ESRD NETWORK 2018 ANNUAL REPORT

ESRD Network 06

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ESRD DEMOGRAPHIC DATA

Introduction

The IPRO End-Stage Renal Disease (ESRD) Network of the South Atlantic (Network 6) is funded by the federal government to promote the provision of quality healthcare that is safe, effective, efficient, patient-centered, timely, and equitable for all individuals living with ESRD in the states of Georgia, North Carolina, and South Carolina. Network staff members work with patients, providers, and other stakeholders to achieve these objectives by conducting activities consistent with the Department of Health and Human Services (HHS) National Quality Strategy, the HHS Secretary Priorities and the Centers for Medicare & Medicaid Services (CMS) goals. The combination of the NQS strategy, the HHS priorities, and the CMS goals sets a framework for the ESRD Network to focus on improving the care of individuals with ESRD.

The ESRD population in the Network 6 region was the second largest in the country as of December 31, 2018, according to ESRD National Coordinating Center (NCC) end-of-year data.

The Network's 2018 activities supported more than 50,404 patients reported as receiving dialysis treatment for ESRD across 760 dialysis facilities, as well as 10 transplant centers and three Veteran Affairs (VA hospitals). In 2018, a total of 14,979 individuals in the Network's service area were transplanted patients; 44,055 patients received in-center dialysis treatment and 6,688 patients received dialysis treatment at home.

The largest concentration of patients and dialysis facilities in the Network's service area are located in Georgia with 21,613 patients and 355 facilities, while the second highest population is in North Carolina with 18,494 patients and 222 facilities, and the smallest population is in South Carolina with 10,297 patients and 151 facilities. In 2018, 39 Medicare-certified dialysis facilities opened in the Network service area, increasing the number of facilities from 721 to 760.

Within the Network's service area, 73% of the dialysis facilities are owned or managed by a large dialysis organization (LDO), 19% are owned or managed by medium or small dialysis organizations, and 8% are single, independent facilities.

The Network 6 service area continues to have a large number of facilities that support remote populations; thereby providing greater access to care. The average facility census is 58; 64% of the facilities have a census greater than or equal to the average; and 36% of the facilities have a census lower than the average. While this provides patients with access to dialysis treatment services, many patients have to travel significant distances to see a vascular access surgeon, to be evaluated for a transplant, and to receive home modality training and other medical care An observation by the Network is that having many facilities in an area can lead to staff shortages, leadership transition issues, and the need for frequent retraining due to continual turnover. These issues create challenges for the Network as we work to establish continuity in care and to sustain practices for optimal outcomes.

Network Goals

The Network worked closely with ESRD patients, patients' family members and friends, nephrologists, dialysis facilities, ESRD advocacy organizations, and other ESRD stakeholders to improve care for ESRD patients in the Network 6 region. Network 6's quality improvement activities (QIAs) focused on:

- Improving care for ESRD patients through initiatives that targeted:
 - Promoting patient and family-centered care;

- Responding to grievances about ESRD-related services filed by, or on behalf of, ESRD patients;
- Supporting improvement in patients' experience of care;
- Working with dialysis facilities to ensure that all dialysis patients have access to appropriate care;
- Promoting best practices in vascular access management with a focus on reducing the use of catheters; and
- Helping dialysis facilities reduce the incidence of healthcare-associated infections (HAIs).
- Improving the health of the ESRD patient population through activities designed to reduce disparities in ESRD care with a focus on increasing transplant referrals; and
- Reducing the costs of ESRD care by supporting performance improvement at the dialysis facility level and supporting facilities' submission of data to CMS-designated data collection systems.

Through collaboration with its Network Council, Medical Review Board, Patient Advisory Committee, Grievance Committee, the Southeastern Kidney Transplant Coalition and Network activity-specific committees, Network staff developed quality improvement projects aligned with the goals identified in the ESRD Network Statement of Work (SOW). The Network deployed interventions that targeted patients, dialysis and transplant providers, and other stakeholders. These interventions, which focused on engaging patients, reducing disparities, and improving quality of care for ESRD patients are detailed in this report.





Source of data: CROWNWeb













ESRD NETWORK GRIEVANCE AND ACCESS TO CARE DATA

Background

IPRO ESRD Network of the South Atlantic responds to grievances and access to care cases filed by or on behalf of ESRD patients and works with facilities to address concerns in order to mitigate issues which could result in a patient access to care case. The Network supported patients and facilities with 385 cases during 2018.

According to the Centers for Medicare & Medicaid Services, a grievance is defined as "A written or oral communication from an ESRD patient, and/or an individual representing an ESRD patient, and/or another party, alleging that an ESRD service received from a Medicare-certified provider did not meet the grievant's expectations with respect to safety, civility, patient rights, and/or clinical standards of care." The three grievance categories accounted for 33%, or 125, of the total number of Network supported cases. These categories include General Grievances (53), Immediate Advocacy (61) and Clinical Area of Concern account (11). A comprehensive analysis of grievances occurring in the Network's service area revealed that the most prevalent issues were staff related. A root cause analysis (RCA) revealed that key areas include poor communication, lack of an established grievance process and an operational culture that did not use shared decision-making techniques. The Network utilized best practice strategies and provided intervention materials to mitigate grievances.

The two additional grievance categories, which can be initiated by patients or facilities, account for 67%, or 260, of the total number of Network supported cases in 2018. These categories include Facility Concern (26%) and Access to Care (41%). Network staff supported 106 cases of Facility Concerns, providing technical assistance, including education and resources to dialysis facility staff. Providing assistance to support facilities in being proactive about patient concerns is a key intervention to avoiding involuntary discharges.

The Network opened 154 Access to Care cases to work with facilities and advocate for patients to avert potential Involuntary Discharges (IVD) and Involuntary Transfers (IVT). This category included "at-risk" to IVD/IVT cases, actual IVD/IVT, and patient lead cases (those who are a failure to place in outpatient dialysis facility). These cases focused on concerns regarding abusive or disruptive behavior, non-adherence, and staff related and treatment related concerns. The Network's review of access-to-care issues identified that the most prevalent issues involved involuntary discharges as a result of threatening and violent behaviors that continued even after several attempted interventions by the facility. The Network completed an RCA for facilities that rated psychosocial support resources, such as deescalation and mental health topics, as the areas in greatest in need of improvement as well as a need for resources to improve communication between patients and staff.

Grievance Best Practices and Interventions included:

- Staff training on communication techniques that address a patient concern or issue in a way that prevented escalation;
- Staff training on strategies for empowering patients to support them in taking a more active role in their care;
- Expanding the focus beyond the patient's physical needs to a holistic patient-centered approach;

- Strengthening patient and provider relationships through a shared decision-making approach; and
- Distribution of a grievance management toolkit to support facilities in creating a robust internal grievance process. The toolkit included:
 - A poster encouraging patients to speak up;
 - A grievance process guide;
 - Grievance process question and answer overview;
 - A Dialysis Patient Grievance Toolkit created by the Kidney Patient Advisory Council (KPAC) of the Forum of ESRD Network. The toolkit promotes improving communication early in the grievance process and includes resources to support patients' understanding of how and when to escalate issues to a grievance and a poster to create awareness of resources available in the Dialysis Patient Grievance Toolkit;
 - The Dialysis Patient Depression Toolkit, also created by KPAC was distributed to the region to support facilities and patients in coping with dialysis and addressing the mental health needs of ESRD patients in the Network's servicer area.



Source of data: Patient Contact Utility (PCU)



ESRD NETWORK QUALITY IMPROVEMENT ACTIVITY DATA

Long Term Catheter Quality Improvement Activity (QIA)

Background

Research shows that patient morbidity and mortality rates are related to the type of vascular access used for dialysis, with a higher infection rate associated with use of long-term catheter s (LTC), as compared with arterial venous fistula (AVF) use, among eligible adult (≥18 years of age) in-center hemodialysis patients. Patients with LTCs are defined as those with catheters in use (for dialysis treatments) for 90 days or longer. The Network has made significant gains in increasing placement of permanent access types, with 61% of patients receiving dialysis with an AVF or graft at year end 2018. The Network continues to emphasize to both patients and professionals that catheters for vascular access in ESRD patients should be a temporary solution.

Targeted Facilities

In 2018, the Network worked with 50% of the facilities in its service area having the highest rate of bloodstream infections. The Network identified 56 facilities to participate in the LTC reduction QIA who had a LTC rate greater than 15% as reported by the ESRD NCC for the period January – June 2017. LTC rates ranged from 15.07% to 30.00% in QIA targeted facilities.

Goals and Outcomes

The goal of this project was to achieve a two percentage point decrease of LTC rates in the identified dialysis facilities from the baseline of 19.38% in June 2017. The Network exceeded the project goal of 17.38% by achieving a 15.88% LTC rate in participating facilities.

Interventions:

The Network built upon the results of a RCA to identify common root causes of facilities with LTC rates greater than 15%. Common challenges identified as root causes included lack of patient education (60%), appointment delays (10%), and patient refusal (to consider AVF or graft) (15%). The information from the RCA guided the interventions and webinar topics for this project. Network interventions included:

- Distribution to facilities of quarterly performance metric reports that included national and regional AVF goals and the facility's progress toward the QIA LTC goal. These Network-developed data feedback reports allowed the facility to monitor outcome trends and, if necessary, to identify barriers that impeded progress toward the project end-goal. If additional challenges were identified, the Network worked with the facility to implement another root cause analysis (RCA) and to develop an individualized corrective action plan (CAP) to assist the facility in implementing additional action steps.
- Provision of training on Lean huddle board techniques to support QIA monitoring and encouraging each facility to identify an interdisciplinary planning team to review weekly progress metrics.
- Distribution to facilities and patients of a peer mentorship training module and toolkit specific to vascular access. The peer mentorship program is designed to facilitate patients sharing

information with other patients about the benefits of an permanent access vs a LTC. The toolkit included a poster outlining the pros and cons of the different types of vascular access, a *Questions and Concerns about Permanent Accesses* booklet, and the *Lifeline for a Lifetime – Planning for Your Vascular Access* guide.

- Facilities implemented a Network-developed monthly "Vascular Access Placement: Patient Tracking Tool" to track progress of patients' vascular access planning and to review any barriers that may be causing delays in appointments..
- Sharing with facility staff the Catheter Reduction Toolkit developed by the Forum of ESRD Networks.
- Distribution of the Vascular Access Planning for Professionals guide to facilities as a way to assist patients with navigating the "8 Steps to Catheter Freedom," including supporting patients through scheduling appointments and preparing for surgery.
- Facilitation of a meeting with the Network's Medical Review Board Chair and medical directors from a group of low-performing facilities to identify challenges. This meeting identified barriers and challenges facilities faced with their specific patient population concerning access placement; e.g., patient age, patient comorbidities and the reality of facilities accepting more and more difficult to place catheter patients.
- Mid-point and wrap up QIA webinars promoted sharing and spread of best practices by facilities that successfully overcame a barrier and/or had a significant decrease in their LTC rates.

Barriers to achieving goals

- In certain geographic areas within the service area there were few or no vascular surgeons specializing in dialysis access placement. This created a serious obstacle for patients attempting to access surgical intervention.
- Patients are often discharged from a hospital with a LTC and no follow up appointment with a vascular surgeon.
- There is often a delay time in patients getting appointments with interventional radiologists and surgeons.

Best practices spread to achieve goals Target facilities identified the following strategies as best practices

- The Monthly Catheter Tracking Tool facilitated the ability for facilities to consistently and routinely monitor the number patients with LTCs in place for > 90 days and their progress toward permanent access placement. Additionally, the Monthly Catheter Tracking Tool facilitated discussions in QAPI meetings concerning the status of permanent vascular access placement.
- Assignment of a Vascular Access Coordinator. Having a staff member dedicated to educating staff members and patients and monitoring patients' progress toward permanent access placement and timely removal of LTCs.
- Facility education focused on early implementation of a vascular access plan, for all CVC patients admitted to the facility.



Bloodstream Infection Quality Improvement Activity

Background

Dialysis patients are at higher risk than the general population for acquiring healthcare associated infections (HAIs) and specifically bloodstream infections (BSIs), due to the regular and frequent use of catheters and other forms of access to their bloodstream while dialyzing. In addition, the costs associated with HAI are astounding. Published reports have estimated that these infections are responsible for more than \$25 - \$31.5 billion in yearly national healthcare expenditures. (Healthy People.gov - 2014)

The Network supports the national initiative to reduce the rate of BSI by 50% over the next five years. According to the Dialysis Facility Report for Fiscal Year (FY) 2017, 10.1% of dialysis patients in Georgia, 10.5% in North Carolina and 10.7% in South Carolina were hospitalized due to BSIs, these rates are comparable to the Network and national averages of 10.3% and 10.9% respectively. In the same report the mortality rates for these patients were 8.5% in Georgia, 13.0% in North Carolina and 10.5% in South Carolina, compared with the Network and national averages of 10.6% and 11.7% respectively.

Targeted Facilities

The Network identified 352 facilities reporting the highest BSI rates (those facilities with reported BSI rates in the top 50% within the Network's service area) based on the National Health Safety Network (NHSN) semi-annual pooled mean at baseline (Quarters I and 2, 2017). The Network worked with these facilities to evaluate their use of nine of the Centers for Disease Control & Prevention's Core Interventions or to identify barriers in utilizing these interventions.

From the 50% of facilities the Network worked intensively with a 20% cohort of 181 facilities with the highest infection rates in its service area, ranging from 0.33 to 5.16 per 100 patients per month. The Network also worked with 352 facilities in the 50% cohort to support their efforts to join a Health Information Exchange (HIE). An HIE or another evidence-based, effective information transfer system bridge communication gaps that often exist between the dialysis facility and hospital or physician's office.

Goals and Outcomes

The goals of the BSI QIA were to increase awareness and reporting of BSIs as well as achieve a 20% relative reduction in the pooled mean BSI rate in 20% of facilities in the Network's service area. The QIA incorporated a six-month baseline period (January-June 2017) and a six-month intervention period (January-June 2018) with re-measurement occurring in June of 2018. The Network's interventions succeeded in decreasing the pooled mean BSI rate from 1.599% at baseline to 0.569% at re-measurement, yielding a 63.117% relative reduction, the most significant decrease in BSI rate of all Networks in the country. The Network supported 64 facilities or 18% of facilities in the 50% cohort in joining an HIE, exceeding the 10% goal.

Interventions and Network strategies included:

The ESRD Network provided the QIA facilities with tools to conduct a RCA using the 5-Whys approach for infections identified during the baseline period. Common root causes identified by facilities included lack of patient education (70%), poor hand hygiene (70%), and poor patient hygiene (30%) and staff related due to lack of education (50%). The information from the RCA guided the interventions and webinar topics for this project. Network interventions included:

- Working closely with facilities to ensure that the yearly staff training about BSI reporting was completed and entered in NHSN. The Network also monitored facility self-reported data in NHSN during specified intervention months.
- The Network requested that facilities perform an RCA of new BSIs, working with their interdisciplinary teams to review findings and created mitigation strategies during QAPI meetings. A dry erase tool provided to facilities was used to post their BSI rates monthly throughout the project, as a way to enhance staff awareness of the facility's focus on reducing infections. Through monthly surveys, facilities reported to the Network findings that included facility successes, challenges, and overall clinical observations.
- Distribution of CDC developed educational materials and resources for staff and patients on hand hygiene and vascular access care, requiring facilities and patients work together to create education boards or hold lobby days to educate and create awareness about ways to decrease the risk of infection. The Network collected pictures of the education boards and lobby day events and asked patient SMEs to identify those facilities that they felt provided the best education. These facilities were highlighted during mid-point and end of year wrap up calls to share best practices and support sustainability.
- Distribution of the CDC-created poster: *Core Interventions for Dialysis BSI Prevention*. The poster, outlines nine focus areas that the CDC recommends for facilities to target in their approach to preventing BSIs. The Network required facilities to implement monthly interventions from the nine focus areas. Each month one to two of the focus areas were highlighted as a focused intervention.
- A requirement that facility staff attend ESRD NCC National HAI Learning and Action Network (LAN) meetings. Meetings featured experts in the area of BSI/LTC reduction and were conducted in an all-teach, all-learn environment.
- A partnership with the NC Department of Health and the University of North Carolina at Chapel Hill Statewide Program for Infection Control and Epidemiology (SPICE), resulted in the agency conducting free, non-regulatory and consultative facility visits with the goal to identify and mitigate gaps in the area of infection prevision. The SPICE team visited 40 dialysis facilities in NC and offered 17 training days throughout the state with attendance by representatives from 87 dialysis facilities. In addition, the Network hosted a webinar with facilities to share their overall findings.

Barriers to achieving goals

- Implementation of all 9 of the CDC Core interventions, specifically use of antimicrobial ointment
- Patients admitted with a catheter to dialysis facilities from hospitals causing a higher risk of BSI
- Lack of compliance with environmental disinfection practices

Best practices spread to achieve goals:

- Promoting the use of CDC core intervention resources, which included an educational poster and accompanying resources focused on nine components to prevent infections.
- Running monthly NHSN infection rate data and reviewing them in QAPI meetings.
- Assignment of a facility staff member to serve as a dedicated facility Infection Prevention Champion to educate staff and patients and monitor progress toward BSI reduction.





Transplant Waitlist Quality Improvement Activity

Project Overview

Patients with ESRD must be equipped with information that allows them to choose a treatment among the many options available, including renal replacement therapies such as in-center or home dialysis, as well as transplantation. While renal replacement options offer life-sustaining treatment, transplantation provides the opportunity for better clinical outcomes like reduced hospitalizations, mortality and morbidity, improved patient quality of life, and lower medical costs. The national kidney transplant waitlist rate in 2016 was 18.5%. In response, CMS has established a goal to increase the number of ESRD patients on the kidney transplant waitlist by 30% by the year 2023.

Targeted Facilities

After analyzing NCC provided data, the Network applied the following exclusion criteria to identify facilities to target for the QIA: transplant and hospital based facilities (9), home dialysis facilities (19), facilities with a patient census <25 (49), facilities >100 miles from the nearest transplant center (37), non-profit facilities (except Wake Forest University) (89). In addition, facilities with the percent of patients waitlisted in the top 10% of the population (>11.3% waitlisting) (49) were excluded. The 220 facilities selected for participation in the QIA represented 30% of the total facilities and approximately 17,856 patients (37.3%) of the total population in the Network's service area.

Goals and Outcomes

The Network's efforts focused on increasing the number of patients on the waitlist rate by 10 percentage point increase in the rate of patients placed on a waitlist for transplant of eligible patients by evaluation of based on data available in October 2017. From the 10% rate at baseline measurement (October 2016 – September 2017) the Network achieve a total of 19.5% waitlisting rate by the end of the project cycle in September 2018. Although the final goal of 20% waitlist rate was not met, the Network was successful in increasing the rate of patients on the transplant wait list in its service area above the national average of 12.9%.

Interventions:

The Network has a robust partnership with key transplant stakeholders through an established Southeastern Kidney Transplant Coalition (SeKTC). The SeKTC is comprised of patients, dialysis providers, community stakeholders and representation by each of the 11 transplant centers in the Network region. The Network distributed a comprehensive knowledge and standard practice assessment at the beginning of the project. The assessment identified a lack of knowledge about the Kidney Allocation System; communication barriers between transplant centers and facilities; lack of knowledge of variations in transplant center absolute exclusion criteria for transplant; and lack of availability of patient transportation, social support, and understanding about living donors. SeKTC members guided the interventions and webinar topics based on findings from the survey. Members of the Coalition participated in different interventions, served as webinar speakers, and participated in the development of educational materials and the creation and testing of an electronic communication tool between transplant center and dialysis units. Through this work model of collaboration and partnership, the Network and its partners have been able to address barriers identified by facilities by developing interventions together. Interventions included:

• Distribution of an educational toolkit that included the South Atlantic Area Kidney Transplant

Centers' Referral Guide, a poster promoting transplant everyone, regardless of age, , area transportation resources, and a transplant facility tracker tool.

- Implementation of lobby education stations, utilizing Network provided posters and printed materials to tailor transplant education for their patients' particular patient needs.
- Patient educational videos were provided to educate on the Kidney Allocation System to address disparities seen in older patients with the ASCENT Videos for staff and patients; in addition the Living ACTS video addressed living donation for the African American population.
- Facility project leads were invited to bi-monthly NCC Learning and Action Network Calls, during which best practices and resources were shared at a national level.
- A peer mentorship training module and toolkit specific to transplant was provided to facility staff and patients to support patients in sharing information with other patients about the benefits of exploring transplant as an option. The toolkit included a *Transplant Get the Facts* trifold, *Is Kidney Transplant Right for Me* brochure, and *Your Life Your Choice* patient stories.
- The Network hosted a series of webinars to increase knowledge and understanding of areas identified through the knowledge assessment. In partnership with SeKTC members, the Network brought the following webinars to facilities:
 - American Association of Kidney Patients (AAKP) –Health Line: AAKP Celebrates Donate Life (Wake Forest Baptist Hospital Medical Center)
 - Addressing Barriers to Transplant (Guest Speaker Duke University Transplant Center)
 - Transplant Outreach Coordinator (Guest Speakers from Emory Transplant Center, Augusta University Medical Center, Piedmont Hospital Transplant Institute, Duke University Transplant Center, Wake Forest Baptist Hospital Medical Center and Carolinas Medical Center Renal Transplant Program)
 - Georgia Transplant Foundation Services (only for Georgia's facilities)

Barriers to achieving goals

- Financial barriers include requirements of specific savings account thresholds, transportation to and from transplant center, and the inability to afford evaluative tests or procedures.
- Poor communication systems between dialysis facilities and transplant centers that impedes the exchange of information on patient waitlist status and/or limits the ability to resolve issues related to follow up activities.
- Inadequate patient transportation to and from multiple medical appointments; as well as the distance patients in remote areas of the states have to travel to transplant centers.

Best practices spread to achieve goals:

- Strong collaborative partnerships as cited by SeKTC provided a deep list of subject matter experts to draw from to support educational resource webinars and tool development.
- Use of initial knowledge assessments and mid-point assessments to identify rapid cycle improvements that brought meaningful topics to the community
- Utilization of a transplant tracker allowed facilities to communicate more effectively with the transplant center, by having all the information in one place. The tracker also has made it easier to report in QAPI meetings creating a summary of all patients navigating the steps to transplant.
- Utilization of a Network developed transplant interest form for new patients, as well as to revisit former patients in lobby days or during plan of care meetings. The form assisted facilities with assessing patient interest and documenting outcome including referral to a transplant center.

Home Therapy Quality Improvement Activity

Project Overview

A diagnosis of end stage renal disease (ESRD) requires life-sustaining renal replacement therapy. Patients with ESRD have several treatment options, including in-center hemodialysis, home hemodialysis, peritoneal dialysis or transplantation. Home dialysis (hemodialysis or peritoneal dialysis) supports positive benefits for ESRD patients such as improved health outcomes, enhanced quality of life, flexible treatment schedule, and reduced costs associated with travel to the dialysis unit. Despite these benefits, home dialysis modalities continues to be underutilized in the USA with only 12% of dialysis patients undergoing renal replacement therapy at home versus 88% being treated with in-center hemodialysis. As a result, CMS has established a 5-year goal to increase the number of ESRD patients dialyzing at home to 16% from the 2016 national average of 12%.

Target Facilities

After analyzing ESRD NCC provided data, the Network applied the following inclusion criteria: in-center clinic with or without a home training program, patient census >25, proximity to an in-center facility >25 miles that offers home training and home training rate at baseline of <2.50%. This resulted in the selection of 220 facilities (30% of the facilities in the Network's service area) impacting approximately 22,500 (45%) of the total patient population.

Goals and Outcomes

The intent of the Home Dialysis Quality Improvement Activity (QIA) was to promote referral to home dialysis modalities, identify and mitigate the barriers to timely referral, and determine the steps patients and providers can take to improve referral patterns.

The Network and facility goal was to demonstrate at least a 10 percentage point increase in the rate of patients that start home dialysis training from the baseline measurement of 0.881%. The Network reached a 6.9% increase in patients starting home dialysis training by the end of the measurement period.

Interventions:

In January 2018, Network staff requested a RCA be completed by each targeted dialysis facility participating in the Home Dialysis QIA (220). The results of the RCA tool indicated that the most challenging barriers for dialysis facilities and patients to overcome were: lack of staff education, lack of referrals by MDs, lack of patient education, patient non-compliance, fear of infections, performing treatments, changing from in-center to home, self-cannulation, dependence on facility staff, the potential lack of social connection with other patients, patients' living situation, and lack of family support/involvement.

To assist dialysis facilities in overcoming the identified challenges/barriers, the Network implemented the following interventions:

- Distribution of the Home Therapies Resource Toolkit to provide staff and patient education on home therapies as a treatment option. These resources include:
 - What Are My Treatment Options flyer
 - Consider Your Dialysis Options brochure
 - Know The Facts About Home Dialysis Choices booklet

- Virtual in-service training for staff at targeted facilities included training and coaching facility staff on effectively displaying data, identifying barriers and working with patients through the CMS seven steps of the home therapies activation process.
- Virtual and on-site visits by the ESRD Network team to educate staff and talk to patients in facilities that were not demonstrating improvement during the project period.
- Development and implementation of the *Home Therapies Tracking Tool* with a requirement that targeted facilities complete the tool by the fifth day of each month following the close of the previous month to internally track the facility's progress in meeting the CMS seven steps leading to home dialysis.
- Development and launch of the Peer Mentorship Home Dialysis Options Module. This educational module was developed in partnership with the IPRO ESRD Network of the Ohio River Valley (NW9) to promote and support patient and family member and/or care partner engagement through the introduction of facility-level peer mentor education. Network staff provided training to assist dialysis facilities with implementing ways to identify, recruit, enroll and train home dialysis peer mentors to talk with other patients, family members and/or care partners about home therapies and offer guidance in reviewing educational materials regarding treatment options.
- Collaboration with patient Subject Matter Experts (SMEs), the ESRD NCC, Home Dialysis LAN, stakeholders, state survey agencies, LDO management, independent providers and local and national patient groups.

Barriers to achieving goals:

- Patients choosing to stay in-center
- Physicians lack of comfort with managing home dialysis patients
- Facilities closing, resulting in consolidation of home programs
- Lack of access to home programs due to distance for patients in remote areas
- Shortage of home dialysis nurses

Best practices spread to achieve goals:

- Collaborations of LDO educators, nephrology practices, and area hospitals to host lunch & learn activities.
- Utilizing Kidney Care Advocates at Chronic Kidney Disease practices to educate staff and patients about home modality options.
- Creation of treatment options education display boards and the hosting of lobby day activities increased awareness by patients and their family members and generated interest in home modalities.

Population Health Focus Pilot Project Quality Improvement Activity

It has been documented that the effects that socio-economic situations affect the overall wellbeing of patients with ESRD¹. Employment among this population in the US is as low as 18.9%². Also, minority populations such as African American, Hispanics, residents of rural areas and females have been found to be less successful in achieving employment (7-8%) within the ESRD community. The ability to go back to work or school has been seen to impact the quality of life of dialysis patients positively. Reasons for this include financial stability, a sense of purpose, and independence.

Through the Population Health Focused Pilot QIA: Support Gainful Employment for ESRD Patients QIA, the Network worked with facilities to promote early referral of patients to vocational rehab services and follow-up counseling. The Network worked with targeted facilities to improve the standard practice of reviewing vocational rehabilitation benefits and referrals of dialysis patients to supportive services.

Targeted interventions were designed to address barriers identified throughout each step of the assessment, referral, follow up, use and documentation of vocational rehab services. These efforts were supported by participation in the ESRD NCC Population Health Focused Pilot QIA Learning and Action Network (LAN), to promote information exchange across care settings with an emphasis on communication among national level programs/stakeholders and dialysis facilities caring for ESRD patients.

Target Facilities

The Network worked with 10% (71) of the dialysis facilities in its service area to help improve the referral and utilization of vocational rehab (VR) and employment network (EN) services area. Facilities were selected based on their proximity to Vocational Rehab and Employment Networks.

Goals and Outcomes

The goal of this project was to achieve an increase by 5% from baseline of referrals to VR/EN, and an increase by 2.5% of patients using VR/EN services. The baseline period for this project was October – June of 2017, and the re-measurement period being on September 2018. The baseline for referrals to VR was 3.9% with an overall Network goal of 8.9%. The Network attained a referral to VR rate of 16.9%, thereby exceeding the goal. The baseline for use of VR/EN services was 1.3%, with an overall goal for the year of 3.7%. The Network achieved a 1.6% rate as of September 2018.

¹ Akyüz, A., Sayın, C. B., Erdal, R., Özcan, C., & Haberal, M. (2018, March). Influence of Social, Economic, Familial, Marital Status, and Disease Adaptation on the Physical and Mental Health Dimensions of Patients Who Are Candidates for Renal Transplant. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/29528005

² Hallab, A., & Wish, J. B. (2018, February 07). Employment among Patients on Dialysis. Retrieved November 27, 2018, from https://cjasn.asnjournals.org/content/13/2/203

Interventions Network strategies included

The ESRD Network of the South Atlantic targeted some interventions for professional education, while others were directed to patients. Educational methods included live webinars, printed materials, interactive tools, and patient- to-patient education, among others. One of the most successful interventions allowed the facility staff to better understand patients' needs regarding returning to work or school patient education poster. The poster posed the following questions: (1) What would it mean to you to return to work? (2) What would you need to help you reach this goal? Patients were provided space on the poster to provide their responses.

Also, several resources were distributed to facility staff. These included the *Vocational Rehab Interest Form* (adapted from Transplant Interest form presented during a NCC-LAN Call), *Vocational Rehab Network 6 Flyer*, and *Vocational Rehab: The answer to your questions and word search*. These printed tools and materials were complemented by a series of webinars hosted by the Network, NCC LAN Calls, and other stakeholder such as the AAKP – HealthLine, and Georgia Transplant Foundation – Jump Start. Following is a list of the webinars offered:

- Georgia Transplant Foundation *JumpStart* Services (only for Georgia's facilities with guest speaker Sandy McMath)
- AAKP HealthLine Keep on Truckin': Keeping or Getting Back to Work with Kidney Disease call
- Vocational Rehab Mid-Point Webinar: Sharing Community Resources and Best Practices

Using electronic surveys, the Network assessed the knowledge and practices of facility project leads as related to vocational rehab. The Network identified that there was a disconnect between project leads, often social workers and the staff member responsible for documenting VR/EN status in CROWNWeb. The Network issued a request for information on the CROWNWeb point of contact to ensure proper documentation of these efforts, and provided education about the goals of the project and how to correctly document progress toward project goals in CROWNWeb.

Barriers to achieving goals

- Lack of patient interest in going/returning to work or school as reported by project leads
- Lack of patient and dialysis staff education regarding programs such as Ticket to Work
- Lag of time that from when a patient is interested and motivated to use VR services to when VR agencies are available to work with the patient/client

Best practices spread to achieve goals Target facilities identified the following strategies as best practices:

- Vocational Rehab Interest Form
- Collaboration with vocational rehab agencies to host lobby days/ employment benefit fairs
- Learning how to document efforts in CROWNWeb platform regarding employment and vocational rehab status

ESRD NETWORK RECOMMENDATIONS

Facilities that Consistently Failed to Cooperate with Network Goals

The Network did not identify any facilities in its service area that failed to cooperate with Network goals in 2018.

Recommendations for Sanctions

No recommendations were made to CMS for additional services or facilities in the Network service area during 2018.

Recommendations to CMS for Additional Services or Facilities

In 2018, the Network made no recommendations to CMS for additional services or facilities.

ESRD NETWORK SIGNIFICANT EMERGENCY PREPAREDNESS INTERVENTION

For individuals who have been diagnosed with ESRD, missed dialysis treatments can have serious adverse health effects. This makes the ESRD patient population especially vulnerable during emergencies and disasters. The Network successfully managed eight emergency events that required intervention, response, and/or tracking during 2018. For all emergencies, Network staff offered comprehensive support to patients and linked healthcare practitioners to appropriate resources, including the KCER program, local and state offices of emergency management, and other stakeholders, as appropriate.

The 2018 hurricane season brought severe challenges across the Network region in the wake of Hurricanes Florence and Michael. Early evacuations, severe flooding and the lack of facility preparation in some areas resulted in significant access to care challenges. Prior to the storm, the Network launched a critical asset survey with an average 75% response rate across the region. The purpose of the survey was to identify facility and patient needs ahead of the impending threat. The results of the survey were provided to local emergency management officials and regional healthcare coalitions to expedite response to maintain or re-establish operations. The Network partnered with a number of federal, state and local agencies to mitigate reported challenges and collaborated with large dialysis organizations to share innovative strategies. Such strategies included text messaging technology to enable wellness checks for patients who were unable to be reached by phone. The Network supported a large portion of facilities in eastern NC s with extensive data reconciliation to locate patients who were displaced and evacuated in an effort to ensure all patients were accounted for.

In 2018 the Network focused efforts to strengthen relationships with emergency preparedness healthcare coalitions to address the variations in local response approaches identified across the Network regional. Partnerships with these coalitions brought together local resources to mitigate risk and strengthen response efforts to ensure safety and continuity of care for ESRD patients throughout the Network 6 region. All three Network states identified the ESRD population as their highest risk in the event of an emergency. The Network has worked with each state in unique and innovative ways in an effort to implement strategies to ensure continuity in operations for facilities. The Network has also fostered an environment of sharing emergency preparedness strategies across the three states. The follow summary provides an overview of the collaboration with each state:

Georgia

The Network participated in the Georgia Department of Health Dialysis Workgroup. The group's mission is to insure continuity of healthcare for dialysis patients by increasing preparedness planning, situational awareness, and access to critical medical care before, during, and after emergent events. The workgroup consists of 15 regional coordinating systems, the Georgia Department of Public Health, state surveyors and dialysis organizations / facilities. The workgroup focus is on creating and providing an educational webinar series for dialysis facilities that provides a background for emergency preparedness and provides suggestions on how facilities can participate in local health care coalitions. In addition the workgroup reviewed the Network's critical asset survey and collaborated on plans to launch the survey

and supporting summary report, with a goal to help facilities outline their emergency response planning activities to meet the emergency preparedness rule as outlined in the CMS Conditions for Coverage.

North Carolina

The Network met with multiple organizations across the state to build relationships and bridge communications across services to support continuity of care for ESRD patients. Activities included

- Meeting with the Division of Health Service Regulation, Office of Emergency Medical Services to explore adding dialysis facility information to the NC Multi-Hazard Threat Database (MHTD).
- Participation in the central NC Healthcare Preparedness Coalition Transportation Workshop to provide education to attendees on the needs of the ESRD population and collaborate to create transportation plans for patients during future snow events.
- Participation in the North Carolina Emergency Management Disability Integration workgroup to share information on the unique needs of ESRD patients.

South Carolina

The Network participated in the Lowcountry Healthcare Coalition, which represents 11 counties in the southern coastal area of SC. The coalition membership includes representatives of each county's office of emergency management, department of health and human services, three large dialysis organizations, the Medical University of South Carolina (MUSC), and 39 dialysis facilities. The coalition works together to share preparedness best practices. Their goal is to develop a shared emergency preparedness culture among facilities and to creating a templated, structured emergency operations plan for continuous dialysis services during events. During Hurricane Florence, the workgroup met daily to discuss operational challenges, and collaborated to resolve patients' access to care issues. Through this workgroup collaboration, the Network mitigated the following risks:

- Transportation used by ESRD patients to get to treatment was diverted to support evacuation efforts across the entire coastal region of SC, leaving patients with no transportation to their clinics for treatment. Through the coalition, the Network alerted emergency management and the department of health, which re-directed transportation services to enable dialysis transportation which allowed patients to receive treatment up until the day prior to the arrival of the storm.
- MUSC reported an influx of dialysis patients arriving at the emergency department, which had limited staff and equipment that would not support the treatment needs of the patient surge. The Network was able to work with DCI corporate leadership and local emergency management to open a dialysis facility which had not been affected by the storm and transition patients to receive treatment in an outpatient dialysis setting, allowing the hospital ED to re-route patients to a location where they could receive treatment.

After-action report debriefs revealed that a best practice model would be to identify facilities in various geographic locations across dialysis organization that are near assets and shelters to allow for continuity of care for ESRD patients. The workgroup is currently working together to establish this model and plans to test it in 2019.

ACRONYM LIST APPENDIX

This appendix contains an acronym list created by the KPAC (Kidney Patient Advisory Council) of the National Forum of ESRD Networks. We are grateful to the KPAC for creating this list of acronyms to assist patients and stakeholders in the readability of this annual report. We appreciate the collaboration of the National Forum of ESRD Networks especially the KPAC.