

How Optum manages end-stage renal disease to improve quality of life and reduce costs for Medicaid populations

End-stage renal disease — the irreversible loss of kidney function — requires ongoing dialysis or a kidney transplant to stay alive. For individuals, this condition can severely affect the quality of life. For Medicaid programs, underlying disease complications and co-morbidities often lead to recurring hospitalizations and high costs.

The Optum end-stage renal disease (ESRD) management program, delivered by Optum Kidney Resource Services (KRS), is designed to reduce those costs by facilitating clinical excellence, providing complex case management and referring appropriate patients for kidney transplants.

A recent study of dual eligible members on dialysis — enrolled in both Medicaid and Medicare — demonstrates the value of the Optum ESRD program. Members enrolled in the program had between 18–25 percent fewer hospital admissions than those not in the program, yielding savings of \$3,665,446 and a return on investment of 3.28 to 1 over two years.

Prevalence, costs, hospitalizations

- For every 1 million Medicaid members, there are approximately 300–600 ESRD patients on dialysis at any given time, depending on the market.¹
- ESRD prevalence reached 2,218 per million in 2015, a 2.4 percent increase from 2014.²
- Prevalence among African-Americans is much higher than among other racial groups.³
- Each Medicaid ESRD member averages \$90,063 in total medical costs yearly.⁴
- Medicaid ESRD patients average 1.7–2 hospitalizations and 10 inpatient days per year.⁵
- 35 percent of dialysis patients are re-hospitalized within 30 days of discharge.⁶

A common misconception is that all Medicaid ESRD members transition to Medicare due to ESRD. But in fact, not all convert, because they fail to meet Medicare work history requirements.

Challenges of dialysis

ESRD is the last stage of chronic kidney disease — when the kidneys are no longer able to support day-to-day life. Although progress has been made in dialysis therapy, individuals with ESRD face significant challenges. The first months of dialysis are characterized by a combination of high mortality rates and high costs associated with the initiation of dialysis, which often occurs in an inpatient setting.^{7,8} The survival rate of dialysis patients three years after starting therapy is only 57 percent. In contrast, the three-year survival rate for individuals receiving a kidney transplant is 85 percent (deceased donor) and 93 percent (living donor).⁹

As individuals continue on dialysis, they are likely to experience ongoing complications resulting in hospitalizations. Kidney disease is associated with other serious medical conditions, including cardiovascular disease, hypertension, diabetes, infection, bone disorders, anemia and malnutrition. ESRD patients typically take 11 or 12 medications, so they need targeted care management plans that coordinate care across multiple clinical specialties.

Did you know?

End-stage renal disease can severely affect an individual's quality of life. Optum Kidney Resource Services help reduce the cost of care by facilitating clinical excellence, providing complex case management and referring appropriate patients for kidney transplants.



The Optum ESRD program

Our ESRD program:

- Supports the provider-patient relationship and plan of care
- Applies evidence-based care standards and patient empowerment strategies to reduce complications
- Evaluates clinical outcomes to improve overall health

Interventions focus on the specific issues facing ESRD patients and address the major drivers of hospitalization and dialysis costs. Optum has developed more than 100 interventions using evidence-based guidelines from the National Kidney Foundation Disease Outcomes Quality Initiative. KRS nurse advocates provide patient education, dialysis monitoring and proactive management of co-morbidities related to renal failure. This integrated approach to disease management is a critical factor in the program's effectiveness.

ESRD program interventions include:

1. Empowering patients

Dialysis patients must adhere to a complex regimen of diet and fluid restrictions, medication and dialysis therapy. KRS nurse advocates help patients make appropriate choices and manage their condition, which has been shown to be important in achieving positive health outcomes.¹¹ KRS nurses also provide patients and caregivers with educational tools and encourage the inclusion of valued peers for additional support. In select markets, in addition to traditional telephonic case management, Optum employs locally based nurse case managers who visit patients at home, the dialysis center, doctor's office or hospital.

2. Reducing complications

Cardiovascular disease is a leading cause of death in dialysis patients.¹² KRS nurse advocates apply evidence-based therapies, including cardiovascular screening, blood pressure control and medication management, and work with providers to effectively reduce this risk.

Diabetes — one of the most common causes of ESRD — puts patients at heightened risk for stroke, vision loss and other complications. Yet, only 34 percent of diabetic ESRD patients receive comprehensive care, including glycemic control monitoring, lipid monitoring and eye exams.¹³ KRS nurses focus on improving diabetic care to prevent complications.

3. Transplant education and referral

The kidney transplant waiting list continues to rise, reaching 83,978 candidates as of year-end 2015.¹⁴ For dialysis patients 45–64 years old, only 19.1 percent in 2011 were either wait-listed for transplant or received a donor kidney within one year of beginning therapy.¹⁵ Transplant education, early referral for evaluation and assistance in maintaining transplant readiness are primary objectives of the ESRD program.

4. Leveraging community resources

Connecting with community resources is an important KRS intervention. Nurse advocates work closely with local dialysis centers, social workers, nutritionists and agencies to coordinate transportation, meal delivery and home health services for ESRD patients.

The Optum ESRD program interventions are designed to:

- Empower patients
 - Reduce complications
 - Promote early referral for transplant evaluation
 - Leverage community resources
-

Targeting hospitalizations

ESRD patients typically undergo dialysis treatment for four hours, three times per week. A common misconception among payers is that dialysis represents all, or nearly all, of ESRD patients' health care costs, therefore, little can be done to impact medical spend. In fact, 30–40 percent of the \$90,000 annual spend on Medicaid ESRD members is attributable to hospitalizations.¹⁶ Costs for admissions for Medicaid ESRD patients are on average \$15,000 per admit.¹⁷

Optum targets those costs by helping patients and providers minimize complications stemming from ESRD, which often lead to emergency room visits and repeated hospitalizations. For example, nurse advocates recommend that diabetic patients monitor their feet and hands for circulation issues and wounds, since diabetics are at increased risk of infection, which can lead to amputation if not resolved.

Saving \$3,665,446

In 2012 and 2013, Optum analyzed ESRD program savings for dually eligible special needs plan (D-SNP) members. These dual-eligible beneficiaries tend to be older and carry a more advanced burden of co-morbidities.¹⁸ The study analyzed 757 members on dialysis in 2012 and 847 in 2013. Enrollment in the ESRD program among these members averaged 75 percent.

Optum compared inpatient admissions of DSNP members enrolled in the ESRD program with those who were not enrolled:

- In 2012:
 - For the first six months of dialysis, ESRD program enrollees had 25 percent fewer inpatient admissions than non-enrollees
 - Net program savings: \$1,348,753
- In 2013:
 - For the first six months of dialysis, program enrollees had 9 percent fewer inpatient admissions than non-enrollees
 - After the first six months of dialysis, enrollees had 18 percent fewer inpatient admissions than non-enrollees
 - Net program savings: \$2,316,693
- Total savings: \$3,665,446 over two years due to enrollees having fewer hospital admissions
- Total ESRD program ROI: 3.28:1

Conclusion

Optum takes a proactive approach to managing ESRD, which is a complex, high-cost condition. Our ESRD program provides evidence-based interventions, support for providers' individualized plans of care and clinical expertise through our team of renal-trained nurse advocates. By identifying and resolving gaps in care, coordinating treatment among multiple providers and reducing unnecessary hospitalizations, the program reduces costs and improves health outcomes.

The numbers of patients with ESRD are rising:

- ESRD has increased by 2.4 percent since 2014.¹
 - 300–600 patients with ESRD for every 1 million Medicaid members.²
 - Each Medicaid ESRD member averages \$90,063 in total medical costs yearly.⁴
-

Sources:

1. On December 31, 2015, there were 703,243 prevalent cases of ESRD in the U.S.; this represents an increase of 3.4% since 2014, and of 80% since 2000 (Table 1.3 and Figure 1.8). The unadjusted ESRD prevalence reached 2,128 PMP, or 0.21% of the U.S. population. This was an increase of 2.4% since 2014 and of 58% since 2000 (Table 1.3). https://www.usrds.org/2017/download/v2_c01_IncPrev_17.pdf. Accessed Oct. 2018.
2. http://www.usrds.org/2017/view/v2_01.aspx.
3. http://www.usrds.org/2017/view/v2_01.aspx. Accessed Oct. 2018 (USRDS).
4. Optum analysis of Medicaid managed care health plan data, average of 3 health plans with Medicaid membership of 125,000–325,000 lives. Review of kidney disease prevalence, inpatient admissions, length of stay and paid costs using 2010–2013 claims data. Sanders, Feb. 26, 2014.
5. Optum analysis of Medicaid managed care health plan data, average of 3 health plans with Medicaid membership of 125,000–325,000 lives. Review of kidney disease prevalence, inpatient admissions, length of stay and paid costs using 2010–2013 claims data. Sanders, Feb. 26, 2014.
6. http://www.usrds.org/2017/view/v2_04.aspx. Accessed Oct. 2018 (USRDS).
7. http://www.usrds.org/2017/view/v2_05.aspx Figure #5.3. Accessed Oct. 2018 (USRDS).
8. USRDS 2017 Annual Report. Volume 1, page 116–117. Accessed Oct. 2018 (USRDS).
9. http://www.usrds.org/2017/view/v2_05.aspx, Table 5.1.
10. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817900/>. Accessed Oct. 2018 (USRDS).
11. Schatell, Dori and Paula Stec Alt. How understanding motivation can improve dialysis practices. *Nephrology News & Issues*, Sept. 2008, pp. 32–36.
12. *American Journal of Kidney Diseases*, Vol 45, No 4, Suppl 3 (April), 2005: pp. S8–S9.
13. http://www.usrds.org/2017/view/v2_03.aspx. Accessed Oct. 2018 (USRDS).
14. USRDS 2017 Annual Report. Volume 2, http://www.usrds.org/2017/view/v2_06.aspx. Accessed Oct. 2018 (USRDS).
15. http://www.usrds.org/2017/view/v2_02.aspx, Table 2.10.
16. Optum analysis of Medicaid managed care health plan data, average of 3 health plans with Medicaid membership of 125,000–325,000 lives. Review of kidney disease prevalence, inpatient admissions, length of stay and paid costs using 2010–2013 claims data, Sanders, Feb. 26, 2014.
17. Optum analysis of Medicaid managed care health plan data, average of 3 health plans with Medicaid membership of 125,000–325,000 lives. Review of kidney disease prevalence, inpatient admissions, length of stay and paid costs using 2010–2013 claims data, Sanders, Feb. 26, 2014.
18. Optum Dual-Eligible Special Needs Plan analysis, 2012–2013 claims data. Comparison of inpatient admission rates for program-enrolled and non-program enrolled dialysis patients. Inverse propensity score weighting adjusted for demographic and risk differences, costs based on allowed amounts, Haig, Aug. 11, 2014.

To learn more:

Email: engage@optum.com

Phone: 1-866-427-6845

Visit: optum.com



11000 Optum Circle, Eden Prairie, MN 55344

Optum® is a registered trademark of Optum, Inc. in the U.S. and other jurisdictions. All other brand or product names are the property of their respective owners. Because we are continuously improving our products and services, Optum reserves the right to change specifications without prior notice. Optum is an equal opportunity employer.

© 2018 Optum, Inc. All rights reserved. WF926029 10/18