Collaborating to Improve AVF Rates

Using an enhanced intervention that included an "Accountable Leadership" Collaborative, Network 5 assisted a group of 49 low-performing facilities to improve their prevalent in-use AV fistula rate. At re-measurement, facilities in the Collaborative demonstrated significantly greater improvement than a comparison group. Poor performing facilities can benefit from Network technical assistance in the form of a collaborative that includes leadership.

Organization Name: Mid-Atlantic Renal Coalition (ESRD Network 5)
Authors: Brandy Vinson, Quality Improvement Director; Janet Lynch, PhD, CPHQ
Project title: Vascular Access: Accountable Leadership Collaborative

Project objective, purpose & goals: To increase the percent of prevalent patients dialyzing via an AV fistula in targeted low-performing facilities. Secondarily, to increase the percent of targeted facilities reaching their Network assigned goals.

Setting: The project was conducted in 49 Network 5 facilities. These facilities were identified using the following criteria: declining AV fistula rates from March 2010 – March 2011 or progress less than the overall Network improvement rate of 2.8%; AV fistula rates below the Network average of 55% in March 2011; and March 2011 patient census of 30 or more.

Sample/Patients: In March 2011, 4,322 hemodialysis patients dialyzing in the 49 selected facilities.

Process Studied: The clinical process studied was the use of AV fistulas for hemodialysis access. The primary outcome measure was the prevalent in-use AV fistula rate, calculated using the Fistula First definition and CMS vascular access database. Goal achievement was measured as the percent of facilities achieving their Network-assigned goals.

Intervention: In addition to the standard Network intervention (feedback reports, benchmarking, goal setting, and a recognition program), dialysis unit leadership was enrolled in a Network conducted collaborative emphasizing accountable leadership and encouraging the uptake of FFBI Change Concepts.

Evaluation: We used a pre- post-test design with non-equivalent comparison group. Two of the three criteria used to select the intervention group were used to select the comparison facilities: declining AV fistula rates or improvement below 2.8% and 30 or more patients. The comparison group received the standard Network intervention. We also used the intervention facilities' pre-intervention performance from March 2010 to March 2011 for comparison. From baseline (March 2011) to re-measurement (March 2012), both groups' mean AV fistula rate increased: from 46.7% to 51.6% (an increase of 4.9%, $p < .001$) for the targeted group and from 61.4% to 62.7% (1.3%, $p = .16$) for the comparison group. This represents significantly higher improvement for the intervention group ($p < .05$). All facilities used one or more of the change concepts. Controlling for the AV fistula rate at baseline, there was a significant and positive relationship between intensity of change concept use and the AV fistula rate at re-measurement ($p < .10$). Whereas, no intervention facilities achieved their Network-assigned goals in the annual period prior to the intervention, 53.1% achieved their goals post-intervention. The mean change in intervention facilities AV fistula rate of 4.9%, was a significant improvement over the mean change of -3.4% in the period preceding intervention ($p < .001$).

Conclusion and Recommendations: The Accountable Leadership Collaborative was associated with significant improvement in AV fistula rates. Poor performing facilities can benefit from Network technical assistance in the form of a collaborative that includes leadership.

Influenza Immunization for ESRD Patients

Network 5 sought to increase the influenza immunization rate during the 2011-2012 season from 86.7% to 88.0% for patients and from 63.8% to 69.5% for healthcare workers. Through an influenza immunization awareness campaign, coupled with primary data collection and the provision of educational materials, we achieved an overall patient vaccination rate of 88.1% and a healthcare worker vaccination rate of 71.7%.

Organization Name: Mid-Atlantic Renal Coalition (ESRD Network 5)
Authors: Claire Tetrick, MPA; Brandy Vinson, Janet Lynch, PhD, CPHQ

Project objective, purpose, & goals: To increase the patient influenza immunization rate in Network 5 from 86.7% during the 2010 / 2011 flu season to 88.0% during the 2011/ 2012 flu season; and to increase the healthcare worker (HCW) influenza immunization rate from 63.8% to 69.5% over the same time periods.

Setting: All dialysis facilities in Virginia, West Virginia, Maryland, and the District of Columbia (D.C.) providing care to hemodialysis and/or peritoneal dialysis patients. Excluded were military treatment centers, Veterans Health Administration hospitals, and prisons.

Sample/Patients: Participating dialysis facilities reported caring for 24,753 adult hemodialysis and peritoneal dialysis patients and employing 5,398 HCWs during the 2011/2012 flu season.
Process studied: The clinical process studied was influenza vaccination of patients and HCWs. The two outcome measures were the patient influenza immunization rate (percent of adult patients vaccinated against influenza divided by the total number of adult patients in participating facilities) and HCW influenza immunization rate (percent of HCWs vaccinated against influenza divided by the total number of HCWs employed). Data for both patients and HCWs were collected using a Network-developed tracking tool. The patient tracking tool was pre-populated with patient data from the Network registry.

Intervention: This was the Network's 4th consecutive year of conducting a patient influenza immunization campaign and 1st year of incorporating HCWs into the campaign. Included in the multi-faceted campaign were communications designed to increase motivation and awareness of the need for influenza immunization, primary data collection and feedback reports, educational materials, and information to facilities about facility-level interventions found to be successful in increasing flu immunization.

Evaluation: We used a one group pre-test post-test design. Three hundred and four units of the 310 targeted facilities provided patient-level immunization data and achieved an aggregate influenza immunization rate of 88.1%, exceeding the previous flu season measure ($p < .001$) and the Network goal. Three hundred and three facilities reported HCW vaccination rates for an aggregate rate of 71.7%, also exceeding the baseline measurement from the previous flu season ($p < .001$) and the Network goal.

Conclusion and recommendations: A multi-faceted Network-led influenza immunization campaign incorporating encouragement of HCW immunization was associated with higher than previously reported immunization rates among participants. As we approach the Healthy People 2020 goal of 90%, it is increasingly challenging to improve the patient flu immunization rate. A significant opportunity to improve quality by increasing HCW vaccination remains and is an appropriate target for Network quality improvement. Success in immunizing HCWs is likely to positively impact patient immunization rates.