



PATIENT REFERRAL GUIDELINES
Kidney Transplant

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Criteria

For Medicare Members

Source	Policy
Chapter Manual	Medicare Benefits Manual Chapter 11 – End Stage Renal Disease Section 140 - Transplantation
National Coverage Determination (NCD)	Thoracic Duct Drainage (TDD) in Renal Transplants (20.3) Dental Examination Prior to Kidney Transplantation (260.6) Nonselective (Random) Transfusions and Living Related Donor Specific Transfusions (DST) in Kidney Transplantation 110.16
Local Coverage Determination (LCD)	None

For Non-Medicare Members

Transplantation may be considered for patients with end-stage or life-threatening disease who have no prospect for prolonged survival, or whose quality of life is severely impaired. Kidney transplantation is the preferred renal replacement therapy for almost all patients with chronic kidney disease. Most patients with chronic kidney disease or end stage renal disease should be considered for kidney transplant evaluation. However, the patient must have adequate social support systems and a proven record of adherence to medical treatment. These guidelines for referral for transplant evaluation are not intended as an automatic inclusion or exclusion of a candidate for referral. Referral to a regionally contracted transplant center for kidney transplant does not guarantee that the patient will be listed or transplanted. These are decisions made at the Transplant Center's discretion.

1. GENERAL PRINCIPLES

- a. If clinical parameters of end-stage or life-threatening disease indicate the need for transplantation, then early referral should be made.
- b. Patients with a history of malignancy with a moderate to high risk of recurrence (as determined after consultation with oncologist considering tumor type, response to therapy, and presence or absence of metastatic disease) may be unsuitable candidates for transplantation. Patients with low risk of recurrence may be considered.
- c. Uncontrollable active infection is a contraindication to transplant.
- d. Candidates with a history of substance abuse must be free from alcohol and other substance abuse for six (6) months and have been evaluated by a substance abuse program. The risk of recidivism, which has been documented to negatively impact transplant outcomes, must be addressed and considered to be low.^{1,2,3} Exceptions may be made on a case-by-case basis.
- e. Candidates for thoracic organ (heart, lung and heart/lung) transplants must be free from tobacco use for the previous six (6) months. Routine monitoring may be required. Specific programs for abdominal organs (liver, intestines, and kidney) may require abstinence from tobacco products in order to be actively listed.
- f. Candidates must have adequate social support systems and display a proven record of adherence to medical treatment.
- g. Patients must be willing and able to travel within short notice to the KP approved transplant Center of Excellence and, if necessary, return for treatment of complications.

- h. Patients must have a care giver or care givers who are physically and cognitively able to assist the patient with self-care activities and are available to travel within short notice to the KP approved transplant Center of Excellence.
- i. The presence of significant irreversible neurologic dysfunction, active psychological and/or psychiatric conditions, and/or other social behaviors that prevent adherence with a complex medical regimen, are considered contraindications for referral for transplant.
- j. Evidence of such nonadherence may be failure to keep appointments, failure to make steady progress in completing pre-transplant evaluation requirements, failure to accurately follow medication regimens or failure to accomplish the activities required for maintenance on the waiting list.
- k. Whenever transplant is considered as an option and discussed with the patient and/or family, consultation with Advanced Life Care Planning/Palliative Care resources is strongly recommended.

2. INDICATIONS FOR KIDNEY TRANSPLANT

Most patients with kidney failure can be considered for transplantation. It is important to note that these are guidelines and should be applied together with careful clinical judgment. The aim is to perform pre-emptive renal transplantation without initiation of standard kidney replacement therapy (hemodialysis/peritoneal dialysis).

- a. All pediatric and adult patients who require dialysis or are expected to require dialysis within the next 12 months can be considered candidates. If possible, patients should be evaluated prior to this time to discuss options for renal replacement therapy.
 - 1. Patients with an estimated GFR ≤ 30 should be informed of, educated about, and considered for potential referral for transplantation.⁴
- b. Known Type 2 diabetes patients, sometimes referred to as type 1.5 diabetes, with BMI <28 , who require low-dose insulin, may be considered for SPK. Input from endocrinology may be needed.
- c. Patients cannot be listed on the UNOS waiting list for a deceased donor kidney until their estimated GFR, calculated by the CKD-EPI creatinine equation (2021) that are refitted without race or the CKD-EPI creatinine-cystatin equation (2012) that are refitted without race, is less than 20ml/min.^{5,6,7}
- d. Estimated GFR for the pediatric population using the Schwartz formula of 10 – 15, or sooner if symptomatic. Symptomology is defined as poor growth/failure to thrive and suboptimal energy level despite adequate caloric support. Patients with estimated GFR <30 may be referred early.

CONTRAINDICATIONS FOR KIDNEY TRANSPLANT

- a. Significant irreversible coronary artery disease and/or left ventricular dysfunction, and irreversible pulmonary disease.
- b. Irreversible peripheral vascular disease, including carotid vascular disease. (Amputation alone is not a contraindication)
- c. Uncontrolled hypertension.

RELATIVE CONTRAINDICATIONS FOR KIDNEY TRANSPLANT

- a. Patients with a BMI ≥ 40 may be referred to the COE for individual consideration and concurrently referred for weight loss intervention.
- b. Active nicotine abuse.
- c. Age: There is no firm upper limit cut-off for kidney transplantation.
- d. When considering candidacy, close attention should be paid to concurrent conditions, such as frailty, that would increase the risk of morbidity and mortality.
- e. Presence of other significant, permanent, irreversible organ failure.

Footnotes

- 1. *Liver Transplantation* 2006, .12:813-820. Alcohol consumption patterns and predictors of use following liver transplantation for alcoholic liver disease.
- 2. *Liver Transplant Surg.* 1997, Vol 3, 304 – 310. The natural history of alcoholism and its relationship to liver transplantation.
- 3. Alcohol abstinence prior to liver transplantation for Alcoholic Liver Disease (G110807), *TPMG New Medical Technology*
- 4. KDIGO Clinical Practice Guideline on the Evaluation and Management of Candidates for Kidney Transplantation. Transplantation. 2020;104: S1 – S103.
- 5. Inker, Lesley A., et al., "New Creatinine- and Cystatin C–Based Equations to Estimate GFR without Race." *N Engl J Med* 2021; DOI: 10.1056/NEJMoa2102953
- 6. Hsu, Chi-yuan, et.al., "Race, Genetic Ancestry, and Estimating Kidney Function in CKD." *N Engl J Med* 2021; DOI: 10.1056/NEJMoa2103753
- 7. National Kidney Foundation, eGFR Calculator: https://www.kidney.org/professionals/kdoqi/gfr_calculator

If requesting this service, please send the following documentation to support medical necessity:

- Copy of final summary report from multidisciplinary transplant team

The following information was used in the development of this document and is provided as background only. It is provided for historical purposes and does not necessarily reflect the most current published literature. When significant new articles are published that impact treatment option, Kaiser Permanente will review as needed. This information is not to be used as coverage criteria. Please only refer to the criteria listed above for coverage

Background

Kidney transplant is a surgical procedure to implant a healthy kidney into a patient with kidney disease or kidney failure. The kidney transplant may be taken from a living donor or from a recently deceased donor.

The transplant is conducted when the patient has non-reversible, end stage renal failure with a glomerular filtration rate 20 mL/min/1.73m² (0.33 mL/sec/1.73m²) or less. There are several causes for renal failure, but the most common cause is diabetes or hypertension.

Evidence and Source Documents

See evidence document for HIV patients: [Organ Transplant for HIV Positive Patients](#)

Applicable Codes

Considered Medically Necessary when criteria in the applicable policy statements listed above are met:

CPT® Codes	Description
50300	Donor nephrectomy (including cold preservation); from cadaver donor, unilateral or bilateral
50320	Donor nephrectomy (including cold preservation); open, from living donor
50323	Backbench standard preparation of cadaver donor renal allograft prior to transplantation, including dissection and removal of perinephric fat, diaphragmatic and retroperitoneal attachments, excision of adrenal gland, and preparation of ureter(s), renal vein(s), and renal artery(s), ligating branches, as necessary
50325	Backbench standard preparation of living donor renal allograft (open or laparoscopic) prior to transplantation, including dissection and removal of perinephric fat and preparation of ureter(s), renal vein(s), and renal artery(s), ligating branches, as necessary
50327	Backbench reconstruction of cadaver or living donor renal allograft prior to transplantation; venous anastomosis, each
50328	Backbench reconstruction of cadaver or living donor renal allograft prior to transplantation; arterial anastomosis, each
50329	Backbench reconstruction of cadaver or living donor renal allograft prior to transplantation; ureteral anastomosis, each
50340	Recipient nephrectomy (separate procedure)
50360	Renal allotransplantation, implantation of graft; without recipient nephrectomy
50365	Renal allotransplantation, implantation of graft; with recipient nephrectomy
50370	Removal of transplanted renal allograft
50380	Renal autotransplantation, reimplantation of kidney
50547	Laparoscopy, surgical; donor nephrectomy (including cold preservation), from living donor *subject to Elective Surgical Procedure Level of Care review

***Note:** Codes may not be all-inclusive. Deleted codes and codes not in effect at the time of service may not be covered.

**To verify authorization requirements for a specific code by plan type, please use the [Pre-authorization Code Check](#).

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Date Created	Date Revised	Date Last Revised
05/1996	10/05/2010 ^{MDCRPC} , 08/02/2011 ^{MDCRPC} , 06/05/2012 ^{MDCRPC} , 04/02/2013 ^{MDCRPC} , 02/04/2014 ^{MPC} , 12/02/2014 ^{MPC} , 10/06/2015 ^{MPC} , 08/02/2016 ^{MPC} ,	01/10/2022

	06/06/2017 ^{MPC} , 04/03/2018 ^{MPC} , 04/02/2019 ^{MPC} , 04/07/2020 ^{MPC} , 04/06/2021 ^{MPC} , 04/05/2022 ^{MPC} , 04/04/2023 ^{MPC}	
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MDCR^{PC} Medical Director Clinical Review and Policy Committee

MPC Medical Policy Committee

Revision History	Description
05/07/2019	MPC approved to adopt KP National criteria for Kidney transplant.
03/03/2020	MPC approved the proposed changes from KP National Transplant Services.
04/06/2021	Per National Transplant Guidelines: 1.3 added "active"
01/10/2022	MPC approved the proposed changes from KP National Transplant Services. 60-day notice is not required.