

PA.004.MPC Transplant: Small Bowel or Multivisceral

Maryland Physicians Care considers **Small Bowel, Small Bowel/Liver, and Multivisceral Transplants** medically necessary for the following indications:

Recipient Characteristics

- The member has no medical, cognitive, or other psychiatric condition that is likely to interfere with their ability to manage the sequelae of the transplant, including complex medication regimens.

General Criteria for Transplantation

- The member meets the institution's selection criteria for small bowel, small bowel/liver, and multivisceral transplants.

Specific Criteria for Small Bowel Transplant ⁽¹⁻⁶⁾

Small bowel transplant is indicated in members with life-threatening complications attributable to intestinal failure and/or total parenteral nutrition (TPN) therapy (including TPN failure) when any of the following conditions are present:

1. Impending or overt liver failure due to total parenteral nutrition (TPN)-induced liver injury. Clinical manifestations include any of the following:
 - a) Elevated serum bilirubin and/or liver enzymes
 - b) Splenomegaly
 - c) Thrombocytopenia
 - d) Gastroesophageal varices
 - e) Coagulopathy
 - f) Stomal bleeding or hepatic fibrosis/cirrhosis
2. Thrombosis of the major central venous channels; jugular, subclavian, and femoral veins. Thrombosis of three or more of these vessels is considered a life-threatening complication and failure of TPN therapy.
3. Frequent line infection and sepsis. The development of two or more episodes of systemic sepsis secondary to line infection per year that requires hospitalization indicates failure of TPN therapy. A single episode of line related fungemia, septic shock and/or Acute Respiratory Distress Syndrome are considered indicators of TPN failure.
4. Frequent episodes of severe dehydration despite intravenous fluid supplement in addition to TPN under certain medical conditions. Under certain medical conditions such as secretory diarrhea and non-constructable gastrointestinal tract, the loss of the gastrointestinal and pancreatobiliary secretions exceeds the maximum intravenous infusion rates that can be tolerated by the

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Last Review Date: 05/15/2025
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cardiopulmonary system. Frequent episodes of dehydration are deleterious to all body organs particularly kidneys and the central nervous system with the development of multiple kidney stones, renal failure, and permanent brain damage.

5. Severe short bowel syndrome (residual small bowel <20 cm)
6. Invasive intra-abdominal desmoids
7. Mesenteric ischemia or intestinal infarction
8. Failure of first transplant ⁽³⁾

Specific Criteria for Small Bowel/Liver Transplant ⁽¹⁻⁶⁾

Small bowel/liver transplantation is indicated when the criteria for small bowel transplant are met and there is evidence of both of the following:

1. Irreversible intestinal failure
2. Evidence of impending end-stage liver failure

Specific Criteria for Small Bowel/Multivisceral Transplant (MVT) ⁽¹⁻⁶⁾

Small bowel/multivisceral transplantation is indicated when the criteria for small bowel/liver transplant are met and additional anatomic or medical problems associated with other visceral organs (e.g., duodenum, jejunum, ileum, pancreas, or colon) preclude small bowel/liver transplant alone. Such problems might include:

1. Extensive thrombosis of the splanchnic venous system
2. Massive gastrointestinal polyposis
3. Generalized hollow visceral myopathy or neuropathy
4. Mesenteric ischemia

Specific Criteria for Small Bowel, Small Bowel/Liver, Multivisceral Transplant in Adolescent Members ⁽⁷⁾

The indications for small bowel transplant alone, or in combination with multivisceral transplant, in adolescents/children are the same as those described above for adults, but differ and/or may also include the following medical conditions:

1. Severe short bowel syndrome (residual small bowel <10 cm) ⁽⁵⁾
2. Motility disorders (e.g., Long segment Hirschsprung disease, intestinal pseudo-obstruction)
3. Malabsorption or enteropathies (e.g., neonatal diarrhea, Microvillus inclusion disease, etc.)

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Specific Criteria for Small Bowel, Small Bowel/Liver, Multivisceral Transplant in HIV+ Members ⁽⁸⁾

Small bowel transplantation in HIV+ members is considered medically necessary when all of the following conditions are met:

1. The member has a life expectancy of at least five years
2. CD4 count \geq 200 cells/mL for at least three months
3. Absence of HIV viremia*
4. Demonstrated adherence to highly active antiretroviral therapy (HAART regimen)
5. Absence of active opportunistic infections(s) and malignancies
6. Absence of chronic wasting or severe malnutrition
7. Available antiretroviral treatment options post-transplant.

* Exception to absence to viremia – A demonstrated clinical response to HAART is considered evidence of suppressible HIV disease. Patients with absence of viremia on HAART may develop low viral loads if HAART is held due to severe liver failure before transplant. If this occurs in a patient with previously suppressible HIV disease and the patient is expected to resume HAART post-transplant, it is considered an exception to the absence of viremia and is not a contraindication to transplant.

Limitations

All other medical and surgical therapies that might be expected to yield both short-and long-term survival comparable to that of transplantation must have been tried or considered.

Codes

Small Bowel Transplantation	
Code	Description
CPT codes covered if selection criteria are met (If Appropriate):	
44135	Intestinal allotransplantation; from cadaver donor
44136	Intestinal allotransplantation; from living donor
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

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Small Bowel/Liver and Multivisceral Transplantation

HCPCS codes covered if selection criteria are met (If Appropriate):

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

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