Pancreatic Islet Cell Transplantation

Medical Guideline Disclaimer
Property of EmblemHealth. All rights reserved. The treating physician or primary care provider must submit to EmblemHealth the clinical evidence that the patient meets the criteria for the treatment or surgical procedure. Without this documentation and information, EmblemHealth will not be able to properly review the request for prior authorization. The clinical review criteria expressed below reflects how EmblemHealth determines whether certain services or supplies are medically necessary. EmblemHealth established the clinical review criteria based upon a review of currently available clinical information (including clinical outcome studies in the peer-reviewed published medical literature, regulatory status of the technology, evidence-based guidelines of public health and health research agencies, evidence-based guidelines and positions of leading national health professional organizations, views of physicians practicing in relevant clinical areas, and other relevant factors). EmblemHealth expressly reserves the right to revise these conclusions as clinical information changes, and welcomes further relevant information. Each benefit program defines which services are covered. 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 and/or paid for by EmblemHealth, as some programs exclude coverage for services or supplies that EmblemHealth considers medically necessary. If there is a discrepancy between this guideline and a member's benefits program, the benefits program will govern. In addition, coverage may be mandated by applicable legal requirements of a state, the Federal Government or the Centers for Medicare & Medicaid Services (CMS) for Medicare and Medicaid members. All coding and web site links are accurate at time of publication. EmblemHealth Services Company LLC, (“EmblemHealth”) has adopted the herein policy in providing management, administrative and other services to HIP Health Plan of New York, HIP Insurance Company of New York, Group Health Incorporated and GHI HMO Select, related to health benefit plans offered by these entities. All of the aforementioned entities are affiliated companies under common control of EmblemHealth Inc.

Background
Chronic pancreatitis is a complex disease that originates from a variety of causes. Progressive inflammation of acinar tissue may affect endocrine tissue function, thereby progressively damaging the islets of Langerhans, resulting in diabetes. The course of the disease is often punctuated by repeated pancreatic duct stenting and/or partial pancreatectomy. Some patients undergo total pancreatectomy for pain relief, which leads to immediate and total insulin deficiency diabetes.

Autologous islet transplantation is a technique performed as an adjunct to a total or near total pancreatectomy in order to salvage and transplant beta cells to prevent complications of chronic diabetes. During the pancreatectomy, a suspension is created by mixing plasma and the isolated islet cells collected from the individual's own resected pancreatic specimen. This suspension is then injected into the portal vein of the liver where the cells function as a free graft.

Allogeneic pancreatic islet cell transplantation utilizes human donor cells (other than those of the recipient); xenotransplantation utilizes porcine cells, both are alternative procedures that require lifelong immunosuppression to prevent graft-rejection and recurrence of the autoimmune process. (See Limitations/Exclusions)

Guideline
Note: This guideline is specific to pancreatic islet cell transplantation for members with chronic pancreatitis who require pancreatectomy. For whole organ (pancreas) transplant to treat Type 1 diabetes, members and providers are directed to call the EmblemHealth Transplant Program for case management services at 1-800-447-0768.

Members with chronic pancreatitis are eligible for autologous pancreatic islet cell transplantation when the following criteria are met; both:

1. Severe pain refractory to medical management.
2. Transplantation is adjunctive to total/near-total pancreatectomy.
Limitations/Exclusions

The following types of transplantation are not considered medically necessary for the treatment of Type 1 diabetes due to insufficient evidence of therapeutic value:

1. Allogeneic islet cell transplantation.
2. Islet cell xenotransplantation.

Applicable Procedure Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>48160</td>
<td>Pancreatectomy, total or subtotal, with autologous transplantation of pancreas or pancreatic islet cells</td>
</tr>
<tr>
<td>48550</td>
<td>Donor pancreatectomy (including cold preservation), with or without duodenal segment for transplantation</td>
</tr>
</tbody>
</table>

Applicable ICD-10 Diagnosis Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>K86.0</td>
<td>Alcohol-induced chronic pancreatitis</td>
</tr>
<tr>
<td>K86.1</td>
<td>Other chronic pancreatitis</td>
</tr>
<tr>
<td>Z90.410</td>
<td>Acquired total absence of pancreas</td>
</tr>
<tr>
<td>Z90.411</td>
<td>Acquired partial absence of pancreas</td>
</tr>
</tbody>
</table>

References


Froud T, Ricordi C, Baidal DA, et al. Islet transplantation in type 1 diabetes mellitus using cultured islets and steroid-free


Vantygthem MC, Ravervy V, Balavone AS, et al. Continuous glucose monitoring after islet transplantation in type 1 diabetes: an excellent graft function (beta-score greater than 7) is required to abrogate hyperglycemia, whereas a minimal function is necessary to suppress severe hypoglycemia (beta-score greater than 3). J Clin Endocrinol Metab. 2012; 97(11):E2078-83.
