Medical Policy
Isolated Small Bowel Transplant

Table of Contents
• Policy: Commercial
• Policy: Medicare
• Authorization Information
• Coding Information
• Description
• Policy History
• Information Pertaining to All Policies
• References

Policy Number: 631
BCBSA Reference Number: 7.03.04
NCD/LCD: National Coverage Determination (NCD) for Intestinal and Multi-Visceral Transplantation (260.5)

Related Policies
Small Bowel-Liver and Multivisceral Transplant, #632

Policy
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity

A small bowel transplant using a cadaveric intestine may be MEDICALLY NECESSARY in adult and pediatric patients to treat the following conditions:
• Intestinal failure (characterized by loss of absorption and the inability to maintain protein-energy, fluid, electrolyte, or micronutrient balance), AND
• Established long-term dependency on total parenteral nutrition (TPN), AND
• Developing or have developed severe complications due to (TPN).

A small bowel transplant using a living donor may be MEDICALLY NECESSARY only when a cadaveric intestine is NOT available for transplantation in a patient who meets the criteria noted above for cadaveric intestinal transplant.

A small bowel retransplant may be MEDICALLY NECESSARY after a failed primary small bowel transplant.

A small bowel transplant using living donors is NOT MEDICALLY NECESSARY in all other situations.

A small bowel transplant in adult patients with intestinal failure who are able to tolerate TPN is INVESTIGATIONAL.
In addition to the above information, we do not cover small bowel transplant transplantation when any of the following conditions are present:

- Known current malignancy, including metastatic cancer
- Recent malignancy with high risk of recurrence
  - Note: the assessment of risk of recurrence for a previously treated malignancy is made by the transplant team; providers must submit a statement with an explanation of why the patient with a recently treated malignancy is an appropriate candidate for a transplant.
- Untreated systemic infection making immunosuppression unsafe, including chronic infection
- Other irreversible end-stage disease not attributed to intestinal failure
- History of cancer with a moderate risk of recurrence
- Systemic disease that could be exacerbated by immunosuppression
- Psychosocial conditions or chemical dependency affecting ability to adhere to therapy.

**Medicare HMO BlueSM and Medicare PPO BlueSM Members**

Medical necessity criteria and coding guidance can be found through the link(s) below.

[National Coverage Determinations (NCDs)]

National Coverage Determination (NCD) for Intestinal and Multi-Visceral Transplantation (260.5)

**Note:** To review the specific NCD, please remember to click “accept” on the CMS licensing agreement at the bottom of the CMS webpage.

**Prior Authorization Information**

Pre-service approval is required for all inpatient services for all products. See below for situations where prior authorization may be required or may not be required for outpatient services.

<table>
<thead>
<tr>
<th>Commercial Managed Care (HMO and POS)</th>
<th>Outpatient</th>
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</thead>
<tbody>
<tr>
<td>Commercial PPO and Indemnity</td>
<td>N/A</td>
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<tr>
<td>Medicare HMO BlueSM</td>
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<tr>
<td>Medicare PPO BlueSM</td>
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</tbody>
</table>

**CPT Codes / HCPCS Codes / ICD Codes**

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

**CPT Codes**

<table>
<thead>
<tr>
<th>CPT diagnosis codes:</th>
<th>Code Description</th>
</tr>
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<tbody>
<tr>
<td>44135</td>
<td>Intestinal allotransplantation; from cadaver donor</td>
</tr>
<tr>
<td>44136</td>
<td>Intestinal allotransplantation; from living donor</td>
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</tbody>
</table>

**ICD-10 Procedure Coding**
**ICD-10-PCS Procedure codes:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>0DY80Z0</td>
<td>Transplantation of Small Intestine, Allogeneic, Open Approach</td>
</tr>
<tr>
<td>0DY80Z1</td>
<td>Transplantation of Small Intestine, Syngeneic, Open Approach</td>
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</table>

**Description**

**Small Bowel Syndrome**

Short bowel syndrome is a condition in which the absorbing surface of the small intestine is inadequate due to extensive disease or surgical removal of a large portion of the small intestine. In adults, etiologies of short bowel syndrome include ischemia, trauma, volvulus, and tumors. In children, gastroschisis, volvulus, necrotizing enterocolitis, and congenital atresia are predominant causes.

**Treatment**

The small intestine, particularly the ileum, can adapt to some functions of the diseased or removed portion over a period of one to two years. Prognosis for recovery depends on the degree and location of small intestine damage. Therapy focuses on achieving adequate macro- and micronutrient uptake in the remaining small bowel. Pharmacologic agents have been studied to increase villous proliferation and slow transit times, and surgical techniques have been advocated to optimize remaining small bowel. However, some patients with short bowel syndrome are unable to obtain adequate nutrition from enteral feeding and become chronically dependent on total parenteral nutrition. Patients with complications from total parenteral nutrition may be considered candidates for a small bowel transplant. Complications include catheter-related mechanical problems, infections, hepatobiliary disease, and metabolic bone disease. While cadaveric intestinal transplant is the most commonly performed transplant, there has been a recent interest in using living donors.

Intestinal transplants (including multivisceral and bowel/liver) represent a small minority of all solid organ transplants. In 2016, 147 intestinal transplants were performed in the U.S.; all were from cadaver donors.

**Summary**

A small bowel transplant may be performed as an isolated procedure or in conjunction with other visceral organs, including the liver, duodenum, jejunum, ileum, pancreas, or colon. Isolated small bowel transplant is commonly performed in patients with short bowel syndrome. Small bowel/liver transplants and multivisceral transplants are considered in medical policy #632.

For individuals who have intestinal failure who receive a small bowel transplant, the evidence includes case series. The relevant outcomes are overall survival, morbid events, and treatment-related mortality and morbidity. Small bowel transplant is infrequently performed, and only relatively small case series, generally single-center, are available. Risks after small bowel transplant are high, particularly related to infection, but may be balanced against the need to avoid the long-term complications of total parenteral nutrition dependence. In addition, early small bowel transplant may obviate the need for a later combined liver/small bowel transplant. Transplantation is contraindicated in patients in whom the procedure is expected to be futile due to comorbid disease or in whom posttransplantation care is expected to worsen comorbid conditions significantly. Guidelines and U.S. federal policy no longer view HIV infection as an absolute contraindication for solid organ transplantation. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have failed small bowel transplant without contraindication(s) for retransplant who receive a small bowel retransplant, the evidence includes case series. The relevant outcomes are overall survival, morbid events, and treatment-related mortality and morbidity. Data from a small number of patients undergoing retransplantation are available. Although limited in quantity, the available data have suggested a reasonably high survival rate after small bowel retransplantation in patients who continue to meet criteria for transplantation. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.
Based on clinical input, obtained in 2009, small bowel transplantation using a living donor may be considered medically necessary only when a cadaveric intestinal transplant is not available. Routine use of living donor intestinal transplants is considered not medically necessary because the net health outcome associated with this procedure is reduced (compared with a cadaveric transplant) due to donor-related morbidity.

Policy History

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
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<tbody>
<tr>
<td>9/2017</td>
<td>New references added from BCBSA National medical policy.</td>
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<tr>
<td>7/2015</td>
<td>New references added from BCBSA National medical policy.</td>
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<tr>
<td>6/2014</td>
<td>Updated Coding section with ICD10 procedure and diagnosis codes, effective 10/2015.</td>
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<tr>
<td>1/2014</td>
<td>New references added from BCBSA National medical policy.</td>
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<td>12/2013</td>
<td>Removed ICD-9 diagnosis code as the policy requires prior authorization.</td>
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<tr>
<td>11/2011-4/2012</td>
<td>Medical policy ICD 10 remediation: Formatting, editing and coding updates. No changes to policy statements</td>
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<tr>
<td>5/2012</td>
<td>BCBSA National medical policy review. Changes to policy statements.</td>
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<td>10/2010</td>
<td>BCBSA National medical policy review. No changes to policy statements.</td>
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<tr>
<td>5/2009</td>
<td>BCBSA National medical policy review. No changes to policy statements.</td>
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Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:
- Medical Policy Terms of Use
- Managed Care Guidelines
- Indemnity/PPO Guidelines
- Clinical Exception Process
- Medical Technology Assessment Guidelines

References


