.
Step 6: Monitor Improvements for Sustainability

What Did the Dialysis Center Management Team Do?

After completing the implementation of the action plan, the center management team was confident that the new practices were well established and would be sustained. The center’s culture was much improved and previous language barriers were reduced such that staff and management were no longer hearing patient complaints about the care provided or other issues with staff professionalism. In addition, the center staffing had stabilized, both at the leadership level and the front line.

The consolidation and size reduction of the dialysis center was done to achieve operational efficiencies, and for the near future, the dialysis center will remain at its current size. However, if there is growth in demand from the community, the center has the capacity to respond to it by increasing the number of its dialysis stations.

What Were the Results?

The ESRD Network continues to monitor the performance metrics of the center as part of its routine oversight function. The Network’s presence can be considered a part of the monitoring to help sustain the improvements achieved because it continues to be a resource for patients to file complaints if they find further problems. However, the center has retained its patient advisory council as a normal part of its operation, so that any such issues are likely to be identified and addressed quickly by the center, without patients having to complain to the ESRD Network.

Take-Away Lessons

- Take action on an ongoing basis to reinforce the continuation of new practices introduced in the quality improvement process.
- Regularly monitor CAHPS scores and other pertinent performance indicators to make sure that any lapses in desired practices are identified early and managed quickly.
BACKGROUND

THE DIALYSIS CENTER

The dialysis center that is the subject of this case study is part of a multi-center system that operates dialysis centers across the country, under the policy direction of its parent corporation. The dialysis center provides in-center hemodialysis services as well as nocturnal dialysis. It has 31 stations for hemodialysis services, which operate three shifts per day, six days a week. Patients are dialyzed on either Monday-Wednesday-Friday shifts (either morning or afternoon) or Tuesday-Thursday-Saturday shifts (either morning or afternoon). In-center nocturnal dialysis is performed during the night, with patients sleeping at the center during treatment. The nocturnal services typically are provided for patients who have full-time jobs during the day, to help them maintain an active lifestyle.

The parent corporation works closely with its dialysis centers to ensure quality of care for patients. It has established organization-wide policies and procedures that its centers follow, including standards for clinical processes, treatment of water used in dialysis, infection control, and other quality improvement activities. All of the policies have been approved by its governing body. The company has a policy manual and tools for quality improvement (QI), which it uses on a monthly basis with its centers, including establishment of performance goals and objectives, along with regular reporting of QI work and performance to the system. Through this process, they work to identify quality areas that need improvement and provide guidance for its centers to address those issues.

Merger of Two Dialysis Centers in the Same Building

Historically two 32-station dialysis centers owned by this parent corporation had been operating in the same building, which served different patient populations and had different cultures. One center served a predominantly African American population while the other served patients of other ethnicities with a mostly Indian staff. Both centers were operating below their service capacity. In 2008, the parent corporation decided to combine the two dialysis centers into one 31-station center on one floor, to improve efficiency in caring for a smaller in-center dialysis patient population, and to better position the center for future growth, including building peritoneal dialysis programs in patients’ homes (rather than in the dialysis center).

The two dialysis centers were located in the region of one of the ESRD Networks, which are organizations under contract to Medicare to provide independent oversight of the quality performance of dialysis centers in their regions. This ESRD Network started receiving patient complaints about the consolidation of the two dialysis centers in 2008. When the Network contacted the dialysis centers about these issues, the centers’ parent corporation put the consolidation on hold to provide time to address these concerns. This consolidation finally took place in 2009, at which time the second center was closed. The corporation plans to leave the consolidated center at its current size because limited growth is expected in its current market, although the building has additional space that could be used to expand if demand should grow in the future.

With the closure of one center, the patients served by that center were moved to a center environment that was more formal than the one in which they previously had received care. In
addition, most of the staff from the closed center did not move to the consolidated one that remained open. Therefore, the patients experienced a substantial change in culture to which they had to adjust, and some patients were unhappy about these changes.

The issues that arose during the consolidation were also affected by cultural diversity across the two centers. The center that closed was the one that served largely an African American patient population, while the center that remained open served patients of other racial/ethnic backgrounds with a staff that included many of Indian background. Many of the African American patients felt that these staff did not show enough caring toward them. They criticized the staff for speaking languages other than English in the dialysis areas. Other patients, however, tended to feel that the staff were shy; they did their job but did not talk much to the patients. These issues differed by dialysis shift, with the greatest concerns being expressed by patients on the Monday-Wednesday-Friday shift, while the Tuesday-Thursday-Saturday shift had fewer problems. According to the center staff, the Monday-Wednesday-Friday shift had a greater share of the patients who were unhappy about services. By contrast, the nocturnal shift also had an ethnic mix of patients, but few problems were encountered on that shift.

**Identification of Performance Problems**

Several performance issues were identified at approximately the same time and several complaints about the center were filed with the ESRD Network. The first complaint was made in 2008 shortly before the planned consolidation of the two centers into one center. Eight additional complaints were filed in the early half of 2009 by several patients and a nephrologist stating that the newly consolidated center was not providing adequate care during treatment.

The ESRD Network runs quarterly profiles of the centers in its region that show patient complaints. The Network viewed the complaints about this center with concern because the number of complaints far exceeded what is normally received about any single center in its region. In meetings with patients at the center, ESRD Network staff saw their unrest and dissatisfaction with the center staff and with the corporate management approach, which also was unusual. The parent corporation delayed the center consolidation until mid-2009 as the issues raised in the complaints were being addressed.

**Documenting the Problems**

Issues regarding both clinical quality and safety and patient experience of care were reported in the complaints filed with the ESRD Network. Some of the clinical issues identified included painful insertion of the catheter connection for dialysis, patient transfer to other centers without a nephrologist’s consent, errors in dialysis set up, dialysis lines left open during dialysis, and delays in starting the dialysis on time. Some of the experience-of-care issues identified were language barriers between staff and patients, lack of staff professionalism, staff gathering and talking and ignoring patients, and high staff turnover with effects on continuity of care.

The ESRD Network reported the complaints to the State Department of Health, which performs certification surveys for both the state and the Medicare program. The performance issues implied by the complaints were investigated by the ESRD Network and the State Department of Health. Collectively, these investigations found that the performance issues were jeopardizing patient safety, and that patients did not feel that they were safe, listened to, or respected.

In July 2009, the State Department of Health conducted a full Medicare and State survey of the center, the results of which it reported to the Medical Review Board of the ESRD Network. In
September 2009, upon recommendation of the Medical Review Board, the State issued the dialysis center an Initial Corrective Action Plan and assigned independent, external nurse monitors to oversee its activities until the center achieved compliance with the conditions in the Corrective Action Plan.

In November 2009, the ESRD Network staff administered the CAHPS In-Center Hemodialysis survey with patients during their dialysis sessions. The survey results confirmed issues regarding patients not feeling respected, listened to, or cared about by the dialysis staff. The ESRD Network staff developed a slideshow describing the complaints received and the CAHPS survey results, which it presented to dialysis center leaders at a meeting in January 2010, along with numerous recommendations for improvement actions.

**Acting on the Problems**

After receiving the State Corrective Action Plan and hearing the CAHPS survey results, the leadership of the parent corporation and the dialysis center developed an action plan for addressing the problems. The performance measures used to assess progress in performance were (1) receipt of a release from the Corrective Action Plan by the State, and (2) improvement in scores on the CAHPS In-Center Hemodialysis survey, and (3) regular feedback from discussions with patients. Their improvement strategy consisted of several components, including changes in management staff at the dialysis center, training for staff on managing difficult interactions with patients and staff professionalism, ongoing coaching for staff to reinforce training and provide support, and engagement of patients for regular feedback.

**Performance Improvements**

By the end of 2010, the dialysis center had made substantial progress in addressing the issues identified by the State and specified in the Corrective Action Plan. As a result, the State released the center from the Plan in November 2010. In addition, results of a second administration of the CAHPS survey, in July 2010, showed that the center had improved scores on the CAHPS measures for patient experience of care.

**THE PERFORMANCE INDICATORS**

Awareness of the dialysis center’s problems was first raised by complaints filed by patients with the ESRD Network for the Medicare region in which the center was located. Additional information was gathered that verified the existence of problems and identified specific areas in which performance needed to be improved.

One source of the additional information was the State survey conducted in July 2009, which identified problems with infection control as well as a number of other quality and patient service issues. Based on the survey results, the State issued the dialysis center an Initial Corrective Action Plan with external nurse monitors in September 2009.

The other source of information was the CAHPS In-Center Hemodialysis survey that was first conducted by the ESRD Network in November 2009. This survey contains a set of measures of performance on patient experience of care.
Indicators Used to Measure Performance Improvement

The indicators used to measure the dialysis center’s progress were:

- Success in obtaining a release from the State Corrective Action Plan
- Improved scores on the measures in the CAHPS survey
- Improvement in feedback obtained directly from patients.

About CAHPS

The federal Agency for Healthcare Research and Quality (AHRQ) first launched the Consumer Assessment of Healthcare Providers and Systems Study (CAHPS) program in October 1995. Over time, CAHPS has expanded to address a range of health care services, including in-center hemodialysis services provided by dialysis centers, to meet the various needs of health care consumers, purchasers, health plans, providers, and policymakers.

The CAHPS In-Center Hemodialysis survey contains items regarding nephrologists’ communication and caring (6 items); quality of dialysis center care and operations (14 items); staff interactions with patients (3 items); providing information to patients (10 items); and overall ratings of performance of the center, nephrologists, and dialysis center staff. For the items on nephrologists’ communication and caring and the items on quality of dialysis center care and operations, the response scale is: Never; Sometimes; Usually; Always. The items for staff interactions with patients and for providing information to patients have yes/no response options. The three rating items are scored on a 0 to 10 scale. The survey also contains items on patient background that are used for case-mix adjustment (self-rated health status; self-rated mental health status; gender; education; and age).

STRUCTURE AND STAFFING OF THE DIALYSIS CENTER

As described above, the dialysis center was formed in 2009 with the merger of two centers that were located in the same building. At the time of this quality improvement work, the consolidated center had 31 stations for hemodialysis services, which operated three shifts per day, six days a week. Patients receiving in-center hemodialysis were treated with three dialysis sessions per week, which were either Monday-Wednesday-Friday or Tuesday-Thursday-Saturday, in either the morning or afternoon. Patients receiving nocturnal hemodialysis were dialyzed at night while they slept at the center.

The center had a total of 21 employees, with eight technicians and three nurses working on each dialysis shift, as shown in Table 1. The staff working at the center are of mixed race/ethnicity, but they are predominantly Indian.

<table>
<thead>
<tr>
<th></th>
<th>In-Center Hemodialysis</th>
<th>Nocturnal Hemodialysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered nurses</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Licensed practice nurse</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Dialysis technicians</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Secretary</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Social worker</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Dietician</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
THE QUALITY IMPROVEMENT PROCESS

The overall quality improvement process used to address the dialysis center’s clinical and patient experience-of-care issues is summarized in Table 2. It illustrates how the dialysis center implemented the six steps in the Plan-Do-Study-Act cycle over time. A more detailed description of actions taken in each of the six steps of the quality improvement process follows.

The people who led the quality improvement effort were in various positions at the dialysis center and its parent corporation. They include the system area manager and the center interim operations manager, medical director, and director of nursing. In addition, the external nurse monitors provided guidance for the improvement process.
Table 2. Summary of the Actions Taken in the Quality Improvement Process for the Dialysis Center

<table>
<thead>
<tr>
<th>Date</th>
<th>Data Collection</th>
<th>Diagnosis of Issues</th>
<th>Planning Goals and Strategy</th>
<th>Implementing Actions</th>
<th>Measurement and Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2009</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008 through early 2009</td>
<td>Complaints to ESRD Network, starting in 2008</td>
<td>Resulted in State survey and center review</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid-2009</td>
<td>State survey</td>
<td>Corrective Action Plan</td>
<td>Initial focus by center on infection control</td>
<td>Leadership staff changes at the dialysis center</td>
<td></td>
</tr>
<tr>
<td>Late 2009</td>
<td>CAHPS survey by Network (November 2009)</td>
<td>Analysis of survey results</td>
<td>Center starts quarterly patient advisory council meetings</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2010</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early 2010</td>
<td>Meeting of Center and Network on CAHPS results</td>
<td>Recommendations by Network for actions. Center builds strategy.</td>
<td>Meeting with patients by the center and Network</td>
<td>Monitoring by the State with Network input</td>
<td></td>
</tr>
<tr>
<td>First half of 2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid-2010</td>
<td>Second CAHPS survey by Network (July 2010)</td>
<td></td>
<td></td>
<td>Network reports improvements on second CAHPS survey to the center staff</td>
<td></td>
</tr>
<tr>
<td>Late 2010</td>
<td></td>
<td></td>
<td>Permanent clinical operations manager in place</td>
<td>Center obtains release from State Corrective Action Plan</td>
<td></td>
</tr>
</tbody>
</table>
THE STEPS IN MORE DETAIL

Step 1: Confirm Suspected Problem by Gathering More Information

The first complaint filed with the ESRD Network about the dialysis center was made in 2008, shortly before its planned consolidation of two centers into one center, which resulted in a delay in implementing the consolidation until mid-2009. Then eight additional complaints were filed in the early half of 2009 by several patients and a nephrologist stating that the newly consolidated center was not providing adequate care during treatment. The patient was a patient representative to the ESRD Network who felt it was important to raise the issues.

Collectively, the performance issues identified in the complaints could jeopardize patient safety, and patients did not feel that they were safe, listened to, or respected. Some of the clinical issues identified were painful needle insertion, patient transfer without a nephrologist’s consent, errors in dialysis set up, and lines left open during dialysis. Some of the patient experience-of-care issues identified were language barriers between staff and patients, lack of staff professionalism, staff gathering and talking and ignoring patients, and high staff turnover affecting continuity of care.

The ESRD Network reported the complaints to the State Department of Health. In July 2009, the State responded by conducting a full Medicare and state survey of the dialysis center. The State survey identified a major issue with infection-control processes, as well as some other issues of clinical performance and patient experience of care. In September 2009, the State issued the dialysis center an Initial Corrective Action Plan and assigned external nurse monitors to observed and document actions taken by the center to improve performance.

In addition, the ESRD Network staff investigated the complaints by performing observations at the center in November 2009. The observations revealed many of the same issues reported in the complaints to the Network and found in State survey.

In November 2009, the ESRD Network conducted the CAHPS In-Center Hemodialysis survey with patients at the dialysis center. Following a written script, a Network staff person introduced himself or herself, described the role of the Network, and explained that they were conducting the survey to see how the patient’s care was going. The patient was asked permission to conduct the survey. Then the Network staff person asked each question on the survey and recorded responses on a paper copy of the survey. A 67 percent response rate was obtained.

The Network staff developed a slideshow with the complaints and CAHPS survey results. They presented this slideshow to dialysis center leaders at a meeting at the center in January 2010. The people from the center who participated were several staff from the parent corporation (the area vice president, area manager, regional quality person, and a corporate troubleshooter), as well as the interim operations manager, medical director, and director of nursing of the dialysis center. In addition, a nurse monitor attended, per the terms of the State Corrective Action Plan.

The Network director started the presentation by asking the participants to think about “Why does your center exist?” (what’s its mission), and she asked them to think about their own personal experience with the health care system, to reinforce the importance of the issues that have been identified. Then she presented the results of the complaints and survey.
Key results of the CAHPS survey are presented in Tables 3 through 5. As shown in Table 3, the center received good scores for nephrologists’ communication and caring, with only 14-27 percent of patients responding “sometimes/never” to items in this group. Greater problems were identified for the quality of dialysis center care and operations, with as many as 60-64 percent of patients giving a negative response to several items in this group, and most of the items having negative responses in the range of 44-59 percent of patients.

Table 3. Percentage of Dialysis Center Patients Responding “Sometimes” or “Never” to questions on the CAHPS Survey *

<table>
<thead>
<tr>
<th>CAHPS Survey Question</th>
<th>Percentage Responding Sometimes or Never</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nephrologists’ Communications and Caring</strong></td>
<td></td>
</tr>
<tr>
<td>How often does the patient’s nephrologist:</td>
<td></td>
</tr>
<tr>
<td>Listen carefully to the patient</td>
<td>27%</td>
</tr>
<tr>
<td>Explain things in a way that is easy to understand</td>
<td>18</td>
</tr>
<tr>
<td>Show respect for what the patient has to say</td>
<td>19</td>
</tr>
<tr>
<td>Spend enough time with the patient</td>
<td>33</td>
</tr>
<tr>
<td>Really care for the patient as a person</td>
<td>22</td>
</tr>
<tr>
<td>Is the nephrologist:</td>
<td></td>
</tr>
<tr>
<td>Informed and up-to-date about the care the patient receives from other doctors</td>
<td>14</td>
</tr>
<tr>
<td><strong>Quality of Dialysis Center Care and Operations</strong></td>
<td></td>
</tr>
<tr>
<td>How often does the dialysis center staff:</td>
<td></td>
</tr>
<tr>
<td>Listen carefully to the patient</td>
<td>57</td>
</tr>
<tr>
<td>Explain things in a way that is easy to understand</td>
<td>53</td>
</tr>
<tr>
<td>Show respect for what the patient has to say</td>
<td>59</td>
</tr>
<tr>
<td>Spend enough time with the patient</td>
<td>56</td>
</tr>
<tr>
<td>Really care about the patient as a person</td>
<td>60</td>
</tr>
<tr>
<td>Make the patient as comfortable as possible during dialysis</td>
<td>51</td>
</tr>
<tr>
<td>Insert the patient’s needles with as little pain as possible</td>
<td>47</td>
</tr>
<tr>
<td>Check the patient as closely as the patient wanted while on the dialysis machine</td>
<td>54</td>
</tr>
<tr>
<td>Have the ability to manage problems during the patient’s dialysis</td>
<td>45</td>
</tr>
<tr>
<td>Satisfy the patient with the way they handled these problems</td>
<td>53</td>
</tr>
<tr>
<td>Behave in a professional manner</td>
<td>44</td>
</tr>
<tr>
<td>Explain blood test results in a way that is easy to understand</td>
<td>51</td>
</tr>
<tr>
<td>When patient arrives on time, put the patient on the dialysis</td>
<td>64</td>
</tr>
<tr>
<td>machine within 15 minutes of appointment or shift time</td>
<td></td>
</tr>
<tr>
<td>Keep the dialysis center as clean as it could be</td>
<td>34</td>
</tr>
</tbody>
</table>

* Response options for the CAHPS questions are always, usually, sometimes, and never. The results here combine the “sometimes” and “never” responses and show the percentage of responding patients that gave one or the other of these responses.
The other dimension for which problems were indicated was providing information to patients, as shown in Table 4. Several items in this group had high percentages of “no” responses. These included items on care of graft, fistula, or catheter; reviewed patients’ rights; and explanation of options for kidney transplant or other dialysis modes. The center obtained higher scores for staff interactions with patients, but the 20 percent of negative responses to these items revealed room for improvement. The overall ratings shown in Table 5 show that nephrologists had the highest ratings (8.2 of 10) and center staff had the lowest ratings (6.3 of 10).

**Table 4. Percentage of Dialysis Center Patients Responding “Yes” or “No” to Questions on the CAHPS Survey**

<table>
<thead>
<tr>
<th>CAHPS Survey Question</th>
<th>Percentage Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff Interactions with Patients</strong></td>
<td></td>
</tr>
<tr>
<td>Did staff keep information about you and your health as private as possible from other patients</td>
<td>83% 18%</td>
</tr>
<tr>
<td>Did the patient feel comfortable about asking staff everything the patient wanted to ask about dialysis care</td>
<td>73 27</td>
</tr>
<tr>
<td>Did staff talk about what the patient should eat and drink</td>
<td>78 22</td>
</tr>
<tr>
<td><strong>Providing Information to Patients</strong></td>
<td></td>
</tr>
<tr>
<td>Anyone on staff ask patient:</td>
<td></td>
</tr>
<tr>
<td>About how kidney disease affects other parts of your life</td>
<td>20 80</td>
</tr>
<tr>
<td>If patient knows how to take care of graft, fistula, or catheter</td>
<td>78 22</td>
</tr>
<tr>
<td><strong>Staff ever:</strong></td>
<td></td>
</tr>
<tr>
<td>Give patient written information about patients’ rights</td>
<td>65 35</td>
</tr>
<tr>
<td>Review patient’s rights with the patient</td>
<td>33 67</td>
</tr>
<tr>
<td>Tell patient what to do if they have a health problem at home</td>
<td>69 31</td>
</tr>
<tr>
<td>Tell patient how to get off the machine if there is an emergency at the center</td>
<td>82 18</td>
</tr>
<tr>
<td><strong>Either nephrologist or staff:</strong></td>
<td></td>
</tr>
<tr>
<td>Talk to patient as much as patient wants about which treatment is right for them</td>
<td>57 43</td>
</tr>
<tr>
<td>Explain to patient why patient is not eligible for kidney transplant</td>
<td>49 51</td>
</tr>
<tr>
<td>Talk to patient about peritoneal dialysis</td>
<td>45 55</td>
</tr>
<tr>
<td>Patient was as involved as patient wanted in choosing the kidney disease treatment that is right for them</td>
<td>62 38</td>
</tr>
</tbody>
</table>

**Table 5. Average Ratings Given by Dialysis Center Patients on the CAHPS Survey**

<table>
<thead>
<tr>
<th>CAHPS Overall Rating Question</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating of patient’s nephrologist</td>
<td>8.2</td>
</tr>
<tr>
<td>Rating of dialysis center staff</td>
<td>6.3</td>
</tr>
<tr>
<td>Rating of the dialysis center</td>
<td>7.1</td>
</tr>
</tbody>
</table>
Step 2: Examine Data Gathered in Step 1 and Develop New Measures if Needed

The next step was to examine all of the data to get an overall picture of the problem, identify baseline performance issues, prioritize improvement efforts, and select measures for motivating change and tracking progress.

After presenting the CAHPS survey results at the January 2010 meeting with the center staff, the ESRD Network leaders offered some recommendations for actions to improve the center’s performance. The CAHPS results provided objective data that got the attention of the dialysis center and parent corporation staff, in particular the medical director. As a result of subsequent discussion at the meeting, agreement was reached that the center would undertake an initiative to improve its performance, with support from the ESRD Network.

The Network presented the following key findings from the CAHPS survey and complaints:

Positive findings:
- Patients respect the physicians and feel they care about them but would like to spend more time with them
- The physical facility is usually clean
- Privacy is usually protected
- Patients are educated about how to care for the vascular access site (line connection site where access to a vein is gained for dialysis), how to disconnect from the dialysis machine if necessary in an emergency, and diet instructions

Negative findings:
- Patients do not feel respected, listened to or cared about by the dialysis staff
- Patients do not feel safe
  - Issues regarding staff ability to manage problems
  - Lack of checks and monitoring
- Patients have pain related to cannulation (the site where dialysis line is connected)
- Patients don’t get on dialysis on time

The Network staff also observed that one current approach by the dialysis center staff seemed to favor solving “the problem” by discharging all the “problematic” patients and transferring them to other dialysis centers. They noted, however, that the CAHPS survey results indicated that the culture of the center might actually have been a part of the problem, rather than the patients.

Based on the issues raised in patient complaints and the results of the CAHPS survey, the ESRD Network staff offered the following recommendations for actions by the center:
- No speaking languages other than English in treatment areas
- Stabilize staff. The center should not be a revolving door for training. Identify and take action on “problematic” staff, including those with repeat complaints from patients,
patterns of incidents with patients, repeat errors, or inadequate training that results in
errors such as reversing blood lines and not applying clamps properly.

- Provide professionalism, sensitivity, and communication training, for which the ESRD
  Network can provide assistance. Consider implementing a “day on dialysis” for all staff
  including managers (including all dialysis steps except actual dialyzing), to sensitize
  them to what it feels like to be a patient.

- Instill a sense of caring in staff through use of primary nursing methods, sitting rather
  than standing when working with patients, and use of standard questions and phrases that
  connote caring.

- Reduce frequency of painful cannulation by conducting intensive staff training and
  identifying and utilizing expert cannulators.

- Conduct one-to-one reviews with staff on the rights of the patients and responsibilities of
  the center.

- Audit dialysis start time for a week without staff knowledge, and act on the results.

- Engage patients in conversation when they aren’t on dialysis.

- Consider establishing a patient advisory council to announce improvements being made
  and to elicit the views of patients and their families. Follow up with progress reports to
  them. The medical director and director of nursing should meet with them monthly.

**Step 3: Set Goals for Improvement**

The corporate vice president and quality manager and the dialysis center medical leaders made a
commitment to action after the January 2010 meeting. The dialysis center leadership team then
mobilized to develop and carry out an improvement action strategy. This team consisted of the
corporate area manager and the interim operations manager, medical director, and director of
nursing for the center. The team developed goals and action plans for improving performance on
the clinical quality and patient experience-of-care measures. The external nurse monitors from
the State also provided guidance for the planning process.

The improvement goals were driven strongly by the requirements of the Corrective Action Plan
established by the State survey, as well as the results of the CAHPS survey. Goals addressed the
range of clinical and patient experience-of-care issues that had surfaced. The overall strategy was
to focus on strengthening the staff attitudes, care provision skills, and communication ability,
which had been found to be main sources of the performance problems identified. Specifically,
they set directions for improvements in the following areas:

- Strengthen center leadership staff
- Improve infection-control processes in the center
- Improve performance and professionalism of center staff
**Step 4: Implement Actions for Improvement**

The initial work that the center leadership staff undertook was to identify the items that required improvement. They developed action plans that defined step-by-step processes to address these issues. In particular, the clinical operations manager developed an action plan to show the State surveyors how responsibilities for each improvement step would be handled. The areas for improvement delineated in the plan were patient safety, infection control, staff professionalism, and staff morale. The center leadership maintained contact with the ESRD Network during the planning process, and Network staff were involved in some of the implementation activities, in particular its staff performed the staff training sessions.

After the action plan was completed, the center leaders met with the staff to share the results of the State survey and CAHPS survey and to present their planned actions for making improvements. This action was the first of several aimed at working with staff to engage them in the improvement process and strengthen their care provision skills.

**Strengthen Center Leadership Staff**

Early in the period of time in which this quality improvement work took place, the dialysis center experienced substantial staff turnover, including loss of the center’s clinical operations manager, the area manager, and many front-line staff. The clinical operations manager is responsible for running the center operation, and the corporate area manager oversees this center as well as others in the system. In mid-2009, the area manager assigned an interim operations manager to the center, who had center management experience and was charged with working on needed improvements. During this period of change, the area manager also was actively involved in overseeing the center.

The center also made changes in both the medical director and director of nursing positions, in an attempt to strengthen leadership and improve staffing stability. This was done in response to concerns by patients that the center was being used for staff training, with few experienced staff.

In December 2010, the interim operations manager brought in and trained a permanent clinical operations manager as her replacement, to take over operation of the center and continue work on the improvement initiatives. Again, center management experience was a key hiring criterion for this position. The operation manager’s office was moved to the front of the facility so both staff and patients could see the manager. That closeness to the patients helped to communicate to patients that they were important to the center.

**Staff Professionalism**

The strategy for strengthening staff professionalism was a combination of staff training on professionalism and caring communications with patients, accompanied by reinforcement of expectations and practices for staff as they work with the dialysis patients.

**Training courses.** Over a 2-3 month period in 2009, the ESRD Network conducted intensive training with the center staff from all three shifts. The mandatory seminars included the staff training program that the Network already had established as well as adaptation of the caring communication materials by an expert in the field. The training focused on methods for reducing patient conflicts, caring communications with patients, and staff professionalism in customer service.
The Network trainer was at the dialysis center every week for six weeks, conducting the 1-hour to 1.5-hour training sessions once a week. The trainer emphasized that the feedback on staff performance reflects patients’ perceptions of them, and that it is important to improve those perceptions for the sake of both the patients and the staff. For example, the training on caring communications emphasized how to ask patients questions that are not leading, which helps build trust with the patients during their dialysis treatment.

The Network staff also did special weekly in-service training sessions with the center staff to help them communicate better with unhappy patients. The staff then applied these lessons as they worked with the patients, to reinforce the newly learned communication methods.

In general, the staff were receptive to the training, although some staff resisted the changes, remaining convinced that some unhappy patients simply were chronic complainers. As time passed, however, growing numbers of the previously resistant staff became more receptive and began to see the value of the training.

**Actions taken to improve staff performance.** The dialysis center leadership began to accompany and observe staff as they performed their daily duties to reinforce the teachings from the training courses. They found that an adjustment period was needed for staff to learn to accept and use the new practices, which leadership supported through the follow-up reinforcement. This one-on-one work with staff members allowed leadership to build a trusting relationship with the front-line staff. The daily rounds also allowed managers to get more exposure to patients and talk with them about issues. They found that, in general, the staff were very receptive to this support and showed that they wanted to learn.

To make the center culture more responsive to patient needs, the center strengthened its policy that required use of English by all staff when talking with patients. This action responded to patients’ concerns that the staff were talking in a language that the patients could not understand. Although staff were permitted to use their native language in private conversations as a comfort to each other, it was expected that they use English in the presence of patients.

Some minor improvements were made in the physical facility and services for the nocturnal dialysis shift, but not much was needed in this area. The staff on that shift were performing well and the patients had not made complaints about those services.

As improvement actions were taken, additional data were collected to further improve understanding of the issues to be resolved. Staff from the parent corporation interviewed the center staff to gain additional understanding of the challenges these staff faced. In addition, in May 2010, the center leaders, center staff and the Network staff held a meeting to discuss the reasons why staff members’ were hesitant to work with the Monday-Wednesday-Friday shift.

Finally, center leaders shared the good news about improvements made in the center. They reported successes in staff meetings and patient advocacy meetings, and they also reported changes in outcomes on bulletin boards. They received good responses from staff and patients, who were very happy to see the improvements being made. This sharing of progress also provided a stimulus for additional efforts by staff to continue improvement efforts.

**Strategies to Engage Patients**

One of the first actions taken by the center to better engage patients was the establishment in December 2009 of patient advisory council, which met on a quarterly basis. The center leaders wrote down the concerns expressed by patients at the meetings and responded to them by
including actions in their improvement plans. At subsequent patient advisory council meetings, they presented a review of previous concerns and reported progress in actions being taken. The center also invited the ESRD Network to participate in the March 2010 patient advisory council meeting so they could observe the discussions and progress being made.

Several one-on-one conversations were held with several patients that needed individual feedback on their concerns. Sometimes the parent corporation staff were called in to talk with the patients. In addition, the nurse monitor from the State survey interviewed patients to gain a better understanding of the issues. All of these efforts allowed the center to confirm that they knew what the issues really were and to communicate what they were doing to resolve them.

The center found that some patients were afraid to speak out at meetings and some were complaining but unwilling to talk directly to the center staff. The center leaders made efforts to follow up with these patients to talk with them directly about their issues, and also to review the respective responsibilities of center staff and patients.

**Step 5: Assess Progress in Achieving Goals and Refine the Actions for Improvement**

**Assessment Process Used**

During the time the dialysis center was under the State’s Corrective Action Plan, its progress in making the changes specified in the plan was being monitored by the State. As part of that process, the ESRD Network provided monthly input to the State.

The ESRD Network also conducted a site visit at the dialysis center in May 2010 at which the Network staff talked to patients and observed the dynamics of the care process. The Network staff provided verbal feedback to the center staff during the site visit.

In July 2010, the Network conducted the CAHPS In-Center Hemodialysis survey a second time with patients at the dialysis center, using the same methods that they had used for the November 2009 survey. A 51 percent response rate was obtained on the second survey.

During the monitoring activities, patients offered that they were glad the improvement process was happening. In meetings with patients, it was found that other patients had concerns but had been afraid to speak up. The dialysis center made an effort to work with these patients, who as a result felt increasingly more secure. The center staff felt that the improvement in patient perceptions was a result of the center’s focus on patients in its improvement plan as well as the visibility of the Network’s engagement with the center.

The dialysis center staff also reported that they appreciated getting support. With the training provided and management support, the staff were making progress in how they interacted with patients and managed conflict situations.

**Improvements Achieved**

**Goal:** Improve performance sufficiently to correct deficiencies targeted in the State Corrective Action Plan requirements and achieve release from the Corrective Action Plan.
The State surveyed the center three more times after its July 2009 survey. During that time, the State found that the center had made substantial improvements and the number of complaints had declined. As a result, the State released the center from the Corrective Action Plan requirements in November 2010.

**Goal:** Achieve improved scores on the CAHPS In-Center Hemodialysis Survey.

At the end of the intervention period, and after the second CAHPS data collection, the Network staff met again with the center staff to share with them the results of their improvement work. Improvement was measured by comparing results of the CAHPS surveys conducted in November 2009 and July 2010 (seven months later). The results showed substantial improvement by the center on many of the CAHPS dimensions.

Highlights of the survey results are presented in Figures 3 through 6. (Figure 3 is the same as Figure 2 given above in the short version of this case study.) Figure 3 shows how CAHPS scores increased for four dimensions of performance for nephrologists. The survey responses are given on a scale of always to never, and for each response category, the percentages of respondents giving the response are shown. Although the nephrologist measures received some of the higher scores in the baseline survey, all of them improved in the subsequent seven months, during the center’s improvement process. For example, at baseline, 53 percent of respondents felt that their nephrologists always listened carefully to them, and the percentage increased to 75 percent in the second survey seven months later. An even larger improvement was found for the frequency with which nephrologists spend adequate time with the patient. Moving from 38 percent who said they always spend time with patients at baseline, 72 percent gave that response in the second survey.

![Figure 3](image-url)

**Figure 3. Changes in CAHPS Scores for Nephrologists Performance, for Baseline and Seven Months Later**
Similar results were found for the performance of the dialysis center staff, as shown in Figure 4. For all four measures shown, the percentage of respondents who gave the lowest scores decreased substantially from the baseline CAHPS survey to the second survey administration. Similar improvements were found at the most positive end of the distribution, in particular for the measure of how frequently the staff show respect for patients. From 25 percent of respondents who said the staff always showed respect, a much larger 65 percent gave that response in the second survey.

![Figure 4. Changes in CAHPS Scores for Dialysis Center Staff Performance](image)

Figures 5 presents responses to questions in the CAHPS surveys with yes/no responses. The results are shown for four dimensions of the services provided by dialysis centers. These dimensions of care are: discussion of the effects of kidney failure on patients’ lives, reviewing with the patients their rights as they receive dialysis treatment, discussion of the treatment options available to them, and explanation for why a patient is not a candidate for kidney transplant. For all of these measures, the percentage of respondents who said they were getting that service increased substantially from baseline to seven months later.

Finally, Figure 6 presents the average overall ratings that CAHPS survey respondents gave the nephrologists, the dialysis center staff, and the dialysis center as a whole. These ratings are given on a 0 to 10 scale. As shown in the Figure, the nephrologists received the highest ratings, and the center staff received the lowest ratings at baseline. Further, all three of the overall ratings improved from baseline to seven months later, with the rating for center staff having the largest increase.
Figure 5. Changes in Practices Regarding Discussion of Aspects of Care for Treatment of Kidney Failure, CAHPS Survey for Baseline and Seven Months Later.

Figure 6. Overall CAHPS Ratings for Nephrologists, Center Staff and the Dialysis Center, for Baseline and Seven Months Later.
Step 6: Monitor Improvements for Sustainability

The center staff are confident that the new practices are well established and will be sustained. The center’s culture is much improved and the previous language barriers have been addressed; they are no longer hearing patient complaints about care provided, culture, or language issues. The patient advisory council continues to meet, which provides a continuing feedback mechanism through which new issues can be identified. In addition, staff morale has improved as a result of the training and follow-up support by the center leaders, and the staffing has stabilized, both at the leadership level and for front-line staff.

Since the quality improvement initiative has been completed, the clinical operations manager that had been hired during this work has been replaced. The parent corporate sought someone with the skills for day-to-day operation of the center, which is a different set of skills than those required to manage changes in practices to improve quality performance.

The consolidation and size reduction of the dialysis center had been done to achieve operational efficiencies, and for the near future, the dialysis center will remain at its current size. However, if there is growth in demand from the community, the center has capacity to respond to it by increasing the number of its dialysis stations.
LESSONS LEARNED THAT CAN BE APPLIED MORE BROADLY

Among the lessons to be learned from the experience of this dialysis center are the importance of establishing a caring and safe culture for patient care, which requires responsiveness to patients’ needs and leadership in setting standards and empowering staff to provide caring service. In general, lessons learned pertain to:

- **Change management.** The merging of the two dialysis centers was needed for the system to achieve efficiencies, but it highlighted glaring differences in the cultures and operation of the two merged centers. Strong and sensitive change management skills are needed to in such a situation, engaging stakeholders throughout the process to help them adjust to the changes made and communicating with all stakeholders often and openly.

- **Leadership from management.** Good leadership that reinforces effective practices in the dialysis center is essential, in particular to ensure that problems are found when they are small so they do not escalate into large problems. At a time of substantial change in an organization, such as the consolidation of the two dialysis centers, it is often necessary to make leadership changes so that new leaders can guide the organization into the future.

- **Importance of data.** The availability of data helped the managers in the dialysis center to recognize and understand performance problems. With data from the CAHPS survey conducted by the ESRD network, discussions with staff, and various operations data, the center management team was able to see where the problems were and to track progress as quality improvement actions were implemented. Decision making about where to invest limited resources is much easier when it is supported by such information.

- **Value of external resources.** An organization can benefit from expertise and support from external resources, as exemplified here by the information and guidance from both the State survey, nurse monitors, and the ESRD Network. When all parties are striving for the same result – improvement in performance – a synergy can be created that in this case enabled the dialysis center to achieve its goals.

- **Having the right staff.** Performance problems among the front-line staff were a major issue for this dialysis center. Its experience illustrates the importance of carefully hiring qualified staff, and then providing them the training and support they need to render caring services to their dialysis patients in a professional manner.

- **Use of standardized, mandatory training courses.** Standardized training courses were very important in giving staff the tools they needed to communicate with patients effectively and to ensure consistency in the provision of quality dialysis services. Courses need to be accompanied by ongoing coaching of staff to continuously reinforce new practices and behaviors.

- **Empowering the patients.** The most important stakeholder in any health care organization is its patients, yet they often are the most overlooked. By engaging effectively with patients to elicit their views and feedback, and making them feel that they were respected members of their own care processes, this dialysis center strengthened its caring culture.