



Corporate Medical Policy

Renal (Kidney) Transplantation

File Name: renal_(kidney)_transplantation
Origination: 4/1980
Last Review: 11/2005

Active policy, no longer scheduled for routine literature review.

Description of Procedure or Service

Kidney transplantation is a surgical procedure to implant a healthy kidney into a patient with kidney disease or kidney failure. Sources for donated kidneys include living donors (may be a blood relative or an unrelated donor) or from a donor that has recently died, but has not suffered kidney injury (cadaver donor). However, a kidney from a living donor is preferable to a cadaver organ because the waiting period is dramatically shorter and because the organ can be tested before transplant, usually function immediately after transplant, and last longer. Blood-group matched (ABO compatible) living-donor kidney transplantation is the gold standard.

Kidney transplants are second only to corneal transplant as the most common transplant operation in the United States. There are over 9,000 kidney transplants performed each year.

A kidney transplant is usually placed on one side or the other in the lower abdomen through an incision that is about eight or nine inches in length. The kidney's artery is connected to one of the patient's pelvic arteries. The kidney's vein is connected to one of the veins in the patient's pelvis. The ureter, the tube that drains urine from the kidney, is connected to the bladder or to one of the patient's own ureters.

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BCBSNC will provide coverage for Renal (Kidney) Transplantation when it is determined to be medically necessary because the medical criteria and guidelines shown below are met.

Benefits Application

Please refer to Certificate for availability of benefits. This policy relates only to the services or supplies described herein. Benefits may vary according to benefit design, therefore certificate language should be reviewed before applying the terms of the policy.

When Renal (Kidney) Transplantation is covered

When all of the following criteria are met:

- 1) The patient has any of the following conditions which cause end stage renal disease (inadequate kidney function to support life):

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- a. Obstructive uropathy
- b. Systemic lupus erythematosus
- c. Polyarteritis
- d. Wegener's granulomatosis
- e. Cortical [necrosis](#)
- f. Henoch-Schonlein purpura
- g. Hemolytic uremic syndrome
- h. Acute tubular [necrosis](#)
- i. Hypertensive nephrosclerosis
- j. Renal artery or vein occlusion
- k. Chronic pyelonephritis
- l. IGA nephropathy
- m. Anti-glomerular base-membrane disease
- n. Focal glomerulosclerosis
- o. Analgesic nephropathy
- p. Heavy metal poisoning
- q. Glomerulonephritis
- r. Polycystic kidney disease
- s. Medullary cystic disease
- t. Nephritis
- u. Nephrocalcinosis
- v. Gout nephritis
- w. Amyloid disease
- x. Fabry's disease
- y. Cystinosis
- z. Oxalosis
- aa. Diabetes mellitus
- ab. Horseshoe kidney
- ac. Renal aplasia or hypoplasia
- ad. Wilm's tumor
- ae. Renal-cell carcinoma
- af. Myeloma
- ag. Tuberous sclerosis
- ah. Trauma requiring [nephrectomy](#)
- ai. Scleroderma
- aj. Sickle Cell Disease

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- ak. Cholesterol emboli syndrome
- al. Urolithiasis
- am. Asymptomatic HIV positive patients who meet the following criteria:
 - i. CD4 count >200 cells/mm³ for >6 months
 - ii. HIV-1 RNA undetectable
 - iii. On stable anti-retroviral therapy > 3 months
 - iv. No other complications from AIDS (e.g., opportunistic infection, including aspergillus, tuberculosis, coccidioides mycosis, resistant fungal infections, Kaposi's sarcoma, or other neoplasm).
 - v. Meets all the other criteria for transplantation.
- 2) The patient meets the eligibility criteria for the transplant center performing the procedure.
- 3) The patient is willing and capable of following the post transplant treatment plan.

When Renal (Kidney) Transplantation is not covered

- For clinical indications other than shown above.
- Active drug and/or alcohol abuse.
- Active malignancy.
- Active infection.
- Active vasculitis.
- Untreated or irreversible end-stage illnesses.
- Inability to comply with post-transplant regimen.
- ◆ Coverage is not provided for organs sold rather than donated to a recipient.
- ◆ Coverage is not provided for artificial organs or human organ transplant service for which the cost is covered or funded by governmental, foundation, or charitable grants.

Policy Guidelines

It is recommended that all transplant requests be reviewed by the Plan Medical Director or his or her designee. Only those patients accepted for transplantation by a transplantation center and actively listed for transplant should be considered for precertification or prior approval. Guidelines should be followed for transplant network or consortiums, if applicable.

Claims will be reviewed for medical necessity by individual consideration or by prior approval methods.

Kidney Transplant in HIV+ Patients: This subgroup of recipients has long been controversial, due to the long-term prognosis for HIV positivity and the impact of immunosuppression on HIV disease. Although HIV-positive transplant recipients may be a research interest of some transplant centers the minimal data regarding long-term outcome in these patients consist primarily of case reports and abstract presentations. Nevertheless, some transplant surgeons would argue that HIV positivity is no longer an absolute contraindication to transplant due to the advent of highly active antiretroviral therapy (HAART), which has markedly changed the natural history of the disease. Furthermore, UNOS states that asymptomatic HIV+ patients should not necessarily be excluded for candidacy for organ transplantation, stating "A potential candidate for organ transplantation whose test for HIV is positive but who is in an asymptomatic state should not nec-

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essarily be excluded from candidacy for organ transplantation, but should be advised that he or she may be at increased risk of morbidity and mortality because of immunosuppressive therapy. In 2001, the Clinical Practice Committee of the American Society of Transplantation proposed that the presence of AIDS could be considered a contraindication to kidney transplant unless the following criteria were present. These criteria may be extrapolated to other organs:

- ◆ CD4 count >200 cells/mm³ for >6 months
- ◆ HIV-1 RNA undetectable
- ◆ On stable anti-retroviral therapy >3 months
- ◆ No other complications from AIDS (e.g., opportunistic infection, including aspergillus, tuberculosis, coccidioides mycosis, resistant fungal infections, Kaposi's sarcoma, or other neoplasm).
- ◆ Meeting all other criteria for transplantation.

It is likely that each individual transplant center will have explicit patient selection criteria for HIV+ patients. In addition, there is an ongoing multi-institutional prospective study of liver and kidney transplantation in HIV+ recipients. The target enrollment is 150 kidney transplant recipients and 125 liver transplant recipients. The goals of the trial are described as follows:

"Primary aims of the study are to assess the impact of iatrogenic immunosuppression on patient survival and to assess the impact of HIV infection and antiretroviral treatment on graft survival, including in the setting of HBV or HCV co-infection and HIV-associated nephropathy. Secondary aims include assessment of the effect of immunosuppressant therapy on CD 4+ cell counts, HIV RNA levels, and opportunistic complications; exploration of the relationships among disease development, the host immune response and viral evolution with regard to HBC, HCV, CMV, herpes virus-8, and HPV; assessment of the impact of HIV infection on alloimmune response and graft rejection rates; and analysis of pharmacokinetic interactions between immunosuppressant drugs and hepatically metabolized antiretroviral agents."

The participating institutions are as follows:

Kidney and Liver

Beth Israel Deaconess Medical Center, Boston, MA

Georgetown Medical Center, Washington, DC

Mount Sinai School of Medicine, New York

University of California, San Francisco

University of Chicago

University of Cincinnati

University of Minnesota

University of Pennsylvania

University of Pittsburgh

University of Virginia

Kidney

Drexel University, Philadelphia

University of Maryland

University of Miami

Washington Hospital Center, Washington, DC

Liver

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Cedars-Sinai Medical Center, Los Angeles

Columbia University, NY, NY

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable Codes: 50300, 50320, 50323, 50325, 50327, 50328, 50329, 50340, 50360, 50365, 50370, 50380, 50547, S2152.

Documentation Requirements: Candidates for a kidney transplant need documentation of progressive or terminal end-stage renal disease who otherwise have no immediate life threatening conditions, psychological impairments, and have a good emotional support system.

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Policy Key Words

Key Words: Kidney transplantation, Renal

Medical Term Definitions

Necrosis -

death of cells or groups of cells.

Nephrectomy

surgical removal of one or more kidneys

Scientific Background and Reference Sources

BCBSA Medical Policy Reference Manual - 12/95

Medical Policy Advisory Group - 12/99

Specialty Matched Consultant Review - 12/01

BCBSA Medical Policy Reference Manual, 7.03.01; 7/12/02

Specialty Matched Consultant review - 11/03

BCBSA Medical Policy Reference Manual, 7.03.01; 2/25/04

BCBSA Medical Policy Reference Manual, 7.03.01; 3/15/05

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BCBSA Medical Policy Reference Manual, 7.03.01; 4/1/05

Policy Implementation/Update Information

4/80 Original Policy: Generally accepted medical practice

6/83 Reaffirmed

8/88 Reviewed: Eligible for coverage

11/90 Revised: Coverage language

Local Review Dates:

1/93 Reviewed: PCP Physician Advisory Group

11/94 Reviewed: PCP Physician Advisory Group

11/95 Reviewed: PCP Physician Advisory Group

6/96 Reviewed: Listed medically necessary conditions for coverage

8/97 Reaffirmed

9/99 Reformatted, Description of Procedure or service changed, Medical Term Definitions added.

12/99 Medical Policy Advisory Group

3/01 System change.

12/01 Specialty Matched Consultant Review. Policy revised per consultant's recommendations. Format changes.

12/03 Specialty Matched Consultant review 11/18/03. No changes to criteria. Description revised for clarity. Benefits Application and Billing/Coding sections revised.

4/04 Code S2152 added in Billing/Coding section of policy.

1/6/05 Codes 50323, 50325, 50327, 50328, 50329 added to Billing/Coding section of policy.

11/3/05 Removed HIV positivity from "When not Covered" section. Criteria added under "When Covered" section for asymptomatic HIV positive patients. Additional information added to "Policy Guidelines" section regarding Kidney transplant in HIV positive patients. Policy status changed to "Active policy, no longer scheduled for routine literature review."

6/22/10 Policy Number(s) removed (amw)

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.