Molina Clinical Policy
Small Bowel Transplantation, Small Bowel and Liver Transplantation, and Multivisceral Transplantation
Policy No. 117

Last Approval: 10/14/2026
Next Review Due By: October 2027

DISCLAIMER

This Molina Clinical Policy (MCP) is intended to facilitate the Utilization Management process. Policies are not a supplementation or recommendation for treatment. Providers are solely responsible for the diagnosis, treatment, and clinical recommendations for the member. It expresses Molina's determination as to whether certain services or supplies are medically necessary, experimental, investigational, or cosmetic for purposes of determining appropriateness of payment. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered (e.g., will be paid for by Molina) for a particular member. The member's benefit plan determines coverage – each benefit plan defines which services are covered, which are excluded, and which are subject to dollar caps or other limits. Members and their providers will need to consult the member's benefit plan to determine if there are any exclusion(s) or other benefit limitations applicable to this service or supply. If there is a discrepancy between this policy and a member's plan of benefits, the benefits plan will govern. In addition, coverage may be mandated by applicable legal requirements of a State, the Federal government or CMS for Medicare and Medicaid members. CMS's Coverage Database can be found on the CMS website. References included were accurate at the time of policy approval and publication.

OVERVIEW

Intestinal failure is defined as any gastrointestinal dysfunction that results in the inability of the body to meet nutritional demands and therefore requires exogenous nutrition and hydration, ranging from oral supplements in mild intestinal failure to total parenteral nutrition therapy (TPN) in severe intestinal failure, to sustain the life and health of the patient. Patients can survive severe intestinal failure with TPN therapy but can eventually lose the ability to tolerate long term TPN administration due to liver failure, central vein thromboses, central line infections, and/or chronic dehydration. There are multiple disease processes that can lead to intestinal failure, including but not limited to volvulus, atresias, necrotizing enterocolitis, Crohn's disease, gastroschisis, thrombosis of the superior mesenteric artery, desmoid tumors, gastrointestinal malignancies, total occlusion of the splanchnic circulation, extensive gastrointestinal polyposis, hollow visceral myopathy or neuropathy, and trauma. Intestinal failure is categorized into three different types: acute (type I), prolonged acute (type II), and chronic (type III). Chronic intestinal failure occurs if intestinal failure persists for months or years in a metabolically stable patient who can be cared for outside the acute hospital setting (DiBaise 2026; Pironi et al. 2023).

Short bowel syndrome (SBS) describes intestinal failure caused by a reduced absorptive area of the small intestine, typically due to a congenital defect, major resection, or disease-associated loss of absorption. SBS is the most common cause of chronic intestinal failure in all age groups and represents approximately 60% of adult cases. Ultra-short bowel syndrome refers to a severe form of SBS and is typically defined as a small intestine length <10 cm in children or <20 cm in adults. Patients with ultra-short bowel syndrome are at higher risk for indefinite TPN dependency, chronic liver failure, and fatal infection (DiBaise 2026; Khan & Selvaggi 2026; Kaufman et al. 2020). While ultra-short bowel syndrome does not automatically necessitate lifesaving intestinal transplant, it should prompt early referral to an experienced intestinal rehabilitation center (Pironi et al. 2023).

Small bowel and multivisceral transplantation procedures are the surgical replacement of the small bowel alone or with other diseased organs using donor organs for patients with irreversible intestinal and/or multivisceral organ failure who can no longer be sustained on TPN. The goals of transplantation are the restoration of intestinal function and elimination or reduction in the need for TPN therapy in patients with irreversible intestinal failure. There are three types of transplantation: small bowel transplantation (SBT) alone where the recipient receives part of or the entire small bowel; small bowel-liver transplant (SBLT) for patients with intestinal failure and irreversible end-stage liver disease; and multivisceral transplant (MVT) for patients with irreversible failure of three or more abdominal organs including the small bowel (Cheesman & Dattilo 2022; Khan & Selvaggi 2026; Pironi et al. 2023).

The majority of SBT, SBLT, and MVT procedures use cadaveric donors; however, a relatively small number of transplants have been performed using small bowel allograft obtained from a healthy, living donor. The potential advantages of living donor intestinal transplant include elimination of waiting time, better matching, the opportunity for preoperative donor and recipient optimization, elective surgery, minimal cold ischemia, and expansion of the donor pool. This procedure and associated research, however, remain limited due to the risks associated to the donor (Cheesman & Dattilo 2022; Pironi et al. 2023).

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RELATED POLICIES

MCP-459: Pre-Transplant and Transplant Evaluation
MCP-114: Liver Transplantation
MCP-017: Pancreas Transplantation Procedures

COVERAGE POLICY

All transplants require prior authorization from the Corporate Transplant Department. Solid organ transplant requests will be reviewed by the Corporate Senior Medical Director or qualified clinical designee. All other transplants will be reviewed by the Corporate Senior Medical Director or covering Medical Director. If the criteria are met using appropriate NCD and/or LCD guidelines, State regulations, and/or MCP policies the Corporate Senior Medical Director's designee can approve the requested transplant

Office visits with participating Providers do NOT require prior authorization. Providers should see the Member in office visits as soon as possible and without delay. Failure to see the Member in office visits may be considered a serious quality of care concern

Please see *MCP-459 Pre-Transplant and Transplant Evaluation* for pre-transplant criteria and transplant evaluation criteria that must be met prior to solid organ transplant

Small Bowel Transplantation General Criteria
Small bowel organ transplantation from a deceased or living donor may be **considered medically necessary** in adult and pediatric Members who meet ALL the following criteria:

1. All transplant evaluation criteria are met as stipulated in MCP 459

2. Documentation that all applicable medical, pharmaceutical, and surgical alternatives to transplant have been utilized, such as nutritional and dehydration management, parenteral nutrition, and/or surgical procedures (e.g., enteroplasty, strictureplasty, or serosal patching to improve intestinal functioning)

3. Diagnosis of irreversible intestinal failure

4. Life-threatening morbidity associated with or attributable to intestinal failure and/or long-term TPN therapy that include ANY of the following:
    a. Advanced or progressive intestinal failure associated-liver disease, as evidenced by ANY of the following:
        i. Hyperbilirubinemia > 75 µmol/L (4.5 mg/dL) persisting > 2 months despite lipid modification
        ii. Any combination of elevated serum bilirubin, reduced synthetic function (subnormal albumin or elevated international normalized ratio), and portal hypertension/hypersplenism, persisting > 1 month in the absence of a confounding infection
    b. Multiple and/or prolonged hospitalizations to treat TPN-related complications, including episodes of severe dehydration despite intravenous fluid supplement in addition to TPN
    c. Thrombosis of two or more central veins (e.g., subclavian, jugular, or femoral veins) causing difficult venous access for TPN administration
    d. Repeated central line-related sepsis episodes resulting in an ICU admission (defined as two episodes of systemic sepsis secondary to line infection per year, *or* one episode of line-related fungemia, septic shock, and/or acute respiratory distress syndrome)
    e. Invasive intra-abdominal tumors (e.g., desmoids, select cases of localized malignancy)
    f. Acute diffuse intestinal infarction with hepatic failure

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Small Bowel-Liver Transplantation Specific Criteria

Small bowel-liver transplantation from a deceased or living donor may be **considered medically necessary** in adult and pediatric Members who meet ALL the following criteria:

1. Member meets all the criteria for small bowel transplantation as stipulated above

2. Member has diagnosed end-stage liver disease as evidence by ANY of the following:
    a. Hyperbilirubinemia > 75 µmol/L (4.5 mg/dL) persisting > 2 months despite lipid modification
    b. Any combination of elevated serum bilirubin, reduced synthetic function (subnormal albumin or elevated international normalized ratio), and portal hypertension/hypersplenism, persisting > 1 month in the absence of a confounding infection

Multivisceral Transplantation Specific Criteria

Multivisceral transplantation from a deceased donor (e.g., small bowel, liver, stomach, duodenum, jejunum, ileum, pancreas, colon) may be **considered medically necessary** in adult and pediatric Members who meet ALL the following criteria:

1. Member meets all transplant evaluation criteria as stipulated in MCP 459

2. Member meets criteria for pancreatic transplant (MCP 017), liver transplant (MCP 114), and/or small bowel transplant as stipulated above, when applicable

3. Member requires transplantation of ≥1 abdominal visceral organs due to concomitant organ failure, anatomical abnormalities, or anatomical and vascular necessity during a medically necessary multivisceral transplant (e.g., a medically necessary stomach and small intestine transplant necessitate a healthy pancreas transplant from the same organ donor to maintain intact blood flow)

4. Presence of ANY of the following:
    a. Acute diffuse intestinal infarction with hepatic failure
    b. Thromboses of the celiac axis and/or the superior mesenteric artery
    c. Diffuse portomesenteric venous thrombosis
    d. Pseudo-obstruction, localized tumors or other causes of vascular occlusion affecting the arterial blood supply to stomach, liver, small bowel, and pancreas
    e. Invasive intra-abdominal tumors (e.g., desmoids, select cases of localized malignancy) or massive gastrointestinal polyposis
    f. Generalized hollow visceral myopathy or neuropathy

Re-transplantation Criteria

A second transplant may be **considered medically necessary** in adult and pediatric Members when ALL the above requirements for transplantation have been met, in addition to ONE of the following conditions:

1. Graft failure of an initial small bowel, small bowel/liver, or multi-visceral transplant, due to either technical reasons or acute rejection

2. Chronic rejection or recurrent disease

Limitations and Exclusions

1. Requests for a third or subsequent intestinal transplant are **NOT considered medically necessary**

2. Intestinal transplantation in members who can tolerate TPN is **NOT considered medically necessary**

3. Xenotransplantation: small bowel, small bowel-liver, or multivisceral xenotransplantation (e.g., porcine xenografts) is considered **experimental, investigational, and unproven** for ANY indication

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DOCUMENTATION REQUIREMENTS: Molina Healthcare reserves the right to require that additional documentation be made available as part of its coverage determination; quality improvement; and fraud; waste and abuse prevention processes. Documentation required may include, but is not limited to, patient records, test results and credentials of the provider ordering or performing a drug or service. Molina Healthcare may deny reimbursement or take additional appropriate action if the documentation provided does not support the initial determination that the drugs or services were medically necessary, not investigational, or experimental, and otherwise within the scope of benefits afforded to the member, and/or the documentation demonstrates a pattern of billing or other practice that is inappropriate or excessive.

SUMMARY OF MEDICAL EVIDENCE

Non-Randomized Studies, Retrospective Reviews, and Other Evidence

Samoylova et al. (2024) performed a retrospective cohort analysis of 3,035 intestinal and multivisceral transplants recorded in the UNOS STAR dataset from 1990 through February 2020, divided into three eras. The share of adult recipients rose from 35% to 59% across the study period, while the proportion of liver-inclusive grafts in adults declined modestly. Retransplantation became more frequent over time, increasing from 2.9% of procedures in the earliest era to 8.0% and 8.5% in the second and third eras, respectively. One- and five-year patient survival improved substantially among pediatric recipients, reaching 84.5% and 72.3%, respectively, in the most recent era, while adult survival remained largely unchanged. Similar improvements were observed in death-censored graft survival among pediatric recipients, whereas outcomes in adults plateaued across the later eras. The authors also reported an increasing proportion of non-White transplant recipients over time and suggested that advances in intestinal rehabilitation, multidisciplinary intestinal failure management, and patient selection may have contributed to improved pediatric outcomes. These long-term national data help explain current outcome patterns and underscore ongoing challenges with adult recipient survival and the increasing role of retransplantation.

Di Cocco et al. (2024) conducted a systematic review to consolidate indications for multivisceral transplantation (MVT). The authors note that there is not a consensus on the exact definition of MVT as a subset of intestinal transplantation, and many different organ combinations are possible. MVT is often classified as “classical” or full” in cases where it includes transplantation of the liver, or as “modified” in cases where the liver is excluded. Any combination of organs dependent on the celiac artery axis and the superior mesenteric artery could be included in MVT. Broad categories for MVT indications include intestinal failure, ischemia, tumors, intestinal dysmotility disorders, and trauma. Tumors may include desmoid tumors, metastatic neuroendocrine tumors, schwannoma, and hepatoblastoma. Desmoid tumors, which may or may not include familial adenomatous polyposis, are a type of intra-abdominal fibromatosis, which are locally aggressive and often involving the bowel or mesentery root. Diffuse portomesenteric thrombosis, defined as the complete occlusion of the portal system, is one of the most common indications for MVT. Chronic intestinal pseudo-obstruction (CIPO) is characterized by symptoms of intestinal obstruction in the absence of mechanical obstruction and is a condition where MVT may be indicated if patients cannot safely begin or continue parenteral nutrition. In the pediatric population, CIPO is usually a primary condition, where in adults, it is often secondary to disorders such as muscular dystrophy or chronic infection. Other indications for MVT could include other gastrointestinal pathologies unique to the pediatric population and trauma.

Ceulemans et al. (2023) conducted a propensity – match cohort analysis of the intestinal transplant registry to compare outcomes of living donor transplants versus deceased donor transplants. The primary outcomes were to compare acute rejection, and 1-/5-year patient/graft survival. Between January 1987 and April 2019, according to the Intestinal Transplant Registry, 4156 intestinal transplants (ITx) were performed, of which only 76 (1.8%) were living donor. The living donor transplants (5 combined liver-ITx, 7 ITx-colon, and 64 isolated ITx) were matched with 186 deceased donor intestinal transplants for recipient age/gender, weight, region, intestinal failure cause, re-transplant, pre-transplant status, ABO compatibility, immunosuppression, and transplant date. The results revealed 1-/5-year patient-survival for living donor and deceased donor was 74.2/49.8% versus 80.3/48.1%, respectively (P=0.826). One-/5-year graft survival was 60.3/40.6% versus 69.2/36.1%, respectively (P=0.733). Acute rejection was diagnosed in 47% of living donor versus 51% of deceased donor (P=0.723). In conclusion, there is no difference in the outcomes of living donor versus deceased donor.

Canovai et al. (2023) performed a single center retrospective case review from 2007 -2022. One hundred and thirty-four intestinal transplants in one hundred and twenty-seven patients were conducted at the institution, of those transplants 16 of the cases were for the indication of desmoid disease. The 16 transplants were as follows: 7 modified multivisceral transplants, 6 isolated intestinal transplants, and 3 liver-small bowel transplants. The median follow up

was 50 months, and 11 out of 16 patients are alive (68%) without GI recurrence with no patients dying from desmoid recurrence. The review highlighted the complex issues specific to this population which include loss of abdominal domain (7/16), retroperitoneal involvement (6/16), pouch related issues (2/16) and the need for a gastrectomy/duodenectomy due to dysplastic disease (7/16); despite which the authors conclude intestinal transplant is a viable treatment option in selected patients with desmoid disease.

Canovai et al. (2021) completed a single-center retrospective review examining five adult patients who underwent multivisceral transplantation for diffuse portomesenteric thrombosis (DPMT) between 2000 and 2020. DPMT was defined as complete (Yerdel grade IV) occlusion of the portomesenteric venous system, and often leads to severe portal hypertension, life-threatening gastrointestinal bleeding, malnutrition, and liver or intestinal failure. Candidates for multivisceral transplantation were considered when they were not amenable to other medical, surgical, or radiologic decompressive treatments. One patient had concurrent end-stage liver disease, whereas the remaining four did not. There were no perioperative deaths. One patient died several months later from invasive aspergillosis following severe rejection, while the remaining four were alive with functioning grafts and independent of parenteral nutrition at a median follow-up of just over four years. Based on these findings, the authors concluded that multivisceral transplantation may provide a definitive treatment option for carefully selected patients with extensive DPMT when alternative therapies are no longer feasible or effective because the procedure replaces the thrombosed portomesenteric venous system.

Hind (2021) analyzed data from the intestinal transplant registry, recent publications, and in field reviews to compile mortality, morbidity, complications, nutritional, and psychosocial outcomes post intestinal transplantation. According to the intestinal transplant registered data the average long-term survival is 41% ten years post transplantation, with high volume experienced centers increasing their survival rates to 60-70% ten years post transplantation. Most recipients achieve enteral autonomy with an unrestricted diet, and quality of life improves post transplantation. Chronic rejection remains the largest obstacle for long term graft survival, however the medical fields understanding of humoral immunity is increasing and thus making progress towards reducing chronic rejection.

National and Specialty Organizations

The **Organ Procurement and Transplantation Network (OPTN) and Scientific Registry of Transplant Recipients (SRTR)** reported in their 2024 Annual Data Report that intestinal transplantation activity in the United States has remained relatively stable, with 97 intestine transplants performed in 2024, including both isolated intestine and liver-inclusive grafts. Wait-list mortality remained low among candidates listed for intestine-without-liver transplantation but was substantially higher among those awaiting intestine-liver transplantation, with a 3-year mortality approaching 15% after listing. Contemporary graft survival rates for intestine-without-liver transplants were 83% at 1 year and 55% at 5 years in adults, compared with 77% and 54%, respectively, in pediatric recipients. For intestine-with-liver transplants, graft survival in adults was approximately 52% at 1 year and 42% at 5 years, whereas pediatric recipients demonstrated higher survival rates of approximately 83% at 1 year and 61% at 5 years. These findings highlight both the lifesaving potential of intestinal transplantation in appropriately selected patients and the ongoing challenges associated with long-term graft durability, particularly among adult recipients of liver-inclusive grafts (Horslen et al. 2024).

The **American Gastroenterological Association (AGA)** published a *Clinical Practice Update on Management of Short Bowel Syndrome*. The AGA recommends referral for intestinal transplantation in patients with intestinal failure and onset of total parenteral nutrition (TPN) failure, indicated by the onset of TPN-associated complications, especially the occurrence of progressive intestinal failure–associated liver disease or catheter-related complications (e.g. loss of vascular access due to central vein thrombosis, catheter-related sepsis). The document highlights that around 50% of patients referred for intestinal failure are requiring simultaneous liver transplant, indicating late referral for intestinal failure. It is important that patients with short bowel syndrome and intestinal failure who experience TPN complications are referred early, as the risk of the mortality on the waiting list is much higher for patients who require simultaneous liver transplantation. Patients with high morbidity or low acceptance of TPN should also be considered for early listing on a case-by-case basis. While outcomes for intestinal transplant are steadily improving, many challenges remain, such as acute cellular rejection, graft loss, opportunistic infections, post-transplant lymphoproliferative disease, and long-term graft attrition (Iyer et al. 2022).

The **American Society of Transplantation (AST)** published an update to their 2001 statement on indications for intestinal transplantation in patients with intestinal failure. Advances in the management of intestinal failure and short

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bowel syndrome, including transplantation and patient survival, have reduced the number of intestinal transplants worldwide. The AST recommends all patients with permanent intestinal failure to be managed by a dedicated multidisciplinary intestinal rehabilitation team and should be considered for intestinal transplantation in the event of progressive intestinal failure-associated liver disease, progressive loss of central venous access, or when repeated life-threatening central line infections require critical care. Other indications for transplant include large desmoid or other intra-abdominal tumors with reasonable expectation of post-transplant cure, extensive mesenteric vein thrombosis and intestinal infarction, total intestinal aganglionosis, and nonrecoverable congenital secretory diarrhea. Quality of life should also be considered in the decision to proceed with transplantation and is subjective for each patient. While quality of life typically improves for both adults and children following a successful intestinal transplant, the requirement of long-term immunosuppression and risk of rejection may impact decision making, especially for patients considering preemptive transplant before the onset of TPN therapy-related complications (e.g., end-stage loss of venous access or end-stage liver disease). The authors note that early referral to a transplant center is important to explore both rehabilitation and transplant treatment pathways, identify high-risk clinical scenarios, and to reduce the probability of complications (Kaufman et al. 2020).

The **AST**, in collaboration with the **Intestinal Rehabilitation and Transplant Association**, recommends the following listing criteria for intestinal transplantation, assuming the patient has been assessed by a multidisciplinary team, rehabilitation options have been explored, and a state of permanent or life-limiting intestinal failure exists (Kaufman et al. 2020):

- Acute diffuse intestinal infarction with hepatic failure
- Advanced or progressive intestinal failure-associated liver disease, as evidenced by:
    - Hyperbilirubinemia > 75 µmol/L (4.5 mg/dL) for > 2 months, despite IV lipid modification
    - Any combination of elevated serum bilirubin, reduced synthetic function (subnormal albumin or elevated INR), and laboratory indications of portal hypertension and hypersplenism (especially low platelet count), that persists for > 1 month in the absence of confounding infectious events
- Invasive intra-abdominal desmoids in adolescents and adults
- Life-threatening morbidity with indefinite TPN dependence (of either anatomical or functional cause), as evidenced by:
    - In adults: evaluated on a case-by-case basis
    - In children: ≥ 2 admissions to an ICU because of cardiorespiratory failure (mechanical ventilation or inotrope infusion) due to sepsis or other complications, after initial recovery from the original event that resulted in intestinal failure
- Thrombosis of 3 out of 4 discrete upper body ventral veins (e.g., left subclavian, left internal jugular, right subclavian, or right internal jugular) or occlusion of a brachiocephalic vein in children (in adults, brachiocephalic occlusion may be considered as a criterion but should be evaluated on a case-by-case basis)
- Failure of the first intestinal transplant

The **AST** published a position paper titled *Indications for Pediatric Intestinal Transplantation*. This includes a subset of children with intestinal failure who are dependent on parenteral nutrition and develop life-threatening complications due to therapy. Complications include parenteral nutrition-associated liver disease, recurrent sepsis, and threatened loss of central venous access. Wait times for this type of transplantation are longer due to a shortage of donor organs and children with life-threatening complications should therefore be identified early to receive suitable donor organs prior to illness becoming critical (Kaufman et al. 2001).

The **European Society for Clinical Nutrition and Metabolism (ESPEN)** published updated guidelines for *Chronic Intestinal Failure in Adults*. The updated guidelines includes 149 recommendations and 16 statements for the management of chronic intestinal failure in adults. The ESPEN outlines recommendations for transplant listing criteria similarly to those outlines by the AST. The authors note that indications for intestinal transplant were initially developed in 2001 by AST expert consensus, and were categorized as TPN failure, high risk of death due to an underlying condition, or chronic intestinal failure with high morbidity or with low acceptance of TPN. These 2001 indications were based on retrospective analyses of cohort studies and data from national and international registries. The 2001 guidelines were somewhat structured for children, who were receiving the majority of transplants at that time due to their higher risk of intestinal failure-associated liver disease and risks of liver failure, physiological liver immaturity, and sepsis. However, subsequent analysis on adult and pediatric patients have led to better understanding of chronic

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intestinal failure and indications for a life-saving transplant. Since then, research by both ESPEN and AST has challenged the original 2001 guidelines and following a 2015 working group of the Intestinal Rehabilitation and Transplant Association, guidelines have since been updated (Pironi et al. 2023).

The **European Society for Paediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN)** published a position paper on *Intestinal Failure-Associated Liver Disease*. The paper tackled the most prevalent complication affecting the pediatric population with intestinal failure receiving parenteral nutrition, intestinal failure-associated liver disease. The paper guides diagnostic criteria, and highlights prevalence, pathogenesis, and risk factors. The guidelines lay out recommendations for nutrition in premature infants, enteral nutrition, probiotic use, parenteral nutrition, and surgical treatment options. The paper stipulates indications for isolated small bowel transplant, combined liver and small bowel transplant, multivisceral transplant, and isolated liver transplant (Lacaille et al. 2015).

CODING & BILLING INFORMATION

CPT (Current Procedural Terminology)

Code	Description
44132	Donor enterectomy (including cold preservation), open; from cadaver donor
44133	Donor enterectomy (including cold preservation), open; partial, from living donor
44135	Intestinal allotransplantation; from cadaver donor
44136	Intestinal allotransplantation; from living donor
44137	Removal of transplanted intestinal allograft, complete
44715	Backbench standard preparation of cadaver or living donor intestine allograft prior to transplantation, including mobilization and fashioning of the superior mesenteric artery and vein
44720	Backbench reconstruction of cadaver or living donor intestine allograft prior to transplantation; venous anastomosis, each
44721	Backbench reconstruction of cadaver or living donor intestine allograft prior to transplantation; arterial anastomosis, each
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	Donor hepatectomy (including cold preservation), from living donor; total left lobectomy (segments II, III and IV)
47142	Donor hepatectomy (including cold preservation), from living donor; 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	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; with trisegment split of whole liver graft into 2 partial liver grafts (i.e., left lateral segment [segments II and III] and right trisegment [segments I and IV through VIII])
47145	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; with lobe split of whole liver graft into 2 partial liver grafts (i.e., 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	Backbench reconstruction of cadaver or living donor liver graft prior to allotransplantation; arterial anastomosis, each

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48550	Donor pancreatectomy (including cold preservation), with or without duodenal segment for transplantation
48554	Transplantation of pancreatic allograft

HCPCS (Healthcare Common Procedure Coding System)

Code	Description
S2053	Transplantation of small intestine and liver allografts
S2054	Transplantation of multivisceral organs
S2055	Harvesting of donor multivisceral organs, with preparation and maintenance of allografts; from cadaver donor
S2152	Solid organs(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

CODING DISCLAIMER: Codes listed in this policy are for reference purposes only and may not be all-inclusive. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement. Listing of a service or device code in this policy does not guarantee coverage. Coverage is determined by the benefit document. Molina adheres to Current Procedural Terminology (CPT®), a registered trademark of the American Medical Association (AMA). All CPT codes and descriptions are copyrighted by the AMA; this information is included for informational purposes only. Providers and facilities are expected to utilize industry standard coding practices for all submissions. When improper billing and coding is not followed, Molina has the right to reject/deny the claim and recover claim payment(s). Due to changing industry practices, Molina reserves the right to revise this policy as needed.

APPROVAL HISTORY

10/14/2026	Policy revised. Under the 'Multivisceral Transplantation' section: Added "Diffuse portomesenteric venous thrombosis" indication, removed "Pancreatic failure" as an indication, added "anatomical and vascular necessity during a medically necessary multivisceral transplant" to criteria 3. IRO Peer Review completed on September 25, 2026, by a practicing physician board certified in Surgery, Vascular Surgery and Surgical Critical Care.
10/08/2025	Policy revised. For general criteria for small bowel transplantation: removed diagnosis of ultra-short bowel syndrome and abdominal malignancy. Added intestinal infarction and invasive tumors (desmoids and select cases of malignancy) to complications. Revised parameters for liver dysfunction. For small bowel-liver, removed TPN dependance > 2 years requirement. Changed defining parameters for impending end-stage liver disease. For Multivisceral transplantation, added clarification to potential indications. IRO peer reviewed on September 17, 2025, by a practicing physician board certified in gastroenterology.
10/09/2024	Policy reviewed**.** No changes to coverage criteria.
06/12/2024	Policy revised. Coverage criteria revised with removal of transplant evaluation, continuation of therapy, and general contraindication coverage criteria as it is now stipulated in MCP 459 Pre-Transplant and General Transplant Evaluation. Annual Review Scheduled for October 2024.
10/12/2023	Policy revised. Changes to criteria include age for colonoscopy reduced to 45 years, addition of non-life limiting neurological impairment criteria, removal of abnormal serology criteria and daily cannabis use section, removal of specific disease criteria, and addition of active pregnancy and substance abuse statement under absolute contraindications. IRO Peer Review by a practicing physician board certified in transplant hepatology September 2023.
10/12/2022	Policy revised. Included section on marijuana use.
10/13/2021	Policy reviewed. No changes to coverage criteria.
09/16/2020	Policy revised, updated diagnoses for small bowel transplant (alone) and for small bowel and liver transplant (simultaneous). Updated references and coding. IRO peer reviewed by board certified Gastroenterology and Internal Medicine physician.
09/18/2019	Policy reviewed. No changes to coverage criteria.
09/13/2018	Policy reviewed. No changes to coverage criteria.
06/22/2017	Policy reviewed. No changes to coverage criteria.
12/14/2016	Policy reviewed. No changes to coverage criteria.
05/26/2015	Policy revised. Updated with new pretransplant criteria. Medical Evidence section condensed; added 1 new indication to the multivisceral criteria for individuals with pancreatic failure.
08/30/2012	New policy.

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