Medical Coverage Policy

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Coverage Policy Number..... 0146

Kidney Transplantation, Pancreas-Kidney Transplantation, and Pancreas Transplantation Alone

Table of Contents

Related Coverage Resources

Liver and Liver-Kidney Transplantation
Pancreatic Islet Cell Transplantation
Plasmapheresis
Transplantation Donor Charges

INSTRUCTIONS FOR USE

The following Coverage Policy applies to health benefit plans administered by Cigna Companies. Certain Cigna Companies and/or lines of business only provide utilization review services to clients and do not make coverage determinations. References to standard benefit plan language and coverage determinations do not apply to those clients. Coverage Policies are intended to provide guidance in interpreting certain standard benefit plans administered by Cigna Companies. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document always supersedes the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Each coverage request should be reviewed on its own merits. Medical directors are expected to exercise clinical judgment where appropriate and have discretion in making individual coverage determinations. Where coverage for care or services does not depend on specific circumstances, reimbursement will only be provided if a requested service(s) is submitted in accordance with the relevant criteria outlined in the applicable Coverage Policy, including covered diagnosis and/or procedure code(s).

Reimbursement is not allowed for services when billed for conditions or diagnoses that are not covered under this Coverage Policy (see "Coding Information" below). When billing, providers must use the most appropriate codes as of the effective date of the submission. Claims submitted for services that are not accompanied by covered code(s) under the applicable Coverage Policy will be denied as not covered. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations.

Overview

This Coverage Policy addresses kidney transplantation, pancreas-kidney transplantation, and pancreas transplantation alone.

- See CP 0355 for Liver-kidney transplantation.
- See CP 0107 for Pancreatic Islet Cell Transplantation.
- See Reimbursement Policy R24 (Omnibus Reimbursement Policy) for donor organ procurement and transport.

Coverage Policy

Kidney Transplantation

Kidney transplantation is considered medically necessary when ANY of the following criteria are met:

- adults (i.e., >18 years of age) measured or calculated creatinine clearance or glomerular filtration rate (GFR) less than or equal to 20 mL/min/1.73m^2.
- pediatric (i.e., ≤18 years of age) stage 4 chronic kidney disease (estimated GFR <30 mL/min per 1.73m^2)
- end-stage renal disease (ESRD) on regularly administered dialysis

Simultaneous Pancreas-Kidney (SPK) Transplantation

Simultaneous pancreas-kidney (SPK) transplantation is considered medically necessary when BOTH of the following criteria are met:

- medical necessity for kidney transplantation is met, and
- EITHER of the following indications:
  - diabetes mellitus (if individual is at least 18 years old must be on insulin)
  - pancreatic exocrine insufficiency

Pancreas Transplantation Alone (PTA)

Pancreas transplantation is considered medically necessary for an individual who meets ONE of the following criteria:

- diabetes mellitus (if individual is at least 18 years old must be on insulin)
- pancreatic exocrine insufficiency
- requires the procurement or transplantation of a pancreas as part of a multiple organ transplant for technical reasons

Pancreas-After-Kidney (PAK) Transplantation

Pancreas-after-kidney transplantation (PAK) is considered medically necessary when pancreas transplantation criteria are met.

Not Covered

Kidney, pancreas, or pancreas-kidney transplantation for an individual with ANY of the following contraindications to transplant surgery is considered not medically necessary:

- malignancy that is expected to significantly limit future survival
- persistent, recurrent or unsuccessfully treated major or systemic extra-renal infections
- systemic illness or comorbidities that would be expected to substantially negatively impact the successful completion and/or outcome of transplant surgery
- a pattern of demonstrated patient noncompliance which would place a transplanted organ at serious risk of failure
- human immunodeficiency virus (HIV) disease unless ALL of the following are noted:
  - CD4 count greater than 200 cells/mm^3
  - HIV-1 ribonucleic acid (RNA) undetectable
  - Stable anti-retroviral therapy for more than three months
    - Absence of serious complications associated with HIV disease (e.g., opportunistic infection, including aspergillus, tuberculosis, coccidioidomycosis, or resistant fungal infections, or Kaposi's sarcoma or other neoplasm)

Living donor pancreas transplantation (i.e., partial pancreas transplantation, segmental pancreas transplantation) is considered experimental, investigational or unproven.

Health Equity Considerations

Health equity is the highest level of health for all people; health inequity is the avoidable difference in health status or distribution of health resources due to the social conditions in which people are born, grow, live, work, and age.

Social determinants of health are the conditions in the environment that affect a wide range of health, functioning, and quality of life outcomes and risks. Examples include safe housing, transportation, and neighborhoods; racism, discrimination and violence; education, job opportunities and income; access to nutritious foods and physical activity opportunities; access to clean air and water; and language and literacy skills.

A new eGFR equation, the 2021 Chronic Kidney Disease Epidemiology Collaboration (2021 CKD-EPI) equation in which the race variable was removed and the coefficients for the other variables (age, sex, and serum creatinine) were recalibrated, was published (Inker, et al., 2021). Subsequently, the National Kidney Foundation and American Society of Nephrology Task Force recommended that the 2021 CKD-EPI equation be implemented for eGFR reporting (Delgado, et al., 2022).

The Board of Directors of the Organ Procurement and Transplantation Network (OPTN) unanimously approved a measure to require transplant hospitals to use a race-neutral calculation when estimating a patient's level of kidney function. Effective July 27, 2022, OPTN now requires all transplant hospitals to use race-neutral calculations when estimating a candidate's glomerular filtration rate (GFR) for any purpose covered by OPTN policy.

Effective January 5, 2023, kidney programs are required to assess their waiting lists and correct waiting times for any Black kidney candidates disadvantaged by having their kidney function overestimated due to use of a race-inclusive calculation (OPTN, 2023).

The Board of Directors of the OPTN, at its meeting June 17-18, 2024, approved revisions to the Kidney Donor Profile Index (KDPI), a calculation that estimates the likely length of function of kidneys from a deceased donor according to several criteria. The action will remove two variables – whether the potential donor is African-American/Black and whether the potential donor has tested positive for the hepatitis C virus (HCV). Removing the race and HCV positive variables from the KDPI will better reflect likelihood of graft failure for kidneys from African Americans/Black and HCV positive deceased kidney donors. Currently, kidneys from African American/Black and Hepatitis C (HCV) positive deceased donors have an increased KDPI making them appear less suitable for transplant. The committee proposes refitting the KDPI calculation without race or HCV to better reflect the likelihood of graft failure for kidneys from African American/Black and HCV positive deceased donor kidneys (OPTN, 2024).

General Background

KIDNEY

Kidney Failure: Kidney failure means the kidneys no longer work well. With kidney failure, 85-90% of the kidney function is gone. People with kidney failure have stage 5 chronic kidney disease (CKD, also known as end-stage kidney disease or ESKD). The National Kidney Foundation (NKF) states Stage 5 CKD kidney failure is estimated glomerular filtration rate (eGFR) less than 15 for 3 months or more or the individual is on dialysis.

There are two types of treatment for kidney failure: dialysis or transplant.

Transplant is a treatment for kidney failure using a healthy kidney from a living or deceased donor that can help patients live a longer, more normal life than dialysis treatment. On average, a kidney transplant from a living donor lasts about 15 to 20 years, and a kidney from a deceased donor lasts 8 to 12 years. Some will last longer; others will last less. Most people get a kidney transplant after being on dialysis for some amount of time.

Glomerular Filtration Rate: People with kidney failure have stage 5 chronic kidney disease (CKD, also known as end-stage kidney disease or ESKD). The National Kidney Foundation (NKF) states Stage 5 CKD kidney failure is estimated glomerular filtration rate (eGFR) less than 15 for 3 months or more or the individual is on dialysis.

Estimated glomerular filtration rate (eGFR) is a calculation used to estimate how well the kidneys are filtering certain agents produced by the body. Healthcare providers measure eGFR in milliliters of cleansed blood per minute per body surface (a measurement that reads mL/min/1.73m2). In adults, the normal eGFR number is usually 90-100. That means kidney function is 90-100%. eGFR declines with age, even in people without kidney disease.

Living Donor Kidney Transplantation: An integral part of the nation’s organ donation system is the living donor. Living donors can be related or unrelated to the recipient. Living kidney donation eliminates the recipient’s need for waiting time on a national waiting list, are often more successful, and can add psychological benefits to both donor and recipient. Nonetheless, the benefit to the recipient of a live-donor organ must outweigh the risks to the donor. In the absence of a living donor, many transplanted kidneys come from deceased (i.e., cadaver) organ donors.

Retransplantation: In general, retransplantation is considered by some to be a controversial procedure, in part due to ethical concerns over the limited supply of organs. A wide range of donor, recipient and other transplant-related factors can influence graft survival. In the event of renal graft failure, renal replacement therapy consists of either dialysis or retransplantation. Although allograft survival is considered good, it is considerably less compared to the primary transplant. Candidates awaiting kidney retransplant are often allosensitized and may be less likely to receive a transplant than primary candidates. As a result, some transplant centers have developed ongoing efforts involving desensitization protocols to prevent antibody-mediated acute rejection. Although desensitization protocols may be considered for deceased donor kidney, protocols are generally attempted with living donation so that antibody response against donor tissue can be monitored; patients proceed to transplant surgery only if antibody levels are low. Authors contend that desensitizing highly sensitive patients improves clinical outcomes (short-term patient and graft survival) however acute antibody-mediated rejection is a barrier in 20-30% of patients and there is no consensus regarding which protocol is ideal.

PANCREAS

The standard treatment for control of blood sugar levels in type I diabetes mellitus (DM) is the use of exogenous insulin; however, this does not entirely restore normal glucose metabolism. Most people who are newly diagnosed with type 2 diabetes are usually treated with a combination of diet, exercise, and an oral medication. Some oral medications (e.g., metformin) improve the body's response to insulin. Other medications cause the body to produce more insulin. Some people will need to add insulin or another injectable medication because their blood sugar levels are not controlled. Using a combination of treatments (oral medication plus insulin) generally means that the person can take a lower dose of insulin, compared with if insulin treatment is used alone.

Pancreas transplantation has been demonstrated to improve the quality of life of people with diabetes, primarily by eliminating acute complications. Pancreas transplantation eliminates the need for exogenous insulin, daily glucose monitoring and many dietary restrictions imposed by diabetes. Additional benefits of pancreas transplantation include the elimination of life-threatening risks of hypoglycemic unawareness and prevention and reversal of diabetic nephropathy. Pancreas transplantation may be performed:

- alone (i.e., Pancreas Transplantation Alone [PTA]), or
- simultaneously with kidney transplants (i.e., Simultaneous Pancreas-Kidney [SPK]) or
- after a kidney transplant (i.e., Pancreas After Kidney [PAK])

Evidence in the scientific published literature supports pancreas transplantation as an appropriate therapeutic intervention for individuals with diabetes on insulin or who have pancreatic exocrine insufficiency who require or have previously had a kidney transplant. Pancreas transplantation is a well-established and accepted method of treatment for these individuals, particularly the type 1 diabetic. More recently, pancreas transplant has become an accepted method of treatment for type 2 diabetics, with both short-term and long-term outcomes commensurate with type 1 diabetes patients. Gruessner et al. (2017) reported patient, pancreas, and kidney graft survival rates increased significantly over time and reached 95.8, 83.3, and 91.1%, respectively, at 3 years post-transplant for transplants performed between 2009 and 2015.

Living Donor Pancreas Transplantation: The OPTN Policy document (7/25/2024 Policy 11: Allocation of Pancreas, Kidney-Pancreas, and Islets) does not address living donor pancreas transplant.

Living (partial, segmental) donor pancreas transplantation has been performed in a few centers, including those outside the United States; however, it is not considered widespread in clinical practice. In many cases, the living pancreas donor is a relative of the recipient. In the United States living donor pancreas transplantation has been largely studied at one center, the University of Minnesota. Between January 1, 1994 to May 1, 2013, a total of 46 living-donor segmental pancreas transplants (LDSPTx) including 40 SPK, 2 PAK, and 4 PA were performed at the University of Minnesota (Kirchner, et al., 2016). Kirchner et al. stated that the rate of LDSPTx has significantly decreased over the last few years (on intent) in order to assess donor outcomes and safety prior to actively continuing the living donor (LD) pancreas program. The new onset of diabetes mellitus (DM) requiring oral hypoglycemic management was diagnosed in 7 (15%) donors and insulin-dependent DM in 5 (11%). LD pancreas transplantation (especially SPK) should be offered in carefully selected donor-recipient pairs if metabolic risks for the donor are minimized by careful pre-donation screening and meticulous post-donation follow-up with interventions to prevent significant weight gain. Kirchner et al. concluded that LDSPTx can be performed with good recipient outcomes. The donation is associated with donor morbidity including impaired glucose control. Donor morbidity can be minimized by using risk stratification model and pre-donation counseling on lifestyle modifications post-donation (Kirchner, et al., 2016).

The evidence for living donor pancreas transplantation is limited and primarily in the form of few retrospective reports and patient-registry data (Henderson, et al., 2018; Lam, et al., 2017; Kirchner, et al., 2016; Choi, et al., 2016; Sutherland, et al., 2012). Donor and recipient selection criteria for living donor pancreas transplantation have not been clearly defined in the medical literature. Long-term clinical outcomes for the donor and recipient have not been reported. In the short-term, there is limited evidence supporting normalizing insulin production for selected recipients, but concerns remain regarding negative metabolic impact to donors.

Note: For islet cell transplantation, see Coverage Policy 0107 Pancreatic Islet Cell Transplantation.

Retransplantation: For all three types of pancreas transplants, survival rates for a second transplant are lower than for the primary transplant, although an elective retransplant may be considered suitable for a select group of patients. The medical literature suggests in some patients, a retransplant could improve health outcomes after graft loss, although there is insufficient data regarding health outcomes associated with third and subsequent pancreas transplants to allow strong conclusions.

Contraindications – Kidney and/or Pancreas Transplantation
Although it may vary by transplant center, generally absolute contraindications to kidney transplantation include the following:

- Active infections
- Active malignancy (excluding non-melanoma skin cancers)
- Active substance use disorder (with center-specific policies on marijuana use)
- Reversible kidney failure
- Uncontrolled psychiatric disease
- Documented active and ongoing treatment nonadherence

A significantly shortened life expectancy is generally a contraindication to transplantation. Recipient age alone is not a contraindication to transplantation (Rossi/UpToDate, 2023).

Absolute contraindications for simultaneous pancreas-kidney (SPK) or pancreas after kidney (PAK) transplant that are adopted by most centers include:

- Age >65 years
- Non-insulin-requiring diabetes

- Body mass index (BMI) >35 kg/m2
- Advanced cardiopulmonary disease (ejection fraction below 30 percent, pulmonary artery systolic pressure >50 mmHg, or positive cardiac stress test with uncorrectable coronary artery disease)
- Heavy smoking (>1 pack per day or patients with moderate-to-severe smoking-related morbidities [coronary heart disease, symptomatic or documented cerebrovascular or peripheral vascular disease, chronic obstructive lung disease, history of noncutaneous malignancy])
- Severe peripheral vascular (aorto-iliac) disease
- Moderate to severe dysfunction in other (non-kidney) organ systems (lung, liver, central nervous system [CNS]) including cirrhosis, portal hypertension, advanced chronic obstructive pulmonary disease, dementia, or severe neurologic deficits
- Active malignancy with the exception of nonmelanoma skin cancer or low-grade prostate cancer
- Severe local or systemic infection
- Inadequate psychosocial support and financial resources
- Active substance addiction or abuse
- Major psychiatric illness that cannot be managed sufficiently to enable posttransplant care and safety
- Poor overall functional and performance status (severe deconditioning or malnutrition, frailty, dementia, wheelchair user, need for chronic oxygen therapy)
- Chronic nonhealing wounds
- Projected life expectancy <5 years

Relative contraindications to simultaneous pancreas-kidney (SPK) or pancreas after kidney (PAK) transplantation may also vary depending upon the transplant center (Alhamad/UpToDate, 2023).

Professional Societies/Organizations – Kidney and/or Pancreas Transplantation

United Network for Organ Sharing (UNOS)/ Organ Procurement and Transplantation Network (OPTN): In 1984 the National Organ Transplantation Act directed the Secretary of HHS to 'establish by contract the Organ Procurement and Transplantation Network (OPTN) which shall be a private, non-profit entity that has an expertise in organ procurement and transplantation'. The United Network for Organ Sharing (UNOS) is the current OPTN Contractor. OPTN policies are updated annually and are rules that govern operation of all member transplant hospitals, organ procurement organizations (OPOs) and histocompatibility labs in the U.S. Policies are made through a collaborative process involving committees, the board of directors and the public.

The UNOS/OPTN Policies (7/25/2024) have established waiting time criteria for Kidney Transplantation depending on the age of the transplant candidate.

> 8.3.A Waiting Time for Candidates Registered at Age 18 Years or Older
> If a kidney candidate is 18 years or older on the date the candidate is registered for a kidney, then the candidate's waiting time is based on the earliest of the following:
>
> 1. The candidate's registration date with a glomerular filtration rate (GFR) or measured or estimated creatinine clearance (CrCl) less than or equal to 20 mL/min.
> 2. The date after registration that a candidate's GFR or measured or estimated CrCl becomes less than or equal to 20 mL/min.
> 3. The date that the candidate began regularly administered dialysis as an End Stage Renal Disease (ESRD) patient in a hospital based, independent non-hospital based, or home setting.
>
> 8.3.B Waiting Time for Candidates Registered prior to Age 18

If a kidney candidate is less than 18 years old at the time of registration on the waiting list, then the candidate's waiting time is based on the earlier of the following:

1. The date that the candidate registered on the waiting list regardless of clinical criteria.
2. The date that the candidate began regularly administered dialysis as an ESRD patient in a hospital based, independent non-hospital based, or home setting.

The UNOS/OPTN Policies for Pancreas Transplant includes the following:

11.2.A Pancreas Registration
Each candidate registered on the pancreas waiting list must meet ONE of the following requirements:

- Be diagnosed with diabetes
- Have pancreatic exocrine insufficiency
- Require the procurement or transplantation of a pancreas as part of a multiple organ transplant for technical reasons

11.2.B Combined Kidney-Pancreas Registration (i.e., Simultaneous Pancreas-Kidney [SPK])
Each candidate registered on the kidney-pancreas waiting list must

- be diagnosed with diabetes, or
- have pancreatic exocrine insufficiency with renal insufficiency.

11.3.A Kidney-Pancreas Waiting Time Criteria for Candidates Less than 18 Years Old
To accrue waiting time for a kidney-pancreas transplant, a kidney-pancreas candidate who is less than 18 years old at the time of kidney-pancreas registration does not have to meet the qualifying criteria according to Policy 11.4 B below.

11.3.B Kidney-Pancreas Waiting Time Criteria for Candidates At Least 18 Years Old
If a kidney-pancreas candidate is 18 years or older on the date the candidate is registered for a kidney-pancreas, then the candidate begins to accrue waiting time once the candidate has met ALL of the following conditions:

- candidate is registered for a kidney-pancreas.
- candidate qualifies for kidney waiting time according to Policy 8.3: Waiting Time.
- candidate is on insulin.

Once a kidney-pancreas candidate begins to accrue waiting time, the candidate will remain qualified for waiting time.

Kidney Disease Improving Global Outcomes (KDIGO): The KDIGO 2024 Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease (CKD) included the following Practice Points:

2.2 Risk prediction in people with CKD

- Practice Point 2.2.3: A 2-year kidney failure risk threshold of >40% can be used to determine the modality education, timing of preparation for kidney replacement therapy (KRT) including vascular access planning or referral for transplantation, in addition to eGFR-based criteria and other clinical considerations

5.3 Team-based integrated care

- Practice Point 5.3.1: Enable access to a patient-centered multidisciplinary care team consisting of dietary counseling, medication management, education, and counseling about different KRT modalities, transplant options, dialysis access surgery, and ethical, psychological, and social care for people with CKD.

5.4 Timing the initiation of dialysis

- Practice Point 5.4.3: Consider planning for preemptive kidney transplantation and/or dialysis access in adults when the GFR is <15–20 ml/min per 1.73 m^2 or risk of KRT is >40% over 2 years.

- Practice Point 5.4.5: Pursue living or deceased donor preemptive kidney transplantation as the treatment of choice for children in whom there is evidence of progressive and irreversible CKD. The eGFR at which pre-emptive transplantation should be undertaken will depend on multiple factors including the age and size of the child and the rate of progression of kidney failure but will usually be between 5–15 ml/min per 1.73 m^2 (KDIGO 2024).

Medicare Coverage Determinations

	Contractor	Determination Name/Number	Revision Effective Date
NCD	National	NCD for Pancreas Transplants (260.3)	07/03/2006
NCD		No NCD found for Kidney transplant	
LCD		No LCD found for Kidney or Pancreas transplant	

Note: Please review the current Medicare Policy for the most up-to-date information.
(NCD = National Coverage Determination; LCD = Local Coverage Determination)

Coding Information

Notes:

1. This list of codes may not be all-inclusive since the American Medical Association (AMA) and Centers for Medicare & Medicaid Services (CMS) code updates may occur more frequently than policy updates.
2. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

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

CPT®* Codes	Description
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
50547	Laparoscopy, surgical; donor nephrectomy (including cold preservation), from living donor

HCPCS Codes	Description
S2152	Solid organ(s), complete or segmental, single organ or combination of organs; deceased or living donor(s), procurement, transplantation, and related complications; including: drugs; supplies; hospitalization with outpatient follow-up; medical/surgical, diagnostic, emergency, and rehabilitative services, and the number of days of pre- and post-transplant care in the global definition

Simultaneous Pancreas-Kidney (SPK) Transplantation

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

CPT®* Codes	Description
48550	Donor pancreatectomy (including cold preservation), with or without duodenal segment for transplantation
48551	Backbench standard preparation of cadaver donor pancreas allograft prior to transplantation, including dissection of allograft from surrounding soft tissues, splenectomy, duodenotomy, ligation of bile duct, ligation of mesenteric vessels, and Y-graft arterial anastomoses from iliac artery to superior mesenteric artery and to splenic artery
48552	Backbench reconstruction of cadaver donor pancreas allograft prior to transplantation, venous anastomosis, each
48554	Transplantation of pancreatic allograft
48556	Removal of transplanted pancreatic allograft
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

CPT®* Codes	Description
	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
50547	Laparoscopy, surgical; donor nephrectomy (including cold preservation), from living donor

HCPCS Codes	Description
S2065	Simultaneous pancreas kidney transplantation
S2152	Solid organ(s), complete or segmental, single organ or combination of organs; deceased or living donor(s), procurement, transplantation, and related complications; including: drugs; supplies; hospitalization with outpatient follow-up; medical/surgical, diagnostic, emergency, and rehabilitative services, and the number of days of pre- and post-transplant care in the global definition

Pancreas Transplantation Alone (PTA)

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

CPT®* Codes	Description
48550	Donor pancreatectomy (including cold preservation), with or without duodenal segment for transplantation
48551	Backbench standard preparation of cadaver donor pancreas allograft prior to transplantation, including dissection of allograft from surrounding soft tissues, splenectomy, duodenotomy, ligation of bile duct, ligation of mesenteric vessels, and Y-graft arterial anastomoses from iliac artery to superior mesenteric artery and to splenic artery
48552	Backbench reconstruction of cadaver donor pancreas allograft prior to transplantation, venous anastomosis, each
48554	Transplantation of pancreatic allograft

HCPCS Codes	Description
S2152	Solid organ(s), complete or segmental, single organ or combination of organs; deceased or living donor(s), procurement, transplantation, and related

HCPCS Codes	Description
	complications; including: drugs; supplies; hospitalization with outpatient follow-up; medical/surgical, diagnostic, emergency, and rehabilitative services, and the number of days of pre- and post-transplant care in the global definition

Pancreas-After-Kidney (PAK) Transplantation

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

CPT®* Codes	Description
48550	Donor pancreatectomy (including cold preservation), with or without duodenal segment for transplantation
48551	Backbench standard preparation of cadaver donor pancreas allograft prior to transplantation, including dissection of allograft from surrounding soft tissues, splenectomy, duodenotomy, ligation of bile duct, ligation of mesenteric vessels, and Y-graft arterial anastomoses from iliac artery to superior mesenteric artery and to splenic artery
48552	Backbench reconstruction of cadaver donor pancreas allograft prior to transplantation, venous anastomosis, each
48554	Transplantation of pancreatic allograft
48556	Removal of transplanted pancreatic allograft

HCPCS Codes	Description
S2152	Solid organ(s), complete or segmental, single organ or combination of organs; deceased or living donor(s), procurement, transplantation, and related complications; including: drugs; supplies; hospitalization with outpatient follow-up; medical/surgical, diagnostic, emergency, and rehabilitative services, and the number of days of pre- and post-transplant care in the global definition

Considered Experimental/Investigational/Unproven when used to report living donor pancreas transplantation (i.e., partial pancreas transplantation, segmental pancreas transplantation):

CPT®* Codes	Description
48999	Unlisted procedure, pancreas

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Revision Details

Type of Revision	Summary of Changes	Date
Annual Review	• Removed policy statement for Mechanical preservation machines. Cigna Omnibus Reimbursement Policy R24 addresses donor organ procurement and transport.	10/15/2024
Annual Review	• Updated to new template and formatting standards.	10/15/2023