

END STAGE RENAL DISEASE (ESRD): RENAL DIALYSIS

Effective Date: March 1, 2025

Review Dates: 4/07, 2/08, 2/09, 2/10, 2/11, 12/11, 12/12, 12/13, 2/15, 2/16, 11/16, 8/17, 8/18, 8/19, 8/20, 2/22, 2/23, 8/23, 2/24, 2/25 Status: Current

Date Of Origin: April 11, 2007

Summary of Changes

Deletions:

• I. A. 2.: Deleted *a significantly shortened life expectancy* from list of absolute contraindications to renal transplantation as there is no universally accepted life expectancy below which an individual is ineligible for kidney transplantation.

I. POLICY/CRITERIA

This policy applies to adults age 18 or older with a commercial or Medicaid plan.

A list of Priority Health approved dialysis facilities is available through Medical Management.

- A. Coverage for maintenance Renal Replacement Therapy (RRT) for End Stage Renal Disease (ESRD) requires the following:
 - Patient engagement and completion of Shared Decision Making (e.g. EMMI tools @ <u>https://www.my-emmi.com/SelfReg/PHCKD</u>) is highly recommended (NOT required)
 - 2. Patient referral to a transplantation program occurs when the estimated glomerular filtration rate (eGFR) is <30 mL/min/1.73 m^{2 1} for those members who have no known contraindications* and interest in transplant as first line RRT.

*Absolute contraindications to renal transplantation include:

- Active infections.
- Active malignancy.
- Active substance abuse.
- Reversible renal failure.
- Uncontrolled psychiatric disease.
- Documented active and ongoing treatment nonadherence.

¹ Bunnapradist S, Danovitch GM. Evaluation of adult kidney transplant candidates. Am J Kidney Dis 2007; 50:890.



Kidney transplantation in adults: Evaluation of the potential renal transplant recipient, Up-to-Date on-line medical reference

3. Prior authorization of renal replacement modalities is required.

Hemodialysis

- A. Hemodialysis is covered for any of the following non-urgent indications:
 - 1. Patients with eGFR 5 to 15 mL/min/1.73 m² with signs or symptoms attributable to ESRD including any:
 - a. Fluid overload refractory to diuretics.
 - b. Hypertension poorly responsive to antihypertensive medications
 - c. Persistent metabolic disturbances that are refractory to medical therapy. These include hyperkalemia, hyponatremia, metabolic acidosis, hypercalcemia, hypocalcemia, and hyperphosphatemia.
 - d. Persistent nausea and vomiting
 - e. Evidence of malnutrition
 - 2. Patients with eGFR <5 mL/min/1.73 m²
- B. Hemodialysis for urgent conditions (e.g., uremic pericarditis or pleuritic, progressive uremic encephalopathy) does not require prior authorization.

Home Hemodialysis

- A. Priority Health covers home hemodialysis when all of the following are met:
 - 1. Patient meets criteria for hemodialysis as defined in the section above.
 - 2. Patient has stable end stage renal disease (ESRD).
 - 3. Patient is capable of completing a home dialysis training program and adhering to a prescribed treatment regimen.
 - 4. Patient has an adequate caregiver and arrangements with a backup, facility-based dialysis center.
 - 5. Patient is under the care of a physician and receiving services under a plan of care.
- B. For Medicaid members, if a member qualifies for Medicare, coverage begins the first day of hemodialysis for chronic renal failure.
- C. Dialysis equipment and supplies are covered at the contracted fee and are not separately billable.
- D. Wearable hemodialysis units/wearable artificial kidneys are considered investigational and experimental.

Peritoneal Dialysis

Peritoneal dialysis in the home is considered medically necessary for ESRD.

Note: Prior Authorization of vascular access (AV Fistula/Graft) or Peritoneal catheter is required for all maintenance dialysis requests.

Please see Parenteral Nutritional Therapy Medical Policy #91517 for Intradialytic Parenteral Nutrition criteria.

II. MEDICAL NECESSITY REVIEW

Prior authorization for certain drug, services, and procedures may or may not be required. In cases where prior authorization is required, providers will submit a request demonstrating that a drug, service, or procedure is medically necessary. For more information, please refer to the <u>Priority Health Provider Manual</u>.

III. APPLICATION TO PRODUCTS

Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

- **HMO/EPO:** *This policy applies to insured HMO/EPO plans.*
- ***** POS: This policy applies to insured POS plans.
- PPO: This policy applies to insured PPO plans. Consult individual plan documents as state mandated benefits may apply. If there is a conflict between this policy and a plan document, the provisions of the plan document will govern.
- ASO: For self-funded plans, consult individual plan documents. If there is a conflict between this policy and a self-funded plan document, the provisions of the plan document will govern.
- INDIVIDUAL: For individual policies, consult the individual insurance policy. If there is a conflict between this medical policy and the individual insurance policy document, the provisions of the individual insurance policy will govern.
- MEDICARE: Coverage is determined by the Centers for Medicare and Medicaid Services (CMS) and/or the Evidence of Coverage (EOC); if a coverage determination has not been adopted by CMS, this policy applies.
- MEDICAID/HEALTHY MICHIGAN PLAN: For Medicaid/Healthy Michigan Plan members, this policy will apply. Coverage is based on medical necessity criteria being met and the appropriate code(s) from the coding section of this policy being included on the Michigan Medicaid Fee Schedule located at: <u>http://www.michigan.gov/mdch/0,1607,7-132-</u> 2945 42542 42543 42546 42551-159815--,00.html. If there is a discrepancy between this policy and the Michigan Medicaid Provider Manual located at: <u>http://www.michigan.gov/mdch/0,1607,7-132-2945 5100-87572--,00.html</u>, the Michigan Medicaid Provider Manual will govern. If there is a discrepancy or lack of guidance in the Michigan Medicaid Provider Manual, the Priority Health contract with Michigan Medicaid will govern. For Medical Supplies/DME/Prosthetics and Orthotics, please refer to the Michigan Medicaid Fee Schedule to verify coverage.

IV. DESCRIPTION

Chronic Kidney Disease (CKD) is a general term for a group of heterogeneous disorders affecting kidney structure and function. CKD is a progressive condition, which is defined as kidney damage which lasts greater than or equal to three (3) months demonstrated by pathologic abnormalities, in abnormal blood or urine markers or on renal imaging, and/or a glomerular filtration rate (GFR) less than 60 mL/min/1.73m² The abnormal kidney function must persist for greater than or equal to three (3) months with or without kidney damage. Kidney failure is defined as either a GFR of less than 15 mL/min/1.73m² or as the need for renal replacement therapy, i.e., dialysis or renal transplantation. Some causes of kidney failure are diabetes, hypertension, glomerulonephritis, cystic kidney disease, nephrotoxic agents, and infection.

End stage renal disease (ESRD) is traditionally considered as the most serious outcome of CKD. ESRD is defined as the stage when renal impairment appears irreversible and permanent requiring long-term dialysis or kidney transplantation in order to maintain life. Rapidly progressive diseases may lead to ESRD within months but most diseases evolve over decades, and some patients do not progress during many years of follow-up.²

Although the rate of all-cause mortality for dialysis patients remains higher than the general population, the life expectancy of patients with end-stage renal disease (ESRD) has gradually improved since the introduction of dialysis in the 1960s. According to the 2013 United States Renal Data System (USRDS) report, the adjusted 60-month survival probabilities measured from day 1 of therapy for all patients was 0.30 for the cohort starting in 1998 compared with 0.36 for the cohort starting in 2006³

Dialysis modalities include hemodialysis, either in a dialysis center or at home, or peritoneal dialysis, including chronic ambulatory peritoneal dialysis (CAPD) or automated peritoneal dialysis (APD). Conservative nondialysis care may be the appropriate decision for many older or more infirm individuals,⁴ while preemptive or early transplantation may be the best for many other patients.

Patient centered education regarding predialysis and dialysis preparation has been advised to begin early; to involve patients, their families, and their caregivers, if possible; and to be continually reinforced in a positive and patient sensitive

² KDIGO 2012 Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. Kidney Int Suppl 2013; 3:5.

³ http://www.usrds.org/atlas.aspx

⁴ Davison SN. End-of-life care preferences and needs: perceptions of patients with chronic kidney disease. Clin J Am Soc Nephrol. 2010;5(2):195-204.

End Stage Renal Disease (ESRD): Renal Dialysis

manner. ^{5 6} Further, given the high prevalence of cognitive impairment ⁷and delirium among patients with kidney failure, as well as acknowledged difficulties predicting the rate of progression to kidney failure among patients with advanced CKD, ^{8 9}it is imperative that patients' informants and proxy decision makers be involved in the decision-making process early in the disease state.

The Ellipsys Vascular Access System is a minimally invasive device used to create a percutaneous AVF for hemodialysis access in patients with end-stage renal disease (ESRD). The system allows percutaneous access to the proximal radial artery in the forearm to create the AVF. Under high frequency ultrasound guidance, an outer access cannula, guidewire, and vessel capture construct creates a connection of the vein to the artery intravascularly. Low power thermal energy is used to cut the walls of the vessels and fuse the tissue, creating a permanently fused anastomosis without leaving any foreign material in the resulting AVF. The AVF creation procedure utilizing the Ellipsys System can be done with a single puncture, under regional or local anesthesia, and does not require implants or sutures.

The Ellipsys Vascular Access System (VAS) received de novo device classification on January 10, 2017 (DEN170004). It was cleared for marketing through the FDA 510(k) premarket notification process on October 5, 2018 (K181725). Two subsequent clearances (K183615 and K191114) reflected minor device modifications without changes to patient indications. This class II device is regulated by the FDA Code of Federal Regulations (CFR) under regulation number 21 CFR 870.1252 with product code PQK (percutaneous catheter for creation of an arteriovenous fistula for hemodialysis access).

The WavelinQ EndoAVF system (previously branded as the EverlinQ endoAVF System) is U.S. Food and Drug Administration (FDA)-cleared for the percutaneous creation of an arteriovenous fistula (AVF) in the arm using separate access sites for the peripheral artery and peripheral vein. The WavelinQ system consists of a pair of over-the-wire catheters with magnets arranged to pull them into alignment and opposition. The venous catheter contains a spring-loaded radiofrequency (RF) electrode and the arterial catheter contains a ceramic backstop intended to align with the venous RF electrode.

⁵ Saggi SJ, Allon M, Bernardini J, Kalantar-Zadeh K, Shaffer R, Mehrotra R. Considerations in the optimal preparation of patients for dialysis. Nat Rev Nephrol. 2012;8(7):381-389.

⁶ Morton R, Tong A, Howard K, Snelling P, Webster A. The views of patients and carers in treatment decision making for chronic kidney disease: systematic review and thematic synthesis of qualitative studies. BMJ. 2010;340:c112.

⁷ Schell JO, Patel UD, Steinhauser KE, Ammarell N, Tulsky JA. Discussions of the kidney disease trajectory by elderly patients and nephrologists: a qualitative study. Am J Kidney Dis. 2012;59(4):495-503.

⁸ Levin A, Djurdjev O, Beaulieu M, Er L. Variability and risk factors for kidney disease progression and death following attainment of stage 4 CKD in a referred cohort. Am J Kidney Dis. 2008;52(4):661-671.

⁹ O'Hare AM, Batten A, Burrows NR, et al. Trajectories of kidney function decline in the 2 years before initiation of longterm dialysis. Am J Kidney Dis. 2012;59(4):513-522.

MEDICAL POLICY No. 91526-R10 End Stage Renal Disease (ESRD): Renal Dialysis

During the WavelinQ EndoAVF procedure, the arterial catheter is inserted into the ulnar artery via the brachial artery, and the venous catheter is inserted into the ulnar vein via the brachial vein. The catheters are aligned, and the magnets hold the artery and vein together. The RF electrode is released from the venous catheter and energized for approximately 2 seconds. This creates an anastomosis between the ulnar vessels, resulting in a side-to-side ulnar vein fistula in the arm. If the patient has more than 1 brachial vein, the entry brachial vein is coilembolized to redirect flow to the superficial veins. In clinical trials, the WavelinQ EndoAVF procedure was carried out in an outpatient setting under conscious sedation and local anesthesia.

On June 22, 2018, the FDA granted de novo marketing authorization for the EverlinQ EndoAVF system (DEN160006). The FDA subsequently granted two 510(k) clearances for WavelinQ devices (K192239 and K182796) with minor design modifications of the de novo-authorized device. These devices are classified under product code PQK (percutaneous catheter for creation of an arteriovenous fistula for hemodialysis access). These devices are indicated for " ... the creation of an arteriovenous fistula (AVF) using concomitant ulnar artery and ulnar vein or concomitant radial artery and radial vein in patients with minimum artery and vein diameters of 2.0 [millimeters (mm)] at the fistula creation site who have chronic kidney disease and need hemodialysis".

According to the Kidney Disease Outcomes Quality Initiative ¹⁰ patients who reach CKD stage 4 (GFR < 30 mL/min/1.73 m2), including those who have imminent need for maintenance dialysis at the time of initial assessment, should receive education about kidney failure and options for its treatment, including kidney transplantation, PD, HD in the home or in-center, and conservative treatment. Patients' family members and caregivers also should be educated about treatment choices for kidney failure.

Kidney transplantation is the treatment of choice for most patients with end-stage renal disease (ESRD)¹¹, ¹² A successful kidney transplant improves quality of life and reduces the mortality risk for the majority of patients when compared with maintenance dialysis.

Approximately 2.5 percent of patients with end-stage renal disease (ESRD) received a renal transplant as the initial treatment for their ESRD.¹³ Transplantation should be discussed with all patients with irreversible and progressive chronic kidney disease (CKD).

¹² Wolfe RA, Ashby VB, Milford EL, et al. Comparison of mortality in all patients on dialysis, patients on dialysis awaiting transplantation, and recipients of a first cadaveric transplant. N Engl J Med 1999; 341:1725.

¹⁰ Kidney Disease Outcomes Quality Initiative: Am J Kidney Dis. 2015;66(5):896

¹¹ Wolfe RA, Ashby VB, Milford EL, et al. Comparison of mortality in all patients on dialysis, patients on dialysis awaiting transplantation, and recipients of a first cadaveric transplant. N Engl J Med 1999; 341:1725.

¹³ USRDS data

End Stage Renal Disease (ESRD): Renal Dialysis

Patients who are interested in transplantation and who have no known contraindications should be referred to a transplantation program when the estimated glomerular filtration rate (eGFR) is $<30 \text{ mL/min}/1.73 \text{ m}^2 \text{ }_{.}^{14}$ Although no form of renal replacement is indicated at this level of kidney function, this early referral allows sufficient time for a complete evaluation and for interventions that may be required to address relative contraindications prior to transplantation, both of which can be time consuming. It also allows an opportunity for the candidate to explore his/her potential living-donor options in a timely manner, which may facilitate a transplant before needing dialysis. It is difficult to predict with accuracy the rate of deterioration of kidney function, and, ideally, the transplant should take place before dialysis is required.

Preparation for dialysis is integrated into the overall care of the patient with advanced CKD. Ideally, the decision to initiate dialysis is made long after consideration of the patient for kidney transplantation and after the patient has already chosen his or her dialysis modality through a comprehensive shared decision making process. In addition, it is advisable to have appropriate and functioning access in place.

The most important study that informs this recommendation is the IDEAL Study. ¹⁵ In this clinical trial conducted in 32 centers in Australia and New Zealand, 828 adult patients with creatinine clearance of 10 to 15 mL/min/1.73 m2 were randomized to begin dialysis treatment earlier (10-14 mL/min/1.73 m2; n 5 404) or later (5-7 mL/min/1.73 m2; n 5 424). Upon follow-up, 19% of participants assigned to start dialysis early started later, and 76% of participants assigned to start dialysis in the early and late groups was 12.0 and 9.8 mL/min (eGFR, 9.0 vs 7.8 mL/min/1.73 m2), and the median difference in time to dialysis initiation was 5.6 months. There was no significant difference in time to death, CV or infectious events, or complications of dialysis. ¹⁶These results did not differ even when the analyses were restricted to individuals who started treatment with PD. Furthermore, the trend for higher total health care costs in individuals assigned to start dialysis early was not significantly different, ¹⁷

The 2012 KDIGO guidelines suggest that dialysis be initiated when there are signs or symptoms attributable to kidney failure (such as serositis, acid-base or electrolyte disorders not easily corrected medically, pruritus); an inability to control volume status or blood pressure; a progressive deterioration in nutritional

¹⁶ Johnson DW, Wong MG, Cooper BA, et al. Effect of timing of dialysis commencement on clinical outcomes of patients with planned initiation of peritoneal dialysis in the IDEAL Trial. Perit Dial Int. 2012;32(6):595-604.

¹⁴ Bunnapradist S, Danovitch GM. Evaluation of adult kidney transplant candidates. Am J Kidney Dis 2007; 50:890.
¹⁵ Cooper BA, Branley P, Bulfone L, et al. A randomized, controlled trial of early versus late initiation of dialysis. N Engl J Med. 2010;363(7):609-619.

¹⁷ Harris A, Cooper BA, Li JJ, et al. Cost-effectiveness of initiating dialysis early: a randomized controlled trial. Am J Kidney Dis. 2011;57(5):707-715.



status that is refractory to dietary interventions; or cognitive impairment. ¹⁸The KDIGO guidelines state that such signs and symptoms often but not invariably occur when the eGFR is between 5 and 10 mL/min/1.73 m².

The 2014 Canadian Society of Nephrology guidelines recommend monitoring and actively treating symptoms when the eGFR declines below 15 mL/min/1.73 m² ¹⁹The guidelines recommend commencing dialysis in asymptomatic patients when the eGFR declines to below 6 mL/min/1.73 m² or when symptoms occur ²⁰

European guidelines suggest that, in patients with a GFR <15 mL/min/1.73 m², dialysis should be considered when symptoms are present, while recognizing that the majority of patients will be symptomatic and need to start dialysis with GFR in the range of 6 to 9 mL/min/1.73 m² ²¹

The 2015 KDOQI guidelines suggest that the decision to start dialysis should be based on uremic signs and symptoms, evidence of protein energy wasting, and the ability to medically manage metabolic abnormalities and volume overload and not based upon the level of kidney function ²²

¹⁸ KDIGO 2012 Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. Kidney Int Suppl 2013; 3:5.

¹⁹ Nesrallah GE, Mustafa RA, Clark WF, et al. Canadian Society of Nephrology 2014 clinical practice guideline for timing the initiation of chronic dialysis. CMAJ 2014; 186:112.

²⁰ Nesrallah GE, Mustafa RA, Clark WF, et al. Canadian Society of Nephrology 2014 clinical practice guideline for timing the initiation of chronic dialysis. CMAJ 2014; 186:112.

²¹ Tattersall J, Dekker F, Heimbürger O, et al. When to start dialysis: updated guidance following publication of the Initiating Dialysis Early and Late (IDEAL) study. Nephrol Dial Transplant 2011; 26:2082.

²² National Kidney Foundation. KDOQI Clinical Practice Guideline for Hemodialysis Adequacy: 2015 update. Am J Kidney Dis 2015; 66:884.

MEDICAL POLICY No. 91526-R10

Uremia		
Signs	Symptoms	
• Fatigue	• Seizures/change in seizure	
• Lethargy	threshold	
Confusion	• Amenorrhea	
Anorexia	• Reduced core body temperature	
Nausea	Protein-energy wasting	
• Alterations in senses of smell and	Insulin resistance	
taste	Heightened catabolism	
• Cramps	• Serositis (pleuritis, pericarditis)	
Restless legs	Hiccups	
Sleep disturbances	Platelet dysfunction	
Pruritus	Somnolence	

Abdel-Kader K, Unruh ML, Weisbord SD. Symptom burden, depression, and quality of life in chronic and end-stage kidney disease. Clin J Am Soc Nephrol. 2009;4(6):1057-1064.

Many patients can be treated with either peritoneal dialysis or hemodialysis. The selection of dialysis modality is influenced by a number of considerations such as availability and convenience, comorbid conditions, socioeconomic and dialysis-center factors, the patient's home situation, the method of clinician reimbursement, and the ability to tolerate volume shifts ²³,²⁴ Most patients do not have a medical contraindication to either therapy, and patients generally like to have a choice of modalities

Review of the clinical literature has provided definitive rationale behind ensuring appropriate patient selection for initiation of Peritoneal Dialysis (PD) vs. Hemodialysis (HD): Studies over the last 2 decades indicate that most patients starting maintenance dialysis in the United States are unaware of options for KRT other than in center HD²⁵, ²⁶

Peritoneal dialysis can be performed using several different techniques. Continuous ambulatory peritoneal dialysis (CAPD) involves multiple exchanges during the day (usually three), followed by an overnight dwell. Automated peritoneal dialysis (APD) refers to techniques that use an automated device to do multiple exchanges overnight, with or without a daytime dwell, such as continuous cycler peritoneal dialysis (CCPD), nightly intermittent peritoneal

²³ Van Biesen W, Vanholder R, Lameire N. The role of peritoneal dialysis as the first-line renal replacement modality. Perit Dial Int 2000; 20:375.

²⁴ Mehrotra R, Khawar O, Duong U, et al. Ownership patterns of dialysis units and peritoneal dialysis in the United States: utilization and outcomes. Am J Kidney Dis 2009; 54:289.

²⁵ Kutner NG, Zhang R, Huang Y, Wasse H. Patient awareness and initiation of peritoneal dialysis. Arch Intern Med. 2011;171(2):119-124.

²⁶ Mehrotra R, Marsh D, Vonesh E, Peters V, Nissenson A. Patient education and access of ESRD patients to renal replacement therapies beyond in-center hemodialysis. Kidney Int. 2005;68(1):378-390.



dialysis (NIPD), and tidal peritoneal dialysis (TPD). Of these, CCPD, the most commonly used, has a long daytime dwell and several cycles overnight. Upon initiating peritoneal dialysis, modality implemented (most commonly either CAPD or CCPD) is often left to patient choice based upon lifestyle or personal issues since ultrafiltration goals will be achieved similarly.

Home hemodialysis (HHD) is a treatment for end-stage renal disease (ESRD) in which the patient self-dialyzes several times per week at home during the day or overnight on a more intensive schedule than conventional, intermittent in-center hemodialysis (HD). HHD is intended to reduce morbidity and mortality associated with conventional HD by shortening the interdialytic interval, which decreases fluctuations in fluid, solute, and electrolyte balance, and more closely mimics physiological kidney function.

Page 10 of 20



V. CODING INFORMATION

*Prior Authorization not required for Dialysis for Priority Health Medicare members

ICD-10 (Codes that may support medical necessity:	
E08.21 -	E08.29 Diabetes mellitus due to underlying condition with kidney	
	complications	
E09.21 -	E09.29 Drug or chemical induced diabetes mellitus with kidney complications	
E10.21 -	E10.29 Type 1 diabetes mellitus with kidney complications	
E11.21 -	E11.29 Type 2 diabetes mellitus with kidney complications	
E13.21 -	E13.29 Other specified diabetes mellitus with kidney complications	
I12.0	Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end	
	stage renal disease	
I12.9	Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney	
	disease, or unspecified chronic kidney disease	
I13.0 - I1	3.2 Hypertensive heart and chronic kidney	
N17.0 - N	V17.9 Acute kidney failure	
N18.1	Chronic kidney disease, stage 1	
N18.2	Chronic kidney disease, stage 2 (mild)	
N18.3	Chronic kidney disease, stage 3 (moderate)	
N18.4	Chronic kidney disease, stage 4 (severe)	
N18.5	Chronic kidney disease, stage 5	
N18.6	End stage renal disease	
N18.9	Chronic kidney disease, unspecified	
O10.311-	O10.33 Pre-existing hypertensive heart and chronic kidney disease	
	complicating pregnancy, childbirth, and the peurperium	
T86.10	Unspecified complication of kidney transplant	
T86.11	Kidney transplant rejection	
T86.12	Kidney transplant failure	
T86.13	Kidney transplant infection	
T86.19	Other complication of kidney transplant	
Z49.0-Z4	9.32 Encounter for care involving renal dialysis	
CREATION OF PERMANENT ACCESS		
CPT/HC	PCS codes:	
36818	Arteriovenous anastomosis, open; by upper arm cephalic vein transposition	
36819	Arteriovenous anastomosis, open; by upper arm basilic vein transposition	
36820	Arteriovenous anastomosis, open; by forearm vein transposition	

- 36821 Arteriovenous anastomosis, open; direct, any site (e.g., Cimino type) (separate procedure)
- 36825 Creation of arteriovenous fistula by other than direct arteriovenous anastomosis (separate procedure); autogenous graft

MEDICAL POLICY No. 91526-R10

- 36830 Creation of arteriovenous fistula by other than direct arteriovenous anastomosis (separate procedure); nonautogenous graft (e.g., biological collagen, thermoplastic graft)
- 49418 Insertion of tunneled intraperitoneal catheter (e.g., dialysis, intraperitoneal chemotherapy instillation, management of ascites), complete procedure, including imaging guidance, catheter placement, contrast injection when performed, and radiological supervision and interpretation, percutaneous
- 49421 Insertion of tunneled intraperitoneal catheter for dialysis, open

CPT/HCPCS codes covered with no Prior Authorization:

- 36836 Percutaneous arteriovenous fistula creation, upper extremity, single access of both the peripheral artery and peripheral vein, including fistula maturation procedures (eg, transluminal balloon angioplasty, coil embolization) when performed, including all vascular access, imaging guidance and radiologic supervision and interpretation [EllipsysTM Vascular Access System (Medtronic)]
- 36837 Percutaneous arteriovenous fistula creation, upper extremity, separate access sites of the peripheral artery and peripheral vein, including fistula maturation procedures (eg, transluminal balloon angioplasty, coil embolization) when performed, including all vascular access, imaging guidance and radiologic supervision and interpretation [WavelinQ[™] EndoAVF System (BD)]

DIALYSIS & RELATED PROCEDURES

Revenue codes:

0800 - 0809	Inpatient Renal Dialysis
0820 - 0829	Hemodialysis—Outpatient or Home
0830 - 0839	Peritoneal Dialysis—Outpatient or Home
0840 - 0849	Continuous Ambulatory Peritoneal Dialysis (CAPD)—Outpatient or
	Home
0850 - 0859	Continuous Cycling Peritoneal Dialysis (CCPD)-Outpatient or Home
0880 - 0889	Miscellaneous Dialysis

CPT/HCPCS codes:

(No PA required for codes 90935 – 90997 when reported as physician services on HCFA 1500 claim)

- G0491 Dialysis procedure at a Medicare certified ESRD facility for acute kidney injury without ESRD
- 90935 Hemodialysis procedure with single evaluation by a physician or other qualified health care professional
- 90937 Hemodialysis procedure requiring repeated evaluation(s) with or without substantial revision of dialysis prescription
- 90945 Dialysis procedure other than hemodialysis (e.g., peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies), with single evaluation by a physician or other qualified health care professional
- 90947 Dialysis procedure other than hemodialysis (e.g., peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies) requiring

MEDICAL POLICY No. 91526-R10

	repeated evaluations by a physician or other qualified health care professional, with or without substantial revision of dialysis prescription
90957	End-stage renal disease (ESRD) related services monthly, for patients 12-19
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	vears of age to include monitoring for the adequacy of nutrition, assessment of
	growth and development, and counseling of parents: with 4 or more face-to-face
	visits by a physician or other qualified health care professional per month
90958	End-stage renal disease (ESRD) related services monthly. for patients 12-19
	vears of age to include monitoring for the adequacy of nutrition, assessment of
	growth and development, and counseling of parents: with 2-3 face-to-face visits
	by a physician or other qualified health care professional per month
90959	End-stage renal disease (ESRD) related services monthly, for patients 12-19
	years of age to include monitoring for the adequacy of nutrition, assessment of
	growth and development, and counseling of parents; with 1 face-to-face visit by a
	physician or other qualified health care professional per month
90960	End-stage renal disease (ESRD) related services monthly, for patients 20 years of
	age and older; with 4 or more face-to-face visits by a physician or other qualified
	health care professional per month
90961	End-stage renal disease (ESRD) related services monthly, for patients 20 years of
	age and older; with 2-3 face-to-face visits by a physician or other qualified health
	care professional per month
90962	End-stage renal disease (ESRD) related services monthly, for patients 20 years of
	age and older; with 1 face-to-face visit by a physician or other qualified health
00065	care professional per month
90965	End-stage renal disease (ESRD) related services for home dialysis per full month,
	for patients 12-19 years of age to include monitoring for the adequacy of
00066	nutrition, assessment of growth and development, and counseling of parents
90900	for national 20 years of age and older
00060	End-stage renal disease (ESRD) related services for dialysis less than a full
)0)0)	month of service, ner day: for patients 12-19 years of age
90970	End-stage renal disease (ESRD) related services for dialysis less than a full
90910	month of service, per day: for patients 20 years of age and older
90989	Dialysis training, patient, including helper where applicable, any mode,
	completed course
90993	Dialysis training, patient, including helper where applicable, any mode, course
	not completed, per training session
90999	Unlisted dialysis procedure, inpatient or outpatient

Condition Code (report for home dialysis):74Renal dialysis setting - home

MEDICAL POLICY No. 91526-R10

- 36558 Insertion of tunneled centrally inserted central venous catheter, without subcutaneous port or pump; age 5 years or older
- 36581 Replacement, complete, of a tunneled centrally inserted central venous catheter, without subcutaneous port or pump, through same venous access
- 36589 Removal of tunneled central venous catheter, without subcutaneous port or pump
- 36800 Insertion of cannula for hemodialysis, other purpose (separate procedure); vein to vein
- 36810 Insertion of cannula for hemodialysis, other purpose (separate procedure); arteriovenous, external
- 36815 Insertion of cannula for hemodialysis, other purpose (separate procedure); arteriovenous, external revision, or closure
- 36831 Thrombectomy, open, arteriovenous fistula without revision, autogenous or nonautogenous dialysis graft (separate procedure)
- 36832 Revision, open, arteriovenous fistula; without thrombectomy, autogenous or nonautogenous dialysis graft (separate procedure)
- 36833 Revision, open, arteriovenous fistula; with thrombectomy, autogenous or nonautogenous dialysis graft (separate procedure)
- 36835 Insertion of Thomas shunt (separate procedure)
- 36838 Distal revascularization and interval ligation (DRIL), upper extremity hemodialysis access (steal syndrome)
- 36860 External cannula declotting (separate procedure); without balloon catheter
- 36861 External cannula declotting (separate procedure); with balloon catheter
- 36901 Introduction of needle(s) and/or catheter(s), dialysis circuit, with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, radiological supervision and interpretation and image documentation and report;
- 36902 Introduction of needle(s) and/or catheter(s), dialysis circuit, with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, radiological supervision and interpretation and image documentation and report; with transluminal balloon angioplasty, peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty

MEDICAL POLICY No. 91526-R10

36903 Introduction of needle(s) and/or catheter(s), dialysis circuit, with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, radiological supervision and interpretation and image documentation and report; with transcatheter placement of intravascular stent(s), peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary to perform the stenting, and all angioplasty within the peripheral dialysis segment
 26004 Bergutaneous transluminal mechanical thrombactomy and/or infusion for

- 36904 Percutaneous transluminal mechanical thrombectomy and/or infusion for thrombolysis, dialysis circuit, any method, including all imaging and radiological supervision and interpretation, diagnostic angiography, fluoroscopic guidance, catheter placement(s), and intraprocedural pharmacological thrombolytic injection(s);
- 36905 Percutaneous transluminal mechanical thrombectomy and/or infusion for thrombolysis, dialysis circuit, any method, including all imaging and radiological supervision and interpretation, diagnostic angiography, fluoroscopic guidance, catheter placement(s), and intraprocedural pharmacological thrombolytic injection(s); with transluminal balloon angioplasty, peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty
- 36906 Percutaneous transluminal mechanical thrombectomy and/or infusion for thrombolysis, dialysis circuit, any method, including all imaging and radiological supervision and interpretation, diagnostic angiography, fluoroscopic guidance, catheter placement(s), and intraprocedural pharmacological thrombolytic injection(s); with transcatheter placement of intravascular stent(s), peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary to perform the stenting, and all angioplasty within the peripheral dialysis circuit
- 36907 Transluminal balloon angioplasty, central dialysis segment, performed through dialysis circuit, including all imaging and radiological supervision and interpretation required to perform the angioplasty (List separately in addition to code for primary procedure)
- 36908 Transcatheter placement of intravascular stent(s), central dialysis segment, performed through dialysis circuit, including all imaging radiological supervision and interpretation required to perform the stenting, and all angioplasty in the central dialysis segment (List separately in addition to code for primary procedure)
- 36909 Dialysis circuit permanent vascular embolization or occlusion (including main circuit or any accessory veins), endovascular, including all imaging and radiological supervision and interpretation necessary to complete the intervention (List separately in addition to code for primary procedure)
- 37246 Transluminal balloon angioplasty (except lower extremity artery(ies) for occlusive disease, intracranial, coronary, pulmonary, or dialysis circuit), open or percutaneous, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty within the same artery; initial artery

Page 15 of 20

37247	Transluminal balloon angioplasty (except lower extremity artery(ies) for occlusive disease, intracranial, coronary, pulmonary, or dialysis circuit), open or percutaneous, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty within the same artery; each additional artery (List separately in addition to code for primary procedure)
49422	Removal of tunneled intraperitoneal catheter
G0420	Face-to-face educational services related to the care of chronic kidney disease; individual, per session, per one hour
G0421	Face-to-face educational services related to the care of chronic kidney disease; group per session per one hour
G0492	Dialysis procedure with single evaluation by a physician or other qualified health care professional for acute kidney injury without ESRD
90940	Hemodialysis access flow study to determine blood flow in grafts and arteriovenous fistulae by an indicator method
90951	End-stage renal disease (ESRD) related services monthly, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 4 or more face-to-face visits by a physician or other qualified health care professional per month
90952	End-stage renal disease (ESRD) related services monthly, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 2-3 face- to-face visits by a physician or other qualified health care professional per month
90953	End-stage renal disease (ESRD) related services monthly, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 1 face- to-face visit by a physician or other qualified health care professional per month
90954	End-stage renal disease (ESRD) related services monthly, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 4 or more face-to-face visits by a physician or other qualified health care professional per month
90955	End-stage renal disease (ESRD) related services monthly, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 2-3 face-to-face visits by a physician or other qualified health care professional per month
90956	End-stage renal disease (ESRD) related services monthly, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 1 face-to-face visit by a physician or other qualified health care professional per month
90963	End-stage renal disease (ESRD) related services for home dialysis per full month, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents
90964	End-stage renal disease (ESRD) related services for home dialysis per full month, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents

Page 16 of 20

MEDICAL POLICY No. 91526-R10 End Stage Renal Disease (ESRD): Renal Dialysis

90967 End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients younger than 2 years of age

90968 End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients 2-11 years of age

- C7513 Dialysis circuit, introduction of needle(s) and/or catheter(s), with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, with transluminal balloon angioplasty of central dialysis segment, performed through dialysis circuit, including all required imaging, radiological supervision and interpretation, image documentation and report (*Billable by ASC*)
- C7514 Dialysis circuit, introduction of needle(s) and/or catheter(s), with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, with all angioplasty in the central dialysis segment, and transcatheter placement of intravascular stent(s), central dialysis segment, performed through dialysis circuit, including all required imaging, radiological supervision and interpretation, image documentation and report *(Billable by ASC)*
- C7515 Dialysis circuit, introduction of needle(s) and/or catheter(s), with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, with dialysis circuit permanent endovascular embolization or occlusion of main circuit or any accessory veins, including all required imaging, radiological supervision and interpretation, image documentation and report *(Billable by ASC)*
- C7530 Dialysis circuit, introduction of needle(s) and/or catheter(s), with diagnostic angiography of the dialysis circuit, including all direct puncture(s) and catheter placement(s), injection(s) of contrast, all necessary imaging from the arterial anastomosis and adjacent artery through entire venous outflow including the inferior or superior vena cava, fluoroscopic guidance, with transluminal balloon angioplasty, peripheral dialysis segment, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty and all angioplasty in the central dialysis segment, with transcatheter placement of intravascular stent(s), central dialysis segment, performed through dialysis circuit, including all imaging, radiological supervision and interpretation, documentation and report (*Billable by ASC*)

Not separately payable:

E1590 Hemodialysis machine

Page 17 of 20



Not Covered:

- C8000 Support device, extravascular, for arteriovenous fistula (implantable) (Covered for Medicare)
- E1632 Wearable artificial kidney, each
- E1635 Compact (portable) travel hemodialyzer system

Page 18 of 20



VI. REFERENCES:

- 1. Centers for Medicare & Medicaid Services. Medicare Benefit Policy Manual <u>Chapter 11 - End Stage Renal Disease (ESRD)</u>.
- Centers for Medicare & Medicaid Services, Medicare National Coverage Determinations, Chapter 1, sections 230.7, 230.13, 230.14, Local Coverage Decision (LCD), LCD# L11476, Home Dialysis Supplies and Equipment, Updated 05/27/2005, LMRRP converted to LCD 07/01/2005, Revision effective date: 01/01/2006.
- 3. Hayes, Inc. Evolving Evidence Review. Ellipsys Vascular Access System (Avenu Medical) in Patients with End-Stage Renal Disease. Hayes, Inc. August 4, 2021.
- 4. Hayes, Inc. Evolving Evidence Review. WavelinQ (formerly EverlinQ) EndoAVF System. Hayes, Inc. July 23, 2021.
- 5. Hayes, Inc. Medical Code Brief. 36836 Category I. Hayes, Inc. September 13, 2022.
- 6. Hayes, Inc. Medical Code Brief. 36837 Category I. Hayes, Inc. September 13, 2022.
- 7. Hayes, Inc. Health Technology Assessment. Home Hemodialysis. Hayes, Inc. June 9, 2004. Annual review May 15, 2009.
- 8. Hayes, Inc. Emerging Technology Report. Wearable Artificial Kidney. Hayes, Inc. December 21, 2015.
- 9. Ikizler TA, Burrowes JD, Byham-Gray LD, et al; KDOQI Nutrition in CKD Guideline Work Group. KDOQI clinical practice guideline for nutrition in CKD: 2020 update. Am J Kidney Dis. 2020;76(3)(suppl 1):S1-S107.
- Lok CE, Huber TS, Lee T, et al; KDOQI Vascular Access Guideline Work Group. KDOQI clinical practice guideline for vascular access: 2019 update. Am J Kidney Dis. 2020;75(4)(suppl 2):S1-S164.
- 11. Mehotra R, Chiu Y, Kalantar-Zadeh K, Bargman J, Vonesh E. Similar outcomes with hemodialysis and peritoneal dialysis in patients with end-stage renal disease. *Arch Intern Med.* 2010 Sep 27.
- 12. National Kidney Foundation. KDOQI Clinical Practice Guideline for Hemodialysis Adequacy: 2015 update. Am J Kidney Dis 2015; 66:884-930.
- Rosenberg M. Overview of the management of chronic kidney disease in adults. In: UpToDate, Curnan GC, Tonelli M, Forman JP (Ed), UpToDate, Waltham, MA, 2024.
- 14. Rossi AP. Kidney transplantation in adults: Evaluation of the potential kidney transplant recipient. In: UpToDate, Brennan DC, Vella J, Lam AQ (Ed), UpToDate, Waltham, MA, 2024.
- 15. Vale L, Cody JD, Wallace SA, Daly C, Campbell MK, Grant AM, Khan I, MacLeod AM. Continuous ambulatory peritoneal dialysis (CAPD) versus hospital or home haemodialysis for end-stage renal disease in adults. Cochrane Database of Systematic Reviews. 2014, Issue 1. Art. No.: CD003963.



End Stage Renal Disease (ESRD): Renal Dialysis

AMA CPT Copyright Statement:

All Current Procedure Terminology (CPT) codes, descriptions, and other data are copyrighted by the American Medical Association.

This document is for informational purposes only. It is not an authorization, certification, explanation of benefits, or contract. Receipt of benefits is subject to satisfaction of all terms and conditions of coverage. Eligibility and benefit coverage are determined in accordance with the terms of the member's plan in effect as of the date services are rendered. Priority Health's medical policies are developed with the assistance of medical professionals and are based upon a review of published and unpublished information including, but not limited to, current medical literature, guidelines published by public health and health research agencies, and community medical practices in the treatment and diagnosis of disease. Because medical practice, information, and technology are constantly changing, Priority Health reserves the right to review and update its medical policies at its discretion.

Priority Health's medical policies are intended to serve as a resource to the plan. They are not intended to limit the plan's ability to interpret plan language as deemed appropriate. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment they choose to provide.

The name "Priority Health" and the term "plan" mean Priority Health, Priority Health Managed Benefits, Inc., Priority Health Insurance Company and Priority Health Government Programs, Inc.

Page 20 of 20