

Policy Name:	Medical Policy: Transplantation	Policy #:	MP-331
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Policy Information

Owner Department:	Medical UM & Systems Department
Owner:	Assigned Medical Director
Electronic Signature/Date:	Krystal Revai (08/08/2023), Lori Slaughter (08/08/2023)

If there is a discrepancy between a medical policy and a patient's policy or plan document/summary plan description, the policy or plan document/summary plan descriptions provisions and limitations will govern the determination of benefits.

Purpose of the Policy

To make utilization decisions, Health Alliance uses written criteria based on sound clinical evidence for appropriately applying the criteria.

Statement of the Policy

To apply objective and evidence-based criteria when determining the medical appropriateness of health care services.

NOTE: This is a complex medical policy. Please review with your medical provider for clarification. Please refer to plan documents for prior authorization necessity/status.

Interpretations

- 1. For Autologous/Allogeneic Stem Cell Transplants, Health Alliance uses InterQual Adult and Pediatric criteria to determine the medical necessity of hematopoietic stem cell and solid organ transplants (Adult: Renal, Heart, Liver). The Commercial InterQual criteria are available in the Utilization Management software system under Transplantation and can be accessed by providers when submitting an authorization digitally. All InterQual Transplantation criteria sets adjudicate to "Limited Evidence" and require secondary medical director review.**
 - 1.1 For all other Autologous/Allogeneic Transplant indications not available in InterQual, refer to the Guideline coverage recommendations in "Indications for Hematopoietic Cell Transplantation and Immune Effector Cell Therapy: Guidelines from the American Society for Transplantation and Cellular Therapy." ([Ref. 2](#))
 - 1.2 For consideration of denials for rare and investigational transplants it is recommended to send for a Clinical Peer Opinion due to rapidly evolving medical literature in the transplantation field.
 - 1.3 **Chimeric Antigen Receptor T-Cell Therapy (CAR-T)** has introduced a new field of therapeutic possibilities for patients with certain hematological malignancies, however, hematopoietic stem cell transplants remain a cornerstone of care for many conditions. ([Ref. 2, 5](#))
 - 1.4 **Stem cell boost/reinfusion (CPT 38243)** is a hematopoietic Stem Cell infusion provided to a transplant recipient to assist with hematopoietic recovery or declining donor chimerism/engraftment. Stem cell boost is not preceded by a preparative regimen and is not considered a new transplant event. ([Ref. 5](#))
 - 1.5 **Repeat stem cell transplant** is appropriate for primary and secondary failure to engraft and disease relapse and requests require secondary medical director review as do all initial IQ transplant reviews. ([Ref. 5](#))

2. Kidney/Pancreas Combination Transplantation ([Ref. 1](#))

- 2.1 Simultaneous Pancreas-Kidney (SPK) Transplantation: Coverage for SPK Transplantation requires:
 - 2.1.1 Member meets InterQual criteria for a Renal Transplant; AND
 - 2.1.2 Member has Type I Diabetes: OR
- 2.2 Pancreas after Kidney (PAK) Transplantation: Coverage for PAK transplantation requires:
 - 2.2.1 Member is medically stable with the previously transplanted kidney and kidney function considered sufficient by the Transplant Institution; AND
 - 2.2.2 Member has Type 1 Diabetes.
- 2.3 **Pancreas Transplantation Alone (PTA):** Coverage requires:
 - 2.3.1 Severe, maximally medically-treated pancreatic exocrine insufficiency limiting member's activities of daily living; OR
 - 2.3.2 Member with a history of labile insulin-dependent diabetes mellitus; AND
 - 2.3.2.1 Meets all standard solid organ transplantation criteria:
 - 2.3.2.1.1 Adequate cardiac status determined by institutional criteria; AND
 - 2.3.2.1.2 Satisfactory kidney function (creatinine clearance greater than 40 ml/min); AND
 - 2.3.2.1.3 No malignancy (except for non-melanomatous skin cancers) or malignancy has been adequately treated and the risk of recurrence is small; AND
 - 2.3.2.1.4 Documentation of compliance with medical management and understanding of need for post-procedure compliance and follow-up; AND
 - 2.3.2.1.5 No drug or alcohol misuse or a treatment history of drug- or alcohol-free period of greater than 6 months; AND
 - 2.3.2.1.6 A psychosocial evaluation documenting member has adequate social and/or family support; AND
 - 2.3.2.1.7 Member has documentation of compliance with all treatment efforts and monitoring devices to maximize treatment of their diabetes and experiences continued:
 - 2.3.2.1.7.1 Severe hypoglycemic unawareness or recurrent ketoacidosis as evidenced by chart notes, emergency room visits, and hospital records.
- 2.4 Autologous Pancreas Islet Cell Transplantation is covered as an adjunct to pancreatectomy done for chronic pancreatitis.
- 2.5 Allogeneic (living/cadaver donor) Islet Cell Transplantation is considered investigational for members with Type 1 Diabetes Mellitus and all other situations. ([Ref. 3](#))
- 2.6 **Combination Kidney Transplants: Kidney/Liver** (Review with individual InterQual criteria sets); **Kidney/Heart** (Review with individual InterQual criteria sets); and **Kidney/Lung** (Member must meet criteria for each specific organ transplanted. ([Ref. 5](#)))

3. Lung Transplantation from a deceased donor is covered when BOTH of the following criteria are met:

- 3.1 End-stage disease of lung parenchyma, airway and pulmonary vasculature that is not amenable to maximum alternative medical or surgical therapies, AND
- 3.2 Clinical functional deterioration is documented despite maximal treatment including medication, pulmonary rehabilitation, oxygen therapy, and as appropriate, nocturnal non-invasive positive pressure ventilation.

4. Heart-Lung Transplantation is covered when:

- 4.1 Adult and pediatric members have end-stage pulmonary vascular disease with end-stage, non-reversible cardiac disease secondary to one of the following ([Ref. 5](#)):
 - Primary essential hypertension
 - Eisenmenger syndrome with a cardiac defect not correctable by surgical repair

- Patients who are appropriate for single or double lung transplantation and who have severe cardiac disease not otherwise treatable.

5. Intestine Transplant including Liver/Intestine and Multi-visceral organ transplant ([Ref. 5](#))

- 5.1 Members with intestinal failure require referral to a specialty center with intestinal failure/rehabilitation programs to take advantage of all opportunities to regain adequate function and to avoid total parenteral nutrition (TPN) with its complications and intestinal transplant. Intestinal adaption following disease or injury that leads to intestinal failure can occur over many months up to a year or more. The ability of the remaining gut to adapt to be able to support the patient with enteral nutrition alone is determined by a number of factors including the length of the remaining intestine, the segments remaining, the presence of an ileocecal valve, the presence or absence of the colon and general motility patterns. A number of medical and surgical interventions are possible to help many of these members avoid transplant.
- 5.2 External Clinical Peer Review should be obtained when these Transplants are requested due to their complexity.

Medicare Advantage Criteria details:

- Enter NCD/Regional LCD/LCA ID in the Medicare website/link below for criteria details:
 - [MCD Search \(cms.gov\)](#)

“Claims for CPT® codes used to describe Human Leukocyte Antigen (HLA) testing used for stem cell and solid organ transplant histocompatibility testing will be denied as they are part of the transplant acquisition services and are not separately billable. This does not refer to HLA testing for non--transplant services.”

Transplant Type	NCD	LCD/LCA
Stem Cell	110.23	<ul style="list-style-type: none"> • L39513/A59311 (NGS – IL – Future) • A52879 (NGS – IL) • L39398/A59177 (Noridian- WA) • L39270/A59042 (Palmetto – NC) • L39477/A59259 (WPS – IA, IN) • L39394/A59215 (CGS – OH)
Kidney	<ul style="list-style-type: none"> • 260.6 • 110.16 	
Liver	<ul style="list-style-type: none"> • 260.1 (Adult) • 260.2 (Pediatric) 	
Heart	260.9	
Lung		
Intestinal and Multi-visceral	260.5	
Islet Cell	260.3.1	

Codes

*Codes listed are for informational purposes only and do not necessarily indicate prior authorization is or is not required or coverage is guaranteed.

Hematopoietic Stem Cell Transportation

38204	Management of recipient hematopoietic progenitor cell donor search and cell acquisition
38205	Blood-derived hematopoietic progenitor cell harvesting for transplantation, per collection; allogenic
38206	autologous
38207	Transplant preparation of hematopoietic progenitor cells; cryopreservation and storage

38208	thawing of previously frozen harvest, without washing
38209	thawing of previously frozen harvest, with washing
38210	specific cell depletion within harvest, T-cell depletion
38211	tumor cell depletion
38212	red blood cell removal
38213	platelet depletion
38214	plasma (volume) depletion
38215	Transplant preparation of hematopoietic progenitor cells; cell concentration in plasma, mononuclear, or buffy coat layer
38230	Bone marrow harvesting for transplantation
38240	Hematopoietic progenitor cell (HPC); allogeneic transplantation per donor
59012	Cordocentesis (intrauterine), any method
86813	HLA typing; A, B, or C, multiple antigens
86817	DR/DQ, multiple antigens
86821	lymphocyte culture, mixed (MLC)
86920	Compatibility test each unit; immediate spin technique
86921	incubation technique
86922	antiglobulin technique
86923	electronic
Kidney Transplantation	
50300	Donor nephrectomy, with preparation and maintenance of allograft, from cadaver donor, unilateral or bilateral
50320	Donor nephrectomy, open from living donor (excluding preparation and maintenance of allograft)
50323	Backbench standard preparation of cadaver donor renal allograft prior to transplantation, including dissection of allograft 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	arterial anastomosis, each
50329	ureteral anastomosis, each
50340	Recipient nephrectomy (separate procedure)
50360	Renal allotransplantation, implantation of graft, excluding donor and recipient nephrectomy

50365	with recipient nephrectomy
50370	Removal of transplanted renal allograft
50380	Renal autotransplantation, reimplantation of kidney
50547	Laparoscopic nephrectomy; donor nephrectomy from living donor (excluding preparation and maintenance of allograft)
Heart Transplantation	
33927	Implantation of a total replacement heart system (artificial heart) with recipient cardiectomy
33928	Removal and replacement of total replacement heart system (artificial heart)
33929	Removal of a total replacement heart system (artificial heart) for heart transplantation (List separately in addition to code for primary procedure)
33940	Donor cardiectomy, (including cold preservation)
33945	Heart transplant, with or without recipient cardiectomy
Liver Transplantation	
47133	Donor hepatectomy (including cold preservation), from cadaver donor
47135	Liver allotransplantation; orthotopic; partial or whole, from cadaver or living donor, any age
47140	Donor hepatectomy (including cold preservation), from living donor; left lateral segment only (segments II and III)
47141	total left lobectomy (segments II, III and IV)
47142	total right lobectomy (segments V, VI, VII and VIII)
47143	Backbench standard preparation of cadaver donor whole liver graft prior to allotransplantation, including cholecystectomy, if necessary, and dissection and removal of surrounding soft tissues to prepare the vena cava, portal vein, hepatic artery, and common bile duct for implantation; without trisegment or lobe split
47144	with trisegment split of whole liver graft into two partial liver grafts (ie, left lateral segment (segments II and III) and right trisegment (segments I and IV through VIII))
47145	with lobe split of whole liver graft into two partial liver grafts (ie, left lobe (segments II, III, and IV) and right lobe (segments I and V through VIII))
47146	Backbench reconstruction of cadaver or living donor liver graft prior to allotransplantation; venous anastomosis, each
47147	arterial anastomosis, each
Kidney-Pancreas Transplantation	
48160	Pancreatectomy, total or subtotal, with autologous transplantation of pancreas or pancreatic islet cells
48550	Donor pancreatectomy, with preparation and maintenance of allograft from cadaver donor, 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, with preparation and maintenance of allograft, from cadaver donor, unilateral or bilateral
50320	Donor nephrectomy, open from living donor (excluding preparation and maintenance of allograft)
50323	Backbench standard preparation of cadaver donor renal allograft prior to transplantation, including dissection of allograft 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	arterial anastomosis, each
50329	ureteral anastomosis, each
50340	Recipient nephrectomy (separate procedure)
50360	Renal allotransplantation, implantation of graft, excluding donor and recipient nephrectomy
50365	with recipient nephrectomy
50370	Removal of transplanted renal allograft
50380	Renal autotransplantation, reimplantation of kidney
50547	Laparoscopic nephrectomy; donor nephrectomy from living donor (excluding preparation and maintenance of allograft)
Lung Transplantation	
32850	Donor pneumonectomy(s) (including cold preservation), from cadaver donor
32851	Lung transplant, single; without cardiopulmonary bypass
32852	with cardiopulmonary bypass
32853	Lung transplant, double (bilateral sequential or en bloc); without cardiopulmonary bypass
32854	with cardiopulmonary bypass
34714	Open femoral artery exposure with creation of conduit for delivery of endovascular prosthesis or for establishment of cardiopulmonary bypass, by groin incision, unilateral (List separately in addition to code for primary procedure)

Heart-Lung Transplantation	
33930	Donor cardiectomy-pneumectomy (including cold preservation)
33933	Backbench standard preparation of cadaver donor heart/lung allograft prior to transplantation, including dissection of allograft from surrounding soft tissues to prepare aorta, superior vena cava, inferior vena cava, and trachea for implantation
33935	Heart-lung transplant with recipient cardiectomy-pneumectomy
33940	Donor cardiectomy (including cold preservation)
33944	Backbench standard preparation of cadaver donor heart allograft prior to transplantation, including dissection of allograft from surrounding soft tissue to prepare aorta, superior vena cava, inferior vena cava, pulmonary artery, and left atrium for implantation
33945	Heart transplant, with or without recipient cardiectomy

Providers are required to indicate the diagnosis and procedure codes when requesting review of coverage.

References

1. Alhamad T, Stratta RJ. Pancreas-kidney transplantation in diabetes mellitus: Patient selection and pretransplant evaluation. In: UpToDate, Post TW (Ed), UpToDate, Waltham, MA. Accessed on Dec. 22, 2020.
2. Kanate AS, Majhail NS, et al. Indications for Hematopoietic Cell Transplantation and Immune Effector Cell Therapy: Guidelines from the American Society for Transplantation and Cellular Therapy. *Bio Blood Marrow Transplant*; 26(2020):1247-1256.
www.sciencedirect.com/science/article/pii/S1083879120301142?via%3Dihub
3. Holt RI, DeVries JH, et al. The Management of Type 1 Diabetes in Adults. A Consensus Report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). *Diabetes Care* 2021;44(11): 2589-2625. www.diabetesjournals.org/care/article/44/11/2589/138492/
4. Kobashigawa J, Dadhania DM, et al. Consensus conference on heart-kidney transplantation. *Am J Transplant*. 2021 July;21(7):2459-2467. www.pubmed.ncbi.nlm.nih.gov/33527725/
5. Optum Transplant Review Guidelines. Hematopoietic Stem Cell and Solid Organ Transplantation, effective May 12, 2023; accessed July 5, 2023.

History

Created Date:	07/19/23		
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Revision Date:	04/19/22 – MDC-New policy approved. Archiving MP-313 & MP-327.		
	05/12/22 – D. Hasler-Updated codes.		
	07/18/23 – MDC-Annual review, criteria added for combo solid organ transplant, Medicare information updated.		